A I regret a very
that My friends
Have sent to me
to come there
in Tombstone
in a few days
so will not
Be able to
see you this
season would
at any other
time
Yours &c Wm Gallagh

POSTAL CARD.

WILCOX, ARIZO

MAY 23 1881

A. T.

U.S. POSTAGE

ONE CENT

WRITE THE ADDRESS ON THIS SIDE—THE MESSAGE ON THE OTHER.

Prof. J. G. Lemmon,
Tucson,
Ariz.

K

Miami Fla.

May 14. 1877.

Geo. E. Davenport, Esq.

Dear Sir,

Your letter of Feb. 27, directed to Columbia Pa. reached me yesterday. At present I cannot promise to enter into exchange. I am engaged in the preparation of 12 sets of botanical specimens for some of my friends and in July or August hope to complete them. If after that I have duplicate ferns I shall be pleased to exchange with you. Your Catalogue shows such an extensive collection of our ferns that I fear few are left to be added.

Ophioglossum bulbosum I found sparingly a year ago at Palatka, Fla. growing in low damp Pine land. – soil is sandy but compact, and upon which grow a class of plants which like to be near water but are not seen on the drier sandy soil on the upland pinery woods.

This year I have found so far and mostly

in a fine state

- Acrostichum aureum, L.
  Polypodium incanum, Swz.
- " Phyllitidis, L.
- " aureum, L.
- Pteris longifolia, L.
  Vittaria lineata, Swz.
- Blechnum serrulatum, Mich.
- Asplenium denitatum, L.
  Aspidium palens, Swz.
- " unitum
- Nephrolepis exaltata, Schott.
- Anemia adiantifolia, Swz.

A form not yet determined and not described in Chapman's "Southern Flora" possibly may be new to our Flora.

If you could send me a list of such ~~fine~~ specimens as you may have also such as you might wish in exchange for exchange and, ~~if~~ ~~desired~~ to Tampa, Fla. soon I could enter into more definite arrangements — I will quit this coast soon for the Gulf coast

Yours Very Truly
A. P. Garber.

K

Manatee, Fla. March 12, '78.

Mr Jean Jon K.

Dear Sir, —

I have just finished my sets of general plants of S. Fla, and to-day laid aside for you the following specimens of Ferns according to promise,

Aspidium unitum, R. Br.	1 fertile 1 sterile
Nephrolepis exaltata, Schott.	several sterile & fertile fronds.
Aspidium Floridanum, HK.	1 sterile + 1 fertile frond.
Aspidium palens, Swz.	" "
Asplenium serratum, L.	2 fertile fronds
Asplenium dentatum, L.	1 or 2 small tufts, fertile.
Blechnum serrulatum, Richr.	2 fertile + 2 sterile fronds.
Vittaria lineata, Swz.	2 small tufts, fronds 2 ft. long.
Pteris longifolia, L.	2 fertile fronds.
Polypodium aureum, L.	2 fronds, fertile
do Phyllitidis, L.	about 6 fronds
Anemia adiantifolia, Swz.	2 fertile + 3 sterile
Ophioglossum vulgatum, L.	about 6 stalks 1½-2 inches high
Acrostichum aureum, L.	1 sterile + fertile

I also find here Ophioglossum and perhaps could secure more specimens — put all my specimens in general sets.

The specimens of all the above are perhaps as good as could be desired except Acrostichum and this is hard to dry and even preserve in this climate when dried. Its habit invariably is borders of saline marshes or streams, and like such plants in the dried state have greater tendency to absorb moisture in damp weather — perhaps due to salt deposited in their cellular structure. After several attempts I failed to get satisfactory specimens.

From your catalogue I would mark as special desiderata

Notholaena dealbata ×	Polypodium Californicum ×
" Parryi ×	" intermedium ×
Pteris lanuginosa ×	Notholaena Fendleri ×
	" Newberryi ×
	Lomaria Spicant ×
	Aspidium Braunii ×
	" munitum ×
	" Neradense ×

and ~~Cloudandii~~ Cheilanthes Clevelandii ×

In as much as I am out of binders board and cannot get any here I will be dependent upon you for it.

If you put up a specimen of each of those named as my desiderata please take binders board two pieces 20 inches by 15 inches that I may use the same for return mail transit - I could not pack in smaller compass without doubling specimens which do not wish as it would spoil specimens

I would also like to make one other request that you should send soon as I may decide to leave here in 5 or 6 weeks.

I have also laid out for you a curious sterile dwarf of Pteris aquilina, L, which I collected on rocks near everglades, 4-6 inches high.

Hoping to hear from you soon

I remain

Cordially Yours

A. P. Garber,

H

Manatee, Apr. 9. 1876.

Mr Geo. E. Davenport,

Dear Sir,—

I acknowledge now the arrival of the mail parcel of ferns. They were well done up but thoroughly wet as tho' dipped in water— I think the mail bag got wet as some of my newspapers were so wet that I had to dry before I could read them. By repressing and drying however the specimens were restored without loss except perhaps a slight change in colour.

With Nephrolepis exaltata you send fine and very generous. Asplenium Nevadense, Eaton, Pteris Aquilina var lanuginosa, Hook. Notholaena Parryi, Eaton as well as Cheilanthes viscida, Davenport, good! were new to me. The last I was glad to get from its author and of course could not look for it elsewhere. With Polypodium Californicum & intermedium I think you are right— They appear to me as simply variations of the same species. The specimens were all fine and I was glad to get them.

I have done up a return parcel the best I could, and will forward by next mail.

I rec'd your box for living specimens (Bulbs) of Ophioglossum bulbosum, Micky, and took a four mile walk in search of them but failed to discover even a trace, They are so very small and come up so early in Feb and March before the other plants among which they grow have made any growth. Now the ferns have "done and gone" as people say here and the ground is covered with Dichondra repens, Forst. var. and Linaria Canadensis &c..

To your inquiry of my general sets— I value them at $50— they contain 340 species but to meet specimens I estimate them equivalent to 500, I have shipped 8 and 4 are remaining several were promised and may go soon, but one is now taken perhaps several. I will likely remain south-again over the summer but will not collect at least such large sets. I hope the mail parcel will reach you safely and be satisfactory.

Very truly A. P. Garber.

3663 P. falcatum ✓ 1
6 " Scouleri
72 N. sinuata
73 N. ferruginea
74 N. candida ✓ 3
75 ½ N. Brongniana X
79 C. Wrightii
80 " aspera
81 " Alabamensis
82 " microphylla
85 " Lindheimeri
90 " argentea ✓ Eu. & R
97 P. longimucronata (Whitiana)
3700 P. flexuosa
1 " Pulchella
4 P. cretica
8 A. pilosum X
9 A. capillus Veneris
19 A. ebenoides ✓ 7
24 A. marinum ✓ Eu. & R from Edwards Lot
27 A. septentrionale ✓ Eu. & R
35 P. alpestris ✓ 5
39 A. Californicum X
48 A. argutum ✓ 2
52 A. Juglandifolium
69 A. Mexicana
[illegible] B. simplex ✓ in letter
76 B. boreale X ✓ palmedum

I read of your mild weather north and peach blossoms in Delaware – well it is summer here here thermom. now while I write 3 P.M. marks 82 F. blackberries are ripe – we have had them on the table over a week – Rubus trivialis – berry is quite large 3/4 inch in diam, and fine – whortleberries will be ripe in about two weeks,

Asplenium serrulatum, A. dentatum, Pteris longifolia Anemia adiantifolia are from Dade Co., and do not grow here – my stock is exhausted – Ophioglossum vulgatum is from Levy Co, my stock of this is extremely altho' I consumed 4 days in collecting it – being so very small and difficult to see – Hunting it seemed somewhat like searching for diamonds in Australia,

Blechnum, Nephrolepis and Polypodium Phyllitidis grow here the last two very sparingly however and the first is not in collecting season until later in the summer,

You request other desiderata I will give them but I think I am paper and don't know whether I could make return for anything else you would send, According to Manns Catalogue the following are desiderata 3663 – 66 – 72 – 73 – 74 – 75 – 79 – 80 – 81 – 82 – 85 – 90 – 97 – 3700 – 1 – 4 – 8 – 9 – 19 this I would especially like to see as it was originally found in my state and described by Robt. R. Scott – a florist formerly in Kew Garden – came to this country with Thos. Meehan and Sanders of Washington – finally became insane and was in my charge in the state insane asylum for nearly 4 yrs, he was yet living when I left the Asylum in 1875;
3724 – 27 – 35 – 39 – 48 – 62 – 69 – 75 – 76 & C falcatum – But Prof Eaton may send me some of them,

You also make inquiring for Botrychium – I saw a few stalks only of B. lanceolatum, var oneidense further north and preserved only one specimen which I think I packed in a box with my sets and could not well get it without undoing the box,

A. P. S.

9 Waverly Place
New York May 13/87

My dear Sir

Mr. Leggett has asked me to reply to your favor of the 10th inst. in regard to plate for Bulletin.

May I ask if ~~the~~ Mr. Fox's drawing is a pen & ink sketch, & whether the shading is done in lines? If so, I can have the drawing photo-engraved here for, say $3.00, and the cut can then be printed ~~like~~ like a wood-cut. This is the way in which the three plates that we have had thus far were done. This

too, is the cheapest & most satisfactory mode of illustration that I know of. The photo-engraving is of course a perfect facsimile of the original drawing. I am engaged in journalism & can get these things done quite cheaply. I am very anxious to secure that plate of yours, but the price you mention for lithographing it, would place it beyond our reach, as we dare not exceed, in our expenditure, the amount of income we derive from the Bulletin. If the suggestion that I have made to you meets your approbation, & the drawing is one that can be photo-engraved, send it on to me & I will have it done & the cut made.

Yours, &c.
W. R. Stand.

Beverly Farms
May 15, 87

Dear Di

I wrote you in great haste on Wednesday, so I have both heard from you, fear that I may have misdirected my letter. Thinking that I may have done so, I then write that I wrote you if the drawing made for you by Mr. Tapa was a pen-and-ink sketch, & could get it photographed here or as to print it in the Bulletin, as we have already printed one or three other plates. Ars longa, vita brevis, I wish you would let me know, in the meantime

stands. If the drawing is such that it can only be lithographed, I will see if I can make arrangements to have it done. I am very anxious to secure all such illustrations.

Resp. Yrs.
F. R. Stimson.

7, Marcella Place
Kensington Gray 18 87

Dear Sir

Your favor is at hand. Your proposition is accepted, and I will send you the necessary balance in a day or two. Please put the drawing in the lithographic hands without delay. As the "Bulletin" is in type, please send me, as soon as you can, the descriptive matter for the scale, so that I can have it inserted under your article before the Bulletin is made up into pages. I enclose a sample of one of our scales. I wish, if possible, you would have the lettering done to correspond with that on the

plate, in the case of uniformity, when the lithographs are sent to me direct, as I live within a block of the printer & Mr. H. resides about 3 miles distant. —

Only for a hasty

B. R. Benard

P.S. Your plate will best be printed – "Plate IV".

C. Barrett Tower
New York May 15/85

My dear Sir

Our letters seem to meet on the way; I'd've just in receipt of yours of the 7th, & another mine of yesterday is now being answered by yours. In order to your query on the envelope, I would say that you had better let us have at least two copies — or more if they don't cost any more, as it may be necessary at some future time to republish their number. The £9. balance necessary to make up the amount, I will send you as soon as I can get it

with your more good things. In it is difficult to get the right kind of matter by month to fill the table, paper. The best time you have a right to is I hope we may have such a "hitch" as we have had this. Please send you updated copy of proofs as we go, as the Bulletin is all in type, & the series proof has been corrected.

Truly yours
F. W. Putnam

Chance to go to the ~~P~~ Post Office, which is at some little distance from me.

Perhaps I ought to make an explanation about the status of the Bulletin. Up to the present year, although it was "the organ of the Torrey Club", it was the private property of Mr. Leggett, nor the Club owns it. Having increased the number of pages, & covered it, the expense of publication is greatly increased, & we wish to be careful not to go beyond the Bulletin fund in our expenditures. If our friends & subscribers will make an effort to increase the circulation a little more we shall be glad to illustrate every number at our own expense. I am very anxious myself to see this done whenever it is possible; &, when Mr. Leggett showed me your letter I made up my mind to have your drawings if I had to pay for the work myself. Fortunately, however, there are several members of the Club who feel as I do, & so I had no trouble in raising the money at once. The photo-engraving that the Bulletin has had done has not cost it much, as I get this work executed at rates less than newspaper pay. I trust you

9 Waverly Place
June 7th 87

My dear Sir

I enclose Postal order, as promised, for two-thirds of the amount stated in your estimate of the cost. I think the lithographer will be on their way here, as the Bulletin has been printed for over a week, & has only awaited the plates.

Truly Yrs.
M. R. Benedict.

Waverly Place
New York June 3/83

My dear Sir

The state has just arrived, much to my joy, for I am very anxious to see the new Bulletin distributed. The form is very pretty, & the engraving is elegant. I congratulate you on the work. The new Bulletin will be sent as your request; but there is no change in them. It has always been customary to send a number to contributors for their species.

Truly Yrs,

W. R. Gerard.

(over)

P.S. It was impossible to insert the words "With a Plate" after "New Fern" in your article as the matter was all in type. This will go on the cover, however.

T. R. D.

I hope we shall hear from you again soon, with some other good things.

9 Murray Street
New York June 9 '87

Dear Sir,

I got the Bulletins for an hour evening & send them W.M., by mail. Will you please have 200 more lithographs made & send them with bill to P. V. de Ray at Columbia College? & he will send you the Club's check for the amount. We have decided to send all the copies of this number out, between rounds, to save the plate.

Truly Yr.
H. R. Picard

7 Waverly Place
July 1. 1885

My dear Sir

I have just received a note from Mr. LeRoy stating that he had sent you "a postal". I infer that he means a "postal order". It seems that he is ill & will not be able to come to the city before the 15th. I will then get you the copies that you wish. It was an oversight on the part of the Publ. Committee to allow the Bulletins to be locked up in the Museum during the two months of the College Vacation.

Truly Yrs.
H. R. Geard.

9 Waverly Place
New York Oct 22 1890

My dear Sir

Some time ago, Mr. Leggett began a description ~~of~~ in the Bulletin of the "Libraries & Herbaria" of the U. S. This reached two parts. Mr. Bailey has recently sent a third one regarding the Olney Herbarium, which will be published in the November number. I should like to see this thing kept up till we get notes on all the larger herbaria of the country. Can you find time to prepare an account of the herbarium & botanical library of the Mass. Hort. Soc. for us? Truly yrs.

W. R. Gerard.

9 Waverly Place
New York Dec 2/80

My dear Dr

I am casting about to see if I can get a place to start off with in January. I suppose you haven't got any more new ferns "lying about loose"? Should you be so fortunate as to secure another one, I will try to give you a Colored figure instead of one in black.

A propos of your article on variations in ferns, have you ever come across a ~~supposed~~ sinuous fern. I am quite positive that I once collected Aspidium aerostichoides, in that state, but I can't find the specimen in my

Collection to verify the
Stalactite.
Very truly Yrs.
W. R. Shand.

9 Waverly Place
New York Jan 24/82

My dear Sir

I am indebted to someone for a catalogue of slaughter of Malden & Medford. Is it to you? If so, thanks.

Have you ever done anything toward that article on your herbarium & library? If so, is it near enough complete to be inserted in our Feb. No.? I have about 8 pp. in type, but I think Kuer has much more. Mr. Leggett may have in hand. This I shall have to say about his evening.

Truly Yrs
W. R. Gerard.

9 Waverly Place
New York Feb. 5/87

Dear Mr. Farlow.

Your note will be in plenty of time. I should have liked it for Feb., but March will do just as well. I hope you will have occasion to favor us often this year. There are comparatively few botanists who seem to do any writing; & it takes a "pile" of Mss. to make a 12 page number. I have a number of things to write, myself, but it does look well for me of the editor of a paper to be occupying space that should belong to contributors. I have had to do it in the Feb. no., however, as "Trade"

is so dull with us this month. This is the first time I believe that we ever run completely short of outside matter.

Very truly yrs.

W. R. Hearst

9 Waverly Place
New York Apl 23/81

Dear Mr. Davenport

Yes, we want that plate by all means; & I hope that you can ~~have~~ manage to have it done as cheaply as you did the other. Please see what difference in price there would be to have it printed in green instead of black. Get the lowest terms that you can, please. I have now got our printer educated up to a point where he succeeds in delivering the Bulletin to me during the last week

of the month previous to the one for which it is dated. I don't like to break the Charm, but I can hold the June No. back a week or ten days if it is absolutely necessary. Please get the figures on the plate as soon as you can, & let me know what they will be.

Truly Yrs.

W. R. Gerard

9 Marcella Place
May 9. 81

Dear Mr Sargent,

I received your last letter just as I was putting in my overcoat to go out, so I took it and received it in Boston. I forget whether I asked you to have the words:

Bulletin Torrey Botanical Club. Plate VIII.

put on top of plate, uniform with the lettering on your cut. The cow on you get the exact figures on the plate from the lithographer. Please let me know which they are. I write now to ask if it is convenient to send along the description? I have got the pick proof of the June No., & should like to get your article in type also.

Very truly yrs
[illegible]

9 Waverly Place
New York May 17/88

Dear Mr. Davenport

Yr. with enclosure just at hand. I guess it doesn't make any difference about Parish's "front" name. That can be given in a note in case future human, if he shows that he would like to be more accurately identified. Since the drawing is ready, probably lettered, can I get an description of the plate? As I am article comes first, I can't "make up" the Bulletin till I have it. We need not 800 copies of the plate.

Very truly Yr.

W. C. Ewart

Does the "l." after name in I am mentioned mean "long"?

11

[illegible] 2d
New York.

Dear Mr. Merriam

I sent you a copy of the Bulletin containing Dr. Cook's note on Bothrychium. I sent it yesterday, from the Post, in the 8vo. Mr. A. was the editor of the Bulletin in 1880. I did not receive the letter to which you allude. The "Crown Crowier" in the Bulletin was hastily written to let you know that that single copy was a "fore runner" of some 400 copies. It finished up immediately on getting it from the printer, & a day or two before I sent out the ~~[illegible]~~ editions.

Yours truly
W. R. Gerard

(over)

P.S. I have dropped a note to Mr. E. asking him to send you the 878 No., so you need not take trouble to write him. The only letter received from you does not state that the abbreviations L. & L. might be printed out in full or left as they were, just as I pleased. As I found that printing the words in full would necessitate the alteration of 15 lines, I left the matter as it was.

M. R. G.

New York May 18/82

Dear Mr. Davenport

The blame for the errors you point out must be divided up between you & the printer & me! You make your capital and small "t's" so much alike that it is difficult at times to distinguish them. This occurred in the MS. on "Ophioglossum": The printer took: "The venation may be distinctly seen", etc., to be a complete sentence and set it up so. On comparing the proof with MS. I read

it in the same way. I see what you mean now, but I don't think any one will draw a wrong inference from the statement as it at present stands. We'll decide upon the matter right in July. The June number is now made into pages. I never take any liberties with MS. except the editorial one, occasionally, of correcting slips in grammar or spelling or making the use of capitals and titles conform to the rule adopted in the Bulletin. "Me vacation" etc., etc., having been printed as a separate sentence, I very naturally added "s" to ~~decrease~~ "became" in the preceding sentence to make

Sense.

Hoping to receive those notes at your leisure, I am

Very truly Yrs.,

W. R. Beard.

New York, July 17/82

Dear Mr. Davenport,

Yr. just at hand. The addition to B. Simply came in plenty of time to be inserted in its proper place.

I am glad that you mentioned that "bull" in the Bull-etin (an intentional play on words!) for I should never have noticed it. After I get each number off my hands I feel such a relief that I don't need it again. The note was printed just as received. If Jones intended something underhanded the two serves him right; but I regret it, however, as it

casts a reflection on my carefulness. I am no pteridologist, but I am enough of one to know that no Botrychium indicaule exists in our flora.

I have thought it my duty to apologize to Dr. Parry, as I had promised him that Jones should give no account in the Bulletin of the recent expedition to California. But in making the promise I was led to expect that Jones contemplated giving a full account of the trip.

Sincerely Yrs.

W. R. Gerard

P.S. Shall forget the book-stories, please. Yours forgetfully etc.

W. R. G.

What is there about this man Jones, any way? I mean [redacted] nothing about him except that he has long been a collector. Dr. Parry thought, while that he did not write them to publish any account of the trip, as he was a [illegible] and had no right to do so.

9 Waverly Place
New York Dec 10/87

My dear Sir

Yr. recent. We care only for descriptions of botanical libraries for the series of articles that I spoke of. I am sorry that the Nov. Bulletin was marred by a ludicrous typographical blunder in Bailey's article — a transposition of types which occurred after the last revised proof had been sent in. I am positive about having found the supra-scriptorius Hepidium, but the specimen is lost, with a number of other ferns, & I would never venture to put the statement in print without having the

number may be illustrated, & with Colored plates when necessary.

Very truly Yr.
F. V. Hayden.

I am obliged to ~~[illegible]~~ divide the Plates when I present it, as I had nothing long enough to dry it in, entire

Z.

specimen
to show for itself. F. aerostichoides
is more apt to spoil them
than any other of our native
ferns, & I have no doubt
that if attention were
called to ~~the~~ it, just
such a form as I
mention might be occasionally
found. Fission of the rachis
so as to form two fronds
lying in the same plane
is not uncommon in
many ferns, but this
summer I found Dicksonia
with the rachis split in
the direction of the plane
of the frond, so that the
two fronds thus formed
lay parallel with each
other. I send you a
specimen, from the pine
barrens near St Helena
Island, of Pteris aquilina
with Candollé primula. The primula from
Mr Ward found there. Prof. Eaton says the
primula are not known enough to make
it the genuine variety Candollé. I am glad
to know that you are preparing a manual
of the ferns, for we can count on one as
a production. We have no botanist in Penn
"Fish Club," the Cincinnati Society, or
Wilson the Bulletin the Coming Year, & it
pays for itself very "nicely" at present, but
I have a great ambition to make it
pay so much better, that it may keep every

New York May 16/83

Dear Br. Jacobsohn

I see, without saying that I want the state. Pay Br. Fox, of course, what you think just; but, please have the whole work done at as low a price as possible. The illustrating of the Bulletin proves a severe tax on its funds, & it could not be done at such an & I think have I not in a position to have the work done very cheaply. The April No. has probably reached you ere this. It was

delayed, as it has been before, by the failure of the photo-engraver to furnish work in time. The Gray Do. is in type and now ready to go to press.

Truly Yrs.
W. R. Gerard.

June 2/13

Dear Mr. Dunsford

Owing to my being in Paris I have neglected to answer Dr. Porter's letter the other day. The 600 copies will be sufficient. Send along MS. as soon as you can. The June number is being set up, the May number has had such an rush.

Truly Yours,

M. R. Grant,

6 Clinton Place
New York Dec 3/85

Dear Mr. Darempark

Mr. Rudkin not long since sent me a postal card from you concerning a matter that needs explanation on my part. When you sent me $1.00 in Feb. (?) I sent you a receipt and entered the amount on my cash book. Upon afterwards ~~entering~~ looking at the subscription book I saw 1884 was unpaid and so entered the amount opposite '2. I am very slow about sending out bills, and do at the end of the year from a quarter to

only the subscribers are usually in arrears. If you paid 1884 — all right, and in fact it is not of much consequence any way,

Sincerely Yrs.
W. R. Gerard

P.S. Are you going to have some "fun nothing" for me before long?
G

69 Clinton Place
New York Apl 10

Dear Mr. Stevenson

Your communication was received, but I believe it was just as I was in the midst of packing up in order to remove, hence the delay.

Truly yrs.
W. R. Beard

Alameda Nov. 30th. 1874

G. E. Davenport

Dear Sir,

Your of 26th ult was duly received. For the past month I have been a victim to carbuncle boils, so that my correspondence has been neglected. I do not know how many of our Cal ferns are contained in my herbarium, but I may be able to furnish you with the following named species, which are not on your own list:—

Polypodium Californicum
" Scouleri
Adiantum Chilense
Pellaea andromedaefolia

P. mucronata.
Gymnogramme triangularis
Woodwardia radicans
Aspidium munitum
" angulare
" Californicum

These are all that grow in this district which are not in your herbarium; but I shall probably be able to add to the number during next season. I wish you would send me duplicate specimens of any you can spare. We have of your catalogue 3705, 3706, 3731, 3755. I am now rechecking my herbarium, & in the course of a month I will know what I have already collected. I am

Very truly Yours

W. P. Gibbons

Alameda. Jany 4th '75

Geo. E. Davenport.

Dear Sir,

Your valued favs of 16th ult. were duly received, for which you will accept of my cordial thanks. The specimens being all in good order. The unusual mild season which we have enjoyed, has afforded me an opportunity of collecting some fresh specimens, which I will send you as soon as they are sufficiently dried, which will be in a fortnight. Meanwhile, I mail a box containing some fresh roots, which you may be gratified to receive: they will

doubtlessly all grow, if you keep them within a temperature of 60°.

No. 1 - Polypodium Californicum.
2. Adiantum Chilense
3. Aspidium munitum
4 " " argutum.
5 Pellaea andromedaefolia

I will have splendid specimens of these & other species to send you. I intended to put some Gymnogramma triangularis in the box, but I know not if it was done.

Yours truly
W. W. Gibbons

Alameda Apr. 13th 1875.

Geo. E. Davenport

Dear Sir

I sent by this morning's mail a package of which the inclosed labels are the index. I have had so many interruptions in the effort to classify my collection, that I am now laying specimens aside without reference to order, as I overhaul each bundle. I will soon be able to send you a larger package. Last week I mailed a box containing Echinocrinus lanceolatus; there is some differentiation apparent, but how much it may amount to, is uncertain. I will have both of them in flower this season. There was also Cystoptera

pagilei; Nephrodium ——
Sedum spathulifolium & some
fine specimens of Hypnum.
You will accept my thanks for
the specimen of Cypripedium which
arrived safely. In haste
Yours very truly
W. P. Gibbons.

Alameda Aug. 22d. 1876

Geo. E. Davenport

Dear Sir,

[illegible] I [illegible] to you a package of plants which I hope you have received in good order. Since my last correspondence with you, I have been unable to pay much attention to botanical matters, beyond classifying my heterogeneous collection of 5 or 6 yrs accumulation. This done, I will be able to redeem my promise of sending you from 500 to 600 specimens, by instalments, as I can find time to put them up. I wish you would send on yours. I would like to have duplicates or triplicates of ferns, as far as you can supply them. The Vol. on Cal. Botany recently issued, under the auspices

of Prof. Gray, has many changes in the generic names, as well as in species. As yet I have only had a cursory glance at it, having been unable to obtain a copy for my own use. The specimens I received are labelled in accordance with our previous authorities. You can easily correct the names by the copy you possess. With the hope of hearing from you soon, I am

Very truly Yours

V. V. Gilbert.

14

J. L. Giffordi's

Desiderata.

Notho - lenera

" - Grazi

" - Lemmonii

" Nivea.

Pteris leucopoda

" - Lindheimeri

Pellea - aspera

" - pulchella

Adiantum - tricholepis

Aspl - dentatum

Asp - monitum - var - modestum

" - Preuptenis

" - Louterminum

" - jugland'folium

Aneimia - Mexicana

Botr Boreale.

morning are [illegible] agricultural [illegible]
is one of the [illegible] reminiscences of an [illegible] right [illegible] season [illegible].
I need not add your [illegible] [illegible]
[illegible] it would give me, to have an opportunity to reciprocate your kindness, and should you ever find it convenient to visit Lynn, [illegible] house, either for business or pleasure, my husband, [illegible] would be [illegible] to have you.

With kind regards, I remain,

Gratefully yours,

E. J. S. Pifford.

44 Broadways St.

Lynn.

Mass.

Lynn, [illegible] 14th [illegible]

Mr. [illegible]

Dear Sir,

[illegible]

[illegible] families [illegible] very [illegible] they will grow so, all right. I am afraid of [illegible] on the richness of some of them. The larger & more perfect ones come from the [illegible] State, the [illegible] & larger [illegible] on our [illegible]

from Venice. The smallest fee
that I dare, I take it to be, is
the revive from M. Sibly, and
it, so! I will pay by, and
to take a bow of [illegible], or the
[illegible] up to the throne, if they are grow
[illegible]

You will not, not any trouble to
[illegible]
[illegible] keep it. If not, if you
[illegible] doing a peach again to
any of the Syracuse [illegible], [illegible]
[illegible]

I hope it will not offend in [illegible]
[illegible] who is [illegible]
[illegible], when I offer you my sincere
sympathy & regret for the recent
[illegible] in which you
[illegible] to pass, in the death
of [illegible] of your children. It is in-
deed a great bereavement, and I
truly hope the effect may not
be to aggravate the already impaired
state of your health.

I [illegible] for the package of hems,
which I found to contain real
treasures to me; & also for the kind
attention which you bestowed upon
it in Boston; that delightful city,
where I so much wish to make
my home. I consider it a great
privilege to have been your collector
of stamps, which I understand is
the only complete one in the country.
Am I right?

[illegible] [illegible] [illegible] [illegible] [illegible],
[illegible] for the [illegible] [illegible] [illegible],
[illegible] [illegible], where [illegible] [illegible]
[illegible] [illegible] [illegible], [illegible] [illegible]
of [illegible] [illegible] [illegible] [illegible], [illegible]
[illegible] [illegible] [illegible].

I remain, with kind regards,
Respectfully yours,
[illegible]
44 [illegible] St.

Syracuse Oct 21st [illegible]

Mr [illegible],

Dear Sir,

I find [illegible]

I am [illegible] [illegible] [illegible] [illegible], [illegible]
[illegible] [illegible], [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible], [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible]. [illegible] [illegible]
[illegible] [illegible] [illegible], [illegible]
[illegible] [illegible] writing, [illegible]
to send you, a few [illegible] of
my own [illegible], in this
[illegible]. It will be a very light-

[illegible] to [illegible], for your [illegible]
to me, and I [illegible] from [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible], [illegible] [illegible] [illegible] [illegible]
[illegible], that I [illegible] [illegible] [illegible]
[illegible] of [illegible] [illegible] [illegible]
[illegible] [illegible].

Next year, I shall make an
effort to find something wor-
thy of your acceptance.
Many thanks for your [illegible]
[illegible] [illegible] [illegible] [illegible]
I have ordered [illegible], of the [illegible]
[illegible] that you [illegible],
The 1st of this month, I wrote to
Mr [illegible], I said [illegible] ordering
several copies of the [illegible]
containing your article on [illegible]
[illegible]. Having heard [illegible]
[illegible], I conclude, it has

[illegible] would [illegible] you [illegible] in regard to it, stating that you are in the [illegible] of [illegible] [illegible] the Writer. I remain

[illegible] respectfully & truly yours,

Frank. S. Taffel.

[illegible]

P.S. I have mentioned, when you write again the name of the friend of mine that you met at the Veil in Indian. I cannot find out who it is.

J. H. L.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] you [illegible] me, [illegible]

[illegible], I supposing that [illegible] desire that the publication of it, [illegible] to that publication, [illegible] [illegible] power [illegible] [illegible] power, I did not know [illegible] the spirit would be, but [illegible] [illegible] information, [illegible] [illegible] that I thought [illegible] of [illegible] [illegible] I heard nothing [illegible]

[illegible] of [illegible] and [illegible],
I [illegible] immediately [illegible], in
which he speaks of having written to
you, in the capacity of from which
I infer that [illegible] letter must
have been given in the first in-
stance directly to you, in the mea-
[illegible] I [illegible] a copy of that, but
there was nothing about it in indicati-
ng [illegible] it came. Having learned that
it had not come from Mr. Cassius, I
immediately decided, that it was thrown
into hands I had kindness for, more
especially as several of my acquaintances
were recipients of the same favor from
you, about that time. I been accep-
ting [illegible] that is to say. Now, I
hope that you may receive some satis-
factorial remuneration for it, though
Mr. C. I have read your [illegible] in
[illegible] of reading it over I [illegible]
be as [illegible] had from that
[illegible] from a copy of
it, which I should like you
[illegible] of a to accompany [illegible]
different forms of the spirit
of [illegible] Christ. It appears to
be a valuable [illegible]
[illegible] I [illegible]
[illegible] of [illegible]
[illegible] appears. It has not yet
[illegible]. I have not yet [illegible]
[illegible] I [illegible]
I hope it will prove a blessing.
Enclosed please find one dollar,
for which I would [illegible] you to
[illegible], Rev. Cassius, when [illegible]
[illegible]. I sincerely hope you in

brought you renewed health & strength, & many blessings.
I remain sincerely,
your friend.
" J. J. Gifford
44 Montgomery St.
Syracuse.
" N. Y.

1.

Syracuse Jan 31st 1879

Mr Davenport.

Dear Sir.

Enclosed please find five dollars, for which, I would like you to send me one of your packages of pressed ferns & flowers.
If the amount is not correct, please inform me, & will make it right.
What is the prospect for the appearance of your new catalogue.
I hope you met with sufficient encouragement to warrant the publication of it.
Mrs Myers has met with very good success in obtaining subscribers in this city. It was

my own intention to aid the good work by canvassing a little for it, when I found that she was interesting herself, & doing perhaps better than I should have done. We should all feel disappointed should any misfortune prevent your publishing it, for in anticipation, we are prepared to find it of great value.

I think I wrote you of sending a dollar to Mrs Cassino for copies of your Article on Spiritualism. The date, I think was Oct 1st. And hearing from him, I several weeks after, reminded him of my order. He wrote me then that he would return my money or send copies of "The Naturalist" containing the Article for thirty-five cents a peice. I then wrote enclosing five cents more, & ordering three copies of the Naturalist. I have not seen the papers, or heard a word from him since, so a few days ago, wrote for the money to be returned. Through your kindness, I already possess a copy, & the friends to whom I intended to give the extra ones, have already supplied themselves. But we learn wisdom by experience, & I shall not attempt to transact any more business through Mrs Cassino. When it can be done in any other way. For she has always been very dilatory, & unmannerly, in every transaction that I have had with him.

Hoping this Winter, with its cold & bracing air, has

Syracuse
June 27th 1880

Mr Davenport.

Dear Sir.

I think I have found a new Station for Bot-Lunaria, and if you will be kind enough to examine the enclosed ferns, and pass judgment on its genuineness, I shall be greatly obliged. I found but this one specimen, & the locality seemed a singular one for it. It was in a dry Maple & Hemlock woods, with no limestone rocks near, or at least, none within mentioning. Our other stations in this vicinity, are both of specimens of that fern which I possess, from our ties. & the pinna are not so triangular, yet the [illegible] in Eaton's N. A. Ferns, of N. Newberry, very much resembles this.

I have all the Species of the Genus Botrychium now, except ing B. lanceolatum, & the [illegible] Gracile, which of course, is, at present, entirely beyond my reach.

When in New Bedford last Summer, I met a lady, who had just returned from a second trip to Cal. She had travelled all over the State, & after my return to Syracuse she sent me two specimens one of which I will enclose. She said she gathered it in Cal. Seeing that

the foot of tall abrupt lime-stone cliffs.

I dont know as you would dignify a place where one "one kind" fern was found, with the name of a station, but probably, at least I hope so, more will be found in the future, & the claim to the title be fully established. I am very certain that none has ever been dis-covered there in the past.

It is six or seven miles from the Jamesville Station, & at least a mile & a half from the Geddes Farm.

I also enclose a specimen of B Lunaria from the Jamesville road, which is rather curious, having the two lower sterile pinnae [illegible] 'fied & which I would like for you to keep, if you care for it.

A friend, formerly from Boston now, temporarily living in Deadwood, Dacotah Ty, sent me in a letter last week, the enclosed Asthalena which I think is Parryi, but am not sure, so send it for your inspection. Will you be kind enough to iden-tify it [illegible] My friend is not a Botanist, which is a thousand pities, she is so interested in flowers & ferns & would make [illegible] a fine collector in that new Country. At first, I took this to be A. Newberryi but the pinnules are more contract-ed & narrower & are all the

Please address.
Mrs Henry Gifford.
Acushnet. near
New Bedford
Mass.

it was Pellea - hastata, (is it not?) I immediately wrote to her asking her if she was sure had found it there, & if she would give me the exact locality; but the poor lady was been ill, when my letter reached her, & shortly afterwards died, so, of course, I can never learn the truth of the matter. Though no Botanist, she was an extremely intelligent & observant person. is a mystery how she made the mistake, but a mistake of course, it must be. She had the fern growing, think she must have brought home some green house ferns as well as wild ones, & got them confused in

her mind. She told me, they had all died excepting this, & perhaps this survived, because accustomed to living in a jar, while the others were not.

With all the other favors received at your hands, I wish to thank you personally for the copy of the State of Bud Lands in Batujchia, which was kindly distributed, as a gift from yourself at our last Club Meeting. I possess a copy of the Jersey Bulletin containing your Article on this subject, but as there seemed to be enough for all, I thought I would like a second copy for a friend, who is not a Member & cannot well afford to purchase all of those things which she desires.

New Bedford July 9th '80

Mr. Davenport.

Dear Sir,

[illegible] writing the above, I was interrupted by the receipt of a Telegram, announcing the sudden death of my Husband's Mother, at New Bedford, We were obliged to leave on the [illegible] train for the East, & I had no time to finish & mail my letter. So brought it with me, & will now send it to you. I should be very glad to hear from you here, where we shall probably remain a few months.

I remain, Respectfully & Botanically Yours. Mrs. L. L. Gifford

against it, ~~[illegible]~~ I was confirmed in my opinion, finally that it was St. Pierre, by Mrs Hurst & Mrs Barnes, who both pronounced it that. I am very much obliged to you for deciding the matter for me, & am very glad you kept a specimen, I intend to have written you to do so.

I did not observe the peculiarities of the B. linaria I sent you, until I arrived home, or I should have taken pains to have secured the head. But, I seldom take a word of that pen, as it already seems in great danger of annihilation. I took it for granted it was a Linaria, as the Matricaria foliosa has never been found in that vicinity.

New Bedford July 16 1880

Mr Davenport.

Dear Sir.

Many thanks for your kind letter & generous gift of C. biscida, received yesterday. Both were very acceptable. Two years ago, I purchased of J. G. Lemmon, a specimen of C. biscida, but, to my great disappointment, when it arrived, it was so contracted, & dried up, that I could not even form an idea of the outline of the frond. From those that you send me, I for the first time have found out, what they are like. Please accept sincere thanks for them, & also for your kind offer to send

[illegible] rage. Of course, I should be delighted to have it, I am already under great obligations to you, which I despair of ever cancelling.

I will endeavor to obtain for you the Asp-Spinulosum & varieties, but I do not think it is very abundant, in the vicinity of New Bedford at least. I have not observed much of it. I yesterday found Asple-filix-femina var. [illegible] angi, at least, I judged it to be that, from its decidedly red stem.

I think I can find all the varieties of Filix-f[illegible] as it seems to be abundant. Dicksonia-punctilobula also is to be found.

Woodwardia Virginica, & M[illegible] angustifolia are also to be found within the lit- limits, but I have never yet been able to find a fertile frond of the latter.

I had already written to my friend in Dartmouth to obtain for me all the specimens that she could of the ferns that she sent me, but wrote again after receiving your letter, & I feel sure she will do the best she can for us in the way of collecting, for besides being fond of the pursuit herself, she would be anxious to oblige us. I was not very much surprised at your decision that the fern was C-lanuginosa, for at first I was inclined to call it that, but have forgotten now, in the absence of my books, what it was that decided me

The small one that I found in the new place, I plucked hastily thinking of course, that I should find more. When I failed in that, I tried to find the spot where it grew, to obtain the bud, but was unsuccessful. It was my intention to revisit the spot, & make a more thorough search, but our sudden summons East prevented. But Mrs Hunt, who was with me, will doubtless do so, & if she should find anything, I presume you will have your share.

I hope to be able to call upon you, while passing through Boston, & shall try to "make time", to look over the Herbarium, which

must now be exceedingly interesting.

Mrs Myers regretted equally with yourself her inability to examine it, but her time was short, & her time fully occupied.

With kind regards, I remain gratefully & respectfully,

J. S. Gifford

I would like to repeat my invitation to you to visit our City. My Husband & myself would be most happy to entertain you & I have no doubt of the beneficial effect of the change of air upon your health.

You have heard I suppose of the pecuniary venture of the S. B. Club, in the shape of an Author's party at the house of our President, Mrs Rust. I hope it will be a success financially, for our Treasury is rather empty, & there are many things that we much desire to have.

With kind regards, I remain

Yours Botanically,

L. S. Gifford.

44 Montgomery St.

1880

Syracuse Oct 21st

Dear Sir:

I send you today the Aspidium Spinulosum which I obtained near New Bedford. Also a curious specimen of Asp. Boottii. At least I called it that as it grew with that fern, a specimen of which I will also send, from the same locality.

I find I was mistaken in regard to the "New Mexico" ferns of which I spoke to you. They were from Mexico, & were gathered on Cananea Mts, Northern Sonora, Altitude 6000 ft.

I send them for you to examine

I called them
Pellea - Vernifalia
Gymnogramme - hispida
& about the third one I was uncertain, as I always am in regard to a Cheil - or Notholaena, that I am not familiar with. It is not like any Cheil that I have, but it seems to answer the description of Cheil - Lindheimeri, Thur. Fern is not in my Herb - so I had none to compare it with. If these ferns are desirable to you, or will be useful, I would like for you to keep them. If you do not care for them, some time when you are sending a package to Syracuse, you can enclose them, but please do not take any particular trouble about it. I know your time is valuable, & I do not wish to encroach upon it. You will find in the package a Botanization, which I send, on account of a portion of the sterile frond being fructified, & a var incisum, which is inclosed merely because it is a rather fine specimen. These also came from near Saw Bedford.

You very kindly invited me to send my List of Desiderata, I will do so, & of course, would be very grateful for any specimen that you have to spare, & if in any way or at any time I can be useful to you, in the way of making Collections here, or at the East, where I now expect to spend next Summer, I shall be most happy to do so.

[illegible]

it has been in my mind to write
you, and for those two little
girls, using that as an excuse,
but the thought that I was
[illegible] you, [illegible]
[illegible] you, [illegible]
as a very busy season into come

[illegible]

[illegible]

[illegible] assist her.

I am always gratified to hear from you, & shall hope to do so, before we go East, which will probably be some time beyond the last of June, or first of July.

With kind regards,

I remain yours gratefully

S. P. Hoffman

44 Montgomery St.

[illegible]

of our Club, &, is nearly worn-
out that she was troubled with
it all, & wished to resign, but
we could not think of her going
out, then many of us [illegible]
[illegible] the position. The office
& books need keeping, for we all
felt unprepared to assume the
responsibility of trying to fill
her place, but finally, Mrs. Hayes
has consented to accept the po-
sition, & was elected at our Annual
meeting last week. We have a very
efficient Vice Pres. in the person of [illegible], a lady, who
in her way, has also a great
deal of Executive ability, & whom
we should like to have made
Pres., but she would not con-
sent, So, we hope to get thro'
the year, without any very dis-
astrous results, from this

Club's decision. Several old
Pioneers, who had previously re-
signed, have returned, & brought
in, [illegible] to provide an
[illegible] of [illegible], which
[illegible]
[illegible] work. [illegible],
that it will [illegible]
[illegible],
However, we will only meet [illegible]
the last [illegible], & [illegible]
big [illegible].

Mrs. Hayes [illegible]
[illegible]
of the Club, that she is not
strong, and it seems to be a [illegible]
much of the time, her husband
being at present located in
Buffalo, in business, she re-
quired the time, in the first
place, [illegible]
for Office, & I think it is

on you. We are going to Fairhaven to board, for probably two or three months, at least, & if not going down, on our way back, we shall spend a little time in Plattsfield, & I shall then hope to spend time to examine the treasures of the Herbarium. On account of going away, as he do every Summer, I am not at all detailed as a Collector, but, if there is any way, in which I could assist you in your Botanical work, I pray of course, in getting together specimens to work with. It would give me great pleasure to do so. I am too well aware of my botanical deficiencies, to think I could assist in any other way.

I remain respectfully yours, S. S. Gifford

Sycamore May 11th 1881

Mr Dunnford.

Dear Sir.

The package of Acms, sent through Mrs Rust came safely to hand, and I write to thank you for your great kindness, in remembering me so bountifully. The Lacinia, I had never seen before, or the B. bracts, excepting in your Herbarium, & they are both long coveted treasures. I was under the impression that B. bracts was a much fleshier thicker plant, more like the foreign specimens of B. bracts. Its general appearance is very like the latter plant, is it not?

but the bird game decides its species, I suppose.

The Mosquito hawk specimens are peculiar looking, & I am very glad to have examples of them from different parts of the country.

I received your letter with much pleasure, but regretted to hear that the trouble with your eyes is still so serious.

I have not forgotten the March winds on the coast of New England. Their biting sharpness was always considered very trying to persons not in robust health.

I do not wonder at a little discouragement on your part, in view of the amount of work you had planned to do, & the unfitness of your visual organs for performing their part in it. But, I have faith to believe, it all will come out right. The lecture before the Institute included, I only wish I could be there to hear it. Do you select your own subject, or is it given you?

Many thanks for the kind thought of inviting me to join the Field Meeting of the Institute last Saturday. It would have given me great pleasure, and should it again happen that you would like to communicate with me, when in Wakefield, please address, Care, Capt. C. A. M. Laber, or Box 6.3.4.

We are expecting now to go East, about the 1st of July, & should we pass through Boston, I shall try to call

44 Montgomery St
Syracuse June 8 1883

Mr Davenport,

Dear Sir,

The Supplements, and check Lists came safely to hand, and I should have replied immediately, but have been ill, & unable to attend to it until today. Enclosed please find thirty-six cents in Postage stamps to pay for the same.

I expect to be in Boston some time in July, & shall try to call on you.

Meanwhile I remain respectfully & sincerely yours,

E. S. Gifford

POSTAL CARD.

WRITE THE ADDRESS ON THIS SIDE—THE MESSAGE ON THE OTHER

MEMORANDUM.

Mr. George E. Ransom,

Dear Sir,

EDITORIAL DEPARTMENT

UTICA MORNING HERALD.

Utica, N. Y., Feb. 7 18[illegible]

Your communication of Jan. 28 came duly to hand but I have not found time to respond sooner. I should be very glad to send you a specimen of the fern Botrychium for the following reason. I board in a large boarding house. This winter my wife is obliged to be in New York under medical treatment. As a consequence I rent the suite of rooms we usually occupy, and take a small room on upper floor for myself. Everything that we could get out away was of course packed up, and among the rest were the Bot. specimens which I gathered last summer. They are boxed and packed away in the garret with other things, and it would be very [illegible]

me to get at them this winter. Should I have them open next summer I shall be most happy to send you a specimen, and gather quite a number for the purpose of examination. My article was written early in the fall when I was much interested in the question. I had supposed Mr. Egger was now going to print it, as it did not appear with the first part, and had nearly forgotten it when it came out. As soon as I saw it I regretted having mentioned your name, altho' in no unfriendly spirit. For—as a journalist I make it a principle to be as impersonal as possible, and in no case, I do believe, can I be conscious that your name was written at all. I am exceedingly interested in all questions pertaining to ferns, altho' I have but little time to devote to them. My herbarium contains about 600 sp. & var. of ferns, all of which I have managed to find time to study somewhat. I have taken great interest in your various papers on the Botrychia &c. & trust that you will favor us with more of your studies. I am hardly agreed with you in regard to the Botrychia, but discussion is the only method of getting at the opinions of different people. With the highest esteem I remain Very sincerely Your [illegible]

UNITED STATES DEPARTMENT OF AGRICULTURE,

BUREAU OF ANIMAL INDUSTRY,

OFFICE OF SPECIAL AGENT OF THE DAIRY DIVISION.

Clayville, N.Y. Jan. 14, 1897.

My Dear Mr. Davenport,

Your very courteous letter was received this A.M. together with the papers on ferns which I had not before seen and was much pleased to obtain. Your letter unravels some of the things about which I was puzzled, particularly the Acrostichum & the Asplenium. Mr. Pringle made the alteration in label of the latter in writing and inadvertently wrote palacenum instead of latoni, as of course he must have known the correct name if he had stopped to consider. It is a very beautiful & distinct species.

I shall have to charge Mr. P. also with making the error in Cheilanthes Cooperae. That was the printed label which accompanied the specimen, but the specimen itself is as distinctly C. lanosa as it is possible for it to be. The probability is that Mr. P. got hold of the wrong label, or was a little absent minded or inattentive. C. lanosa you know is a very distinct thing, & difficult to mistake

after you have once become familiar with it.

I have again examined the Cyathea and compared it with Fendler's Scnauschin, & the impression grows upon me that the differences between the two specimens are too great for them to belong to the same species. The only way to settle the matter however, is to make a description on the spot where the fern is growing.

Now can you tell me where I can obtain, either by purchase or exchange, good specimens of your two new New England ferns? I am quite willing to pay for them in any way desired, & want to become familiar with them so as to be on the lookout next summer. By the way, I am thinking somewhat of running over to Bermuda for the month of March, & shall try while there to secure the three species peculiar to those islands.

Have you changed your views at all in regard to the substitution of Dryopteris for everything in the Aspidium group? I certainly sympathize with you, & cannot yet make up my mind to accept such a tremendous change. Instead of making such a grand combination, I would favor breaking up the group into more genera, in accordance with the natural habits of the ferns.

Very cordially Yours

D. D. Silloway

I send you a copy of my article on Venezuela corrected.

UNITED STATES DEPARTMENT OF AGRICULTURE,

BUREAU OF ANIMAL INDUSTRY,

OFFICE OF SPECIAL AGENT OF THE DAIRY DIVISION.

Clayville, Jan. 25, 1896.

Dear Mr. Davenport,

Your nice pkge containing Aspid. simulans & A. cristat. & marginatum came this AM. I have examined them with much pleasure, but with no sense of recognition, & have read your descriptions which leave no doubt as to the character of the ferns. I have never seen the simulans, so far as I am aware; but the other has a sort of a familiar look, caused I suppose by its resemblance to cristatum. I find that there is in my herb. a frond of crist. that is decidedly different from normal crist. & different from your var. also. The pinnae & segments are broader than the normal, only the upper part of the frond is fertile, & the sori instead of being regular as in the normal form & extending down to the costa are in the edges ~~not the~~ of the lobes but do not extend to the ends, and they do not fill the space between midrib & edge as usual, leaving a comparatively wide space on each side of the costa vacant. As you look down upon the frond, the sori appear as if they were scattered, much as they do in Nephrod. cicutarium. Have you noticed anything

like it? Let me thank you most heartily for the new species, which fill up my N. A. Aspidia with the exception of A. Californicum, which somehow or other I do not seem to have run across either in Cala. or in exchanging.

I take pleasure in sending you a little pkge containing four ferns that are peculiar to Jamaica, and which I think possibly you may not have. The two Polypods are not in the Synop. Fil., but in Baker's "New Ferns". The other two have long been known, but are not common even in Jamaica. I do not send these in return for your pkge, but simply because I want to be represented in your herbarium. That is a laudable ambition, I am sure.

With best regards & many thanks, I am
Sincerely Yours
D. D. Gilbert

Thanks also for the printed matter, which I shall study until I am familiar with it.

from Cala.

C. Cooperae - bipinnate, sometimes slightly tri-fid, segments as Underwood describes them, "roundish ovate, crenate & incised", hairs articulated and gland-tipped, giving them a viscid appearance.

Pringle's fern & Cheil. vest. from Va., Tenn., & N.J. - fully tripinnate, segments oblong or ten rather pointed, hairs white articulated but acute never gland tipped. John Williamson seems to be the only author who mentions that the hairs of C. vestita are articulated.

Pringle's fern differs from all by being much more densely tufted on the rootstock by having stipe densely hairy to the very base, by also having a thick ascending caudex with broad pale brown scales which extend to the base of stipes, by more rigid & brittle fronds broader in proportion to length, & by a more denser hairiness on both sides of frond, being what might be called freely matted.

UNITED STATES DEPARTMENT OF AGRICULTURE,

BUREAU OF ANIMAL INDUSTRY,

OFFICE OF SPECIAL AGENT OF THE DAIRY DIVISION.

Clayville, Jan. 26, 1897.

Dear Mr. Davenport;

Your letter of 24th came this A.M. & I was so much interested in the matter that I threw up everything else & went at the specimens. I see that Eaton says that C. vestita has never been found west of the Rocky Mts., which might seem to settle the question. Perhaps it does, so far as Pringle's specimens being that species are concerned, but not that they are necessarily C. Cooperae, which I very much doubt. I have taken all my specimens this morn & put hairs & segments of each under the microscope, & made some notes "on the spot", which I enclose herewith. I had noted all along the extreme, matted hairiness of Pringle's specimen, but thought that this might be the effect of location, climate &c. But the more I examine it, the more it seems to me distinct, and I hope you will give it a thorough overhauling before making a final decision. When you do that, of course the matter will be settled, & I shall label the fern whatever you decide it to be. At present it stands in my herb as C. lanosa, to which it seemed to me to come nearer than to C. Cooperae.

Yours sincerely, L. D. Hilbert

I wrote you a short note yesterday.

Clayville, N.Y., Jan. 17/99

Dear Mr. Davenport,

Your letter together with the enclosed very nice specimens of Cheilanthes Pringlei arrived safely yesterday, & I am under many obligations for them. The fern is so little that I can imagine it would be difficult to make perfect specimens of it, altho' Mr. Pringle would succeed in doing so if any one could. What you sent makes a very nice sheet in my herbm, & with your label attached I am very proud of it. I turned at once to your description & figure in the Torrey Bulletin & by means of them was enabled to understand the peculiar features of the species without trying my eyes by use of a glass. The species seems to be very distinct & beautiful. I am a little curious to know where in the genus you would rank it. The Fern Bullⁿ list puts it next to C. Californica. Heller's more recent list places it between Parishii & tomentosa. On the other hand, Baker's "New Ferns" gives it as "24 star", which means nearest to 24 in the Synop. Fil. Now 24 is

C. viscosa Klf., a species that I do not know, which stands next to C. hirta, but under which Baker ranks C. leucopoda. I can see but little resemblance between this last & C. Pringlei. My ferns are arranged & numbered after the arrangement in Syn. Fil., so of course I have numbered C. Pringlei as 24x, but am not satisfied with its position there. Should be glad to learn your opinion on the subject, inasmuch as your description does not indicate what you consider to be its affiliations.

I am sending with this a little pkge containing specimens of my new variety of Adiantum which I trust may prove acceptable.

Hope you will send me a copy of anything you may publish on the Botrychium question, if you have any to spare.

With kindest regards, believe me

Very sincerely Yours

B. D. Gilbert

Don't deplete a nice specimen of C. fibrillosa to send to me. I can wait - perhaps you may get it again from some other source.

Clayville, N.Y., March 4-1899

Dear Mr. Davenport,

Here I am again asking for another favor. I am making a special study of the Asplenium filix-foemina group, with a view to get together a large number of forms from different parts of the country & see what can be done toward making close analyses & formulating distinctions between them. Already I have a considerable quantity of material to work upon, including 41 sheets from the Smithsonian collection which is especially rich in western & Alaskan forms. One of their sheets, collected by the Ringgold & Rogers expedition of 1852-5 (?), is a distinctly new species, & I expect to find others before I get through. Now you can see why I am writing to you. As I understand it, you have under cultivation the var. lacinatum, & I am in hopes that you have some representative fronds of that var. that you can send me together with any remarks that you may have to make on its permanence.

If your sheets were not so large, I do not know but that I should have the assurance to ask you to loan me all your specimens of A. f.-f., but I am afraid they might get injured in coming. You might have a

flat box made for them at my expense & sent by U. S. express, (that is the only one that comes down village) & they would certainly come in safety then. But I would not have you do so if you have the least objection to letting them go out of your hands. As I said, the Smithsonian have loaned me theirs, & I expect Columbia to do the same, & possibly Harvard. Dr. Robinson has done so on previous occasions. And the Fern Chapter generally will turn in to help. Mr. Eaton has already sent me a fine batch of things, - var's of F. f. I mean. Several western & non western collectors are also to send me things from their localities, while local collectors will do what they can. I do not intend to go outside of Nor. Amer. but expect to receive a number of European forms for purposes of comparison. I am also pretty well supplied with illustrated works on the subject, so that I hope to be able to make a reasonably complete analysis of the group. Hoping that you are bearing the winter & spring weather well & continue in your usual state of health,

Very Cordially Yours
Benj. D. Gilbert

Clayville, N.Y., Mar. 24/99

Dear Mr. Davenport,

From the fact that I have not heard from you lately, I am afraid that you are going to send me your sheets of Aspl. fil. foem. when you can get time to do so. I write to beg you not to do so, as I already have an immense amount of material on hand, consisting of the whole collections of Harvard, Yale, Smithsonian, St. Louis Bot. Garden and Cal. Acad. of Sciences – in all between 3 & 400 sheets with twice that number of specimens. It is not likely that any one could add to the number of varieties included in these

collections. I find that Harvard has specimens of var. lacinianum, very nice too, from a locality in Virginia. Of course, if you have a spare frond or two of that var. from your garden, I should be very glad to receive it for my own herb^m. But I should be afraid some thing might happen to your large sheet if sent on now, & do not think it advisable to take the risk. How are you nowadays? Does this protracted winter draw upon your vital forces at all? I fancy it does on mine, altho' I seem to keep fairly well. By the way, I rec'd the other day proofs of my paper read at Boston

so the pamphlet is evidently under way. No doubt you have also rec'd yours.

With best regards, believe me Most cordially Yours

P. D. Gilbert

Thomasville, Ga.
Feb. 15-1900

Dear Mr. Davenport,

You may be surprised to see my signature under the above heading, but I am spending the winter & part of the spring here, to get away from the ice & blizzards of my own home.

The Fern Chapter is to hold another meeting in June, at the Botanical Garden in New York, at the time of the annual convention of A. F. A. S. in that city. I am asked to serve on the committee for getting up a program, & I write to ask if you will be one of the speakers & furnish us with a paper on some subject connected with ferns? The choice of subject will of course rest with you.

I trust you will not disappoint us, as we know that if you consent, to give us an address, we shall be sure of a good one. The papers & proceedings will of course be published.

If you answer me within two or three weeks, please address me at this place care Wm. J. R. Scott. After that I shall be at my home in Clayville. Hoping to hear from you favorably I remain

I am

Very truly Yours

O. L. Gilbert

Thomasville, Ga., Mar. 22/1900

Dear Mr. Davenport,

Your letter was rec'd in due course of time, but I sent it on to Mr. Maxon to read & he has only recently returned it. Just after its return I went off on a trip to Florida & had no time to write while I was away. Let me say that we are much pleased with the prospect of having you give us a paper in June & we sincerely trust you will be able to present it yourself. But if anything should prevent your being present, don't fail to let us have the paper.

Maxon writes me that a Mr. Devery (?) has published "a criticism upon certain statements contained in our Boston Reports." Have you seen it? I do not recognize the name, nor even know whether I have got it correct, Mr. Maxon's writing being apparently hurried & a little blind.

I do not have opportunity to see the Field Museum publications, but should be very glad to see a copy of your article when it appears. You seem to have a lot of botanical work on hand, & everybody at all interested in ferns is always ~~interested~~ anxious to see whatever you may publish. We all recognize that you are exceedingly cautious & conservative & that there is no danger of your making a

a mistake through an ambition to become authority for a new species or variety. If you have any desirable duplicates from the Geisbright collection, I should be very glad to obtain them, either by purchase or otherwise. I expect Mr. Clute home from Jamaica next month & he is to put his ferns into my hands for determination. There is little chance that he will obtain anything new, but if he succeeds in entering the "cockpit" country he may make some good find.

By the way, Maxon writes me that he has made a new species of the var. incisum of A. Trichom. found in Cald., calling it respectinum. It will be in Underwood's new edition. Do you agree with Und. in his idea of changing all our Asplen. to Athyr.? I wrote him on the negative side, very decidedly, two months ago, but he has never answered. The filix-foem. section is the only true Athyr. & Roth especially differentiated that from Asplen. So, how Und. can put the whole business under Asplen. honestly I cannot conceive. My paper at June meeting will be on "the genus Athyrium."

Kindly let me know the title of your paper as soon as convenient & oblige

Yours sincerely

D. D. Hilbert

Please write me at Clayville N.Y. Great

The season here is late & I have found hardly any ferns as yet.

Savannah, Ga., Apl. 8-1900

Dear Mr. Davenport,

In accordance with your desire to see Mr. Druery's remarks on our Boston papers, I send you herewith the copy forwarded to me by Mr. Maxon. After reading it & transcribing what you desire from it please return to Mr. Maxon. You know his address - simply care Dept. of Botany, U.S. Natl Museum - Wash.

I agree with you entirely about Underwood, and fear that he is going to cast discredit upon such good work as he has already done, by issuing a new edition of Our Native Ferns cast in the mould of his late paper on genera. Not only that, but it will injure American botanists abroad, or rather Am. pteridologists. His book represents that branch of the science at present, & from the fact that there is no other work of recent date, it will be taken as presenting the consensus of Amer. fern students. Whereas, it represents Dr. U. so far as I can learn no one else unless it be the Columbia University people who are his associates. Some time ago, I sent Jenman a copy of Our Native Ferns, & he was quite sarcastic about the adoption

of Dryopteris as a generic name. It seems to me that Mrs. Lopes to drag us all along with him by reason of being the only one to publish a book on the subject. It is his intention to turn the whole of Asplenium over into Athyrium – a proceeding that is entirely unwarranted. I believe in the genuineness of Athyrium as a genus on the lines laid down by Roth, but that author distinctly differentiates it from Asplenium proper. So far as I am concerned, I would be glad to assist in writing a work treating of Pteridophyta in a moderately conservative way, providing Mrs. persists in publishing as it is now understood that he intends to, in July next.

We all hope that you will be able to get to N.Y. in June, or if not, that you will send a paper to be read & published. Maxon's Asplenium robertianum is to appear in Torr. Bot. Bull. & incorporated in Underwood's new edn – so I understand. I hardly know what to think of it. It is not like our eastern Trichomanes, nor is it like the var. incisum as described & figured by Moore. Still it hardly seems distinct enough for a new species. My Trichom. majus from Bermuda is a much better form for a new species, than this.

Sincerely Yours W. E. Tidestrom

I leave for home Apl 10.

Clayville, N.Y. June 7-1900

Dear Mr. Davenport,

As it is now only three weeks before the Penn Chapter meeting in N.Y., I thought I would write you & learn definitely if possible whether you could be with us or not. That with its being Torrey Day & all the botanists being at the Garden, it seems as if we ought not only to have a good audience but a delightful time. Can you not join us, & give us a paper, short or long as you choose? I am to speak on Athyrium as a genus. Now, I do not know whether you will agree with me in considering it a valid genus or not, but I feel certain that you would join me in opposing Dr. Underwood's plan of emptying all Asplenium into Athyrium, & having not an Asplen. in this country. I can show conclusively that this cannot properly be done, even under the Rochester rules, & I expect some criticism of my paper. I very much hope you will be there to help me out, as the crowd of those who know anything of the matter will probably consist of "reformers" as Dr. Robinson calls them. If you can be there I would like to send you my paper (which is short) to look over in advance, in order that you might understand my position. I would also like to know on what subject you will speak

to us, & what views you will take. In that case I could make a few remarks on the subject after your paper.

Hoping to hear from you soon & favorably, I am

Very sincerely Yours

B. D. Gilbert

Clayville, N.Y. Aug. 16-1900

Dear Mr. Davenport

Your welcome letter was received several days ago. I am heartily glad to learn that you have taken up again your fern manual & intend to push it on to completion. No man & no collection in the country is as competent for this task as you & yours. Perhaps the U. S. Nat. Museum may have a larger collection in No. of specimens, as they pile them up from every possible source, but they certainly lack some of your species.

Anything that I can do to help along in the good cause will be most cheerfully offered. For one thing, I can extend the range of some species as given by Underwood. I wonder that he is so faulty in this respect. The matter of nomenclature is so largely one

of personal opinion, in spite of what the reformers say, that we may very likely differ somewhat, but it shall be an amicable difference & if you ask my opinion I shall feel free to express it candidly. I say it is a matter of personal opinion even with the reformers, & I believe I am justified in that statement when I find that even Dr. Underwood in two instances discarded specific names in his 4th ed^n which had been used in the earlier ed^ns, & has restored them in the 6th ed.

I have been over his various ed's pretty carefully since the publication of this new one, & can show up a tremendous list of changes & inconsistencies. In fact I am writing a review of the book, but hardly know where to send it. The Botan. Gazette published Dr. Robinson's articles criticising the "reformers." Do you suppose they would

take a look at nine? If you can give me the address of the editor, I feel inclined to try him. There are plenty of papers in which I could publish it, but I want it to reach the botanical public & not the general public. Of course the Torrey Bull. is out of the question. In fact they do not publish reviews of any kind any more. I have given up the idea of including Mexican species in my CK list. I made out a list of them & it ran up to 330 species of which only 43 grow above the boundary. This would make an addition of 287 species to the U.S. list, & I fear that would enlarge the list altogether too much. So I shall only make a list of N. A. Pteridophytes north of Mex., but propose to include all varieties that have rec'd names. This is where I think you may be able to help me, as some varietal names

are almost sure to escape me. The whole thing will be on the alphabetical plan for the sake of quick reference, whether families, genera, or species of ferns. I propose to separate Polystichum and Athyrium, raising them from mere sections to full genera; & to accept Dryopteris, thus following the example of Dr. Asa Gray who first introduced it in this country. The argument for its use, as given by Dr. Und. in July Fern Bulletin, seems to me very good, altho a question might possibly be raised as to the exact meaning of "en parasol" as applied to the indusium.

I sympathize with you in regard to eyesight. My eyes have given me more trouble this summer than ever before & I am obliged to restrict myself to a very moderate amount of work each day - sometimes to none at all. I feel that age is creeping on. With best regards I remain Sincerely Yours

Paul D. Gilbert

Clayville, N.Y., Sept. 1-1900

Dear Mr. Davenport,

I sent you today some good specimens of Acrost. aureum & A. lonarioides, both from Jenman, which you are to keep together with his description of the latter. You did not say that you wanted Nor. Am. specimens, so I supposed you wanted the two for comparison and Brit. Guiana specimens would answer for that, especially when they come from such an authority as these do. I have in my own herb. Am specimens of both from Florida, the lonarioides coming from the U.S. Nat. Museum at Wash'n. So I can vouch for it as occurring in this country. I feel certain you will regard the two as distinct species when you come to compare them together. If you had ever seen them growing in their native habitats you would make no question about them. Jenman's descriptions differentiate them well.- You say you lack some

numbers of Jenman's Ferns. I shall be glad to loan them to you if you will let me know what you want. I had those that were in folio size bound, for fear they would go to pieces. But all the octavo size I have still in numbers, as that seems to be the easiest way to use them on account of their being mixed in with other matter. The bound vol. includes everything down to one third of the Asplenium. If you want that I can send it by express, but the pamphlets can be sent by mail. I do not think the Jamaica Ferns will be put in book form, but if he ever finishes his West India Ferns, which has now progressed as far as the end of Pteris, that will probably be published as a book, being much more inclusive than the Jamaica Ferns. Did you know that Underwood has a work now in course of publication that is to include Mexico, the Isthmus & all the West Indies? He is certainly a great worker.

Yours Sincerely

C. F. Millspaugh

If there is anything I can loan you either in specimens or books, don't hesitate to call on me for it.

Do you remember the status of Aspidium? Swartz mentions as the first species under it (because the fronds are simple & he always began with the simplest forms) A. articulatum & A. nerifolium, both recognized now as vars of the same species. But two years later Cavanilles transferred both of these to his new genus Dicranodra, on characters not mentioned or apparently noticed by Swartz. I can see no reason why an author has not as good a right to take the first species mentioned as the middle or the last, providing he founds his genus on new & unnoticed characters. According to my notion, the first species is no more sacred than any of the others. Very well, then Swartz' third species which stands next in line is Aspid. trifoliatum & the fourth A. macrophyllum, both of them netted veined. That then should be the character of Aspidium, it seems to me. A. tonchitis which stands fifth is a true Polystichum

I hardly know of what Clute's book is to consist. He has formed a partnership I believe with some artist, & the book is to be

illustrated somewhat after the style of "How to Know the Ferns", but will be more scientific. Clute writes that Dr. Underwood thinks of going to the W. I. this coming winter & may take him (Clute) along. So he is liable to be under Dr. U's influence to some extent & not so conservative as when he was completely out with the Fumum Dia corps. Perhaps I ought not to make the suggestion, but it might be well not to send your MS. to Clute too freely for criticism under the existing circumstances. You know he is in N.Y. at present. Pardon me if I seem to you too suspicious.

Very sincerely Yours

D. D. Gilbert

I forgot to put in A. f. polyeladas after all when doing up the package, & have only just recalled it in reading over above letter. It's hardly worth while to undo the package to send it. I am wondering what you intend to do with Botrychium & Ophioglossum. Nearly everybody so far as I know laughs at the idea of making B. dissectum a species. And what do you think of intermedium? A. A. Eaton & I think it quite as deserving of specific rank as some of the others. I have good B. matricariae from central N.Y. Shall you recognize all of Mrs. Britton's species of Ophioglossum? And will you include the fern allies? Do you approve of Dennstaedtia in place of Dicksonia?

I shall send the pkg by express from Utica on Monday.

Clayville, N.Y. Oct. 19/00

Dear Mr. Davenport,

I have just been selecting a lot of sheets from my herbm to send you for inspection. They include a portion of my specimens of A. cyclosorum & var. strictum, A. pinnat. pathulum and Kurnuskyanum (?), Athyrium acrostichoides and variety heterpteroides (you will find copies of Swartz' descriptions in the cover), my one specimen of Acrost. lomarioides from Florida, & specimens of A. aureum from Trinidad & Jamaica together with a small root specimen from Florida. You must have plenty of A. aureum from Fla. so I do not send mine as tho they are fine complete fronds both ster. & fert. I also found among my duplicates today something I did not know that I had, viz. a beautiful young root specn of Ath. cyclos. This is not mounted & can therefore be examined all the better, but I would like to have it returned with the sheets whenever you have finished with them. There is no hurry in the matter & I leave it to you to take your own time with them.

I have also sent for your own herb^m specimens of the three typical varieties of A. fil-foem. I make about 20 different varieties in Nor. Amer., but I know you don't want to be bothered with them, so I have sent the 3 var's which Newman felt like calling different species. Indeed they are quite as unlike, taken by themselves, as are many species, but we have the gradations to show that they are connected. Var. michi is rather scarce. Var. rhaeticum is commonest of all and was included by Prof. Eaton in angustum which is a different thing. Rhaeticum as you will see might almost be called dimorphous. Var. incisum is the largest form & most deeply cut. I believe I will also put in my own specimen of var. polyclados Moore, which is the most pronounced of our "monstrous" varieties, as Moore calls them. It is permanent too, having been under cultivation several years. Now to notice some of your other points. I sympathize with you on Dryopteris. I always felt an antagonism toward it, but thought perhaps the evidence for it was better than it proves to be.

Clayville, N.Y., Dec. 6-1900

Dear Mr. Davenport,

As it is some time since I have heard from you, I suppose you must be extremely busy working on your new book. A copy of "Rhodora" reached me the other day with your article on Dicksonia var. cristata, for which I owe you thanks. Am glad to see that you stick to Dicksonia. I have never seen any good reason for changing it. Lawson, the Canadian, was the one who made the change in this country, in his "Flora of Canada." Do you know the "Flora" book? In some ways I like its nomenclature very well. For instance he separates Struthiopteris as a genus from Onoclea, to which its rotl characters & venation seem to me to entitle it. But it seems perfectly faddish in Underwood to hunt up a name from "an obscure local publication in the Italian language," bearing the date of 1866, to supersede such an old & perfectly well known title as Struthiop. Struthiop., or S. germanica if allowable. Lawson Also separates Athyrium from Asplen. & uses Polystichum. On the other hand, he uses Lastrea which is Bory's genus of 1824. What do you think of doing with these Aspidiaceae? Do you believe that

Nephrodium will hold? Richard's first two species you know were N. acrostichoides, which of course goes into Polystichum, then N. thelypteroides. I suppose this must be what we would call Athyrium thelyp. Desv., so that must be ignored also. But his third species is Nephrod. marginale, & as that is a Nephrod. in the true acceptation of the term, it ought to hold. As I showed you in a previous letter, Swartz' genus Aspidium, after taking out the first two species named, articulatum & virriforme, which belong in Cavanilles' Oleandra, is anchored to A. trifoliatum, having the same round centrally fixed indusium as Polystich. but netted veins. Do, pray, let me know your opinion on this group, as it is the most difficult one to settle of any in the list.

Sincerely Yours

C. D. Gilbert

Mr. Clute you know is at work on a popular fern book with illustrations & I am getting up a list with all known varieties & we are both anxious to harmonize with your book as closely as possible. Hence I make the above inquiries. Mr. Maxon is getting out a list that will follow Underwood throughout, & we want to antagonize that influence.

Clayville, N.Y. Jan. 1-1901

Dear Mr. Davenport,

Last evening I received the enclosed leaflet. What do you think of it? To tell the truth, I thought of describing this as a new species last fall, but learned that Dr. Rydberg had identified it with Wilde's P. vulgare rotundatum, so I dropped it. I have specimens of still another small form from the Rockies which is quite as distinct as this, & altho' I should hesitate to call it a different species, it deserves a varietal designation. It seems to me there is too much of an aggregate under P. vulgare in this country, and it would bear being broken up.

Another thing has occurred also since I wrote you yesterday. In the evening I rec'd a small pkge

of ferns from Florida, & among them were specimens called Polypod. aureum that are different from any of that species I have ever seen or collected. They are only 8 to 9 in. long & 3 to 4 in. wide, & have but a single row of vein on each side of the costal. The sorus, instead of being borne at the apex of two free veins, is has only one vein to support it & this is true in every case with these specimens. They seem to agree very well with Jenman's description of var. reductum. They certainly are not aureum proper. They were green when gathered, so I have them now in press, but will send you a frond in a short time.

Yours sincerely
B. D. Gilbert

Kindly return the leaflet.

Claysville, N.S., Jan. 5-1901

Dear Mr. Davenport,

After an absence from home of two days, on my return I found your page here awaiting me, & I lost no time in attacking it. I read it thro' entirely the first day, in order to get the general drift & effect, and am now going thro' it again with greater care, making notes which I shall write out when completed.

As tho I knew that our views harmonized pretty well, I was really surprised & delighted to find that we are of the same mind in so many points, there are but very few points in which I should differ from you, & even those are not of great importance. The greater number of suggestions which have thus far occurred to me relate to slight changes in the language, to render it a little more clear perhaps or more homogeneous. But of one or two of the more important suggestions let me speak here.

It seems to me that it would be much

(over)

more in accordance with your arguments on the rootstock & venation to recognize Smithiopteris as a separate genus, as Eaton did in Ives's Manual. There could hardly be a more striking difference than that between the free running rhizome of Onoclea sensibilis with fronds issuing from it at separate points, & the root crown formed by the stipes of Smithiop. An equally striking difference exists between the finely anastomosing venation of Onoclea & the perfectly free venation of Smithiop. Although Underwood shows that this had been used as a generic name twice before Willdenow, yet neither time does it seem to have been accepted by botanists & Willd's was the first formal separation of Linn's Osmunda Smithiop which gained currency.

I think you do well to use "sporophyll" & "sporophyte". Your book is to be educational & scientific, & it is not worth your while to go out of your way in order to cater to popularity. In such work as your Leaflets you would naturally not use these words, & the Leaflets are especially intended to be popular.

With regard to Dicksonia, I hardly know my own mind. It has always seemed to me that Baker has made a heterogeneous assemblage of species under this

genus, & Hooker does the same in his Species Fil. John Smith however makes his Litobolinn, which is in every instance a Dennstaedtia, a distinct genus from either Dicksonia or Lito-linn, & includes in it our punctilobula. Not that I think his genus should be adopted. I only quote it to show what was his idea of our species & others allied among which was rubiginosa.

Taking merely the indusium as a character, in true Dicksonia it is bivalved, in ours it is cup-shaped. Jenman says of D. rubiginosa "Rootstock wide creeping, stipites scattered, × × In shade it reaches 10-12 ft. high". & that is my own recollection of it. Do you consider Shimek perfectly trustworthy authority? I have to confess that the more I investigate, the more shaky I become about putting our species in with a lot of tree ferns whose indusia are so decidedly different. Take your own specimens of D. antarctica or Culcita & compare the indusia with those of punctilobula & ask yourself to decide honestly whether they are enough alike to place them all in the same genus. If you are like myself, you will find it difficult to answer yes. And if it is not Dicksonia then it is certainly Dennstaedtia Bernh. 1803 N.D.

Now I will quit for the present. But I want to thank you heartily for the beautiful print of Haushalter's Virgin which came as your New Year's greeting. It is so lovely that I mean to have it framed. What wonderful eyes this madonna has. The whole origin beautiful face peering into futurity is different from that of any other Virgin I have ever seen, & I have wondered thro many of the best European galleries too. Thank you for something that will give me pleasure every time my eyes rest upon it.

What a thriving business in species making young Maxon is doing nowadays. Have you seen the Decem. Torr. Bull.? In it Maxon has an article on Alaska ferns with a new species of Dryopteris, near to fragrans. It is founded on two plants only, with no known duplicates anywhere.

I obtained a copy of Jan. Rhodora with your new var. of A. ebeneum. The cutting does make it resemble A. lunulatum strictum Brack. very much. It certainly is a novelty among our native species & var's. Guess I'll have to extend my epistle somewhat after all, as I want

to tell you about Clute. He wrote me some time ago wanting to go into partnership with me on my list. I did not take to the idea, as I propose to introduce some new features & prefer to have whatever credit may arise from them as my own. I want a free hand also & do not care to be hampered. Of course I put it mildly to him, merely saying that I did not much believe in partnerships in scientific work. So yesterday I heard from King after a two weeks wait, saying that he proposes "to run a list of ferns in my new book" which is coming out in March. He also says, "So if I come out first, it is your own fault. Forewarned is forearmed". Now, he knows that I intend to publish all known varieties of this country, so he will probably take up the same plan. But fortunately I have not given him any further inkling of my intentions, so I think he cannot take the wind out of my sails very much, even if he precedes me in publication. He will undoubtedly publish a conservative list, such as he knew I intended to, as Maxon's will be radical & would not

agree with Clute's book in which, he says, "I have adopted a very old fashioned nomenclature, even to Aspidium, since the book is for the general public". Naturally, Underwood is "very anxious to have me follow his nomenclature", but he cannot see how he can do it.

I have read your paper on Ophioglossum with great interest & agree with your conclusions quite fully, but I can understand that an editor who does not publish a controversial magazine might not be willing to use the article even if he agreed with every word in it, as I am inclined to think Clute does. Of course he doesn't vouch for the accuracy of everything he prints, but it might offend a certain class of readers & lose him subscribers. So you must not judge him severely. The fact is, I have not finished my criticism on Underwood, because I knew it would be almost impossible to get it published. If there was some publication that antagonized Columbia, either scientific or secular, one could get such an article taken, but ordinary publications are unwilling to accept it.

Very sincerely Yours (at great length)

B. D. Gilbert

Have rec'd a letter from Brit. Colum. in which the writer says: "Have just secured several good roots of A. cyclosor. with everything attached, & can find no sign of a rootstock other than I sent you. Those heads spring from a dense mass of fine, fibrous roots, & nothing more. I will send a complete representative sp. by mail shortly."

When it comes I will forward to you after close examination myself.

G.

Clayville, N.S., Jan. 9-1901

My Dear Mr. Davenport,

I have at length finished my notes on your MSS. & shall do them up to go to express today, as I know you are anxious to get on with the work. I am ashamed of both the quality & the quantity of my notes, & fear you will think it hardly paid to send ~~them~~ on the MS. You must excuse the freedom I have used in criticising & making suggestions. That, I have taken for granted, was what you sent me the MS. for, & I have spoken without hesitation whatever occurred to me on reading the MS.

As I wrote you before, our ideas harmonize very closely. I have already written you concerning some of the most important points, & these are not repeated in the notes. When you have looked over the latter carefully & compared with MS., I trust you will let me know how they strike you.

You speak of Mills-paugh having returned, & the probability of his sending you his collection - to name I suppose. I understood that he went to Jamaica, so I doubt if he will have anything that is new to me. But if you

find anything particularly good, I would be obliged if you would let me know, so that I can obtain specimens if possible. Out of 475 sp's or thereabout known in Jamaica I have about 360, & many of the rest are things that were collected only once by Swartz or Wilson 40 to 100 years ago & never seen since. So it is not likely that in a six weeks trip to the island Hillspaugh has picked up much, if any, material that I have not already. If I can save you any time in determining the species, don't hesitate to ask me.

Sincerely Yours
D. D. Gilbert

Are you going to be your own publisher of the fern book? If not, who is your publisher? I hardly think that I shall let Clute issue my list, as I expect to pay for it out of my own pocket I shall go where I can get the most reasonable terms.

I enclose a drawing sent me by my correspondent Mr. Hill, to show how Athyrium grows. You see the swamp level & the two clumps of the fern. Kindly return same & oblige.

Clayville, N.S., Jan. 10 - 1901

Dear Mr. Davenport,

In a letter just rec'd from Cute he says: "Underwood has just written that he has seen Cavanilles' original description of Lectaria, since writing his Genera of Ferns, and that C. L antedates Aspidium by fully two years. This is entirely independent of any principle of generic types, since he made Lectaria monotypic. x x This was published in 1799 in Annales de Historia Natural (mes de Decembre de 1799) p. 115."

This does not accord with Lectaria as given in Und's Genera. There the date of Lectaria is given as 1801, & the first species is Polypodium phymatodes, followed by P. trifoliatum & others such as P. filix-mas, & P. filix-fœmina. That is certainly not monotypic. But suppose that U. is right & that Lectaria was pub'd the middle of Dec. 1799, with only one species given, & that Polypod. trifoliatum. What can you do? You say that Dr. Christ maintains Aspidium. Do you think that he knew of Lectaria & if so, does he say anything about it?

Aspidium seems to have been first pub. by Swartz in Schrader's Journal, 1800. Do you think that is the very first mention of the genus in print? At most, it is only a few months previous to Lectaria, not two years. In Swartz' Synopsis, 1806, he gives as synonyms Polypod., Polystichum, Athyrium, Lectaria & Nephrodium. showing that Sw. knew of Cavanilles' genus at that time. Then comes the question, what was Cav's characterization of the genus? Was it anything like Adanson's Dryopteris? description one thing & type another? If Und. is right, the only way that I can see to maintain Aspidium is to throw precedence to the winds & stand on the century old use of Aspid. Yes, there is another method, viz. to adopt the 50 years limit of the Germans. Did anybody adopt the use of Lectaria within 50 years after its original publication?

I thought it best to let you know of this at once, so that you might act understandingly. At most, it would affect only two species in our flora, viz. Trifoliatum & juglandifolium, for I do not imagine that you intend to adopt Und's auriculatum. It would be just as sensible to divide up Trifoliatum because of the small, heart shaped fronds, which nevertheless bear fruit, & make 2 or 3 species of that.

Sincerely Yours B. D. Gilbert

Clayville, N.Y., Jan. 29/01

My Dear Mr. Davenport,

I regret exceedingly to learn that you are again having trouble with your eyes, & especially that an operation has been necessary. But I trust that it has proved a success & that you are going to be less hampered by your eyes in the future.

I am writing more particularly today to tell you that I have prepared an article for the April No. of Fern Bull. on the varieties of Botrychium lunaria in Cent. N.Y. It is based on a collection of these plants made last October by Dr. Haberer of Utica, numbering over 450 specimens. They comprise four varieties, viz. obliquum, dissectum, intermedium, & what I have named var. Oneidense. I send you herewith what my article says about this form, and you can make such use of it as you see fit, if you choose to include it in your book. I shall also send you a specimen.

Quite recently I received in a small lot of ferns from Costa Rica

what seems to me to be genuine Nephrod. Karwinskyanum. You know that Shimek (whose book I have recently obtained) gives it as among his Nicaragua plants. My specimens are young, have very small son, do not show the indusium at all plainly, & have pinkish costae & rachis, a fact which nobody seems to mention in connection with this species. Even Shimek reports that "When growing, the stipe was green, hairy & brown-scaly at base". I can make nothing else out of my specimens however, as they have decidedly deltoid shape, are cut as described & are herbaceous & thin in texture. Also they are about the right size, 12-15 in.

Now, if this is correct, I withdraw all I had to say about the specimens from Arizona. Those are not Karwinsky. If these are. Then comes the question, what are those? I can't see that they agree with palulum at all. Wish you would look them over pretty carefully before returning & tell me how they compare with yours from Arizona if you have any.

Clute informs me that he has rec'd many letters from Underwood trying to convince him on nomenclature, but he will not be convinced. Clute writes, "I will cast in my lot with Davenport & you." So there will be no one but Maxon to side with Und. & Clute thinks he may even manage Maxon. Sincerely Yours D. D. Gilbert

Please let me know how the var. Oneidense strikes you.

Clayville, N.Y., Feb. 13-'01

Dear Mr. Davenport,

Enclosed I send you a copy of the last paragraph of introduction or preface to my list of Heteradinyes. I would like to have you look it over & let me know whether you are willing that I should publish it. I think I have used none of the illustrations that you use - if I have please erase it or them. Or if you think it would interfere in any way with ~~your~~ the matter in your book, I will suppress it entirely. My object in writing it was to explain why I revert to the names formerly in use. I don't wish people to think I am doing so out of any spirit of contrariness. I really believe in Hay's & your principle & know that it would save changes & conduce to stability.

I am also sending by this mail a specimen of my Bot. Kem. Oneidense, not because I have any idea that it will be new to you, but in order to show you just the form upon which it is founded. Dr. H. collected over 450 specimens of the different varieties

and this stood out as a very distinct but not very common form. It is the least cut of all the ternate var's. The specimens (407 in all) were easily divided off into the four var's obliquum dissectum, intermed. & Oneidense.

Many thanks for your photograph. It is certainly excellent, & no one would suspect from it that there was any thing the matter with your eyes. Clute writes that it has already been sent to N.Y. for engraving, along with a drawing of the basal pinnule of my Botrych. I agree with you that Dr. Underwood's portrait in last number was fine, but no better than yours is likely to be. Clute wants my portrait for July number. Will return your compliment with one of my own photo's one of these days.

The Madonna of the Flower & thorn hangs in front of me, just back of my desk in a pretty gilt frame with mat cut the shape of the picture itself. It is really a lovely thing.

As I understand it, Maxon owes his position primarily to Clute who was at that time connected with N.Y. Bot. Garden, & who procured Britton's & Lord's influence in his favor. So you see he can't help himself very well. He is a nice young fellow & I think he may become more conservative as he grows older. Cordially Yours

B. D. Gilbert

Clayville, N.Y., Mar. 12-1901

Dear Mr. Davenport,

Herein you will find a copy of my list of U.S. Nephrodia which I would like to have you look over and correct or criticise. My chief object in sending it is to get your consent to appending your name to certain o's var's that have to be changed over from Aspid. or Dryop. I feel that it is due to you that all of the older names at least should be credited to you, even if my list comes out before your book, such, I mean, as contermin. trigonum, cristat. Clinton., rigidum argutum and unitum glabrum. But of course I must have your consent for doing so. And will you please tell me what to do about Mexicanum & patulum? Shall I include them both? Also can you tell me the author of filix-mas incisum? When I made note of the name, I neglected to add the authority or place where it was pub.? And what about marginale Lawson raillae? I have a notion that I have seen somewhere a note by you to the effect that it was something else. Another thing. I have just now the Harvard specimens of Aspen. trichomanes in my possession. Among them are 2 or 3 sheets of sps from Mexico all labeled A. T. proliferum Dav. Is that right? In Torr. Bull. V. 6., p. 307, issue of April, 1879, there is an instalment of Eaton's New or Little Known Ferns, in which he descants upon

Floridian things. Among them is Aspleu. fœtens. prolif. which he talks about as if new, & to which he appends no author's name, thus leaving it to be inferred that it is his own. Now, which one of you two was first to use it? The earliest label that I find in the Gray Herb. bearing the name is Pringle's of 1885. But now I see; your name is repens, Eaton's is proliferum, altho they are evidently the same thing. That is what misled me.

Allow me a few words more about Bot. biternatum. It seems to me that there are three very strong points in favor of this being a distinct species. First, its form & outline & whole appearance are so distinct that a mere novice could pick it out at once if mixed in with a lot of other forms. So far as outward appearance goes, it is as distinct from anything else as a Botrychium is from an Anemia.

Second, it is a purely southern form not found north of Mason & Dixon's line. Our northern forms obliquum & dissectum are often found in the south, but biternat. has never been seen growing in the north.

Third, it matures its spores early in the spring, while our forms do not mature until late Sept. or Oct. This seems to me a very important point.

Now, what three points of specific character could be found stronger than these three combined? If you elect to take your stand on the general plan of structure, then I don't see where any specific lines can be drawn in the genus, unless perhaps Lunaria & its congener Boreale be excepted.

You would have to do away with Virginianum, & lanuginosum, & dancifolium, & Japonicum as species, & mass the whole body in one. What is a species? Nessien called it "the perennial succession of similar individuals in continued generations", & Dr. Asa Gray accepted & adopted this definition. Have you any doubt that Bot. Virginianum reproduces itself in practically the same form year after year? We know that it has done so for more than 100 years & the specimens are still in existence to prove it. The ternate form is in general distinctive of all Botrychia, just as the single undivided leaf is of all true Ophioglossa, & the pectinate dichotomous fronds of all Gleicheniae. But this does not prove that there is only one species in each of these genera. Minor modifications are accepted as marks of specific difference, & so I take it they must be in Botrychium also. You say that your friends "could not wish you to be otherwise than true to your sincere convictions". My answer to that is that when your friends are practically unanimous in a judgment which may not agree with your convictions, (as they surely are in this case) it would be wise for you to review the evidence & try to make your convictions agree with theirs. I should not write you so at length in this matter, if I were not very anxious that neither your friends nor your opponents should be able to say that your judgment was more or less affected by prejudice.

And I feel free to say these things to you myself because you know that I have no other motive than friendship for yourself & a desire that you should not take a position which the greater number of scientific men will discredit.

In regard to Bot. tenebros. there is of course a reasonable ground for difference of opinion, altho' I am afraid you have not a very good series of the species to form your judgment on. There must however be differences of opinion on some things & this is one of them. Underwood entirely ignores your N. cinst. marginal. & you will doubtless ignore some of his things, but these are matters of dispute, while Bot. biternat. is well nigh universally received. Und's Bot. occident. seems to me to come very close to our intermedium.

If you find a simplex-compositum to spare I hope you will lay it out for me.

Very sincerely Yours
A D Lilbert

My list is fast approaching completion. It will be about 1/2 list & 1/2 Appendix, in which a lot of new varieties will be described by myself & A. A. Eaton. That will give the publication a more permanent character.

Clayville, N.Y. Mar. 14/01

Dear Mr. Davenport,

Many thanks for the photos. of Coville's sheets of Bot. punnicolum. I have put them under a magnifier which brings them out very distinctly judging from these photos, I should say there was no doubt about their being a good species.

Had you have been able to trace out Bot. matfol. & B. neglectum. I had little doubt about the matter myself & should not have adopted the latter on Mrs. statement alone, but am very glad that you have obtained Eur. spns to make the matter sure. I have plenty of Eur. Lunaria & matricariae but no mat fol. Mrs. Horton has sent me some fragments of your new var. Hortonae which seems very distinct & very pretty. She promises better specimens next summer.

Sincerely Yours

B D Gilbert

Clayville N.Y. Mar. 25

Dear Mr. Davenport,

I knew long ago that celsa was only Clinton. I intend to give it only as a synonym of that.

So with Mt's Dry, aquilon. It is only a form of fragrans. I have specs of that from D.G. even less scaly than Mt's, more reduced at base, with small rootstock & as far as one can discover from photos, like it in every way except some dif. in cutting of pinnae. Am in great hurry to get this to mail.

Yours truly

J. D. Sheek

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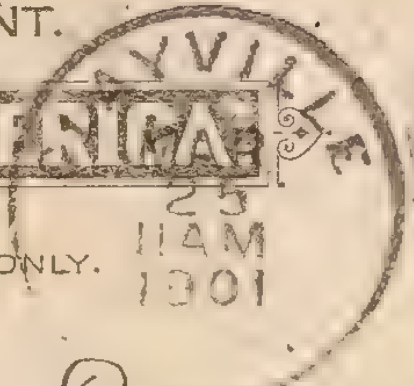

Mr. George E. Davenport
No 8 Hamilton Place
Boston
Mass

Clayville, N.Y. Apl 5/01

Dear Mr. Davenport,

Your Supplement Leaflets came this morning & were just what I wanted. As I suspected I have the longimucronata but not the compacta.

I am again bothering over Dicksonia, not as to the generic but the specific name. If we carry out Ray's rule it seems to me we must say Dicksonia pubescens Schkuhr, as he was certainly ahead of Willdenow in calling it Dicksonia. Willdenow even quotes D. pubescens & Schkuhr's description of it, under his pilosiscula, which I notice you use. I have no books here which give me the date of Schkuhr's Filices, but his botanical Handbook in 3 vols. was pub. from 1791 to 1803, & his Cryptogamic in 1806. But the mere fact that Willd. quotes him shows that S. preceded W. Now we must be consistent, or we shall be unmercifully criticised.

Please let me know your opinion at once, as I am about ready to go to press. This matter only occurred to me today or I would have written sooner.

Kindly mail me a copy of Catalog of Dav. Herb. latest ed. & send bill for same.

Sincerely Yours
B. D. Gilbert

Clayville, N.Y., April 12/01

Dear Mr. Davenport,

Your letter is rec'd enclosing Mr. Farwald's which contains only what I knew before. I have Willd's Sp. vol. 5, & under Dick. piloz. he cites his own Enum. & then Schkuhr's Crypt. for D. pubes: giving page & Table or figure. He also cites Polypod. piloz. from Muhlenb. in litt., showing where he got his specific name, which I am glad to see he was honorable enough to use. But a funny circumstance is found in Pursh, who calls the fern Aspid. punctilobum & quotes from Willd. for it. And Willd. does give that species, quoting for it both Swartz & Michaux. But Sw.'s name was A. punctilobulum, for which he also quotes Mich.'s Nephrod. punct. The gist of the matter seems to be found in Willd's note to D. piloz. He says: An Aspid. punctilobum supra p. 279 dubie indicatum, eadem sit filix alias ad dijudicandum relinquo? quum pinnulae neque sint decurrentes neque pubescentes. To the Dicksonia he appends v. v., but not to the Aspid. Now, as I have

said, Svz. quotes Mx. but not Schk. and it is almost certain he would have done so if Schk's species had been pub. before 1806. In his preface he mentions Schrader, Gleichen, Hedwig, Ehrenfel, Bernhardi, Willdenow & Schreber, but does not seem to know Schkuhr. So it is not probable that Schk. had published any of his Cryptogamia at that time.

As the matter stands it seems best as you say to hold to D. pilos. Willd. and let some one else prove us wrong if they can. As Willd. asserts, the fern is not pubescent but pilose, showing that even in those days they gave pretty definite meanings to their scientific terms.

Thanking you very much for your trouble & information,

Yours sincerely

B. D. Gilbert

Prof. Trelease has sent me a separate of his, describing & figuring a new var. of Pellaea atropurpurea. It is in time for the List.

I see that Svz. does cite Schkuhr under Aerost. several times, also under Meniscium & Polypod. & very freely thro Aspid. as far as S. 63. Here he seems to stop. But Schk's Table for Dicks. was 131. So he evidently had not progressed so far in 1805.

species war's north of the Gulf States & East of the Rockies, to accompany his book. I can't see what earthly good it will do his book to include such a list, inasmuch as Nixon has done the radical & I am doing the conservative side. He has sent me a proof, with the cool request that I furnish him with any war's that are missing, so that he will not be out of date!! I have not been working on this task for a year past just to give him the credit of being up to date. I propose to have that credit for myself.

Cordially Yours

B. D. Gilbert

Clayville, N.Y., May 20/01

Dear Mr. Davenport,

My list is now ready for the printer. It has been my desire to be able to vouch for as many species & var's as possible from my own herbarium. There are a few things however which I lack, & these will be starred in the list. But before final publication I am making every effort to fill up the gaps, and I am again going to appeal to you. If you can help me with any of the following things I shall be everlastingly grateful & will respond with foreign specimens which may be acceptable to you. And I would be exceedingly obliged if you could let me know about them as soon as possible. I will put the names on a separate sheet so that you can put it in your pocket or note book separate from my letter. I have already written a short article on what seems to me one of the most unsatisfactory features of Moxon's list, viz. his treatment of varieties. I have not stepped

outside of that, except at the beginning to give just one hit at the general nomenclature. I am thinking that you will pay him a compliment on that in Rhodora perhaps. I may send mine to the Bot. Gaz. if I conclude to publish it at all. Inasmuch as I am to issue a list myself, I do not feel quite certain whether it would be good taste or good judgment for me to have anything to say about Maxon's list. Wish you would let me know what your opinion is on the subject. Maxon has given only 16 vars. among the ferns proper. Some are things which ought not to be given at all, which even Underwood has ignored. On the other hand he omits vars. that are much more noticeable than many that he gives. So my position is that his treatment of vars. is arbitrary, that he does not feel the same sense of responsibility in dealing with them as he does in dealing with species. And I show up his multinamed var. of Pol. vulgare in a way to show his ridiculousness. So I am not quite certain whether it would be good judgment to publish it.

Clute has also made a list of

Clayville, N.Y. May 23/01

My Dear Mr. Davenport,

Your letter just rec'd. I am more than pleased with the prospect of species which you hold out to me. They are more than I had dared to hope for.

Do you think that The Plant World is the right place to send a criticism of M's List? You know it is edited by Dr. Pollard & one or two more of M's intimate friends. Would they give it place? Why not try The Bot. Gaz. which I have no doubt would publish it, & soon too. I shall follow your advice & not publish my own screed. I send you herewith the only draft of it which I have made. Perhaps it may suggest something else to you. If Dr. Christ has sent any notes that it would be advisable for me to see before publication I hope you can send them to me.

very soon, as part of my list is already in type. I can yet however add to or subtract from it at my pleasure. Sorry to bother you at such a busy season, but it so happens that I am just in the position that what is to be done must be done quickly. You will appreciate it, I am sure, & pardon me for troubling you.

Sincerely Yours

B. D. Gilbert

I came near forgetting to tell you that all my roots of Athyr. cyclos. from Brit. Colum. are coming up finely this spring. And the young fronds are as different from any of the A. filix foem. forms as they well could be. There is hardly any stipes, & that together with the rachis is thickly covered with very large light brown scales, 1½ in. long & ⅝ in. wide. The pinnae dwindle down to base very much like those of Struthiop. In fact it might be taken for that species on a cursory examination, if it were not for the scales which are larger & darker than those of Struthiop. I am delighted with it.

Clayville, N.Y., June 4/01

My Dear Mr. Davenport,

Your beautiful & extremely acceptable pkge of ferns reached me safely, & I thank you most heartily for them. I have been delayed a little in answering & acknowledging them by a short absence from home.

About the same time, I received a fine pkge from Prof. Lemmon, quite unexpectedly. It contained splendid root specimens of Polyst. Lemmoni and scopulinum, together with excellent fronds of Californicum & aculeatum verum. Yours you may remember were var. angulare. All of these, together with what I had before, make a splendid suite for study, and from what I have seen of them I am much inclined to retain Californicum as a species and make both Lemmoni and scopulinum varieties of it. When placed side by side there is a striking similarity between them, but of course in a short letter I can hardly enter into an analytical description. If I have

the above course, I shall make some notes in my Appendix, giving reasons. I have stopped work on the List in order to settle this matter in my own mind. That P. Lemmonii belongs in the same category with Californ. & scopulin. I am pretty well satisfied, & it is more closely allied with the former than the latter. I have never seen true nephrioides, but have given up the idea of our fern being that species. Its affinities with its near neighbors are too close for it to be anything but a relative of theirs.

Pell. Wright. compacta is very pretty & seems to be a very distinct variety. A. D. Nichol. seems to be pretty close to emarginatum except for its pilose character. Ophioglos. crotalophr. was much more appropriately named bulbosum by Michx. and it is a pity that name could not have been retained. Has Polyp. Swartzii ever been found elsewhere than on Key Largo in the U.S.? I find no other references to it. I have copied Dr. Christ's original letter & enclose both it & the translation herein. The latter is correct, but after all, one gets a little different idea from the original.

Cordially & gratefully Yours Benj. D. Gilbert

Clayville, N.Y. June 21/01

Dear Mr. Davenport,

Your letter with Coulter's enclosed is just rec'd. I was a little "previous" it seems, with my P.D. card sent this morning.

Well, this is what we have to expect, I suppose. The Underwood people are "in the saddle", because they have the influence & authority of the government behind them, as well as of Columbia Univ'ty. If Harvard will only stand stiff, as I judge from Fernald's article it will, we can make a good fight notwithstanding. I think I can see what Coulter's objection to your article is. He thinks it is too much of an expression of your personal opinion about species, without facts in support of that opinion. I recollect aright, you simply stated that according to your views Lecturia was only another designation for Aspidium, as also was Phanerophlebia, but you gave no reason

why they should not be used, other than your own preference for Aspidium. At least, that is my recollection of the matter. And the same was true in several other cases. But in those instances where you did enter into details, as in the Botrychia for example, you certainly adduced good reasons for your differences of opinion. But if Fernald is to answer Underwood, he can give him an Oliver war U's Roland, and I hope he will "go on and not spare". If you send your article to some other publication, it might be well to strike out all statements of personal opinion unless backed up by facts & arguments.

I do not take Rhodora & should be very glad to see the June No. There are so many botan. publications nowadays that I can't afford to take them all.

Sincerely Yours

B. D. Gilbert

Clayville, N.Y. June 28/01

Dear Mr. Davenport

Thank you very much for the blue prints of Hortonal. I have a couple of partial frends of this from Mrs. Horton herself. She also sent me a little plant of it which she had been nursing in the house, some time ago. I set it out in the open air, but it droops & withers & seems likely to go to pieces altogether.

Well, Clute's book is out at last, & is certainly a handsome volume. If one chooses to be critical, one can of course find faults, but for what it purports to be, viz. a popular treatise, I think it is highly creditable. I have written a short notice of it for the Utica Daily Press, of which I will send you a copy when published.

You undoubtedly see

an improvement in your review of Mason by the change in your statement, & it seems as if it ought to satisfy Mr. Coulter. I shall not be surprised however if he either declines it again or cuts it down to suit himself. I don't know that he is particularly favorable to the radical party, but as the editor of a magazine he doesn't want to stand in disfavor with either side. I don't think I have yet thanked you for the June Rhodora, containing the Katahdin articles. It is a fine number, and I am satisfied that if the editors would enlarge their scope somewhat, not confining their range wholly to New England, it would very soon be the leading botanical publication of the country.

Sincerely Yours

B. D. Gilbert

Clayville, N.Y. July 20/01

My Dear Mr. Davenport

Before ~~you~~ this reaches you you will have rec'd the long-delayed list. I hope it may meet your approbation. Your card of 18th inst. came last eve. I was disappointed in Underwood's reply. It was sharp enough, – in fact too sharp to suit moderate people. And I can't see that he made out a case for Bot. neglectum at all. His own words might well be retorted upon him viz. "It would appear from his article that he had seen the only European B. mat-fol. that Amer. eyes had rested upon." To say nothing of yourself (thus leaving Hamlet out of the play is it-were), what about Prof. Eaton? Did he publish B. mat-fol. without seeing European specimens? Plenty of them too, I imagine. Oh, Underw. has gone rank crazy over some of these things, & he shows that good

substantial criticism irritates him. Glad to hear that Clute is to publish your article. Let me know how many of my lists you would like & they are at your service. I am pretty busy just now, but will write more later.

Sincerely Yours

B. D. Gilbert

Claysville, N.J. Aug. 2/0,

Dear Mr. Davenport,

There will go by mail with this a little page of the List. I had to wait till I got time to correct them, as I have done all those sent out since the omissions were discovered. I left out Equisetum pratense & Asplen. montanum. They were in my original MS., but in some unaccountable manner were dropped out & the omission was not noticed. I send ten copies, but if you want more you can have them.

Had a letter yesterday from Prof. Underwood taking exception to certain things & saying he was going to write up a matter in which both Maxon & I are at

fault. I can hardly imagine where Max. & I both should agree in antagonizing Mudew. I wrote him I had reasons that were satisfactory to myself & those who thought as I did, for my acts, but could hardly defend them in a letter. On Aspidium I am ready for him. Whether I am sufficiently posted on Nephrodium to do so or not, I am not certain, He thinks of coming up here to see my herb^m & I shall try to be ready for him by that time. If you think of any special points please send them on.

Have not yet heard from Hill but am expecting a letter every day & will write you as soon as I get the specimens which I feel sure will come.

Yours sincerely

J. D. Gilbert

Clayville, N.Y., Aug. 20/01

My Dear Mr. Davenport,

Your letter of 9th inst. was rec'd a long time ago, and would have been answered sooner but for the fact that I have been quite ill from an acute attack of dyspepsia, which is able to make one about as miserable as anything not in the list of mortal diseases.

Let me take up the points in your letter in their order. I think you are wise not to attempt to combine a notice of my list with one on Mr. Mason's. It might lay you open to the charge of prejudice, at least it would be more noticeable if published in that way. I have not seen M's notice in the Plant World which I do not take. Can't afford to take all these little publications, each affording a source of ventilation for a certain clique of writers. You are in error in calling it "Clute's Plant World". Clute's new publication is called "The American Botanist." I took the Bot. complex var's from Eaton's Ferns of N. Amer. as I supposed,

but on referring to my original notes I find that they read as follows:

subcompositum Lasch.
simplicissimum Lasch.
incisum Willd
compositum Lasch

How they got changed I cannot tell. In such a vast amount of detail, it seems almost inevitable that errors will creep in.

As regards B. tenebrosum I do not consider Dr. Christ as any judge of its rank. He has never seen the plant growing. Dr. Haberer, one of the best botanists I know, was inclined to think it might be a depauperate form as you do, but he discovered the plant growing in this region last June & is a firm convert to its specific rank now. Its time of fruiting, its habit of growing two thirds sunk in the ground, as well as its size & form have convinced him that it is a good species. On the same sandy knoll he found B. matricariae just beginning to fruit, where tenebros. was fully mature & shedding its spores. No, I could not accept Dr. Christ's judgment on a thing which he has never seen growing in its native surroundings. - I went to Alden Creek last week & got some nice specimens of Lycopod. tristachyum Lersch, (L. Chamaecyp.) Do you want any of it?

Sincerely Yours B. D. Gilbert

Clayville, N.Y., Aug. 31/01

My Dear Mr. Davenport

Yours of Ten days ago should have been answered sooner, but I have been away from home, into the North Woods to see if I could not pick up a bit. And I have, - a little but am not feeling quite up to mark as yet. I hope that Clute will be able to squeeze your note on Underwood into Oct. Bull., as it is too good to hold over. Und. is not at all disingenuous when he wants to make a point, & you certainly have him on the tray matter. As for B. tenebros. we will have to agree to disagree amicably, as I simply cannot see the matter in the same light that you do. I have no doubt that we differ in opinion on a number of points, but on the main point of conservatism we are thoroly at one, & I am satisfied we are right. In several acknowledgements of my list the writers have expressed their approval of my conservative attitude. I do not object to moderate & necessary changes, which have got to come or else

the science would be at a standstill. But violent & unnecessary changes are all the more to be avoided & decried.

I have heard nothing from Mr. Hill this summer except a very short note acknowledging receipt of List. I will write him however & tell him what you would like, in the way of roots. Mine came last fall by express & cost me about $3.50 for transport. I have discovered one small frond that is fruited, & it is now in press drying. Will send you a little piece as soon as it is dry, probably in about a week.

I am not trying to do much in the way of ferns nowadays. My head & stomach will not allow much work of that kind. The doctor promises better things before long, so I live in hopes. Meanwhile I am sitting around the house doing nothing & trying to keep my nerves quiet.

Sincerely Yours

B. D. Gilbert

Clayville, N.Y., Nov. 7/01

Dear Mr. Davenport,

Your letter of 3rd inst. has only just come, & I propose to write while it is fresh in mind, as I am so apt to delay if I let it go for a few days.

I regret very much to learn that you are so fagged out with business work & worry. If you could get a change even for a short time I believe it would do you a great deal of good. At our time of life it will not do to stick to work so long & so closely. We feel the effects so much more than we did in mid life. It is certainly not to be wondered at that you have not been able to do much work in ferns, as close use of the eyes is absolutely necessary in most of that kind of work.

Referring to what you say about Bot. Term. Queidense (I suppose you mean that) both Dr. Haberer & myself have collected a mass of material this fall & we find that Queidense

is as easily separable by itself as dissectum. If an unusually dissected form (& sometimes it is only sharply serrate) is to be separated as a variety, why should not a form with unusually entire pinnae & pinnules be treated in the same way? It seems to me that the argument is good in both cases if it is good in one. The Dr. & I expect to get together next Monday with our specimens collected this year & make comparisons. When Underwood was here in Sept. he declared, on seeing my specimen of Bot. ternatum from Japan, that it was not the genuine thing. There are two forms in Japan he says, & mine is the smaller form, a variety. Now mine came from Dr. Matsumura & has his label, & perhaps he might to know as well as Underw. what it is. I am willing to acknowledge that it is an immature specimen which probably had not attained its full growth, but I believe it shows the character of the species

& I am not at all sure that we cannot match it in this country. At all events, however I probably have the largest collection of these forms recently made in America, which will give us an unexcelled opportunity for comparative study.

As I have no facilities for photographing, I shall be very glad to lend you the proliferous soldiers for that purpose & will send them to you very soon. Will also enclose a nice specimen of Polyp. vulgare acuminatum Lister, which will be described in Jan. Bull. I concluded not to risk calling it Wollaston's lacinatum, as the description of that does not fit it at all closely, & there are probably no specimens in this country for comparison.

Good for Miss Slosson! Persistence does often win. If she has a cross between those two species, it is dollars to cents that it will prove to be ebenoides. I shall say nothing about it publicly

until such time as she may announce it. I do not sympathize with you in the wish that Mr. Dwerry might be elected vice-pres. of the Chapter. I agree with Clute that ours is distinctly an American organization, & its officers ought all to be American. Besides, the V.P. is a member of the Council, & very often there are matters which have to be acted on by the entire Council. It would be highly inconvenient to be obliged to write to England to consult a member on some question of which he might not even know the merits, while it would take two weeks or more to hear from him even if he did know them. No, no, - I am a know-nothing on this question, sure.

I also heard from Clute last week, & since coming home have sent him the description of P. v. acuminata, & some notes on Asplen. anceps, Lycop. tristachyum, & one or two other things. I see that Shimek also writes Nephrodium in his Ferns of Iowa which I rec'd last week. Farriss, on the contrary, uses Rudy's nomenclature in his pub. list of ferns in Poliet. Pub. Garden. Sincerely

B. D. Gilbert

Clayville, N.Y., Nov. 9/01

Dear Mr. Davenport,

Your letter was rec'd this morn. You need not fear that we shall exterminate the Botrychiums. There are dead loads of them in this part of the country. As Dr. R. says, it seems to be head quarters for them. I expect to take mine in to Utica next Monday & hold a symposium over them with the Dr. & his specimens. I have done up the two sheets comprising the one specimen of Neph. Sold. f. proliferum, together with a good specimen of Polypod. vulgare cuminatum for yourself, the latter being for yourself & not to be sent back as you once did with some specimens which I meant you to keep. If you look in the Farm Bull. for January 1900, you will find a short notice of it there. I did

(The Soldicum

not then know whether it would prove a permanent variety or a merely curious form, but as I did not find it again at the same place I concluded that it was an accident, so did not include it in my list.

Among other things at Ilion I got Lawsons var. vailiae on N. marginale. It is merely a large form of the species more extensively developed than usual on account of its size. But I got some little forms of same species, 6 in. to 1 ft. long, & perfectly fruited. One would hardly call them marginale, for the pinnae are simply pinnatifid & the sori are always in the sinuses & not on the margin proper. Have you ever seen specimens of that kind? What's the matter with our judge of elections? Like your self I have heard no news regarding the election. Notifications ought to have been sent to the successful

candidates a week ago, as the polls closed Nov. 1. Accept my congratulations on your election as V.P., as I suppose Miss Slosson knows the fact or she would not so inform you. If I am Prest., I shall be very glad to have you to consult with, as we generally harmonize pretty well. If the Plant World should get hold of the Fern Bull. I think the Chapter would have to start an organ of its own. The Plant World people are ticklers for the radical nomenclature, & would probably refuse to publish articles unless one would conform to their views on nomenclature. That is what the Torrey Bull^n does. Clute wrote me to the same effect, but did not imply that the negotiation had reached an acute stage. It would hardly be worth while for the Chapter to buy the Bull^n, as our

members would take the chap-
ter publication, whatever
it might be. And that would
detract just so much from
the value of the Bern Bill. as
an outside investment.

Glad to hear that Miss S.
has been so successful in
her efforts at hybridization.
It has always seemed to me that
the conditions under which
chenoides is generally found
growing pointed very strongly
to its being a hybrid.

I hardly think I can send
the pkge to mail before Monday
but will if I can. I have a cold
& sore throat & am staying in
doors for a few days, & hardly
like to trust the pkge in other
hands.

Very sincerely Yours

B. D. Gilbert

Elayville, N.Y., Dec. 7/01

Dear Mr. Davenport

I am sending you with this a piece of a frond of what I labeled in my herbarium two years ago Athyr. cyclosor. orientale. I did not publish it however, for the reason that I could get no fronds that were not too mature to show the true nature of the indusium. I have just come across this fragment, in looking over a lot of duplicate material, & from it was able to secure an indusium which shows the jointed cilia perfectly under a microscope. You may remember that in my list I said that "the specimens in the Eaton herbm from Brattleboro, Vt. & from Philadelphia are believed to be only densely fruited specimens of A. f. f. incisum, & the same is true of all the so-called specimens of Cyclosorum found in the East." I am

glad to be able to correct this myself, as I shall do at once. The eastern form differs from the western in some respects, enough so to be designated as a distinct variety, but it is cyclosomum all the same. On the specimen which I send, you will find indusia that can be detached & put under a glass. It comes from the same locality & was gathered at the same time as the type specimen in my own herbm. I have it also from Nov. Sc., & from my own locality here at home.

Yours sincerely

D. D. Gilbert

[illegible]

V

Clayville, N.Y. Dec. 13/0,

Dear Mr. Davenport,

Mr. Lambers has declined to accept the Sec-ship of Linn. Farm Chap., as I told Mr. Mason he would in advance. This necessitates appointing a Sec., & altho I am not yet President, Mason throws the responsibility upon me. Miss Wheeler who was the alternate candidate has been elected Sec.-Treas. of the Moss Chapter, & cannot, she says, assume the double duty of ours also. Her cousin Miss Julia Wheeler declines on ac of ill health, & Miss Pauline Kaufman ditto. So I am writing to ask if you can make any suggestions. Do you know anything about the qualifications of Miss Alice E. Dacy, South Boston; Miss Nina K. Goddard, Lexington; Miss Addie Howard, Amesbury; Miss Agnes Lincoln, Medford; or Miss

Ella A. Noyes, Newburyport?
These are all ladies you see, but there are so many in the Chapter that they ought to have a representative in the Council. Besides, it is desirable that the Sec. be within a moderate distance of the rest of Council, in matters of correspondence.

If you can make any suggestions, I hope you will do so at once. I have two offers out now, but am not very hopeful of either. If both should accept I should be in a fix. It is desirable to publish the appointment in Jan. Bull. if possible, so you see the time is limited.

Sincerely Yours

B. D. Gilbert

I had a very good & interesting letter from Mrs. Anthony a few days ago. She wrote about her finds in Nassau, among them an Adiantum which she did not know, but which from the characters she gave I told her must be either A. striatum or A. cristatum — which of these it might be could only be determined by the situation of the sori. She also said there was a small Davallia, but as she only gave its size, viz. 3 in. to 2 ft., I could furnish her with no clue. I know of no Davallia which fruits at 3 in. high that grows in the W. Inds, from whence these ferns come of course. D. striata fruits at 1 to 2 ft. & that would be more apt to get as high up as Nassau than any other species of the genus I can think of. Having no authorities with me however, I have to rely on memory alone. How is your son now? I hope he has recovered sufficiently to give you some let-up in your work. Please keep the specimen of N. Goldie^na until I return home.

Very sincerely Yours

B. D. Gilbert

204 Oglethorpe Ave.
Savannah, Ga.
Feb. 15 - 1902.

Dear Mr. Davenport,

Almost simultaneously this A.M. came your letter & the Jan. No. of Fern Bull. Chute wrote me that the publishers had driven him almost frantic with their delays. You will probably be surprised at receiving a letter from me at this point. I have now been south for a month past, & expect to remain until some time in April. I have had trouble with my throat ever since cold weather set in in November. There is no cough & the trouble is entirely catarrhal, but it is at times not merely uncomfortable but painful. However, I think there is some improvement & hope to feel much better by the time I go home. I have had catarrh all my life, but it has seldom as

such an active form as it has this season.

My copy of Rhodora is addressed to me at Clayville, so I shall not see it until I go home. Then I promise myself much pleasure in perusing your articles.

Allow me to thank you most heartily for your considerate and friendly notice of my "List", in the Fern Bulletin. It was all & more than I had any right to expect. Underwood seems to let me severely alone. Of course that relieves me from any necessity of answering him, as I should be much tempted to do if he attacked me as he did Clute in Torreya. The Jan. No. of the Bulletin carries out fairly well the program laid down for it by Clute. It is getting to be a fairly good sized publication, with its 32 pages. Whether it can be maintained at that level remains to be determined. I sincerely hope it can.

The annual report of the Chapter is nearly ready for the printer, & will be entirely so by the time we have succeeded in making a bargain with him. The printers in Binghamton want to charge us more than they have done heretofore. Do you think they ought to? I understand that the typesetters in N.Y. state struck & secured an advance in their wages last summer. That may be the reason why our printers want to charge us more money. I am corresponding not only with the Bing^n people, as Mr. Clute requested me to do, but with the Utica firm which published my list & which is the largest job printing concern in Central N.Y. If they will do it for us cheaper, I see no reason why we should be obliged to stick to the Bing^n firm, do you? If it is desirable to put on the title page "Published by W. N. Clute & Co.", I hardly think Mr. C. would have any objection, as that is about the only advantage he would receive from having it done in Bing^n.

204 Oglethorpe Ave.
Savannah, Ga.
March 16 - 1902

Dear Mr. Davenport

On coming home from church just now I found from last letter along with the mail. Yes, I rec'd your former letter claiming Dr. W's which I will return in this. The copy of Rhodora also came safely & I have to thank you for it. It was reminded of my reminiscences in a recent Boston Herald paper which put it down to one's general laziness in correspondence when away from home. I thank you very much for remembering to send me a copy, which I probably not have seen otherwise until my return to Clarksville. I expect to leave here April 7 to go to Charleston for a week then directly home.

In reading over your interesting article, may turn up. I met a lady in Charleston who is interested in botany & she is going to try for Pursh's form of Woodwardia. Perhaps we may find out something more about it. I do not by any means consider Hooker as infallible.

My throat is better but not well & I do not know that it ever will be. Every change of weather seems to bring the soreness back upon me more or less. I find a considerable number of people who have come south to get rid of catarrh, or at least to get some relief from it. They are mostly people who are about the same age as myself or perhaps older. I have had catarrh all my life, but it seems to take a more active form as I grow older.

Sincerely Yours

D. D. Gilbert

it occurred to me to ask why it would not be appropriate to classify Onoclea & Struthiopteris among the evergreen ferns? Their fertile fronds always remain over till the next season, & why should not fertile fronds be recognized as well as sterile? True, they are not green, but they are complete & perfect, even more so than during the very short time when they are green. I thought I would suggest the idea to you & see what you thought of it. Of course we shall stick to Nephrodium. I have always kicked on Dryopteris, & Aspidium cannot ~~take~~ be used for both shield-shaped & kidney-shaped indusia. My own correspondence shows me that since the publication of my List there is a quite general adoption of Nephrodium. Botanists seem to appreciate the unfitness of Dryopteris to fill the bill.

The MS. of Annual Report has gone to the printer & I have just rec'd acknowledgement of its arrival. I finally made an arrangement with the Rochester Club which was fairly satisfactory, & we would gladly have taken to have the work done by them, as it always has been done.

After luncheon had given you each a blank, he took one also, & I will upload it for you to see. He stated the occasion of one of my notes in Jan. Bull. to quote into me on the "80-year rule." I at once wrote him that I owed an apology to M. Brown, & that if I had known the fact which M. Brown, I would never have disturbed the finely descriptive name of Lycop. clavatum for the wholly misleading one of L. tobacinum.

I take before leaving here to be able to collect something for two days now we have had a fine warm rain & the grass & gardens begin to look quite green. I do not expect to find anything worth while, but one never knows what

Clayville, N.Y., July 30/02

My Dear Mr. Davenport,

I have certainly been very remiss in allowing your interesting letter of a month ago to remain so long unanswered. But I have not been well, & have been away from home twice meanwhile, which has largely taken up my time. My throat trouble has been diagnosed by a specialist in N.Y. & another in Utica as rheumatic; & as I have suffered from it ever since last fall, it is not to be disposed of in a hurry. There is no cough connected with it & I have actually gained a little in weight this summer, but the throat is very uncomfortable & harassing all the same. I have been to the North Woods twice, in hopes of some improvement, but the excessive dampness of the weather made those experiments a failure, & the last time I came home

I was worse off than when I went. However, I am now under a regular course of treatment & am glad to say that within the last few days I can feel a decided improvement.

Dr. Waters has requested me to forward to you the enclosed photos for your inspection. They are by no means the first of his which I have seen, & in my humble opinion they represent the worst kind of illustration I know of, unless it be those in Hook & Sawyer's Gallery. I simply cannot understand how such things can be made with a camera. I suppose he has written you that he would like to have these returned to him.

As for Underwood, no doubt he feels that the whole brunt of his romance must fall upon himself, & it makes him cross-grained to be opposed, — the more so because the opposition carries so much weight. That does not justify him in being ungentlemanly however. You take the right course in ignoring him personally entirely. I am very anxious to see your paper on Nephrodinum. When will it appear?

Sincerely Yours

[illegible]

Clayville, N.Y. Aug. 15/02

Dear Mr. Davenport,

Your letter & the Aug. No. of Rhodora are received, & I must confess there is more of this Nephrod. question than I had imagined. As it now stands, you are unquestionably ahead, & I do not see how your argument can be answered except by the claim that Dryopteris has the precedence in point of time of publication, which is a foolish claim on account of the utter discrepancy between the thing itself & the description. I remember Mr. Jennison writing to me that he could never recognize Dryopteris because it was a bastard name, & that describes it as completely as a single word can. The article is, I think, the most convincing & able of any that I have seen from your pen.

I do not recall what title Mr.

Eisson gave to her paper in Torreya, but it would not be at all surprising if she were to be influenced by Columbia, residing as she does in its shadow. You know of course the tactics they pursue there. No one can publish either in the Torr. Bull. or in Torreya unless he or she will adopt the nomenclature which they sanction. By this means they fairly bulldoze writers into agreeing with them. I regret to hear that you are worried about business matters at your time of life. Years ago, I cut loose from active business, with a very modest income, simply because I thought that it might lengthen my life. And I have no doubt it has done so. Can you not do the same? I care not how small a man's income may be — i.e. if it amounts to a competence for living, he is better off to be relieved of the responsibility of business affairs after he is 60 years of age. My throat is very much better this summer & my general health also. The Dr. calls my trouble a species of rheumatism in joint & has cut me off from red meat & all sweets, but I'm afraid I don't follow the prescription closely.

Yours sincerely B D Gilbert

Danville, N.Y. Sept. 19/02

Dear Mr. Davenport,

We are asked to publish a list of officers in the C.C.Y. Bulletin, to be voted for in Oct. How does the following list suit you?

For President.

George W. Davenport

Dr. C. V. Hancock

Vice Pres.

Rev. J. M. Newman

G. A. Hoosier

Sec.

K. D. Hance

Mrs. E. J. Pritchard

Treas.

Wm. A. Graves

J. N. Kimball.

Rowe and Travis both consented to work again if elected. Last had very much and in vain to retire. Mr. Newman is willing to let his name stand for Treasurer. Mrs. Pritchard is not very well. Yours truly,

J. N. Kimball.

Kindly send me a copy of your as soon as possible. We are rather late in getting copy to Hubbell, but Mr. Graves has been away from home for some time, and I could not get the information which was necessary to the important copy.

Yours truly

S. E. Gilbert

I would order to pay Mr. Saunders on first-for Victor, but Mrs. says I would not accept.

How is your health nowadays? I am so full of Chap. matters that I haven't thought to make inquiries about yourself in the body of my letter.

Clayville, N.Y., Nov. 20/03

My Dear Mr. Davenport,

Although you declined a nomination for any office in the Rem Chapter next year, you're are still one of the executive Council for this year, & as such I desire to consult you.

Mr. Clute has called a meeting of the Chapter at St. Louis in the holidays at the time of the A.A.A.S. meeting. He has gone ahead & made arrangements for speakers &c without consulting the Council, to whom alone these duties belong, & now wishes the Chapter to foot the bills. The officers consider this a high-handed proceeding on Clute's part and are disposed to refuse to pay. It is not probable there will be more than 6 or 8 members present, although the outside attendance may be very good. Will you kindly let me know what you think about it?

And there is still another matter about which we want your candid opinion. We have all become pretty tired of Mr. Clute's arbitrary & domineering manners. He habitually talks & acts as if he owned the Chapter & was at liberty to do anything he chose where it is concerned. So the officers and ex-presidents are considering

the plan of withdrawing from Clute & the Fern Bulletin altogether, & starting a publication belonging to the Chapter. No doubt you will think at once of the nomenclature that will be used, but that will be no bar, as each writer will be allowed to use the names he prefers, providing they are the correct names under the system which he uses. I suppose we would have to reduce the dues to 75c., so that a membership would cost no more than a subscription to Fern Bull.n Clute would undoubtedly do all he could to injure us, but I believe we could hold a majority of our members in spite of him. as we could get better material for our publication than he could, and the magazine would cost us no more than it does now i.e. than what we already pay him. Mr. House & I favor the change, but I have not yet heard from Mr. Graves who is to be Pres. next year. Of course Clute & a few of his friends would withdraw, but that is no more than we would expect. There would be no controversy. The Treas. would simply write Clute that the Council had directed him not to order any more Bull's. Then we would issue our own. If it is done it must be done at once, as the new Council comes in in Jan.y next. Please think it over & let me have your opinion as quickly as possible. Sincerely Yours

B D Gilbert

tho' with little freezing & no snow whatever. But the skies are lowering, & there is more or less cold rain, & I do not improve as fast as I could wish. Probably I ought not to expect it at my age. You & Mr. Parish & myself are pretty nearly the veterans of Botany now & I hope to keep in touch with you two as long as we last. I have had heard from Mr. P. twice this winter. You say nothing about your own health, so I hope you are better than you were a year ago. Anything that you may have to send to me will reach me as safely here as it would in Claqville. I shall not go home until the middle of April. Have done very little with ferns for a year past. What little study I have been able to do has been devoted to the mosses, & I am getting together

V H

204 Oglethorpe Ave. W.
Savannah, Ga.
Feb. 11-1905

Dear Mr. Davenport,

Your postal has been forwarded to me here where I am spending the winter. It seemed good to see your handwriting once more. You may remember that last spring I had an attack of nervous prostration. During the summer I quite recovered from it, but when winter came again & I was practically shut up in the house, the trouble came back upon me. So I just pulled up stakes, & came down here the latter part of December. Even here the weather has been pretty bad

quite a respectable collection. Could you tell me when I can purchase a copy of L. & G's Manual? It is out of print, & altho' I have had one for use in the past, belonging to Dr. Lederer, I am anxious to own one myself.

The Index to Ent. Bulletin (first ten vols.) is at last issued. A copy came to me this morning for the first time. Now the material in those vols. will be available.

Do write me about yourself, how your health is & what you are doing in science.

Very sincerely Yours

C. F. Hibbert

Clayville, N.Y., June 29/05

My Dear Mr. Davenport,

Have you a spare frond or two of Miss Slosson's Nephrodium Pitts, or dense? I have not seen it, but have recently had my attention called to it by Mr. Eggleston's list of Vt. ferns and in the Fern Bull. By the way, let me ask you if that is properly named? Why should it be, united the same as a genuine species would be, when an acknowledged hybrid? It seems to me that the true designation ought to be N. marginale x spinulosum, in the same way that your N. cristatum x marginale is designated. If hybrids are to be written the same as original species, then the florists' catalogs are as scientific as Gray's Botany. I don't believe in that sort of thing.

Have you seen Underwood's

recent jugling with Potyscimum.
It is in the "Trade" Torrey" which
has only just come to hand. He
changes his former P. occidentale
to P. silaifolium Desf, and his
former P. silaifol. to a new species
viz. P. californicum Und. this
he claims is in accordance with
the latest researches. Do you think
that he has ever seen Desf's or be
specimens of P. silaifol.? In regard
to P. ~~silaifol~~ occidentale he says: "The relation of
D. C. Eaton's sub-var. intermedium to
this species was pointed out to me long ago
by Mr. Gilbert, & I am inclined to regard that
form as representing the eastern extension
of the western species or vice-versa". I told
him plainly that I considered his occident.
& Eaton's intermed. as one & the same
thing.
Inasmuch as I am
a beggar for the Pitts. Course you
must allow me to pass the postage on
same. Accordingly find close 10c in stps.
If that is not enough I will send more. That
I can give you in exchange I wonder?
Heartily Yours P. D. Gilbert

Clayville, N.Y., Jan. 25/06

My Dear Mr. Davenport,

You my nice bonds of Dirsonia came to hand in good condition last evening & I have enjoyed looking them over exceedingly. A bunch of them growing together in the garden must be handsome & fragrant. One of these days I must try to send you some things in return. That will interest you. I am certainly deeply obliged for these, which will go into my beds at once.

Sincerely Yours

F. D. Gilbert

It has just occurred to me that you may think it queer that I have said nothing about your argument on species, i.e. that the generic & specific together are what properly constitute a name. I should have said something if I had not agreed with you entirely. Your citations from Gray are most apposite & can be only answered by setting them aside altogether. Underwood is very fond of quoting Gray to the effect that a species can have but one name, but he doesn't show what that name is or how it is formed. I think you have by all odds the best of the argument.

Clayville, N.Y., Jan. 6

Dear Mr. Davenport,

I am writing again so soon because I want to make a suggestion. Your elucidation of Nephrodium seems to me admirable & convincing. But I do not like the retention of Eu-Nephrod. for the section with conniving veins. It seems to be too contradictory. It simply perpetuates Hooker's mistaken classification. In fact it changes his classification in no way except in the substitution of Nephrod. as a sectional name in place of Lastrea. If you would allow me to arrange it I would make it Nephrodium Desv.

Sections —

Bar veins Eu-Nephrod - Davenportia - Gilbertia
Conniving veins Davenportia - Gilbertia

This would be in line with Fetigueria Lorinseria & other sectional proper names. If you extreme modesty should decline this, (which I hope it will not) then some name might be devised referring to the connection

of the fascicles of veins. This it seems fame is due to yourself, rather than to adopt such tautology as the use of Hooker's name involves.

Yours truly

B D Gilbert

Clayville, N.Y., Feb. 19

Dear Mr. Davenport

Your note just rec'd. I am writing only to say that I have specimens from Europe also, some of which are labeled B. ternatum & some B. matricariae, but they are all the same & are all matricariae. They are not at all like B. ternatum from Japan, which I have also. The only thing I have seen that matches it is a single specimen collected by Dr. Rabeler last fall. This was so peculiar that he could not help noticing it, & kept it by itself. It is one of three peculiar forms which I did not attempt to determine because there was only one specimen of each. But while the sterile leaf is very much like that of Japan, the fertile frond is cut deeper & more delicate, & I would not take the responsibility of saying that it is ternatum. In fact, I do not believe that the real thing has ever been found in this country as yet. I can't say what may be found in the

future.

I wish you could find time to simply answer the following questions:

Do you believe in Adiant. Jordani against A. emarginatum?

Do you believe in ~~Polypt~~ Lemmonii against D. polypodioides?

Do you believe in Cryptog. Stelleri against Pellaea gracilis?

Do you believe in Phanerophlebia micrulata against Aspid. juglandifol.?

Martens & Galeotti show by their figure how this species varies.

What do you think of Onithopteris against Anemia?

And Gymnopteris against Gymnogramme?

And Cheilogramma against Taenitis?

You can answer these on a postal card if you choose, in the shortest possible manner.

The box containing my ferns has not yet come, but presume it will be here in days or two.

Hastily Yours

D. C. Gilbert

I will address this to your place of business Boston, where it will probably reach you a little sooner.

Clayville, N.Y. Feb. 20

Dear Mr. Davenport,

Just a line to let you know that the stge arrived safely this P.M. Many thanks for the Dicksonia. It looks very much like my filix foem. of similar character.

Should not wonder if you were right about the Arizona specimens of Nephrod. Fact is they are hardly complete enough to form a settled judgment on. I did not intend to have you return the Alf. specns, but probably you have just as good of your own.

My list is coming on pretty well, but as it will contain considerable original matter, I don't like to hurry it too fast. Have been feeling miserably today; don't know yet whether it is liver or a cold. Have eaten nothing, which is all right on Ash Wednesday, eh? Fasting is often the best medicine.

Sincerely Yours

B. D. Gilbert

Clayville N.Y. Feb. 27

Dear Mr. Davenport

I had to write to Dr. Haberer to get some specimens of B. dissect. being entirely out myself. He sent a lot of them & I forward the whole pkge with this. There are our four forms found here & a specimen of B. occidentale from New Westminster. These are all I am able to send you. I have matricarial from here, but no duplicates. Neither have I duplicates of bitternatum. Mine are from Ala. By the way I hope you accept that as a good species. If you should not I fear it would disappoint your best friends, all whom I know regarding it as one of the best species in the genus. And the same with Eaton's tenebrosum. I have a large series of that, from sterile leaves no bigger than a pinhead to those with the leaf an inch long. But in no case can I see that it at all resembles any other species. I understand that Clute proposes to make it a var. of neat-folium, but that is simply ridiculous. It doesn't come anywhere near that. Have you a full-fledged specimen of B. simplex compositum that you could spare?

Sincerely Yours

C. D. Colbert

Clayville, N.Y. May 1

Dear Mr. Davenport,

Your pkge containing Millspaugh's specimens came last evening & I have just concluded work on them, - not a very long job. Altho' several of them have no fruit, I think I have located them all except one, & that one I can't even hazard a guess upon. I have specimens of them all except this one, and the entire absence of fruit on this gives one no clue whatever, even to the genus. Such specimens have no value, and Millspaugh ought to know better than to ask any one to bother with them. However, I was rather glad to see them & exercise my guessing faculties on some of them.

You probably have rec'd Maxon's catalog. As I expected, he follows Underwood slavishly, but I do not understand why Und. has re-named Lycopod. adpressum L. & W., I made it Lo. Chapmani Und. Can you explain it to me? My list will be far from such a handsome piece of typographical work as N's, but I think

it will appeal to the common sense of botanists more surely. I have not had time to examine Maxon's carefully as yet, but mean to do so as soon as I can get time. Clute writes me that he proposes to publish a list after both his & mine are out. What his idea is I can hardly guess, except that he thinks that even I will not be conservative enough. He has been trying on one pretext or another to get a preliminary look at mine, but has not succeeded, & will not until it is out.

You will find slips on each sheet of Millspaugh's ferns giving my views in regard to them. I will return them at once.

Sincerely Yours

J. D. Gilbert

Clayville, N.J. May 25

Dear Mr. Davenport,

I have had a little correspondence with Prof. Lemmon of Cala. and he agrees with Dr. Underwood that his Shasta specimens are not ~~Polypodium~~ Nephrolepis Nuchrioides. I had expressed some doubt about Dr. U's decision, and Lemmon simply paralyzed me by asking if I had seen any quantity of either Nuchrioides or Lemmoni to make comparisons. If not, why should I doubt Dr. U's determination, since he has plenty of material to study & make comparison with. So I was obliged to acknowledge that I had never seen any Nuchrioides from So. Amer. & had no right to form any independent judgment. I had simply banked on Prof. Eaton's determination, but it is quite possible that even he did not have ample material for comparison. Prof. E. seems to have seen the So. Am. fern & has no doubt about the Shasta fern being distinct, so I shall give it as N. Lemmoni.

I intend to send you a proof of my Preface next week & would be

obliged for any suggestions you may have to make. I expect the whole thing will be in type next week, but I shall have to see two or three revises.

I notice you say you may have some scraps of my desiderata other than the four things you mentioned. Let me say that even a scrap of any one of them will be a great boon, as it would enable me to remove an asterisk from that species or variety.

Very sincerely

B. D. Gilbert

Clayville, N.Y., May 28

My Dear Mr. Davenport,

Your letter enclosing the review of Mason is rec'd, and it is needless to say that it meets my views to a T. The only thing we do not agree on completely is Eaton's R. tenebrosum, but that is a very small matter compared with our entire agreement on the rest of list. I have listed Mrs. B's Ophioglossums as mere forms, & to speak my mind freely I do not hesitate to say that if Dr. W. had not been so intimately associated with the Britton, & no doubt deeply indebted to them in various ways, his own judgment on Mrs. B's species might have been different. Besides, it is a matter of upholding Columbia.

I laughed right out, most heartily, when I came to your very neatly put criticism on M's R. vulg. deceptum. I had thought I would not give it, not having seen either a specimen or a plate, but Mr. Clute writes that he has seen it and

considers it worthy of citation. So I see no objection to giving it under Dr. Millspaugh's name, which according to Maxon's own statement was its first designation. He discards it as a varietal name because some one else had a species so named, but if one acts generally on that principle all the "serratums" & "cristatums" &c must also be discarded, as it is easy to find species so named in the same genus.

So far as my notes are concerned, you are at liberty to make any extracts you choose from them, without using my name. The temptation to publish them was great when the opportunity was so inviting, but it certainly would be very impolitic under the circumstances.

I have already started a series of Athyr. cyclos. in press for you, with a frond not yet fully unrolled, about 6in. high, & covered with the large dark brown scales. I shall continue it along, with gradually larger fronds so that you can have a good series. Your experience with the indusia of A. fil. foem.

is a duplicate of my own two years ago. I have never seen a truly ciliated indusium on Aff. yet.

The letter of Dr. Christ has arrived and I will keep it for a day or two until I have time to copy the translation. It is a valuable document. I shall be glad to obtain even scraps of any species or variety which I have not got, & it is very kind of you to take the trouble to search for them. Hope you can let me know results very soon, so that I can cross off as many stars as possible. I find that my herb. is also lacking Polypod. vulg. angustum and auritum, your Cystop. frag. laciniata, Pellaea occidentalis, which you score so that I shall place it back under atropur. as var. acciden. & Camptosorus r. internued. Arthur. Mrs. Horton sent me a fragment of her fern & promises better this summer. Fortunately my printers have not sent me any proofs this week, so I am still able to add or subtract anything I want to.

Your MS. will go back with

this letter. If you defer publication until mine is issued (which I think will be some time in June) let me modestly suggest that you do not speak in too high terms of my Catalog or its editor.

Along with the Athyrium roots came one of Polyst. munitum, another of Lomaria, & I think one of Polyst. Lonchitis. These are all coming up, altho much later than the Athyr.m But they are no later than our own Nephrod. marginale which was so late in showing its scrolls that I began to think something had happened to it. Glad to hear the Dicksonia cristata is growing so finely. I can't understand why Maxon should have omitted that.

With best regards I remain
Very sincerely Yours
B. D. Gilbert

I shall be sending you my counterfeit presentment in a short time.

Clayville, N.Y. June 11

My Dear Mr. Davenport,

Your letter came this morning and as I intended to write you today, I will do so in answer thereto. As I wrote you last, I made a pretty careful examination of those aculeate forms of Polyst. I really wanted to find good reason for calling californicum a species & making scopulinum a variety under it. But on setting out the whole display of specimens I could not help seeing that they were all forms of one species, only separated by matters of width, size & cutting. So, after spending about a day making notes, I found myself back just where Prof. Eaton was when he prepared the "Forms of N.A.", & there I propose to stay so far as the aculeate forms are concerned. I very soon became satisfied that P. Lemmoni was a distinct thing, & under the circumstances, as I have never seen any So. Am. mohseides & Underwood has, I think it best to accept his

determination. I don't want to appear unduly obstinate or prejudiced, you know. The case is quite different with Adiant. emarginat. Here we have Hooker's figure in Species Fil. as a guide, & it is exactly a representation of our Cala. species. So I have no hesitation in adhering to emarginatum.

As for the authority on Botrychia, you may be right, but as it is my desire not to introduce any more disturbing questions than are necessary, it will probably be best for me to let Eaton's name stand.

Ophioglos. arenarium is certainly a form, and so I have listed it together with Engelmanni & Alaskanum. B. matricariae is of course the Var. rutaefolium A. Br. given by Eaton as our only European form, which "occurs in America only in Newfoundland & the neighboring region." N. Brunswick. Here he was mistaken, as you have found it in Dedham, & I in the North Woods near Dorows, near where Mrs. Barnes used to find as many of her Botrychia.

The list is all in print, but I shall have to see one or more revises yet before it will be safe to publish. Hope the Bot. Gaz. will use your review of Maxon.

Cordially Yours B. D. Gilbert

Clayville, N.Y. June 20

Dear Mr. Davenport,

Your kind letter of 6th inst. should have been answered sooner. No apology was needed on your part for not answering my note from Savannah, & I regret to learn that you have experienced such a series of bodily troubles. However you are better now, & as the warmer weather comes on you will probably get over your cold & its results. Perhaps you may think it is gratuitous on my part to offer advice, but I also am very sensitive to colds & have adopted the plan of going south for the latter part of winter & early spring & find that it has been a great benefit to me. I believe it would do you good also, for as we get on in life it behooves us to take extra care of our health if we expect to live out our natural span.

I am much pleased to learn that you are likely to be at the N.Y. meeting. Miss Slosson writes me that at your suggestion she has related, or is to relate, some of her "Experience in Hybridizing Ferns".

A capital idea, but I regret that she does not have confidence enough to read it herself. Probably Mr. Maxon will read for her, & I shall have to read the more general portion of Eaton's paper on Isoetes. Mr. Clute will have a paper for publication in the Proceedings, but I presume it will not be read as he does not think he can be present. There will be enough material however to fill a couple of hours very comfortably, & that is as much time as we are likely to have at our disposal.

Hoping to see you in your usual health at N.Y. next week,

Yours sincerely

B. D. Gilbert

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Clayville N.Y. July 7

Dear Mr. Davenport,

I meant to have written you soon after returning from N.Y., but one thing and another has intervened to prevent. I wanted to tell you how much gratified we all were to have you attend the meeting of the Fern Chapter and take an interest in its proceedings. For one, I felt it an honor that the veteran fern student (for we are all only students) of the country should come from Boston to take part in the meeting.

But the attendance this year did not compare with that at Boston two years ago. That was due, in part at least, to your influence & efforts to make the meeting at Boston a success. The light-

attendance in N.Y. was no doubt a result of two or three causes. Bronx Park is too far away from the city to encourage much local attendance: N.Y. members were somewhat put out by not being appointed on the committees, as they ought to have been; and the week was an unfortunate one for the A.A.A.S. as well as for our chapter, inasmuch as it was commencement week all over the country & professional men largely had to stay at their own institutions. All things considered, our chapter probably fared as well in attendance as any of the sections, there being only about 500 present in all. Will you kindly let me know how many parts there are to be of your new school

work on ferns and what is the subscription price for copies with the larger plates? I am glad you are to get out some thing of this kind, as I know it will be framed on moderately conservative lines. Were you aware that Mr. Maxon is at work on a list of all the Nor. Am. ferns, giving synonyms range & a good many details? I understand it will follow Dr. Underwood's new edition completely in nomenclature. If that is so, I have it in mind to issue what I may call "A Conservative Check List of Nor. Am. Pteridophytes", making it very inclusive & putting both genera & species on an alphabetical basis, for greater convenience in reference. Please do not say anything about the matter, as I have not yet

mentioned it to a single (4
botanist before this. At present
I am waiting to see both Dr. U's
book & Mr. M's list. My action
will depend somewhat on the
character of those. I should not
recognize all of U's Botrychia
as species, because I do not be-
lieve they are all tenable. Do you?

By the way, I wonder if
you have even a single specimen
of Ophioglossum Alaskanum, or
Botrychium boreale which you
could spare me? Of course there
is nothing in American species
that you want, but I could give
you some oddities that might
please you, or interest you, rather,
in exchange. Or something from Jam-
aica perhaps you would prefer.

Excuse this paper, but I was too hot
& lazy to go down stairs for something
better.

Sincerely Yours A H Gilbert

Clayville, N.Y. July 23

Dear Mr. Davenport

Two weeks ago or more I wrote to you, but not having your address before me I addressed the letter from memory & perhaps it has gone astray. I wanted a prospectus of your new work on ferns. I want to subscribe for it but do not like to do so until I know something about its price & other details. If you will kindly send prospectus giving prices of different sized plates &c, I shall then know what to do.

Hope your trip to N.Y. was not detrimental to you. I have been down in central Pa. for a short time.

Very sincerely Yours

B. D. Gilbert

Hagville, N.J., Aug. 23.

Dear Mr. Davenport,

Enclosed please find list of my additions to distribution. You did not have in Brit. Colum. & I do not know as you will care for it, but I thought it might be as well to jot down the No's for it as they came along. Perhaps it might be useful some time. Your list has neither Pellaea intermedia nor P. marginata, so I put in my localities for those species, altho you probably have them from the same sources. I am mailing the list to Mr. Clute along with this letter, explaining to him what you want.

By the way, this list enclosed does not contain any revision of Athyr. fil. foem. As I have about 110 sheets of this from all over the country I did not take the time to compare with your list, but if you would like to have me do so, I will make out a list of the states from which I have it.

If you propose to make cyclosorum a full species, as I am fully persuaded it is, I can give you the distribution of that also. I happened to say to Dr. Underwood that I regarded it as a good species, & you see he puts it in his new edition as such, but gives no description except to say that it is larger in every way. The probability is that he does not know its distinctive points. Have you rec'd his book yet? If so, it must have been a shock to you.

You don't know how glad I was to receive those specimens of B. boreale. They are so good that I should be extremely glad to have your own labels to accompany them, if you can find time to write some. I am surprised that Mrs. Britton should keep all of your Ophiogl. Alaskanum, altho that seems to be the style at Columbia in order to make a good "type" sheet. Before long I propose to send you a little page of West India species which I think you may not have.

Cordially Yours

B D Gilbert

Clayville, N.Y., Aug. 25

Dear Mr. Davenport,

Will you allow me to call your attention to a matter which has long been a puzzle to me? Years ago Prof. Lemmon discovered a fern in the Huachuca Mts. which Prof. Eaton at first published as Aspid. Karwinskyanum. Afterward he, or some one else, changed the name to A. patulum. Now I have four small fronds of Prof. Lemmon's collection. I also have a frond of Pringle's from Mexico, which is labeled A. patulum. But none of them agree with a frond from Jamaica bearing the same name and which I have no doubt is the genuine species. Nor do the others agree with Jenman's description, which is extended & very definite. They do agree however with the descrip. of Nephrodium Karwinskyanum in the Synop. Fil. I would suggest that you run over your own and Cambridge & see what material they have there in these two species and also read over Jenman's description in his Ferns of Jamaica, published

in the Jamaica Bot. Bull. which you will find in the herbm library unbound. My 4 fronds from Arizona are all small - not much over a ft l. stipes & all - subdeltoid in outline, in one case broader than long. The stipes is delicate & two of the fronds have the rhizome at base. Now in patulum the stipes has a thick mass of scales at base while Karwinsk has none or very few, which is true of the Arizona plant. It differs also in the cutting & shape of pinnules as well as in other ways which you will see by comparison. N. Karwinsk does not grow in the West Inds, so Jenman has no description of it, but the descrip. in Synop. Fill seems quite satisfactory & to my mind accurs to identify Lemmon's fern. It would be a fine thing if the fern could be restored to Prof. Eaton's original determination. There is so much criticism of him & of his work nowadays, that it would be a satisfaction to see some of his critics get a set-back. Of course I am merely making a suggestion to you. If on examination you find I am wrong, there is no harm done, & I shall accept your conclusion cheerfully. Sincerely Yours B.L. Gilbert

Clayville, N.Y. Aug. 27

Dear Mr. Davenport,

I happened to have out some of my Jamaica duplicates today & took the opportunity to make up a little pkge for you. I trust that some of them at least will be new to you. You will notice that I have labeled them in accordance with Jamian's nomenclature, as I consider him by far the best & safest authority on the West Ind. species.

Please don't think that these specimens place you under any obligations whatever to me. On the contrary, I have long felt that I wanted to send you something that might prove acceptable, in return for favors of the same kind which you have shown to me. Perhaps you are too busy at present time seen to look them over, but you can lay them aside until the spirit moves, then you may enjoy them.

One favor I might ask, which is that you will let me know some time when you are sending me a line, whether your old correspondent Mr. J. Reverchon, of Dallas, Texas, is still alive, & if so whether he still resides at Dallas. There were a few things which he sent you that I would be very glad to get, such as Pellaea aspera, P. flexuosa, Notholaena candida & Cheilanthes Eatoni. I would write to him if he is still living & try for some or all of these. Also is Mr. Suksdorf living & where? He sent you Aspidium scopulinum which I lack. I hope you are getting on well with the Manual. Since writing you last I have sent a frond of Lemmon's Nephrod. Karvinsk. to Mr. Jenman and asked him to compare it with N. patulum of West Ind's & let me know what he thinks. He holds patulum & Mexicanum as two separate species.

Sincerely Yours

B. D. Gilbert

My health is much better.

Clayville N.Y. Sept. 70

My Dear Mr. Davenport,

I owe you an apology for my long delay in answering your notes, but the fact is that besides being very much out of sorts I have waited for the Athyrium fronds to become dry in order that I might send you a page at the same time that I wrote you. Today I have put up the page & it will go to mail with this. The cultivated fronds are not a great success, the two largest being what I have called forma Fillix. But you will find some much better specimens in another sheet, one being the tip end of a large frond with indusia which I think will show the character very nicely. I came upon it when looking over my duplicates, not knowing that I had such a specimen. There is also a full frond of Athyr. cyc. Filix femina with red stem, besides several small fronds in different stages of growth, the cultivated one that is not yet unrolled being particularly interesting. I have also enclosed a

specimen of Lycopodium Chamaecyp. from our N.J. state station, which I am offering to the Naples in the next Bulletin.

I congratulate you on settling the question of N. mohricides in favor of Eaton. That is the way it will have to stand, & I half suspected so before I put it as Lemmoni. The presumption was however that Und. had seen good specimens of the original plant, & as I had not, I was unable to dispute him. Besides, Lemmon was so sure about it, that it was almost impossible for me to do otherwise than as I did. Perhaps the reason why you have not heard from Und. is because he has been absent from home – somewhere in the west – for quite a time. I had a line from him today saying he was on his way home & might stop over to see my Botrychia. So I rather expect him here tomorrow P.M. but do not imagine he will stay long. Ever Sincerely Yours B D Halsted

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Clayville, N.J. Oct. 11

My Dear Mr. Davenport,

I was sorry to learn that you had met with an accident to your eye, but as it seems to be recovering it will probably be no permanent injury. From my own experience this fall I know what it is to be debarred from work on account of trouble with the eyes. With the advent of cooler weather my eyes have improved very much, but I have to be careful not to use them too steadily.

Now let me take up your letter and answer the points in it seriatim. Then I shall not forget any of them.

I think if you write to Mr. Maxon you can get him to loan you the Florida specimens of Acrost. lomarioides from the National herbm. Those will undoubtedly be more ample in every way than my own, which came from there also. You no doubt have plenty of A. aureum in your own collection. I have a small root specimen of this, but none of the other. But the difference between them is striking when seen growing naturally. A. lomar. is a larger plant than A. aureum & its habit of growth with the comparatively short sterile fronds outside of the tall fertile ones in the center, which are fertile down to the very base while aureum is not, (bad English, but it is written & you will understand)

renders it a marked plant. You rather begged the question when in speaking of size you stated that A. aureum in Florida grows to the height of 10 to 12 ft. How do you know that? Have you ever seen it? Or do you take Eaton's statement for it? Eaton did not know lomar. as such, & took everything of that kind for aureum. I have seen them growing in Bermuda, & beg leave to doubt if aureum grows to that size. I believe it was lomar. of which he was speaking when he made that statement.

I have no rootstock specimens of A. cyclosorum but the species does not depend on that. It is the indusium which tells the story, fringed as it is with jointed cilia, and I will send you my specimens to look over & my description of the species also. It will answer, whether you call it Athyrium as I do, or Asplenium. I have not published it yet but if you choose to give me credit for elucidating the species you are at liberty to do so, providing you agree with me as to its validity. I make also one or two varieties as you will see when you receive the specimens.

Jenman's new series is being published by the Trinidad Botanical Garden. The first series was pub^d in Jamaica, & both of them are completely filled with clerical errors. He sends me the new series corrected by himself in ink, and some of the pages are pretty

well scribbled over. You could probably get Clute to send you his sheet o Botrych. lunaria to look over, if Underwood has not go rifled them all. I saw Und's sheet at Columbia last hum & it was crowded with "type" specimens. He certainly appropriated all that Clute sent him. I have one little specimen which Clute sent me with his first lot, but I advised him to let Und. tackle it, so I got no more, & this is not really a typical specimen. I have not Luerssen's figures so was unable to judge about B. matricariaefolium, but thought it a range if you & all our botanists except Wood had gone so much astray on it. Wood himself published neglectum early & evidently did not know o Luerssen. Glad you are able to correct Und. as you undoubtedly will on many other things. Drury's note makes a good point, the very one which I made to Clute in writing him soon after Und's July article. I shall not be sorry to see Dryop. antagonized, but hope you will feel it right to use Polystichum for the free-veined, round-dorsed species, those truly parvulae I mean.

Miss Slosson wrote me she had found in Vt. Camptosorus & Asp. ebeneum

on limestone cliffs." In short the conditions for *sbenoides* were perfect, & nothing lacking but the *sbenoides*!" Very neatly put! I wrote her it was probably too far north for even these favorable conditions to take effect. Shall be anxious to learn the final result of her attempt to produce sbenoides by hybridization. If she does, that will settle the matter.

Please let me know whether you want to see my Pla. specimen of *Aterost. aureum* with root, and I will send it on with the specns of *A. cyclos.* Have you got any West Ind. specn of *Sesbrod. patulum* to compare with Lemmon's specns from Arizona? If not I would like to send you my sheet to look at. I believe Lem's specns are *Karwinskyanum* not *patulum*, if mine are good representatives of the plant he collected.

You can retain the description of cyclosorum till you are ready to return it. No hurry about it. It does not include the variety *strictum* which I describe separately.

I hope this will find you improved in health & in the condition of your eyes which are so essential in botanical work.

Very sincerely Yours

B. D. Gilbert

Clayville, N.Y., Dec. 24

My Dear Mr. Davenport,

For the last 5 or 6 weeks I have been too busy with other matters to pay any attention to ferns, but having now finished up my business for the season I feel at liberty to do what I want to. Your last note has not been acknowledged I believe, & I am behind with all my scientific correspondence.

There are two matters about which I desire especially to write you. Rather late in the fall, sometime in October I think, I received several candices or crowns of Thyr. cyclosor. You will remember that when I sent you the description of this species I left the root undetermined. At that time I had not seen any root except the little young thing loaned to you. Well, I was much surprised by

over

those which came to me. One or two had some decayed fronds still clinging to them, & one had new fronds ready to start the next season. The caudex looked like a bunch of celery, or, to compare it with a fern, it was more like a crown of Struthiopteris than anything else I have seen. They came by express, in a box, from Brit. Columbia, & having been some time on the way, I was anxious to get them into the ground as soon as possible. So after giving them a good examination, I had them planted out. But you can see that they are entirely different from the long rhizome of Filix-foemina, which, altho thickly studded with stipes, never has them bunched together like celery.

Another matter is this: when you sent me your list for additions to range, I do not remember that you included either Botrychium or Ophioglos

You will notice that Underwood gives B. Coulteri as "growing in geyser basins, Yellowstone Park", & nowhere else. Last June when we were in N.Y. I told him I had it from northern Cala. I had seen his specimens & recognized it at once. He seemed much surprised & said he had never heard of it anywhere else than in the Yellowstone. About a year ago I received a fine pkge of Cala. ferns & mosses from Mrs. Bruce, the daughter of Mrs. Austin who used to send Prof. Eaton so many things. Among them was one specimen of Botrychium which she did not know & of which she had never seen a duplicate. It lacked the fertile stipe, but that is not really essential in one of the ternate Botrychs. When Dr. U. published his monograph on Botrych. I made up my mind that this agreed with the description of B. Coulteri, & when I saw his

specimens they simply confirmed my previous determination. The specimen came from Lassen Peak, Cala. & a sentence from John Muir's "Mts. of Cala." shows that the locality has the same character as the Yellowstone. Muir says: "Of these, Lassen's Butte is the highest, being nearly 11,000 ft. above sea level. Miles of its flanks are reeking & bubbling with hot springs, many of them so boisterous & sulphurous they seem ever ready to become spouting geysers, like those of the "Yellowstone". In her letter Mrs. Bruce said that the specimen was gathered in "King's Meadow near the foot of Mt. Lassen", so if there is anything in environment, it would seem as tho it ought to tell in this case.

I don't want to tire you by writing too much at once, so will stop for this time. Sincerely Yours

C. D. Gilbert

Hope the Manual is getting on well.

Grayville, Ill., Dec. 31.

Dear Mr. Davenport,

Your good letter of 27th inst. reached me in due time & I propose to occupy a part of this last day of the old year in writing you an answer, that I may not go over to the New Year in your debt. Let me take the subjects of your letter seriatim.

It is gratifying news to learn that your MS on ferns is making such good progress. I shall take great pleasure in reading it. I promise you to make any and all suggestions that occur to me, altho' I do not imagine they will be very numerous. And if any of the suggestions strike you favorably, I shall feel that you have not sent me the MS. in vain. I forwarded to you this AM. a copy of the published papers read at N.Y. last June. I hope you will

pardon the condition of the pamphlet, but it was poorly bound & is the only copy I have yet seen. I sent it because I wanted you to see what I had to say about Athyrium. It may not convince you, but it will at least show you why I feel convinced myself. I notice that Lawson in Canada uses Athyrium as a full genus. My catalogue of plants issued last year by the Vienna Exchange (botanical) also uses Athyrium in full & not as a section of Asplenium. So I am inclined to think that the working botanists of Germany accept the genus. And by the way, those are the conservative people also. I have rec'd two quite large pkgs. from Germany the past summer, & in neither of them have I seen any indication of their following Prest, Kunze, or any of those authors who have tried to "reform" fern

nomenclature. Aspidium, Struthiopteris, Pteris, Cystopteris, Lomaria are all used, & inasmuch as Prof. Zentamen has been in print about 60 years it is fair to believe that if the Germans were ever going to use it, they would be doing so now.

As for that root of Athyrium, it is at present under 6 in. of snow, but when it is get-at-able you shall have one.

To a certain extent I agree with you about Dr. Ule's work on Botrychium. But I have B. ternatum from Japan and I hardly think I should say that ours was the same as that. Nor would I say that our eastern form is the same species as the big simplicifolium form of the west. You see, all Botrychia are built on the ternate plan, and it would be possible in a general way to claim that there was

only one species in the world. That would hardly be however, with such great variations as exist in different countries & even in Nor. America. You seem to think that "size, texture & mere shape of segments" have nothing to do with species. Here I cannot agree with you. I believe that all of these have more or less influence on species & ought to be taken into consideration. I cannot acknowledge that mere bud forms are the only specific characters in the genus. Does not the environment have more effect in creating species than any other single influence? Evidently that is the dominant influence in creating B. sumicola, which you believe to be a separate species. And so with B. Coulteri. To my eye & judgment it is quite a different thing from any of our eastern forms. My own impression would be that our eastern forms

come under B. matricaria, the same as from of Europe, with obliquum & dissectum as var's, & probably the northwestern form, which Underwood has named occidentale, as a var. also. Intermedia is certainly a good variety too. But I would hold bitnatum, silaifolium & Coulteri as distinct species - gunnicolum I have not seen. Ophioglossum must be reduced in the same way. It hardly seems to me that the so-called O. arenarium is even worthy of varietal rank.

Do you not think that Trichopteris is a good genus? It seems to me that its distinct-not character & netted vein entitle it to that rank & my German friends so hold it. But I would never apply it to Lomaria as Und. does. That is subversive of all order & decency.

I do not take Rhodora regularly but will send for a copy of the Jan'y No. to see what surprise it contains. My list will probably not be ready until after Maxwell's is out. I have not heard from Dr Gray for some time but presume he is busy with the book. (over)

Wishing you a happy New Year
& good health throughout the year,
I am

Sincerely Yours
C. H. Gilbert

I meant to have called your attention to one particular feature of Athyr. cyclos. That is that the young indusia are fringed with long jointed cilia, which is not true of any form of filix-foemina. I remember that the fringed indusium was the only permanent feature you mentioned for establishing your species Asplen. fibrillosum. If it was good in that case why is it not good here also, especially when the cilia are jointed? I have examined hundreds of specimens of fil. foem. from all parts of the country, but found the indusia only jagged, never regularly ciliated.

the citation of Bot. terrest. obliq.
as Eaton's combination must be
placed on Eaton's own shoulders.
He gives Var. obliq. (Muehl.), dissectum
(Spreng-Muehl.), lunaricides (Michx.),
with no other authorities, thus leaving
it to be inferred that he himself is the
party who reduces them to var's. Are
you sure you are right in saying that
these varietal combinations belong
to Dr. Wilde? Because, if so, I must
change my authorities. I have no copy
of Wilde's works.

Mason has sent me 3 Japanese
ferns for identification, which he had
already sent to Dr. Und. The latter was so
busy he could not attend to them, & Mason
encloses Und's letter for me to see. At
the close Und. says: "I thought I told
you that Cav. made Lectaria before I
said he died in my Genera of Ferns. It dates
from 1799 & we have the correct reference
at the Garden." I took the trouble to look

this up & found that Cav's publication could not have been earlier than Dec. 1799. The question then arises how early had Swartz announced Aspidium? I don't mean to say that I would give up the use of Aspid. even if it was 6 months or so later than Lectaria. The latter never came into general use, while the former has been used for 100 years. But it would be a satisfaction if we could prove that it really antedated Lectaria. You may have to revise what you have said on this subject.

I have only just noticed that Dr. Eichler is in French which I read as easily as English. I thought it was German, so only looked at the translation. Miss has given a correct rendering of every thing except varietal names, which she took to be adjectives & translated accordingly. Dr. E. does not seem to understand that Dr. Mud. has "seen the original type from Presl's herbm" of B. silaifolium & that it "simulates exactly with the larger specimens from Calais &c." He should be given to understand that Mud. is following Presl in this matter. I also believe this to be a good species.

Why is not Woodsia obtusa Plummerae the correct combination? Plummerae was its first name under Woodsia, & that being the case, what right had Eaton to call it glandulosum? It was dedicated to Mrs. Plummer, whose maiden name was Plummer, & it doesn't seem right to take it away from her, especially as, according to Gray's rule, she is properly entitled to it. Is not that so?

Athyrium cyclosorum Rupr.

Candex?

Stipe about 1/4 length of entire frond broad & heavy, fronds 3 to 5 1/2 ft. long, 12 to 20 in. wide tripinnatifid, not quite tripinnate elliptic-oval reduced suddenly at, and sinuate to within an inch of tip, also reduced at base. Center pinnae 9 to 11 in. long 1/2 to 2 in. wide, lowest pinnae sometimes reduced to 2 in. long. Pinnae spreading with long acuminate tips. Pinnules at base 1/2 to 5/8 in. spread 1 to 1 1/4 in. long, 1/4 to 3/8 in. wide cut nearly but not quite to midrib acute, segments nearly equal in size for 2/3 length of pinnule 3-4 toothed at end & also on anterior edge. Sori small generally roundish 40 to 70 to a pinnule on full grown plants. Indusium short early in season fringed with long jointed cilia which disappear with age, seldom lunate but almost always hippocrepiform.

This description is taken from specimens in my own herbarium.

Ruprecht's own description of this species was as short & laconic as most of the Linnaean descriptions. It simply read Indusium brevissimum et sori pleromque rotundi. If it were not for the fact that the name was given so late as 1845, and not only

21. The average prices paid patrons for milk or cream. By months if possible.

22. The average yearly production of these establishments, in butter and cheese.

23. The usual ways of packing butter and cheese for shipments.

24. Any peculiarities of factory organization, management or experience.

25. Markets to which most of the factories (creameries) send their products.

26. Average number of patrons and of cows contributing to a factory.

27. Proportion of dairy farmers who are patrons of creameries (factories).

28. Average distance, and the longest drive, from farm to factory.

3. Farm Dairies, or Private Dairying.

29. Methods common for keeping milk and separating cream on farms.

30. Is ice or cold water depended upon generally for farm dairies? If not available, what substitutes are used?

31. How often is butter usually made, how handled until sold, and how packed for market?

32. The quantity of salt per pound of butter commonly used.

33. The usual markets for butter made in the farm dairies of the State.

34. Average price received for such butter by the makers during the past year, and by months if possible. The highest and lowest prices.

35. Description of any peculiarities in farm dairy practice, anywhere in State.

36. In what forms is cheese made on farms and to what extent?

37. Can good cheese be obtained at retail in the country districts? What kinds and forms are preferred by dealers and consumers? What are the usual retail prices?

4. Milk Sales for Town and City Supply.

38. Where milk is sold for town or city use, is it usually cooled before leaving the farm, and how?

39. The best milk markets and the distances milk is ordinarily sent to reach them.

40. How is the milk mainly sent to market? In cans, or jars, and what kinds?

41. Is the shipment or delivery daily, or oftener, and the hours?

42. The usual prices for milk, per quart and per gallon, when delivered to the consumer; average for the year and monthly prices if possible.

43. The same when sold in quantity to sell again. 1st. What do the farmers receive? 2nd. What do dealers pay? 3rd. What is paid for freight and other expenses?

44. Are there markets for skim-milk and butter-milk in any quantity, and at what prices?

45. What is the recognized value of skim-milk and butter-milk on the farm, and at the factories? What disposition is usual for the by-products? Is any special treatment common?

5. General.

46. To what extent are imitations of butter and butter substitutes sold in the State? And how do such sales affect the markets for dairy products?

47. What laws are in force in the State affecting dairy interests, and how are they enforced?

48. What State organization or authority exists for execution of dairy laws?

49. What State organization of dairymen or of creamerymen? Names and addresses of secretaries wanted.

50. The same as to county or local organizations of dairymen, or in their interest.

his specimens but those of others who knew his are extant, it might be as difficult to identify the species as it is to identify a good many of the scantily described Linnaean species.

In this country Prof. Eaton had no difficulty in identifying the main form of the species but he did not appreciate its specific character & ranked it as a variety of A. filix-foemina, this character, altho' depending partly on size & on the cutting of the pinnules, is correctly indicated by the young sori & indusia as has already been pointed out. The rotund sorus & the jointed cilia of the indusium are only to be seen on the new fronds soon after they open, & there are none of these in the Eaton herbarium. The species on this continent seems to be confined entirely to the Rocky Mts. & Pacific coast. The specimens in the Eaton herbarium from Brattleboro, Vt. & from Philadelphia are believed to be only densely fruited specimens of A. fil. foem. incisum, and the same is true of all the so-called cyclosorum specimens found in the east, at least all that I have seen. It ranges from central California to Alaska, & in some of its forms is found in Montana, Idaho & Washington. It is hardly necessary to cite particular specimens for a species that is found in all the large herbaria. The Gray herbarium has two Russian specimens from the St. Petersburgh herbarium, one from the Amur region, the other from Unalaska which was the type locality.

Cyclocinum Lalat

Blue Mts – Sn. Eastern Washington
Robert M. Romney Aug. 7 1897
N-98- W.S. Nash.
(Rare)

Sn. side Mt Stevens Tokiya Cr. Lal.
5–10000 ft. July 6–8 1897 A.E. Ahrens

Washington – near Shoreham, Chehalis Co.
A. A. & E. Gertrude Kellar June 27–1898
200 ft. alt.

(Hydrocum Hilli Gilbert) W.S.N.
near Woodstock, Mendocino Co. Cal.
M. E. Brown June 1897 – on photinia
Cal. 200 (Cat. no. 21808)
(from Elbe and Pallas – good photinia)

8

Did I tell you I had sent a frond of Asphrod. Karwinsk. to Jenman to get his opinion as to its being paludosum? The more I see of it the more it seems to me to agree with the description of Karwinsk. One of these days I may send you my specimens of Asplen. acrostichoides and thelypteroides to see what you think of them. Swartz gives them as two separate species, but I should call the latter a variety of the former, & it is far more common.

B. L. Gilbert.

Nephrodium Rich.

aquilonare (Mason) Gilbert.
Boottii (Tuckerm.) Baker.
——— f. multiflora; Gilbert.
condensatum strigosum (Kze) Dav.
cristatum Nichx.
——— Clintoniannum (D.C.E.) Dav.
——— Lancastriense (Willd.) ?
——— marginale Dav.
filix-mas Rich.
——— incisum ? Wetherby
Floridanum Hook.
fragrans Rich.
Goldieanum Hook.
——— celsum (Palmer) (Clintoniannum 9.8a?)
marginale (L.) Nichx.
——— elegans Robinson
——— Traillae (Lawson)
~~patens (Sw.) Desv~~
Mexicanum Hook.
patens (Sw.) Desv.
patulum Baker
rigidum arguteum (Klg.) Dav.
simulatum Dav.
spinulosum (L.) Desv.
——— dilatatum (Hoffm.) Baker
——— intermedium (Willd) Baker
thelypteris (L.) Desv.
——— trifoliatifidum Dav. ?
unitum glabrum (Mett.) Dav.

Adiantum tricholepis
Polyst. aculeat. acopulinum
Nephrod. contermin. stigosum
Ophioglossum crotalophoroides
Botrych. simplex compositum
Above I am most anxious to obtain.

Species of which I have foreign but not native specimens.
Polypod. Swartzii
Taenitis lanceolata
Ceratopt. thalictroides
Asplen. serratum
" septentrionale
Polystichum aculeatum
" acul. angulare
Nephrod. unitum glabrum
Nephrolepis acuta
Ophioglos. palmatum

Any of these would be gratefully rec'd the first five particularly, as I have no representatives of them, either native or foreign.

21. The average prices paid patrons for milk or cream. By months if possible.

22. The average yearly production of these establishments, in butter and cheese.

23. The usual ways of packing butter and cheese for shipments.

24. Any peculiarities of factory organization, management or experience.

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Botrychium Lunaria var. Oneidense
Gilbert

Plants 10-13 in. high, stipites separating 1/2-1 in. above the root, both stout, but not as strong as in var. intermedium. Stipe of leaf 8 in. long. Leaf 3-4 in. long, 5-6 in. wide. Pinnules of lower pinnae 1-1 1/2 in. long, 1/4-5/8 in. wide at base, sometimes deeply pinnatifid, stalks of lower pinnae about 1 in. long, second pair of pinnae cut nearly to the costa, with 3-4 rounded lobes each and a terminal one. Lobes round-ended generally entire but very faintly toothed.

This is the least divided form of the species & apparently the least common. It was found in only one locality, on the flat of a stream in Deerfield, Oct. 15. Years ago I found the same form in the Mohawk Valley; & in 1898, after Dr. Underwood had published his monograph on the Lunate Botrychia, I sent him a tracing of the plant, asking him where it should be placed. He answered as follows: "Whether your tracing labeled 'Mohawk River plant' is an enlarged form of same (viz. sub-var. intermedium Eaton) or is Eaton's northern N.S. type of his var. australe I cannot say. It does

not match either, nor is it typical obliquum". I have waited thus long to have some body give the variety a name & description, but these plants having come into my hands, it seems to have devolved upon me to name it. So I have given it a title which will show that the type came from Oneida Co. N.Y., altho' it has doubtless been found in other localities. In this variety the tendency to be ternate is not always so pronounced as in obliquum. Sometimes it seems to be almost regularly pinnate & sometimes the basal pinna is 1/3 in. lower on the rachis than the one which should be opposite.

From an article on Botrychium Ternatum in Cent. N.Y. to be pub'd in April No. of Fern Bull.

On reading over your letter I see that you are referring to the form which I spoke of as running for Dr. H. Perhaps you are right in regard to that, & in any event I should not do it without his consent after a full & careful examination. I had not thought much about it lately, & hence mistook your meaning when I first read your letter. The Queidense I consider good. It can be picked out every time as distinctly as dissectum. I got only 2 fronds of it myself, 2 of which are without the fertile stem. I also got 4 or 5 nice specimens of intermedium, but most of the collection was obliquum. Nuttall has all kinds. Do you know whether the Gray Herb. has any specimens from Japan? I have half a notion to send for their material to make comparisons. Your own sheets are so large that I would be afraid to trust them even by express. Dr. Robinson has always been very kind in lending me whatever

I have asked for.

In the matter of specific names I have followed Mr. Geo. E. Davenport in adopting the views of Dr. Asa Gray, our most distinguished North American botanist. His theory was that while a plant can have but one name, that name must consist of both a generic & a specific to be complete. A specific alone carries with it no special significance, as it may be used with several different genera & be valid in each case. Take for instance the specific name gracilis. We have Pellaea gracilis, Gymnogramme gracilis, Cyathea gracilis and so on. The combination of generic and specific therefore being necessary to constitute a real name, it follows that we must use this combination entire, as it was originally published by the author who first put the two together. If we use the generic name of one author and the specific of another (unless the former has used it also), we are simply making a hybrid name. Thus Linnaeus, not understanding the true character of his own genera or else mistaking the character of the fern, called a certain species Acrostichum platyneuron. Thirty six years later Aiton, seeing the true nature of the species, transferred it to Asplenium and called it

A. ebeneum; and as that was the first time it had been published as an Asplenium, we must use the full name given it by Aiton, and not hybridize it by using his generic and going back to Linnaeus for his specific. This was Gray's method of dealing with nomenclature, & it is certainly the common sense way. It does away with the fad of searching through obscure books to find an earlier specific than the one in use, a proceeding which has created great instability and endless confusion in the science. It also prevents such meaningless repetitions as Phegopteris Phegopteris, and Scolopendrium Scolopendrium.

CIRCULAR No. 2.

UNITED STATES DEPARTMENT OF AGRICULTURE,

BUREAU OF ANIMAL INDUSTRY,

DAIRY DIVISION.

IMPORTANT ITEMS OF INFORMATION REGARDING THE DAIRYING OF ANY STATE.

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1. Dairying, Dairy Farms and Farmers.

1. Counties where dairying is most general.
2. Proportion of dairy farmers to other farmers.
3. Average number of cows to the (dairy) farm.
4. Names and addresses of a few farmers who keep the most cows on the least area. Add, if possible, number of cows and of acres, estimate of feed bought, and average yield of the cows.
5. The improved blood predominating in dairy cattle and its extent.
6. Length of the usual milking period.
7. Length of pasture season and character of pasturage.
8. General character of winter care and feeding.
9. The main supply of water and methods of watering.
10. The months of greatest milk production. Is winter dairying practiced?
11. What is usually accepted as a satisfactory yearly product for an average cow, in pounds of milk or butter (1 gallon milk equals $8\frac{2}{3}$ lbs.).

2. Creameries or Factories, and Their Patrons.

12. Number of creameries or butter factories, and cheese factories, in State.
13. Number organized and started within a year. Where?
14. Number closed within a year. Where? and reasons.
15. Are the factories cooperative, joint-stock, or proprietary, and which system seems to best suit the patrons?
16. How large a part of the factories are operated upon the separator plan? What other plans? And what plan best suits the patrons?
17. Where is the largest factory or one having greatest number of separators? What kinds of separators? Largest quantity of milk received per day.
18. At how many factories is the milk or cream paid for on basis of a fat test?
19. The length in days of the usual working season of factories.
20. What Sunday work is usual at creameries or factories?

specimen. These myself in 1883 in company with Mr Pringle who told me that the plants had retained the same character and presented the same appearance every year since he first found them some years previous.

There was apparently no lack of nutriment to nourish a generous growth, yet the plants were always weakly, the largest being hardly robust enough to stand without support.

Southwick Mass.
March 29th 1878

Wm C. L. Davenport
8 Hamilton Place
Boston Mass

Dear Sir. I have started a small trade in collecting native plants for cultivation. Orchids. Lilies Ferns. Shrubs. Trees, &c, Cypripediums. Cogodium palmatum. &c &c. List sent on application.

If you would give me names of parties who deal in our native Flora, here or in Europe. I should appreciate the kindness.

Yours Most Truly
Edward Gillett

Southwick Mass.
April 3 - 1880

Dear Sir. I do not keep these ferns in stock. but will try to get you some roots although I fear it will be to late for this spring for Herbarium specimens. I take advance and fill them in the fall, 2.00 per doz. for those named in your list

Yours Most Truly
Edward Gillet

POSTAL CARD.

WRITE THE ADDRESS ON THIS SIDE—THE MESSAGE ON THE OTHER

Geo. E. Davenport

Medford

Mass.

80 Elizabeth Street West -
Detroit, May 3d
1873.

Mr. Geo. E. Davenport

Dear Sir,

I have just rec.d yours of 28th ult., and will gladly supply any of your desiderata, more especially that for my friend Miss Hosmer's name; but my collection has been very drawn on of late, & do I have but few for exchange of the plants you wish for.

I send you, however, specimens of Allosorus achrostichoides from Ile Royale, L. Superior. As I leave in a few days, on the first boat, for Lake Superior - and will be in an hour or so on Ile Royale, I may be able to get you better

specimens of this rare fern.
I have many of the forms
you are wanting, but not
in sufficient supply for exchange.
I however give a little plant,
Ingenodia Vulgaris, which I
find is becoming very rare in
the East, & may be wanting
to your herbarium — also some
specimens of flowering Senna —
rare. — The parts I enclose,
the former plants go separately,
same mail. —

I would be glad to see,
if your duplicates, a good
specimen of Osmunda cinnamomea,
var. frondosa, Gray, which my
collection is wanting in.

Yours truly
Henry Gillman

Well marked specimens of Aspidium
Spinulosum, variety intermedium,
dilatatum, & Boottii, would also
be acceptable —

H.G.

80 Seligowitch Street West; —
Detroit, June 4. 1873.

Mr. Geo. E. Ward Esq.
Dear Sir,

Your favors, for which I am exceedingly obliged, arrived during my absence at Lake Superior. I have only just returned. I found it quite icy there; & had but little time on Isle Royale, not having much opportunity for doing anything botanically — to my disappointment. I expect, however, to be able to visit the island again this season.

I followed your advice in opening your package, — doing it the reverse way; & found that but two of the specimens were at all injured, & those very slightly. I do not know, however, that this was

of mating them up and always turn out as well; & I consider the packages made up between flat pasteboards much the safer way.

I enclose you some more of the Pinguicula vulgaris, as requested; & will be glad to do what lies in my power, in collecting, &c.

I have always had little mirth in the varieties of Asphodelus fistulosa, & I wished to compare others near. It is a perfect Proteus of forms. Again thanking you for the specimens

I am, Dear Sir,
Respectfully Yours
Henry Gillman.

Eucalyptus botrioides grows abundantly on Isle Royale, & was blooming freely when I was there.

H. G.

To
Prof. Geo. E. Campbell
8 Pemberton Sq.
Boston
Mass.

80 Elizabeth Street West.

Detroit, July 3. 1873.

Mr. Geo. E. Davenport
Boston, Mass.

Dear Sir,

Yours of the 23d inst., as well as the package containing the nice specimens of Osmunda cin. var. frondosa arrived during my absence from home. I hasten to thank you for your kindness. You must be peculiarly favored in this vanity — here it is rarely seen. Your package arrived in good order; though I think common pasteboard would answer equally as well as the wicker boards you send, & not weigh so much.

I have again visited Lake Superior & also Lake Michigan,

but had no time for botanizing to any extent worth mentioning, as my visit was purely business.—

I discovered the Wolffia Columbiana here, years ago. It is quite abundant at two points. I also found the W. Brasiliensis, though not so plenty. I enclose some of the former, at your request. It should be seen growing to appreciate it. The two species are very distinct, though such minute plants. I add a little paper of flowering Lemnas, which is a great rarity.

When on Lake Superior (at L'Anse) I was able to procure Dr. Engelmann the much-wished-for fruiting specimens of Abies balsamea, a tree which it appears the botanists are all adrift on.

I procured some excellent specimens showing both this & last season's cones. I had already procured for Engelmann the male flowers.

I have not heard of Miss Hosmer, except through you, since she left Detroit. Is she residing in Boston?

Excuse great haste, & believe me, Dear Sir,

Very Respectfully Yours,

Henry Gillman.

I was able to blossom (June 5th) the Aplectrum hyemale. It must be a shy blomer, as I have never been able to detect it in blossom in our woods, & out of 30 plants transplanted & my garden only the one mentioned flowered. I have kept the plant for years. H.G.

(80 Elizabeth Street West,)
Detroit August 30. 1873.
(Not West Detroit)

Mr. Geo. E. Davenport,
Boston Mass.tts
(No. 8 Province St.)

Dear Sir,

Yours of the 25th & the 26th inst. together with package of Ferns were duly received. I have only just returned from another visit, of nearly five weeks, to Lake Superior. But unfortunately the nature of my business prevented my Collecting very extensively.

I am much obliged for the ferns you now send. The specimens of Onoclea are particularly fine, examples of that curious abnormality = obtusilobata. And the Aspidium Spinulosum are an interesting amplification of the form

sent packages for me of weight over the regulation, &c., &c. But this, of course, I try always to avoid. Mr. Scudder of Boston told me that even insects were often sent in the same way. Such a scientific place as Boston should be well posted by this time. Of course the intention of Govt. is to class such specimens with "roots scions & plants":- I mean "botanical specimens." —

I regret I have no duplicates of the typical form of Spinulosum to send you. I shall try, however, to enclose with this a specimen or two of Botrychium Lunaria which I found, for the first time, on a rocky islet off Isle Royale, Lake Superior, the other day. From my own & friends' experience I judge it must be rare. I have many applications for it, but will spare you some. I should like to see your B. lanceolatum; of this species, you know, there is apt to be mistakes made. I found it + B. matricariifolium on L. Superior, years ago. Glad to hear of Miss Hosmer, to whom I beg to be remembered. —

Yours truly
H. Eng. Gillman.

Did you see my article on "Ancient Works at Isle Royale," in Hilldale's Journal of Aug.t 9th?

of variation in that species. I have, as I before expressed to you, but little faith in these varieties as such, & have traced them merging into each other; & (for instance) you will find the Var. Bortheis running down by finely drawn gradations into A. Cristatum, or what very nearly resembles that species. But this is all most interesting to a believer in evolution, as I have been from my childhood. (I remember a conversation on the subject in my mother's drawingroom, held about thirty years ago, when I was a very little child, which I can now give the drift of, so strongly did it impress me. This was before Darwin was heard of, at least in his particular dogma). Some of these varieties, with further modification (progression), & the dying out of intermediate forms, will, doubtless, in the lapse of ages be left isolated; i.e. become good species, as we say.

Your inquiries as to the postage, I will answer by informing you that 5c additional was charged me on your package, which with the 9c p.d. by you would make the amount of 14c total postage. Of course this is not worth troubling yourself about. But I will tell you my experience. I always, lately, follow Colonel Olney's & others' plan of simply marking such packages "Plants", & I then inform the P.O. clerk that the package contains no M.S. & is to be charged therefore at the rate of newspaper postage. You must always know more than the clerks! or they will be apt to trouble you. I never, however, have any trouble, & often mail from all sorts of places, as well as from where I am known. The clerks have sometimes even

80 Elizabeth Street West,
Detroit, Sept. 22. 1873.

Mr. G. E. Davenport,
8 Province St., Boston, Mass.

Dear Sir,

Yours of the 10th inst. was duly received; but absence from home has delayed my reply. The specimens you enclosed are clearly Botrychium lanceolatum, Angstrom; and compare well with specimens I have from Lake Superior & Penn. Better with the latter. They appear not quite so fleshy, however. And this is a point Mr. Watt (our best authority on Botrychium) lays a great stress on. But in dried specimens this is often difficult to decide. I heard from Mr. Robinson, & sent him specimens of B. Lunaria, as requested. Mr. Farrow has not written me, & not knowing his direction I was unable to send specimens, which I should otherwise have forwarded him, though my supply is running low, from the excessive demand for specimens from my botanical friends. How distinct Lunaria stands! I found lanceolatum & matricariæfolium growing together on Lake Superior which gave me a little shock at first, as they seemed to run together. And yet they are evidently good species — though Mr. Watt

[illegible] compressed himself, together with [illegible] to separate [illegible] of the [illegible]

I enclose the wished-for [illegible] They are [illegible] the [illegible] of the Emperor of Russia [illegible] lifetime; the larger stones are exceedingly rare. Few are much larger than [illegible]. The largest I ever saw was the [illegible] a half dime. — They are found only on one beach on Isle Royale. —

Yours truly
Henry Gillman.

Moistening the stone brings out the colors somewhat, even without polishing. H. G.

80 Elizabeth Street West,
Detroit, Oct. 1. 1873.

Dr. Geo. E. Davenport,
8 Province St., Boston, Mass.

Dear Sir:

Yours enclosing specs. of Botrychium simplex and Musci from Grand Island I have at hand, rec'd last evening. — I am obliged to you for your thoughtfulness. The specimen of B. simplex I am glad to get; & should you come across more, & have any to spare, try & remember me. The Musci is a curious plant. I see it was from Mr. Bebb, from Bancock Lake; from specimens seen in more luxuriant. — I have planted some of the seeds in my aquarium, & shall look for results with interest. Is it not probable that its habitat should be so restricted, as it appears to be, by of introduction. Had we a pond in our neighborhood, sacred from the inroads of the Goths & Vandals of Civilization, I would try & introduce it here. Do you think it would grow in our river? I once introduced the beautiful Nelumbium here. It flourishes, naturally, at Monroe, near us. — In great haste, but

Truly Yours
Henry Gillman.

Does the Var. Dissectum of B. ternatum, Sw. (formerly B. lunaroides) grow with you?

BANCROFT HOUSE,

ISRAEL B. NORCROSS, PROPRIETOR.

East Saginaw, Mich. Oct. 17th 1873.

Mr. Geo. E. Davenport, Boston, Mass.

Dear Sir,

Yours of 8th inst. duly reached me, forwarded from Detroit. The package of specimens I hear have also been rec'd at my house in Detroit. I am much obliged for your kindness. Did you notice my note on Aplectrum hyemale in American Naturalist for October? Do you find this plant in Mass.? It appears to be a "shy bloomer." I am anxious to obtain good flowering specimens. — I shall be happy to remember you should I ever collect more of the B. Lanria. I collected a little more of the Allioniaceae Cryptogramma, & have a specimen growing in my garden, on

a sort of rock-work make fruit. It requires peculiar treatment; but appears to be doing very well. The B. lunaroides is our common form of Botrychium.

I agree with your remarks on Tillman. The great master-mind spoke the entire truth when he said – "Beauty when unadorned is adorned the most."

I am pleased to think the specimens of Chlorostidia proved so useful to your son.

I am here for only a short time. When writing always use my Detroit direction; as my letters are always promptly forwarded to wherever I may be.

In haste, but

Very truly Yours

Henry Gillman.

I shall be glad of the Botrychium simplex.

H. G.

BANCROFT HOUSE,

ISRAEL B. NORCROSS, PROP'R.

East Saginaw, Mich., Oct. 27th 1873.

Mr. Sam. E. Dampfert,
Dear Sir;

Yours of 22d inst, is before me, forwarded from Detroit; & I am much obliged for the enclosed specimens of Botrychia — especially the Simplex. The lists I can scarcely much satisfactory, being away from home; but it is probably tolerably correct. It is possible I may have more duplicates than marked; though my collection has been drawn on so largely, & so little added to my collection of late, that I am in doubt. — Thanks for your remarks on Aplectrum. I can easily let you have some of the living plants by mail, from our woods back of Detroit, as soon as I have opportunity. My garden plants are about a month above ground. — I have never grown Cypripedium arietinum — Many thanks for your offer

of the roots; but as I have scarcely the proper place for them, it might perhaps be better not to disturb them again on the risk of their doing well with me. I would be much obliged, if you succeed in getting the flowers, for a dried specimen. — I see you are acquainted with my friend Wm. Boott. I have had some pleasant rambles with him around Detroit & Boston. He is great on the Carex, — & an excellent botanist. — I am very grateful for Miss Horner's remembrance, and hope you will give her my kind regards. We had the idea (in Detroit) that she was going to be married; but seem to have been mistaken. Mr. Frost's B. tomatum, you enclose, might well be considered, from the shape of sterile lobes, the var. obliquum. Have you not got the B. lunarioides Gray? This, with its large, coarse (somewhat), thick, obovate, kidney-shaped lobes, is our commonest form. — I can let you have specimens.

I am still detained by my duties at this place; but hope to get away soon, as I wish to visit some of my wife's relatives in Ohio before the Autumn is over. It seems rather wintry already.

With many thanks for your kind offers to the Cheever &c. — I remain

Very truly Yours

Henry Gillman.

I enclose a few of my pressed flowers, which I wished to be a little more of mine, but at a venture I send them. Please to the first "Flower" for your boy, Hartley, the "Second exhibition," with much effect."

Cheboygan, Michigan,
October 21. 1875.

Mr. Geo. E. Davenport
8 Hamilton Place
Boston, Mass.tts

Dear Sir,

Yours of the 30th ult., reached me on the 17th inst., forwarded to Mackinac, where I stopped two days on my way to this place. In regard to Botrychium lunaria, I am unable to answer you until I can have recourse to my specimens. As soon as I return home I shall be happy to give you the desired information. I would be glad to know the reason suggesting your inquiry, by all means.— I saw Dr. Gray's note; but have not much faith in such varieties as there described. Gray says as to sterile segment, "nearly sessile".— Can he have made such a mistake as not recognizing B. matricariæ folium? It is true he called some of my specimens of this species B. lanceolatum. With the exception of a few weeks in Detroit, I have spent the summer & fall on Lakes Superior & Huron. I have added some interesting & rare things to my collection, such as Pterospora Andromedea, Selaginella selaginoides, &c. Use my Detroit direction in writing, as my letters are forwarded to wherever I may be.

Yours Truly
Henry Gillman.

I noticed your advertisement.

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but saw not a blossom, as usual.

I shall be glad to let you have any rarity coming in my way; but you must not expect much from one so overtaxed as I am now-a-days; and the worst of it is I do not expect it to grow better but worse in this respect.

Thanks for your extract from Eaton.

Hoping these brief lines may prove of interest, if not altogether satisfactory, I am

Truly Yours
Henry Gillman.

I have never been able to procure Angstroem's Monograph. Have you seen it? — I think your friend Mr. Pringle must be the gentleman to whom I sent some Sis lucustris lately, from the Straits of Mackinac.

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H

80 Elizabeth Street West,
Detroit, Nov. 25. 1875.

Mr. Geo. E. Davenport,
8 Hamilton Place,
Boston, Mass.ts

Dear Sir: -

Yours of 20th is recd.; & in reply I would say that all my specimens of Botrychium lunaria Swartz (From Isle Royale, Mich.) have the sterile segment sessile or nearly sessile. Some four specimens have a greater approach to being petioled than the others, & would doubtless be considered petioled. Gray's description is "nearly sessile."

As for the confusing of B. lunaria & B. matricariæfolium, I cannot see occasion; though B. lanceolatum, Aug. is frequently confounded with the latter. Watt, the best authority on Botrychia (in this country), wrote me that, in separating these last, he relied on the more fleshy sterile frond of lanceolatum

as a distinction. You sent me from Sudbury, Mass., good lanceolatum. Years ago I collected, at Lake Superior, State of Michigan, all growing together in an open copse, on sandy bank, the small & larger ternate forms of B. matricariaefolium, & the small as well as the larger ternate forms of B. lanceolatum. The circumstances were decidedly ~~[illegible]~~ favorable for concluding them all diverse forms of the same species. Gray pronounced all B. lanceolatum, Sw., which then had no place in his "Manual". The following year, or later, I found in dense beech woods, also at Lake Superior, the small simple form of matricariaefolium. This he also pronounced ~~matricariaefolium~~ lanceolatum. This accords with what you write me; & the specimens you saw in his herbarium are probably the plants to which I refer. The lanceolate divisions are to me the most reliable point in lanceolatum as separating it from matricariaefolium, in which the divisions are obtuse ~~[illegible]~~ or rounded. — The ternate, larger forms, particularly, are difficult to distinguish otherwise.

But B. lunaria Swartz, as I know it, is a most pronounced un-mistakable species. —

Gray is probably terribly over-worked of late with his California plants, &c. Knowing this, I have refrained from writing him very much of late; though I have ever found him the same, I must add — always obliging. He was never inclined to be exuberant in the letter line. I regret that any such feeling as you describe should have arisen.

Four days ago, shortly after my return, I found an abundance of Aplectrum in our north west woods. I was here at time of flowering, also,