

und. May 15/55

Columbus 24th April 1853

Dear Sir

Enclosed are two plants which I am at a loss to determine exactly. The Leguminous one, I presume is a *Vicia* and seems to me to approach the '*micrantha*' more nearly than any other described in your Flora, still, I cannot satisfy myself of its identity with that, from the mere description - It seems to be rare as I have met it in but one locality - close on the river - It grows from 8 to 12 or 18 inches high - The flowers when fresh are reddish purple tho they dry blue - the stigma hairy, the hairs arranged around its extremity in a radiate manner - I do not recollect of finding a specimen with more than three pairs of leaflets. the stem is 4 sided slightly winged. The grass bears more resemblance to the *Elymus* than any thing else I am acquainted with but some how or other I can do nothing with it with the means I have at hand - As to the *Borja* which I sent you last fall, I had compared it carefully with Elliott's descriptions and was unable to satisfy myself of its identity with either. and mentioned the '*acuminata*' for the purpose of directing your attention to a remark of his in describing that species, viz, "The shrub which the Botanists who have visited the Southern States, have been accustomed to refer to it *acuminata* resembles it in habit, except, that it wants the spinous processes represented in Michaux's figure, But the calyx is four parted, the stamens four and some of the flowers appear polygamous - It probably belongs to a distinct genus. but, as I have not seen the living plant - I cannot decide Ell. Vol. 2. p. 675. I thought it possible that the specimen I sent you belonged to the plant to which Elliott here alludes and which is mentioned nowhere else in his work - I have since collected the fruit. it is dark blue 1 or 2 lines long with a sweet greenish pulp, enveloping the kernel which is immediately enclosed in a chertaceous testa with nerves running

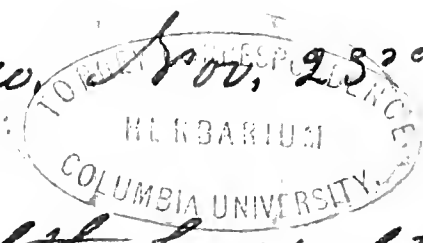
from end to end — which remaining, after the parenchyma had decayed in the imperfect specimen which I first examined gave to the kernel the appearance of being striate or furrowed. The large embryo is placed in the midst of the albumen — I have delayed sending specimens of the Iris which I mentioned, hoping that if I waited until the present season I should be able to send more perfect ones than I now have by me. It will be in flower in the course of two or three weeks. You observed that it was probably the *I. hexagona*. It may be. But I did not know how to reconcile the scape 3 to 6 flowered, flowers axillary, of this plant ^{with} the "flowers solitary" of the *hexagona* as described by Elliott. I have turned through the numbers of the American Journal of the Arts and Sciences of the past two or three years — hoping to find the description of the *Darbyea* you mentioned but without success. Could I trouble you for a short description of it, as I may chance at some time to meet it. Can you inform me whether or not Dr. Gray's "Cyperaceae & Gramineae of N. America" has been completed. It would assist us considerably no doubt, as I find much difficulty in those plants for the want of books. Elliott describes but few of them and Eaton's descriptions are so short & I suspect oftentimes so careless and inaccurate that they afford us little assistance. I have for the past two seasons been devoting a portion of the very little time I have for such pursuits to studying our Compositae. but the want of an index to that portion of your flora renders it much less available than it otherwise would be. I am obliged to you for your kind offer of specimens and will at some time avail myself of it, as I am confident that the study of all of our more difficult and extensive genera would be much facilitated by a few authentic specimens to serve as starting points.

I am Sir with much respect

Yours &c
A. M. Neister

Recd. Nov 30

Columbus Geo. Nov. 25th 1853



Dear Sir

Enclosed is some of the fruit of the *Borja frondosa*? which I collected some weeks ago, and which I thought best to send you now, rather than wait until spring (when I purpose sending you sufficient specimens of the flowers to enable you to determine it with certainty) unless they might be mislaid or some accident happen to them. The fruit is rather scarce, in the two localities where I have found the shrub; there are many hundreds growing and I have yet found but one individual, that bears female flowers and fruit. I will procure and send you a living root of the Iris I sent you if I can get the leisure to go out before the stalks are destroyed and disappear.

I regret very much that Mr. Peabody did not meet you before he left N. York, He had been in the city several weeks before I sent the package to him - and entrusted ^{it} to another friend to carry it on, who having occasion to go through Ohio and remaining there a month, did not arrive until Mr. Peabody had departed. His success with the Strawberry is, certainly astonishing, I visited him eight or ten days since, when he showed me one of his beds, in which in every direction were to be seen plants filled with flowers and fruit in various stages of growth, he said that he would in a short time again have them in market unless there should chance to be some very cold weather - and that he had had them in market every month the present year except January, I think, In beds where he wishes to raise plants he gathers the fruit in its season and ^{saves} them to themselves to put forth stolons and increase as they may. Other beds which are intended expressly for fruit, are, during the fall and winter covered thickly over with pine leaves from the woods

and during the spring and summer are watered profusely when it does not rain, every day; these throw out no stolons scarcely - but all their energies are spent in producing fruit, fruit all the time. The philosophy of the thing, I confess I do not yet clearly understand. yet, there seems to be some facts in other departments of fruit culture somewhat analogous to it. Mr. Iverson is making experiments with the "Coeratachloa" to test its adaptation to our climate and its suitability for grazing and for fodder - A lot of good grapes is a great desideratum with our farmers, as the long, hot and oft times dry summers here prevent our succeeding with any of the grapes that grow further north. For the past one or two seasons I have been studying our native grapes with direct reference to that matter, hoping that I might be able to suggest something that might be of use. I make little progress however, as all my energies are required to be exerted in pane lucrando and Botany being profitable in that respect has to be taken up as a mere relaxation from business or when I have nothing profitable to do - The "*Paspalum distychnum*" Ell. is well adapted for grazing, covering the ^{ground} thickly and ^{being} greedily eaten by cattle - but, it affects low, damp situations and probably would not bear drought or grow in a dry soil - The naturalized "*Digitaria* ^{Ell.} ~~*Panicum*~~ *clactylon*" is better adapted to grazing than any grass whatever, drought suits it - but alas! when once it gets hold you can never get rid of it - By the by can you tell me its native country? it is scattered over Georgia - and first spread from Savannah - we call it Bermuda grass. under the impression I presume, that it was originally brought from the Bermudas. My curiosity has often been excited by the *Papilion incarnata*, is that really a native of N. America. I have been through the states where it grows from Virginia to Alabama and have never seen it growing but in cultivated lands. After land has been cleared and cultivated two or three years it first makes its appearance, and grows thicker and thicker the more the land is exhausted indeed it becomes the

chief enemy the cultivator has to contend against - if the ground ceases to be cultivated weeds and grasses and briars root it out and it disappears as completely as if it had never grown there. I have found a variety growing near this, with tornlose fruit - differing from the common form in nothing else - it is quite singular - I have also once met with it with milk white flowers - it was on a farm once belonging to my father near Athens in the upper part of this state - There was something strange about it too, they were found occupying a space of perhaps fifty feet square in the midst of a field - the remainder of which always grew the blue flowers. on this spot not a flower was to be found but the white all around, nothing but the blue mixing slightly around where the two kinds met. Such it was at my earliest recollection and such it remained, whenever permitted to grow, so long as I had any knowledge of the place - some twelve or fifteen years - It puzzled me when a child and it puzzles me yet. A young lady, once my neighbor, informed me that the white variety grew near this - I have not yet found it -

A gentleman addressed me a few days since from Augusta Geo. proposing to enter upon a correspondence and ^{an} interchange of plants informing me that his summer residence was Providence R. I and that he had become familiar with my name through you I should be mortified to think he attributes ^{my} the neglect of replying to his letter ~~originated~~ ^{to} from ^{my} negligence - when the fact is I can't make out his name for my life - nor can I meet any one who can satisfactorily - I cut it out and enclose it - will you aid me in my extremity?

Doct. John Torrey
New York

I remain Dr. Sir

Yours very respectfully

Hugh M. Keister

Truly yours

Stephen S. Gray

S. T. Oliver

one

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1862

Doctr. John Torrey
New York



Recd of Ann
May 10th

Columbus Geo. April 10th 1834

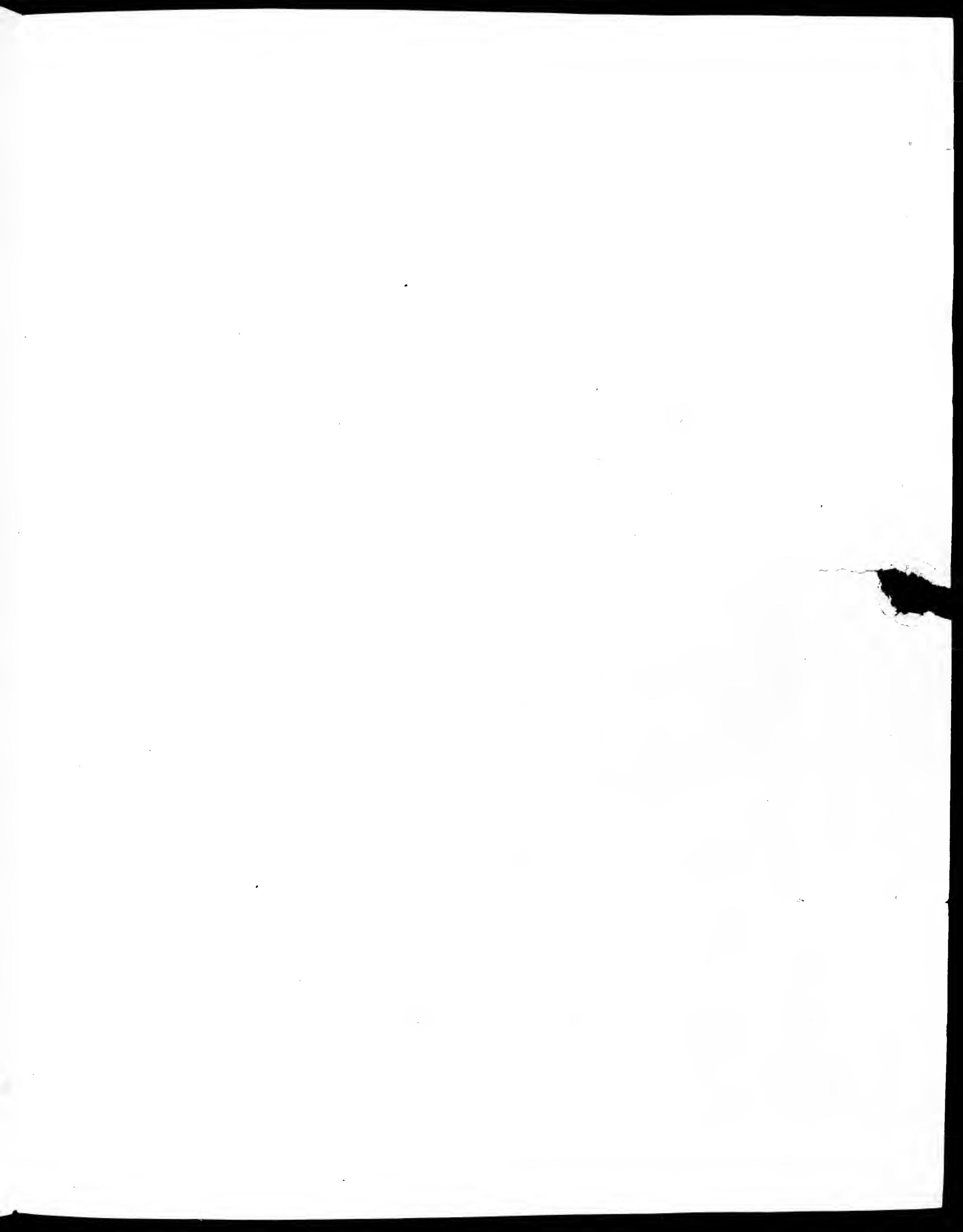


Dear Sir

Enclosed is a plant which I have been studying some time, but as yet have been unable to identify. I first found it some four years since on an island three or four miles above town, afterwards, the same season in one other locality. After that I lost it entirely until the season when I found it growing sparingly on the spot where I first met with it. I have only seen the flower, the fruit has thus far escaped me. It has been in flower more than a month and the one I send you is as far advanced as any I could find. I gathered it eight or ten days since and it has not had time to dry. I presume you can determine its leading characters without any remarks of mine. With all my efforts I have been unable to find time to get out to the only known locality of the "Lris" some four or five miles distant, so as to get you some roots. I will during my summer leisure mark some plants in such a way as to enable any one I may send to get them and thus place the matter beyond the reach of the contingency upon which it has hitherto depended by my having leisure to go myself at the proper season. The Bona is not yet in bloom - being near my residence I can and do visit it often, so that it is possible, its escaping me this season as it did the last



[Not signed, but evidently from
Hugh M. Nutt]





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Doct^r. John Jones
New York.

1850
1850
1850



Rec^d Sept 11. and. 13845

Columbus Geo. 1st Sept 1854.

Dear Sir

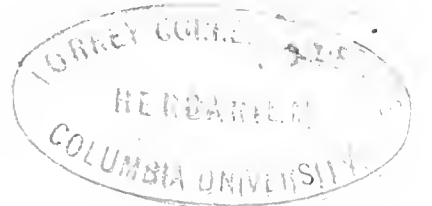
Enclosed are some specimens of the male flowers of our *Borge*. I had despaired of getting them even this year, having in some unaccountable manner mistaken the time of flowering, thinking it to be the last of May or first of June, when in fact they were in full bloom on the 21st August. Tho in May some scattering flowers did appear but all withered before I could get specimens, and thus - I thought the sole opportunity for the year was lost. The larger part of the male flowers wither and fall before the female opens, of the latter I will forward you specimens in a short time, when I hope you will have material sufficient for its complete description. I think I mentioned in some previous letter I had found the shrub in but two localities and among them all but one that bore female flowers - and it yet stands alone, for notwithstanding all my searching it is the only one I can find - To get the fruit of the *Croonia* here seems to be impossible - I ~~do~~ do not think it is destroyed - but that the flowers are in some way imperfect and that the ovules are not fertilized and the ovary falls off as soon as the flower withers. In the Flora of North America in your remarks on the *Stylosanthes* and *Chapmannia*. There is mention made of the *Arachis* - is that thought to have two kinds of flowers as well as those genera? You remarked in your last that I would be doing a service to botany if I would publish a list of those plants that seemingly connect the Western & Southern Floras. I have been for a few years engaged in collecting the plants of Muscogee Co. Geo (in which Columbus is situated) and

Rupel Co Ala. on the opposite side of the Chattahoochee. for
the gratification of some of my friends, and should I ever bring
the matter to any degree of completeness - I shall make out a
catalogue of the whole, noting those that have lead me to form
the opinion which I expressed to you - But, I assure you it is
no small undertaking, for a man who has but a few hours (not
every day by any manner of means) - but every few weeks. to devote
to the study - however, I intend doing all that I can - and at
least strive to render the task lighter to some one else.

Very Respectfully

Yours &c

Hugh M. Scisler



Volume no. 23rd Sept. 1854.

Dear Sir,

Enclosed you will find some specimens of the female flowers of the *Forestiera*. I hope they will be of service to you. I should be much pleased to see your account of the genus when published - as you informed me in some of your previous letters that you intended writing it at some early day. I am obliged to you for the account you gave me of Mr. Bonnier's views of the fructification of the *Arachis* - and so far as concerns the *A. hypogea* I think him altogether mistaken - my observations having resulted in the conviction that it has but one kind of flowers and all of them fertile!

A few summers since, whilst studying our *Sylopanthes* my attention was attracted to the note on p. 354. Vol 1 of the *Flore of S. A.* and came to the conclusion that his views were such as stated in your letter. On examination I found in the axils of the lower leaves a few flowered (2 to 3 or 4) one sided raceme the flowers consisting merely of a minute, conical, pointed germ with a black lip, situated between two bracts; this, bearing the ovule at its extremity, gradually elongated until reaching the earth, which it penetrated, and getting beyond the reach of light, the end gradually enlarged and ripened into fruit. Near the extremities of the branches, were petal bearers arranged in the same manner on apparently very long peduncles 1/10 to 1/12 in, all with the bracts and leaves away together - these I thought were true. It was not until the summer of this summer when my attention being drawn to the plants again I concluded that my previous observations had been altogether wrong and that my opinion on the matter was still, rather the result of Mr. Bonnier's authority, than my own personal examination. I then determined not to stop until I saw the truth of the matter for myself. I commenced with the upper flowers on pulling away the sepals and petals I found the ovary as perfect as in any other flowers, but the ovule was situated for a peduncle proved to be a very long slender tube which I had mistaken for a peduncle.

difficulty in tracing the style to its base, as it is situated between two bracts, conical, pointed and with a minute hole, in short in every respect identical with those fertile germs which I had before me, each lamina as I supposed. Why should these be barren? Now the thing was to determine whether they were so or not, and dropped off without being developed, for it is evidently the fertilized ovule that stimulates these peduncles ^{or styles as you call them} to lengthen themselves and seek the ground-earth. Day after day my search was vain - but at last I did succeed in finding a germ elongated to the $\frac{1}{4}$ of an inch or more with the withered flower attached to its point by the slender style! This settled the question in my own mind. For if I had found convincing proof that one of these petal bearing flowers was fertile, I could not see why the whole should not be so. And further the germ being very minute and contained in an enlargement at the base of the calyx, the latter may have fallen off & entirely disappeared from those germs that I had supposed to be achlamideous, in short that all the flowers will be found petal bearing if examined early enough. This morning before sitting down to write I wished to reexamine the whole matter, and went into my garden where I have a few plants of a new variety, with upright stalks (those generally cultivated being entirely prostrate, in which the fruit stalks hang in circles around the stem exactly like aerial rootlets seeking the earth and often have to grow to the length of 12 or 18 inches or even more before reaching it.

Much to my surprise and delight on every plant I found specimens varying in length from 1 to 6 inches and still bearing the withered flower at its point! On afterwards going to a lot where the prostrate variety was sown, I was equally successful in getting specimens of the same kind. This is all a little matter and I must ask your pardon for troubling you with so much of it - I think that in the smallest and most insignificant things our views should be correct & precise.

I also enclose some grasses, the larger I supposed to be the *Agrostis longifolia* (Eaton 8th v. l. p. 118.) but on turning to Dr. Gray's *Herb.* I found that he uses the *longifolia* of yourself which is Eaton's as a synonym of his *vilfaespira* - and there are discrepancies between Gray's & Eaton's descriptions that I cannot reconcile. The other agrees pretty well with Eaton's *A. virginica* - (p. 117) but does not with *A. virginica* as described by *Herb. v. l. p. 117*; The other is a plain grass

that I enclose at the request of Doct^r. Don it is a very common one - but he seems
in a hurry - tho I confess that I may not be correct in my opinion - and
should be glad to get yours.

With much respect

Doct^r. John Torrey }
New York }

I remain yours &c.

Thos. M. Steiner

P. S. I have long regarded this *grass* as described by Elliot
as *Agrostis Indica* - or as later authors would call it *Sporobolus*
Indicus, tho I must confess that from the minuteness of the thing and
more than that, my want of skill in manipulation I have yet been unable
to make out that the grain lies loose in a utricle.

H. U. & S.



Doct. John Torrey
New York

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