



C. W. Peale, pinx. &

P. S. Duval's Lith. Plat.

On Stone by A. J.

ever yours

W. Baldwin.

— 21 —

RELIQUIÆ BALDWINIANÆ:

SELECTIONS

FROM THE CORRESPONDENCE OF THE LATE

WILLIAM BALDWIN, M. D.

SURGEON IN THE U. S. NAVY.

WITH OCCASIONAL NOTES, AND A SHORT BIOGRAPHICAL
MEMOIR.

COMPILED BY WILLIAM DARLINGTON, M. D.

Manibus date lilia plenis:
Purpureos spargam flores, animamque *Sodalis*
His saltem accumulæ donis, et fungar inani
Munere.

P
PHILADELPHIA:
KIMBER AND SHARPLESS.
1843.

Library of Congress
1867
City of Washington

QK115
B25

copy 1

[Entered according to Act of Congress, in the year 1843, in the Clerk's office of the District Court of the Eastern District of Pennsylvania.]

E. C. DARLINGTON, PRINTER,
LANCASTER, PENNSYLVANIA.

TO ASA GRAY, M. D.

MY DEAR SIR:

Among the various topics of Botanical interest, discussed during your recent most acceptable visit to this place, it was suggested by you, that it was due to the memory and deserts of the late Doctor BALDWIN, that a notice of his zealous and indefatigable labors, in the cause of American Botany, should be prepared by some contemporary, who had a personal knowledge of his worth, as a Man,—and who might possess evidences of his extraordinary devotion to that department of our Natural History.

You were pleased to intimate, that the advantages which I had enjoyed, of a long acquaintance, and a familiar correspondence with my lamented Friend, might perhaps enable me to contribute something towards the performance of that duty. Sensible as I was, and am, of my inadequacy to the task, I will yet confess to you that the suggestion touched a responsive chord in my bosom. I had long felt, that the estimable character of Doctor BALDWIN—no less than his laudable exertions as a Naturalist—gave him strong claims to the affectionate remembrance of every kindred spirit; while his rare industry and sagacity entitled him to take rank with the most deserving of our Pioneers in the field of American Botany.

Strongly impressed with this feeling,—and having waited for more than twenty years without seeing any

appropriate tribute to the memory of my friend,—I am tempted to act upon your kind intimation; and, with such materials as are in my possession, submit my humble offering with the best grace that I may.

The incidents in the life of Doctor BALDWIN were neither so remarkable, nor so numerous, as to require a voluminous narrative. The Biographical Memoir will therefore be brief. But I have availed myself of copious extracts from his correspondence, during the latter years of his life,—which, unless I am misled by my own appreciation of them, will, I think, be deemed more satisfactory, and will better illustrate the true character of the man, than any account which could be furnished by the partial hand of friendship. They present a variety of intelligence, mixed up with passing remarks, and characteristic sentiments,—and all uttered with a warm-hearted frankness, and *naïveté*, which remind one of the charming Letters of old father TOURNEFORT, from the *Levant*.

The lively interest which attaches to the minutiae of Auto-biography, is universally acknowledged: Yet it seems to me, that the free, full, and confiding effusions of the heart,—poured forth on every emergency as it occurs, without the most distant idea of their ever being seen by a third person,—present a more faithful delineation of the writer's mind, and of all its attributes, than even the most ample details of self-written Memoirs.—These Letters, moreover, will give the reader a tolerable notion of the movements, and pursuits of Doctor BALDWIN—as well as of his indomitable perseverance in his favorite studies—during the most interesting period of his life. The *number* of his Letters, too,—during that period of infirm health, and manifold engagements, will indicate the industry with which he applied himself. I received from him upwards of fifty Letters, within the last three years of his life—some of them of great

length;—while his numerous other correspondents were by no means neglected.

Nothing further appears requisite—either to a just estimate of his intellectual energies, or to a due appreciation of the amiable simplicity of his character. Accordingly, I have added little, except a few occasional notes, (included within *brackets*,) explanatory of the allusions in the Letters.*

To the lovers of Nature—and to the admirers of native worth—these characteristic *Remains* of my excellent Friend are respectfully inscribed, by

WM. DARLINGTON.

WEST CHESTER, PENN'A.

February 13, 1841.

*The notices of Dr. B.'s movements, and observations in *Florida*, contained in his later correspondence, were so interesting to me, that I suggested to him, while he was in that region—and on his return to the North, urged the project, of his drawing up a more complete account of the country, and its productions, in the form of familiar Letters, with a view to publication. After some hesitation, he acceded to the proposition,—and had made some progress in the work—as his health and engagements permitted—until it was finally interrupted by the reception of orders to prepare for the Exploring Expedition, under Major LONG. The Sketch was, of course, left in an unfinished state: But, having recently had access to the original, I have ventured to transcribe and annex a portion of it to the other Epistolary remains. This may serve to explain the repeated allusions, in his correspondence, to the *Floridian Letters*.

BIOGRAPHICAL SKETCH.

WILLIAM BALDWIN—Son of THOMAS BALDWIN, a respectable member of the Society of Friends, and an approved Minister in that Society—was born in the Township of Newlin, County of Chester, and State of Pennsylvania, on the 29th of March, 1779. He received no other than the common English education afforded by the country schools,—which, at that day, were of very moderate pretensions: But he evinced at an early age, an eager desire for knowledge,—and, as one of the readiest modes of gratifying that desire—by the opportunities afforded for study—he became, himself, the teacher of a country school, in the vicinity of his birth-place. After some time spent in that arduous and honorable vocation,—which rather stimulated than satisfied his appetite for scientific attainments,—he turned his attention to the Profession of Medicine. This Profession—so comprehensive in its scope, and which has been aptly termed “the eye of all the Sciences,”—was admirably suited to one so accurate in his observations, and so humane in his disposition, as WILLIAM BALDWIN. He accordingly became the pupil of Dr. WILLIAM A. TODD, then a popular and extensive Practitioner of Medicine in the Village of Downingtown, Chester County. He attended his first course of Medical Lectures, at the University of Pennsylvania, in the winter of 1802–3: at which time I was his class-mate,—and first formed that acquaintance with him, which subsequently ripened into an intimate friendship, to be terminated only with

his life. The singular benevolence of his character, I had an opportunity to experience soon after the formation of our acquaintance. Early in the course, it was my misfortune to have a severe attack of disease, which confined me for some time to my solitary chamber, in a boarding-house. My class-mates, generally, had their studies, or their amusements, to engage their attention; and even those who personally knew me, and professed a friendly regard, probably never took a thought of the cause of my absence from my seat. But not so with my friend BALDWIN. His sympathies with affliction were always ready for action. He promptly sought me out—devoted to me every hour he could command, in the intervals of Lectures—and night and day, during my illness, like a ministering angel, was hovering round my bed with all the solacing attentions of the kindest Nurse and Physician. Such acts afford the surest evidences of real character,—and can be appreciated by none so well, as those who have felt their soothing influences. At the conclusion of his first course of Lectures in the University, young BALDWIN returned to the office of his Preceptor, in Downingtown. His straitened means prevented him from returning, the ensuing winter, to the University, and necessarily postponed the period when he could receive the honors of the Institution,—to which he ardently aspired; although but few country students, in Pennsylvania, at that day, had ventured to do so. He therefore remained a year or two longer with Dr. TODD, as an Assistant in his practice;—a portion of the time residing in the County of York, on the west side of the river Susquehanna,—whither the Doctor removed, in 1803.

While a resident in Downingtown—and subsequently at his father's, in the vicinity, BALDWIN had become intimate with the late Dr. MOSES MARSHALL,—nephew and heir of HUMPHRY MARSHALL, the well-known author of

the "*Arbustum Americanum*," and founder of the Botanic Garden at Marshallton. This gentleman was a respectable Botanist, and had materially assisted his uncle,—both in the establishment of his Garden, and in the preparation of his work on American Forest Trees and Shrubs. In the society of Dr. MARSHALL, BALDWIN had his taste for the study of the vegetable creation first awakened; and the means of gratifying it were amply afforded by the rich collection of indigenous plants, then growing in the Marshallton Botanic Garden. This circumstance undoubtedly gave a decided bias to his future pursuits; and illustrates well the happy influence of such institutions, and opportunities, in developing the latent powers and aptitudes of ingenuous Youth.—He was also indebted—in common with many others, of that day—for a portion of his Botanical zeal, to the late Prof. BENJAMIN SMITH BARTON, of Philadelphia,—who did much in giving an impulse to the study of Natural History, in the United States.

In the year 1805, although not yet an M. D. my friend felt that he was competent to engage independently in the practice of the healing art. He therefore sought and obtained the appointment of Surgeon to a Merchant Ship, which was about to sail from Philadelphia for Canton, by the way of Antwerp. This was a novel enterprise for a young Physician, who had been trained in the habits of country seclusion,—and was calculated to exhibit, in a strong light, the rustic *naïveté*, and inexperience, of the fresh-water Surgeon. A gentleman who sailed in the same ship (and whom I subsequently met, in India,)—after pronouncing the warmest eulogy on the professional skill, and amiable qualities, of the Doctor,—assured me, among other characteristic anecdotes, that our Chester County Surgeon had taken so little forethought concerning his new position, as actually to embark on that long and tedious voyage with only three shirts in his wardrobe! Nothing could be

more illustrative of the child-like simplicity of the man. Such was the devotion and singleness of purpose, manifested in all his undertakings, that he never seemed to think of subordinate, or incidental matters; and least of all, of those relating to his own personal convenience.

On his return from China, in 1806, he found his circumstances so much improved, that he could afford to attend another course of Medical Lectures,—and thus qualify himself for a Diploma. He accordingly entered the University of Pennsylvania for the winter course of 1806-7,—passed his examination with credit, in the spring,—and, on the 10th day of April, 1807, received the degree of Doctor of Medicine. The title of his Inaugural Thesis, was, “*A short practical Narrative of the Diseases which prevailed among the American Seamen, at Wampoa, in China, in the year 1805; with some account of Diseases which appeared among the crew of the Ship New Jersey, on the passage from thence to Philadelphia.*”

Having now obtained the highest honors of the first Medical School in the country, Dr. BALDWIN went to Wilmington, in the State of Delaware, where he commenced the practice of his Profession; and soon afterwards was married to Miss HANNAH M. WEBSTER, of that Borough,—a lady of superior intellectual endowments, and whose education had received a classical finish quite unusual among American Females at that day.—During his residence in Wilmington, Dr. B. employed his leisure hours in the investigation of the Plants of that vicinity: and, moreover, became engaged in a Botanical correspondence with the late Rev. HENRY MULLENBERG, of Lancaster, Pennsylvania, which he kept up with great interest, and advantage to himself, until the death of that eminent and accomplished Botanist.*

*Having unexpectedly obtained possession of that correspondence since the present notice was written, I am happy in being able to insert the principal portion of it among these *remains*: and shall

Doctor BALDWIN's constitution was always frail.— There was an hereditary predisposition to Pulmonary Consumption, which pervaded the whole family,—who were all finally swept away by that insidious destroyer. In the autumn of 1811, the Doctor's health became so delicate that he determined to seek a refuge from the severity of our northern winters; and thereupon he removed to the State of Georgia. He resided chiefly at Savannah and St. Mary's. Here he found himself in a new and most interesting field for Botanical research,—in which he engaged with untiring zeal and perseverance. With a knapsack on his back, he made several journeys on foot, and sometimes entirely alone, far within the territory of the Indians: and such was his gentle, inoffensive demeanor, among these Children of the Forest, that he completely secured their good will, and uniformly experienced from them the kindest and most friendly treatment. His humane disposition predisposed him to a favorable estimate of the Aboriginal character: he sympathised deeply with the wrongs and privations suffered by the native Proprietors of the Wilderness: and the result of his intercourse with them, was a firm conviction that they were a race “more sinned against, than sinning.” This sentiment pervaded all his conversation, and correspondence,—whenever he had occasion to refer to these unfortunate tribes.— Indeed, such was the benevolence of his nature, that I can truly say, there was more unalloyed philanthropy—more of the genuine “milk of human kindness”—in the composition of Doctor BALDWIN, than in any man it was ever my happiness to know.

On the 18th of June, 1812, a few months after the removal of Dr. B. to the South, war was declared between the United States and Great Britain: and in the course confess myself disappointed, if it do not endear the memory of *both* the amiable writers, to every true lover of the Science to which they were devoted.

of that year, the medical services of the Doctor were put in requisition by the Navy Department. Nothing could be less congenial with his temperament, or with those habits of peaceful thought and action induced by his education, than the turmoil incident to a state of war: But, the necessity of some employment by which he could support his young and growing family in a community of strangers, and his readiness under all circumstances to minister to the sick and distressed,—to say nothing of his patriotic feelings, which were always ardent,—prevailed with him to accept the appointment of Surgeon in the Navy of the United States.

The following extract of a letter from Mrs. BALDWIN, dated December 30, 1819,—addressed to the writer of this, at the time an effort was being made, in Congress, to procure a pension for the Doctor's family,—affords a brief outline of his services during the war:—"In May, 1812, Dr. BALDWIN went to St. Mary's, and acted a little while (say two months) as Surgeon's mate with Dr. DANDRIDGE,—though he never had a commission, as mate. Dr. DANDRIDGE, died,—as you know the climate is extremely unhealthy; and two or three Surgeons had died in succession in a very short time. After DANDRIDGE's death, the whole responsibility devolved on him, without any mate to assist him. He then acted as Surgeon, receiving Surgeon's pay. In October, he obtained leave of absence to come on to Wilmington, and hired a Surgeon in his place,—which the Navy rules did not require of him, and for which he never received any compensation. On his way to Wilmington, he stopped at Washington, and PAUL HAMILTON [Secretary of the Navy] gave him a Commission, dated October 22, 1812. Some time after, there was another sent on to him, at St. Mary's, signed by WILLIAM JONES [then Secretary] and dated 24th July, 1813. He was stationed at St. Mary's two years and six months; and for a con-

siderable part of that time he neither had mate nor lolly boy. The one resigned, and the other died: a great many on the sick list—the weather extremely sultry—he scarcely had time to rest night or day,—notwithstanding I did all in my power to assist him, in mixing and putting up medicine. He was stationed two years in Savannah.”—During his residence at the South,—and particularly while at Savannah, after the close of the war,—he established an intimate correspondence with STEPHEN ELLIOTT, Esq. the distinguished author of the *Sketch of the Botany of South Carolina and Georgia*; to which work—as its pages amply testify—he furnished copious and valuable materials.

Towards the end of the year 1816, Dr. BALDWIN sent his family to Wilmington, Delaware (the native place of Mrs. B.)—while he remained at the South during the ensuing winter and spring—chiefly engaged in exploring the botanical treasures of East Florida. About this time, a long-suspended correspondence with the writer of this was resumed,—which was actively continued until the close of the Doctor’s life. This correspondence—or rather the Doctor’s share of it,—of which a large portion is hereto annexed,—affords a full and faithful account of his movements; and therefore leaves but little to add to this hasty and imperfect Sketch.

Dr. BALDWIN’s reputation, as a Botanist, induced the Government to select him, in 1817, to accompany Messrs. RODNEY, GRAHAM and BLAND, in the U. S. Frigate Congress, on a mission to Buenos Ayres, and other South American ports, for the purpose of ascertaining the condition and prospects of the Spanish Colonists, who were then struggling to establish their independence of the mother country. He went as Surgeon of the ship; and the prominent incidental object of his appointment was to investigate the vegetable productions of the places which might be visited during the voyage. In the performance of this collateral duty—notwith-

standing the feeble state of his health—he was most assiduous, and eminently successful. Being a zealous Republican, he also sympathized deeply with the Colonists,—and, as his letters demonstrate, took a lively interest in their efforts (which, alas! have hitherto been but too abortive) to establish a free and rational system of government.

On his return from South America, in 1818, Dr. BALDWIN passed the remainder of that year chiefly with his family, in Wilmington,—making occasional excursions, for the benefit of his health, among his friends in Chester County. His time, when at home, was principally devoted to the examination and description of the new plants he had collected at the South. These descriptions, however, were never entirely completed,—except a couple of papers which were published about that time; one in SILLIMAN'S Journal—and the other in the American Philosophical Transactions. These labors were finally interrupted, in the early part of the ensuing year, by his appointment, as Surgeon and Botanist, to accompany Major LONG'S Expedition up the river Missouri. His health was totally unequal to this undertaking: But, both he and his friends indulged the delusive hope, that it might possibly be improved by such an excursion,—and he embarked in it with all his characteristic enthusiasm. His strength, however, failed him, ere the expedition was fairly under way; and he died at *Franklin*, on the banks of the *Missouri*, on the first day of September, 1819, in the forty-first year of his age. His gentle spirit forsook its frail tenement, in a region far remote from his anxious family,—and the wild flowers of the West, for more than twenty years, have been blooming on his lonely grave: But the recollection of his virtues continues to be fondly cherished by every surviving friend,—and his ardor in the pursuit of his favorite Science will render his memory forever dear to the true lovers of American Botany.

CORRESPONDENCE

OF

DR. BALDWIN WITH DR. MUHLENBERG.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, [Penn'a.] January 7, 1811.

SIR: Will you forgive me, if I, as a stranger, intrude upon your studies, and beg your acquaintance? Doctor HIESTER, the present physician of the Lazaretto, informs me that you are a great friend of Botany. I have been the same for near forty years; and have collected, of American Plants in particular, whatever I could get. The State of Delaware, alone, amongst all others, has contributed nothing to my Herbarium; and I am certain it contains many new and curious plants. This, a former acquaintance of mine, Mr. RAFINESQUE, has informed me of; and Mr. WILLIAM HAMILTON, of the Woodlands, confirms his information.

I have seen part of Mr. RAFINESQUE's Catalogue,—amongst the plants he mentions, several were new to me;—as *Uniola paniculata*, *Zizania miliacea*, *Hydrocotyle ficarioides*, *Hopea tinctoria*, *Sida rhombifolia*, *Astragalus Carolinianus*, *Jacobaea tomentosa* and *lyrata*, *Helianthus lanceolatus*, *Viola rotundifolia*, *Veratrum nigrum*, *Melanthium racemosum*, *Blechnum Virginicum*, &c.

Mr. RAFINESQUE was rather too quick in naming the plants, and may have been mistaken in some names; but it is very likely that you have many plants, hitherto only discovered in the Southern States. Will you, my dear sir, for love of the Science, receive my tender of a

nearer acquaintance? I will send you whatever we have in our parts, not common with you,—and you can send me the plants not to be found here. All Grasses and Cryptogamia are my favorites. Of grasses and calamarious plants, I have about 320 different species; but still a few, even of *Michaux's* plants, are wanting: In particular, his *Zizania miliacea* (the *claviculosa* we have,) a few *Schoeni*, and a few *Carices*. Water plants you have in abundance—being so near the water: we, at Lancaster, have but few.

Perhaps you have seen my *Index Florae Lancastriensis*, printed formerly in the Philosophical Transactions of Philadelphia. Choose amongst the plants there mentioned, and you are welcome to any. If you have any Catalogue of your plants, pray let me have it; or take your own choice, and favor me with specimens you think curious, not described, or doubtful. Anything I can do, to clear up the doubts, shall be done with pleasure.

The plants we exchange, we will number 1, 2, 3, &c. This will make a future correspondence easy; and our mutual observations will be better understood. I propose to send whatever I have, to Philadelphia, to JOHN MUSSER, No. 140, Race Street,—who is an Inspector of the Custom House, and will find many opportunities to Wilmington. If you are pleased to direct your packets to him, he will forward them with care to me, by the mail coach, or other opportunity.

Much pleasure I anticipate, and some good for the Science, from such a correspondence. Will you favor me with an answer, when convenient? Accept my best wishes for your health and prosperity; and believe me to be with great esteem,

Sir, your most obedient humble servant,

HENRY MUHLENBERG.

Dr. BALDWIN,

At Wilmington, Del.

DR. BALDWIN TO DR. MUHLENBERG.

Wilmington, Del. January 14, 1811.

MY DEAR SIR: The letter which you have honored me with was received in due time; but unavoidable circumstances have prevented my replying earlier.

I feel myself under great obligations to Dr. HIESTER, for the respectful manner in which he has made mention of my name to you,—as I rejoice in the prospect of a nearer acquaintance with a gentleman whose celebrity, as a practical Botanist, is so well established in the scientific world. I anxiously hope that your expectations may not be formed too highly respecting me,—as I am a mere *tyro* in Botanical Science: and with the *Gramina* and the *Cryptogamia* I am the least acquainted.

When I attended the Botanical Lectures of Professor BARTON, in the year 1806, I derived but little information respecting these two vast and important families of plants; and was induced to consider the investigation of the former, in particular, as extremely difficult. But last spring, while engaged in giving a popular course of Lectures on this *charming science*, I found it necessary to attend more particularly to the grasses; and then it was, that I regretted, most sincerely, my want of an acquaintance with you. I had seen your *Index Florae Lancastriensis*, but I sought in vain to obtain it,—and was informed that all the early volumes of the Philosophical Transactions were sold. Nothing but the necessity of attending closely to my professional engagements, after having taken a hasty tour through the Peninsula, could have prevented me from riding to Lancaster, in order to avail myself of your extensive information, and to procure, if possible, your *Flora*. Judge then, my dear sir, of the happiness you have conferred upon me, by soliciting my correspondence; and rest assured, that how-

ever indifferently qualified I may be for fulfilling your request, I shall serve you with an ardent and a heart-felt zeal.

I have a *Catalogue*,—but it is too imperfect for your inspection: But when the *season of blossoms* again arrives—should I be favored with life and health—I will endeavor to transmit to you, in regular succession, the plants of my vicinity that you may be interested in;—and in the mean time, when opportunity offers, I will send you some old specimens. I hope I shall be able to send some of the plants you have mentioned, as discovered and named by Mr. RAFINESQUE; and perhaps some others that escaped his notice. This indefatigable Botanist has, perhaps, independent of his *new* discoveries, unnecessarily changed some of the *Linnaean names*.*

Not having your *Index*, &c., I cannot make a proper selection from it: But few of your grasses, however, would come amiss. Some species of the following *Genera* I think you possess, which I should be glad to receive, viz: *Cynosurus*, *Festuca*, *Poa*, *Cyperus* and *Stipa*. I have a species of *Xyris*, and I think the *Aira cristata*, and a species of *Milium*, in my collection,—as well as some species of *Schoenus*. We have a species of *Ranunculus* which does not appear to be described: and it may not be known to you that the *Ranunculus Lingua* of Linn. [doubtless *R. Flammula*, L.] grows abundantly in our marshes. A large species of *Orobanche*, which I take to be the *O. major* of Linn. is to be found on the Brandywine, within a mile of the borough.—I shall be very happy to see the *Muhlenbergia*; and would thank you also for a specimen of the *Marshallia*, and the *Hydrastis Canadensis*.

I am so unfortunate as not to be in possession of

*[A practice which he most wantonly and mischievously persevered in, to the end of his days.]

MICHAUX'S works,—although I am acquainted with a considerable number of his plants. I procured TURTON'S LINNAEUS last spring; but was much mortified to find that, although it was published as late as 1806, it did not contain a single plant of MICHAUX.—I shall furnish you with a number of plants that are to *me* doubtful; but which may nevertheless be described,—as I have never yet been able to avail myself of all the aid necessary to prosecute the *Science of Botany* to advantage:* But, viewing you in the light of a Preceptor, with the advantage of your correspondence, I shall renew my studies with redoubled ardor; and perhaps you can inform me where to obtain your *Index* &c. and other works, calculated to facilitate my progress in this delightful branch of Natural History.

That your useful life may be extended, and that every blessing may attend you, is the sincere wish of

Sir, your sincerely affectionate friend,

WILLIAM BALDWIN.

H. MUHLENBERG, D. D.

Lancaster, Pa.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, January 18, 1811.

DEAR SIR: I was exceedingly pleased to see by your letter, that you are willing to accept my offer of a

*[The young American Botanists, of the present day, can have but a faint idea of the privations, and disadvantages, under which the students of that Science labored, in our country, at the date of this letter. Nothing but a perfect enthusiasm in the pursuit, could in any degree supply the want of that aid which is now within the reach of all.]

nearer acquaintance; and I anticipate much pleasure on both sides.

Willingly would I send you my *Index Florae Lancastriensis*, but I have it only in the Transactions. If I can get a printer, I have a MS ready several years, containing in two fascicles—I. a Catalogue of the hitherto known Phanerogamous Plants of N. America, in columns containing the Linnean and English Names, Calyx, Corolla, Fruit, Habitat, and time of flowering. II. The Cryptogamous Plants. I daily add to it, and think it might be useful.

You have, no doubt, a number of new plants. Your *Ranunculus Flammula* I have seen—though scarcer with us: the other one I wish to see,—as also your *Milium*, *Aira cristata*, and whatever you find dubious, or new. Extremely happy I would be, if we could make a few excursions together. The sight of the living plant is more satisfactory than a dried specimen, or the best description. If you wish to know *Grasses*, send whatever you find, *numbered*,—keep the same number in your Herbarium, and in one year you will know the most of them. It is the same with *Mosses* and *Lichens*. They seem to be a difficult order; but are soon known. The study of them is very pleasing.

I make a beginning to send you *Grasses*, numbered,—of each genus one species, to get the habit. They are chiefly American; but a few exotics I had to add, where the genus was wanting with us.

The *Hydrastis Canadensis*, L. we have in plenty. The root is yellow, and might prove to be a valuable dye. It is easily propagated by the root; but with difficulty by the seed. The *Marshallia*, if I read the name rightly, is a southern plant,—of which I have an unique, indifferent specimen. WALTER describes it by the name of *Athanasia*. MICHAUX names it *Persoonia*. *Marshallia* is SCHREBER's, and the oldest, name. We ought to be

jealous for our American names. Why should we have the trouble of finding, and other nations the honor?

You have, no doubt, many water plants,—especially *Confervae*. Those are very little known, and need a close examination. For *Mosses*, the present season is best. They are best distinguished when the *operculum* is ready to fall, and the *peristoma* beginning to show itself. The *Lichens* we can often find at the fireside; and I have gathered a good number, just before I put the wood in the stove, or on the fire.

For this time, I send my small packet of 53 Grasses to Philadelphia, in hopes that it can be conveyed to Wilmington, either by a travelling friend, or by the stage. Do you know of any better opportunity?

With the sincerest esteem I remain,

Dear Sir, your most obedient humble servant,

H. M.

P. S. As you have not MICHAM, I will extract, from his *Flora*, his *Grasses*,—marking such as I have not seen. [As a matter of curiosity, those species, in the list, which were then unknown to Dr. M. are here enumerated: viz. *Eriophorum Hudsonianum*, *Alopecurus aristulatus*, *Paspalum plicatulum*, *Schoenus ciliaris*, *Fuirena scirpoidea*, *Stipa juncea*, *Tripsacum cylindricum*, *Aira melicoides*, *Festuca poaeoides*, *F. diandra*, *Briza Canadensis*, *Avena striata*, *Zizania miliacea*, *Z. fluitans*, *Manisuris granul-aris*, *Juncus melanocarpus*, *Carex scirpoidea*, *C. subulata*, *Sparganium angustifolium*.]

DR. BALDWIN TO DR. MUHLENBERG.

Wilmington, Del. February 19, 1811.

DEAR SIR: This will be delivered to you by Dr. A. PERLEE, a medical gentleman of high respectability, whose object in visiting Lancaster is to look out for a permanent establishment in his profession. Any service, therefore, which you may render him, I shall gratefully acknowledge.

I received your valuable communication on the 14th inst. which is far from being compensated by the little return I now make you. I can only console myself with a hope, that during the ensuing spring and summer I shall be able to remunerate you, in some degree, by transmitting fresh specimens of all the Grasses, as well as other plants, which I may procure. In the *Aira cristata*, I believe I have been mistaken,—as well as in some others; but am happy to find that some of the genera which you have transmitted, I had previously investigated with success. I cannot send you the *Milium* until I procure a fresh specimen. In this, also, I may be mistaken,—as it had done flowering when I met with it last season. I wish likewise to obtain fresh specimens of all the species of *Ranunculus* that I have not met with in Pennsylvania; which I shall transmit together.

I have many more dried specimens to send; but have not leisure, at present,—as the bearer is waiting to depart. They shall therefore be sent, on the first opportunity. I was likewise laboring under a pneumonic affection when I received your packet,—from which I have not yet recovered.

I am your obliged friend.

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, February 22, 1811.

DEAR SIR: I had the pleasure to receive your letter, and the dried specimens, by Dr. PERLEE. The Doctor pleases me much, and I wish him much success. In Lancaster we have at least a dozen of physicians, good and bad; and if it were not for the neighboring country, they would not make a living. I recommended Harrisburg,—where lately the chief physician has died, and very often diseases prevail.

The plants you were pleased to send, I have looked over. They are, a few excepted, also natives of our parts.

I will be extremely obliged to you for any dubious or new specimens. You have in Sussex, the *Hopea*,—also a *Nyssa denticulata* (Peperidge) which I long to have in my Herbarium.

There are, now and then, wagons from here which go to Wilmington; but I believe the safest and cheapest way, is by vessels passing between Wilmington and Philadelphia.

I enclose in my letter 25 Cryptogamia, comprising the different Genera of *Mosses*, according to the system of HEDWIG,—now generally received. I took only natives, and chiefly the most common. If you wet them with a few drops of water, they will get alive and show their habit plainly. I do not doubt you have them all growing near Wilmington. *Lichens* may follow another time, if you choose to study this class.

I hope you have recovered entirely from your late complaint, and will favor me with a continuance of your correspondence. I beg to be remembered to Mrs. BALDWIN. Dr. PERLEE informs me she is a great Botanist and Entomologist; which gave me sincere pleasure.

I remain with true esteem, dear sir,

H. M.

DR. BALDWIN TO DR. MUHLENBERG.

Wilmington, Del. March 30, 1811.

DEAR SIR: I have just understood that my letter and package of the 15th inst. still remain at Mr. MUSSEY'S, awaiting a safe conveyance; and that Mrs. MUHLENBERG is in the city, but about to return to Lancaster.—Having another package in readiness, I send it up immediately, that both may go on safely together.

I feel almost ashamed, my dear sir, to trouble you with so many specimens,—with which I dare say you think I ought to be better acquainted: but my experience in the investigation of plants, of course, has not been great. Relying, therefore, upon a continuance of that liberality which you have already so gratifyingly manifested towards me, I sincerely hope by my industry to make you ample amends, hereafter.

I wish you would hasten the publication of your Botanical work, alluded to in your letter of the 18th January. I have sent to New York for *Michaux's Flora*, and have some hopes of obtaining it. In anticipation of your *Lichens*, I have been making collections of this family of plants,—which are, in all probability, as numerous here, as about Lancaster.

Is the *Zizania clavulosa* of *Michaux*, which you sent me, the same with the *aquatica* of Linn. which covers our marshes here—or is it another species?—The *Sparganium ramosum*, I think Dr. BARTON calls *erectum*; but I know not from what authority. It grows abundantly with us.

Is the enclosed specimen of *Scutellaria* the *lateriflora* of LINN? And is it the same with that contained in the package accompanying this letter? In a late number of the New York Medical Repository, this plant is recommended as a preventive of the Hydrophobia, (with a drawing,) under the name of *Scutellaria galericulata*, L. which I think is incorrect.

Mrs. BALDWIN joins me in wishing that you may long live to cultivate the Science of Botany. W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, April 8, 1811.

DEAR SIR: Your two letters, and packets, No. II. and III. were handed to me three days ago; and had, for want of an opportunity, a long passage. I hasten to acknowledge the receipt, and to return my best thanks for the valuable presents,—although I am not able just now to return some of the specimens which you have marked as *uniques*; as I am engaged during this week before Easter with official business so much, that not an hour remains to make up a parcel of *Lichens*, and other plants, for you. The first leisure and opportunity I have, it shall be done with pleasure. In answer to your letters, I only mention that the *Sparganium erectum*, L. is by late 'Botanists—especially WILLDENOW—now divided into two species; *a*, *ramosum*, and *b*, *simplex*. We have both growing very often in company.

The *Scutellaria*, enclosed in the letter, is the same with that contained in the package; and is certainly the *lateriflora*, L. which has sometimes *flores oppositi, axillares*. Some of your *Carices* cannot with safety be determined, because the specimens are too young. They ought to be gathered when the fruit is half ripe. We have great plenty; and near 50 of ours are well figured by Mr. SCHKURH, in his work *de Caricibus*. I wish very much to see whatever you can find of the genus.

When you make up another packet, pray continue the *numbers*. This will make our correspondence more easy; and we can refer to the numbers whenever doubts arise—or amendments, or supplements are necessary.

I have looked over your specimens but once; and will give you my opinion, as far as I can give it. * * *

[A few, only, of the remarks on the specimens are

here retained: such as are believed to be still interesting to American Botanists.]

Packet II. No. 1. is certainly a *Melampyrum*; but distinct from *M. Americanum*, of *Michaux*, which seems to be your I, No. 8. The latter has yellow seeds, 4, your II, No. 1, black seeds, 2-4, with broader leaves; very near to *M. pratense*, L. Pray send more, with flowers. *No. 4*, "*Schoenus?*" *Scirpus planifolius*, mihi; not yet described. *No. 16*, "*Cerastium*, from the Barrens, Chester County." A new species, which I have named *lanatum*.* I wish to see more, with the capsule. *Packet III, No. 13.* "*Bartonia*, of *Marshall?*" is *Streptopus*, Mx. *Uvularia*, Pers.

Should, after closer examination, any alteration occur to me, I will inform you. I mark such as I have not already in my Herbarium, (and which I wish to get by your kindness,) with a N. B. and whenever opportunity happens, I will return to you what you desired,—with some other plants.

In the mean time, I remain with unchangeable esteem, and my best respects to Mrs. BALDWIN,

Sir, your sincere friend,

H. M.

DR. BALDWIN TO DR MUHLENBERG.

Wilmington, Del. April 22, 1811.

DEAR SIR: I received your valuable communication

*[This *Cerastium*—which, in Chester County, is chiefly confined to the Serpentine rocks—is the *C. villosum* of MUHL. *Catal.* and *Flora Cestrica: C. oblongifolium* of TORREY & GRAY'S *N. American Flora*.]

of the 8th a few days ago; and herewith transmit to you another packet (No. IV.) which I fear will turn out as little interesting as the former.

Some of the information that you have requested will be found accompanying the package.

Veronica hederifolia is doubtless a native. It is abundant in some of the hedges in our vicinity; and has been flowering (if I do not greatly mistake) since some time in March. Has it not been recognized as a native?

* * * * *

Letters and packages between Wilmington and Philadelphia are conveyed with the utmost facility, either by land or water, free of expense. The greatest difficulty appears to be between the city and Lancaster.

I am sincerely your obliged friend,

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, April 23, 1811.

DEAR SIR: According to my promise, in my last letter, I have prepared 25 Lichens in small specimens for you. They are from Europe; and therefore not all indigenous in our country. In winter, I collect, near the fire-side, our Lichens on the fire-wood; and I dare say you would find the most of them in the same manner. Many of ours are not yet described; but we may expect to find the greater portion either in the new edition of *Linnaei Species* of WILLDENOW; or in the *Lichographia* of Acharius; to both I have sent whatever I could collect in our parts; i. e. about 130 species.

My observations on your packets, II and III, you will have received long before this by the mail: April 8,

the letter was written. I find, after a second examination, no reason to alter any name; but repeat my wishes to have another and better specimen of some numbers. * * * *

If your time and circumstances would permit, I would be extremely much obliged to you for a catalogue of such plants as you have seen in your excursions,—or as you have in your Herbarium. I would then know better which plants are to be exchanged. Any plant you have not, and I have, should be sent; and I would mention to you which of yours are not with us. The Jerseys opposite to you, and Sussex, contain many southern plants. I intend to make an excursion into the Jerseys when I come next to Philadelphia—i. e. the first and second week after Whitsuntide, when our Synod meets at Philadelphia: Probably some hours in the day may be left for an excursion.

A gentleman from Savannah, Mr. OEMLER, wished to call on you, on his return from Philadelphia to Savannah by land. He is a valuable correspondent. Has he ever called?

Remember my best respects to Mrs. BALDWIN, and believe me to be with unchangeable esteem and friendship,

Sir, your most obedient, &c.

H. M.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, April 30, 1811.

DEAR SIR: Your packet and letter, dated April 22, came to Lancaster April 26, and gave me much pleasure. The garden plants, being chiefly *uniques*, I did

not examine closely. Indeed, I leave them to Botanists who see them living, and have plenty of specimens.—Our native plants are my favorites;—although I sow, every year, a number of foreign plants, for comparison.

I will wait for an opportunity, and send your *uniques* back to Philadelphia. I have put your specimen of *Scirpus retrofractus*, and a specimen of *Commelyna longifolia*, in the packet.

If you can get leisure, I will thank you very much for a catalogue of your plants,—that I may send you such from our neighborhood, as may be new in your parts.—

* * * * *

Allow me one general remark: Your specimens are rather small and imperfect. I may, therefore, here and there, be mistaken: Should I find any mistake, I will inform you.

The 23rd of this month, I sent your former packet back, and added 25 Lichens. They are from Europe; but almost all, also, natives of North America. I expect the Jerseys contain a great many new species. If you look at your fire-wood, you will find the most of them. This year, I purpose to look for *Confervae*,—which have been overlooked entirely, in our Floras. Your water plants I wish very much to see. For all your favors, I return you my best thanks; and remain, with unchangeable esteem,

Sir, your most obed't, &c.,

H. M.

DR. BALDWIN TO DR. MUHLENBERG.

Wilmington, Del. May 3, 1811.

Agreeably to your request, I send you as perfect a catalogue of our Plants as I am at present capable of.

[This *catalogue* enumerates about 550 species; and mentions a number, then undetermined by Dr. B.]

Such is my poor catalogue; which, imperfect as it is, is at your service. I shall add to it as fast as possible. It is indeed my wish, and will afford me great pleasure, to serve you to the best of my abilities, in any way that you will please to direct, for the advancement of Botanical Science,

I am, &c.,

W. B.

DR. BALDWIN TO DR. MUHLENBERG.

Wilmington, Del. May 7, 1811.

DEAR SIR: Your obliging letter of the 30th April, came to hand the 2nd inst. following; but I did not receive the packet, and letter accompanying it, until yesterday:—having requested Capt. BUSH, who commands a packet boat from this place to Philadelphia, to call upon Mr. MUSSER for it. It may not, perhaps, be known to Mr. MUSSER, that the opportunities from Philadelphia to Wilmington are daily, if sought for. I ask pardon for troubling you with so many imperfect specimens. It was owing to my former want of attention in not collecting them with care; and also to the confused state of my Herbarium: Hence, I have sent you specimens, both of garden plants, and others, which I found, after you had named them, I had once been familiar with. I beg pardon, also, for sending you so many foreign garden plants, which I ought to have investigated myself,—but which, as I had the specimens without knowing what they were, and indeed without knowing from whence many of them were obtained—I sent to you. I am

aware that your time is important and precious. I am sorry that you have been at the trouble of returning so many specimens—many more, indeed, than I expected, or had marked. * * * My present package was chiefly put up before I received either of your communications. It, however, contains but few *uniques*; and hereafter, as my Herbarium is now better arranged, and I shall take care to procure double and better specimens, such inconveniences will not be experienced. Package IV. 140, from a re-examination, I have found to be *Daphne Mezereum*. 141, and 142, I have never seen in gardens. They grew spontaneously in the islands in the south of China, from whence I plucked them, with my own hands, in 1805. Specimens of them, with a great many others, (as well as native plants) principally *uniques*, are safe in the hands of Dr. BARTON. I saw many plants, even in this part of China, which are common here:—as different species of *Scutellaria*, the *Laurus Sassafras*, &c. &c.

Good specimens of all the plants you have mentioned shall be forwarded in season. The *Melampyrum* will soon be in flower. The *Ranunculus debilis*, Raf. is beginning to flower. My catalogue has been drawn up hastily, and is very imperfect. I have no doubt but there are many plants with which I am acquainted, that are omitted from not being in my list, nor Herbarium; but such as I discover I will inform you of. I have omitted most of our Forest trees,—not having attended much to them and the Grasses, &c.

Mr. OEMLER called on me yesterday, and started for Baltimore this morning. I was highly pleased with him, and made arrangements for corresponding. He will be of infinite service to Mrs. BALDWIN,—in her prosecution of the science of Entomology; and has agreed to exchange Insects with her. I am extremely obliged to you for the *Lichens*; a few of which are familiar to me,

although I was unacquainted with their specific characters, and had attended but little to them. With sentiments of the highest esteem, and regard for your welfare and prosperity, I remain affectionately yours,

W. B.

N. B. Can you not, when you come to Philadelphia, extend your excursion to Wilmington? No trifling circumstance would prevent me from bearing you company, either into the Jerseys, or on this side the Bay. I should highly prize your company, were it only for a few hours. Mrs. B. sends her best respects to you, and would rejoice in seeing you. Excuse me, if I once more request you to hasten the publication of your Botanical work: I would almost insure you immediate and ample remuneration. A love for Botanical Science is fast progressing in our happy country. Imperfect as my knowledge of Botany is, I am engaged in giving lectures,—principally to young ladies, who are enamored with the study. I think I could readily obtain you a dozen of subscribers here.

Forgive this long letter, and the freedom I take. I write, too, in great haste.

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, May 22, 1811.

DEAR SIR: Your packet, containing specimens from No. 195–285, with the letter dated May 7, arrived safe on the 18th inst., and gave me great pleasure. Receive my thanks for the catalogue of the plants in your neighborhood. Our *Floras* are much alike: however, there will remain some difference,—as you have the Delaware and

the Jerseys near, and I the Susquehanna which brings many plants from the westward. Looking over your catalogue, I find the following as strangers to our parts, at least to my Herbarium: viz. "*Arabis tenella*,"—"*Alisma*, different from *Plantago*,"—"*Andromeda palustris*,"—"*Asclepias undulata*,"—"*purpurascens*,"—"*a species very large*,"—"*another*,"—"*Anthemis*, one different from *Cotula*,"—"*Euphorbia canescens*,"—"*Galium asprellum*,"—"*Gentiana*, a beautiful species,"—"*Hibiscus Virginicus*, 2 vars." "*Myrica Gale*,"—"*Magnolia*, different from *glauca*,"—"*Nyssa denticulata*." Probably we may differ sometimes in names; and by exchanging the plants we will be certain. Will you be pleased to send me those mentioned, whenever you can spare any specimen?—All the others mentioned in your catalogue, I have in my Herbarium. I have no doubt you will discover many other plants this summer,—especially if you turn your attention to *Grasses*, and the *Cryptogamia*. Your situation for *Confervae* is excellent. My method to preserve these, is this. As soon as I bring them home, I put them in water, and stir them about until they are clean and well spread; then I run a clean stiff paper under them in the water, raise them out, and lay the paper slanting to let the water run off until the paper is dry; then I write the time of finding on the paper. My collection is but small. Mr. OEMLER has promised me to collect whatever he can find at Savannah, and the sea shore. He will prove an excellent correspondent to us. I have examined your specimens, and have repacked your *uniques*, and shall send them by the first opportunity to Philadelphia. Here and there I have added some plants which I did not find in your catalogue,—or when your specimen was not clear enough for me. I will try to give you my opinion on them, with the old reserve—errors excepted; and shall be glad to hear your doubts, or emendations. Whenever I

wish to see a better specimen, or another, I add N. B.

I will hardly be able to extend my excursion to Wilmington, in June,—being pressed by business; although I wish exceedingly to see you personally. An excursion of a few hours, in a good situation, would explain more than a dozen letters.

Pray have you specimens of any of LEWIS's plants? I have tried every method to get a sight of them,—but in vain. My friends at Philadelphia have denied me the pleasure of seeing them in flower. I would wish to add them to my catalogue, without any description;—leaving that to the compilers of LEWIS's work. I am afraid the description will be made in England, and LEWIS's work will come too late. Perhaps you can get the specimens from Mr. M'MAHON, or Dr. BARTON.—This letter I will forward by the mail; and the packet whenever an opportunity offers to Philadelphia.

Remember my best respects to Mrs. BALDWIN, and believe me to be,

Sir, your most obedient humble servant,

H. M.

P. S. I shall be at Philadelphia from the 9th to the 13th of June.

DR. BALDWIN TO DR. MUHLENBERG.

Wilmington, Del. May 27, 1811.

DEAR SIR: Your valuable letter of the 22nd, and the packet containing *Commelyna Virginica*, and my *uniques*, have been received; for which you are entitled to my warmest thanks. I am preparing you another packet; but whether it will reach you before you leave

Lancaster for Philadelphia, is uncertain,—as I have numerous engagements to attend to.

It is my intention, while you are in the city, to send you (possibly I may be the bearer myself,) the *Ranunculus debilis*, Raf. *Melampyrum*, &c., in a tin case, in a living state, for your investigation.—I have no specimens of LEWIS'S plants; but will most cheerfully use my endeavors to obtain them.

I have just received a letter from Major THOMAS M. FORMAN of Rose Hill, Sassafras neck, Maryland, enclosing a specimen of *Solanum dulcamara*. The Major has not informed me whether he obtained it from Sassafras, Maryland, or in Delaware State, near New Castle, where he spends a great part of the summer: but it is *native*.

Having the advantage of your correspondence, I devote every leisure hour to Botany; and shall extend my collections as much as possible, for your sake—who have done so much for the Science,—as well as for my own, who am anxious to tread in your footsteps.

I am your obliged friend, &c.

W. B.

P. S. Mrs. B. who returns you her compliments, is engaged in catching Butterflies. I shall be highly gratified with the specimens you are about to transmit.

The following list [says Dr. BALDWIN, in his MS. notes,] was delivered by *myself* to Dr. MUHLENBERG, in Philadelphia, on the 11th June. I add it, with his remarks for the sake of convenient reference. I enjoyed in the company of this venerable, enlightened and benevolent man, the sweetest intellectual pleasure.—Had a short but interesting excursion with him on the morning of the 12th, toward Germantown.

* * * * *

{The following remark, concerning *Carex squarrosa*, L. is extracted from the list referred to—as an interesting little incident in the history of that species. It is now frequently met with; and, in some localities, is even abundant.]

303. *Carex squarrosa*. Frequent applications have been made to Dr. M. from Europe for this species of *Carex*, and he has in vain sought for it from different parts of the United States, until it was concluded that no such plant existed. * * * *

DR. BALDWIN TO DR. MUHLENBERG.

Wilmington, Del. June 25, 1811.

DEAR SIR: Since I had the pleasure of seeing you in the city, the necessary cares of life have prevented me from making you an earlier return for the attention with which you honored me; and I apprehend the present package will not be very interesting. I send you the best specimens I possess of the *Carex squarrosa*; but it is to be met with in abundance, at a little distance. I have only time to return you my best wishes,—as the bearer of this letter is waiting to convey it, along with the package, to Philadelphia. W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, July 2, 1811.

DEAR SIR: Your packet arrived safe, yesterday. Receive my best thanks for it. Such observations as occur

at the first perusal, I will add. Should any others be made when I put the new or dubious ones to their classes in my Herbarium, a future letter may contain such observations. * * *

“289. *Physalis*”—*viscosa*, Mx? *Pennsylvanica*, Willd. hardly of Linn. Has the plant a disagreeable smell, the fruit a good one? I wish to see more. We have only two native species here. * *

“300. *Thalictrum cornuti*?” Specimen imperfect.—We have three—*dioicum*, *polygamum*, and one without name, with a disagreeable smell—*floribus dioicis*, *cernuis*,—flowering in June, after *dioicum*, and before *polygamum*. * * *

“318. *Impatiens*”—*fulva*, mihi. We have another, *sulphurea*, mihi [*pallida*, Nutt. Torr. & Gray.]—and 2 vars. *alba* and *purpurascens*,—all different, I suppose, from *noli tangere*, L.

“319. *Euphorbia*”—*maculata*, Schreber & Smith—*parviflora*, Sprengel. What Schreber calls *hypericifolia*, Sprengel calls *maculata*. No. 319 is not in the Herbarium of Linné.

* * * * *

“328. *Aster corymbosus*?” with some doubt. Their co-species, run into one another so much, that there is no certainty—*macrophyllus*, *corymbosus*, and *cordifolius*. I have them now in my garden. [See TORREY & GRAY—who retain the three, as distinct species.] * * *

I mark such as I wish to see again, and are new to me. With unchangeable esteem and sincere friendship,
I remain, Sir, your very affectionate

H. M.

DR. BALDWIN TO DR. MUHLENBERG.

Wilmington, Del. July 7, 1811.

DEAR SIR: Yours of the 2nd, came safe to hand on the 4th, for which you are entitled to my sincere thanks. I have this day put you up a package, in great haste, which will be delivered to you by JOSEPH MENDENHALL, a near relation to Mrs. BALDWIN, who starts this afternoon for the western country. He will be accompanied by a boy, who will return again from Lancaster to Wilmington—by whom you may write, should it be convenient.—Mrs. B. sends her compliments to you, and is very impatient to hear from Mr. ——— of Baltimore; who has not yet forwarded the catalogue of Insects.

Most affectionately yours,

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, July 8, 1811.

DEAR SIR: I am this moment returned from an afternoon's excursion, and find unexpectedly a packet from you. I thank you sincerely for your instructive specimens. Your last packet I have looked over, since, more than once; and find no alteration necessary. The *Galia* remain something uncertain: *circaezans*, Mich. has commonly a smooth—sometimes a hairy stem: *punctulosum* is always hairy, and always has *folia punctata*. Your garden Cress I will examine another time. What we cultivate in gardens, is exactly *Lepidium sativum*, L.

As I look over your specimens, I will add the names as far as I can do it at first sight—reserving the usual errors excepted.

“337. *Asclepias decumbens*? Is the *decumbens*, and *tuberosa*, the same plant?” 337 is certainly *Asclepias tuberosa*, L. He took the description of *decumbens* from GRONOVIVS, without having the plant in his Herbarium.

* * * * *

Your young friend is waiting for my letter: I must therefore conclude. Remember my best respects to Mrs. BALDWIN, and believe me to be with unchangeable esteem and affection,

Sir, your very sincere friend and humble servant,

H. M.

DR. BALDWIN TO DR. MUHLENBERG.

Wilmington, Del. July 16, 1811.

DEAR SIR: I received your letter of the 8th, on the 10th, which, as usual, gave me much satisfaction; and for which I return you my thanks. I have sent you, in this packet, several plants that I have not seen before,—as *Arabis*, *Lemna*, &c. But, for want of more leisure, I have also sent you a number that are very common: of which, however, I may not have all the *names* correct.—I have opened a book according to your plan, in which I can, with the utmost facility, enter my descriptions, and notes, of any plant I meet with, under its proper class; and find it of great importance, as it will render me familiar with botanical language.

I wrote lately to my friend, Dr. SHATTUCK, of Boston, and inquired for Professor PECK and his *Botany*; but have not yet received an answer.

Mrs. BALDWIN sends her best respects to you, and begs that if you write to the Entomologist in Baltimore, (whose name I cannot recollect,) you will put him in

mind of his promise to send us his catalogue of insects. Have you heard from Mr. OEMLER, since his return to Savannah?

I am, most sincerely and unchangeably,
Your friend,

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, July 27, 1811.

DEAR SIR: Last evening I had the pleasure to receive, by the stage, your letter and packet, for which receive my best thanks.

My friend in Baltimore, who promised you the catalogue of Coleoptera, had, immediately after his return, a severe attack of an apoplectic stroke,—from which he is, by the blessing of God, now recovered. If you address a line to him, he no doubt will fulfill his promise. Address to the Rev. DANIEL KUNG, at Baltimore.

I have, after my last, looked over your numbers 337, 378, and found hardly any thing to add. * * *

Since my last, I have received an excellent new work upon *Lichens*, by ACHARIUS, and some other Botanical works; but not any continuation of WILLDENOW, although it was sent off from different quarters. Remember my best respects to Mrs. BALDWIN.

I remain, with sincere regard,
Sir, your most obedient,

H. M.

DR. BALDWIN TO DR. MUHLENBERG.

Wilmington, Del. August 2, 1811.

DEAR SIR: Yours of the 27th was duly received, for which you have my hearty thanks. I hope the present packet will be received in an undamaged state, and that some of the specimens will be interesting to you. I expect in a short time to receive a number of specimens from Kent county, where, I am certain, a number of plants are to be found that do not grow in our vicinity. Whatever I can procure shall be sent to you; for I wish most anxiously to remunerate you, in some way or other, for your obliging favors.

I received a letter, a few days ago, from Dr. SHATTUCK of Boston, who, in reply to my inquiries respecting Prof. PECK, informed me that he was not to be relied upon as a correspondent, and that he has had no account, lately, of his promised publication of the *American Genera*, &c. I have written to the Rev. DANIEL KUNG, who I hope has perfectly recovered from the alarming disease which you inform me he was afflicted with, after his return from the city.

Was the *Asclepias* (No. 402) the same which you saw in Philadelphia? I had (through mistake, I presume,) arranged it in my *Herbarium* under the name of *A. laurifolia*, of MICHAUX. *Mentha arvensis* (403) and *Canadensis*, I suppose, are not one plant. As described in my *Species Plantarum*, it appears to come much nearer to *arvensis* than *Canadensis*. I received, a few days ago, a single specimen of a beautiful *Orchis*, from Chester county:—*spike* very long—*spur* long—*flowers* purple—*leaves* oval, broad. It seemed to come nearest to *ciliaris*.* You are, perhaps, familiar with it.

*[Dr. B. had omitted to notice that *O. ciliaris* has not "purple," but bright *orange-colored* flowers. The species here alluded to, was

August 3. Since writing the above, last evening, I have received the promised catalogue, accompanied by an obliging letter, from the Rev. D. KUNG; and am happy to learn that he is able to attend to his official duties.

With sentiments of warm esteem,
I remain, &c.,

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, August 20, 1811.

DEAR SIR: Your packet, and letter dated Aug. 2, arrived safe on this morning; and I hasten to acknowledge both, lest you should think I have been late in answering.

The plants were all in good order, and gave me much pleasure. Should you receive any from Kent, or from Boston, you will add much to the obligations I owe you already, if you let me share in them.

From Massachusetts, or any rocky sea-shore, I expect to see *Fuci* and *Confervae*,—which have never been investigated and added to the American Flora. I have quite lately received some from the Jersey sea-shore. They were a fine and new sight for me. If laid in water, they recover their figure very well.

Your *Asclepias* (402) you had, I think, at Philadelphia. It is in the Herbarium of LINNAEUS, without a name; doubtless, what has been generally known, in this country, by the name of *O. fimbriata*; but which Dr. A. GRAY has recently ascertained to be the true and original *O. psycodes*, of LINN. See SIL-LIMAN'S *Journal*, vol. 38, p. 310, for an exposition of the remarkable confusion in which several American species of *Orchis*, or *Habenaria*, have been hitherto involved.]

and agrees nearest with *laurifolia*, of MICHAUX,—though a bad name. He must have seen it; as it grows also to the southward,—where he seems to have examined very closely. With us, it is scarce.

Mentha (403) we have, in different and strong varieties. SMITH would have it to be his *gracilis*. SCHREBER named it *sativa*. The stamina are *exserta* and *inclusa*,—and I still think our verticillate *Mentha* is *arvensis*;—and perhaps, also, *borealis*, Mx. and *canadensis*, L.

I know a fine purple *Orchis*, which WILLDENOW has received from me, and named *incisa*. It is probably the same. His *fissa* and *fimbriata*, Ait. have likewise purple flowers. Compare the characters:

1. *fimbriata*—“labello tripartito, laciniis cuneiformibus ciliato-fimbriatis, petalis lateralibus ovatis dentatis, cornu filiformi clavato germine longiore. W.”

2. *incisa*—“labello tripartito, laciniis cuneiformibus inciso-dentatis, intermedia emarginata, petalis lateralibus obtusis subdentatis, cornu subulato adscendente germinis longitudine. W.”

3. *fissa*—“labello tripartito, laciniis cuneiformibus dentatis, intermedia biloba, cornu filiformi apice clavato adscendente germine longiore. W.” [See GRAY in SILL. Journ. l. c.] The real *Orchis ciliaris* varies with yellow and white flowers; and is your 464. * * *

Since my last, I sent to MESSRS. OLOF SWARTZ and ACHARIUS a great number of *Mosses* and *Lichens* which are still dubious to me, and hope they will arrive safe in Sweden, and return a clear answer. I have desired them to send to me whatever they can spare of *Fucus* and *Conferva*. They are both extremely well versed in *Cryptogamia*.

From one of my old correspondents, the Rev. Mr. DENKE, amongst the Indians in Fairfield, Canada, I have received a promise of all Canada plants not to be found

in our parts; and a full account of Indian medical plants, with which he is well acquainted. I anticipate much pleasure and use in this renewed correspondence. Mr. OEMLER, at Savannah, has not yet answered my letter, written to him some time in May.

My collection of sweet water *Confervae* is getting strong. I only take one sixteenth of a sheet to put them on, and they look extremely delicate. It would be a lady's occupation. Only throw the *Conferva* in water—spread it well—run the paper under, take up the *Conferva*, and pin it to a wooden wall until the paper is dry.

Remember my best respects to Mrs. BALDWIN, and believe me to be with great esteem and real affection,

Sir, your most obedient and sincere friend,

H. M.

DR. BALDWIN TO DR. MUHLENBERG.

Wilmington, Del. August 27, 1811.

DEAR SIR: I received with great pleasure your communication of the 20th, and hasten to make you a feeble return. Of your N. B's I send you this time a good specimen of No. 23, [packet III.] which I hope you will be able to investigate. I took a ride of 6 or 7 miles in order to procure it.

I have received no specimens from Kent,—but presume there are some in store for me. From Boston, I fear it will be difficult to obtain them: But, whatever I obtain, from any quarter, shall be shared with you. I am happy to hear that your correspondence is extended far and wide, both in the old and new world; and I have no doubt but a grateful posterity will amply reward you

for the result of those labors, which you seem inclined, at present, to withhold from the public.

With esteem and gratitude, I remain dear sir,

Your obedient and humble friend,

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, September 4, 1811.

DEAR SIR: Your packet and letter dated Aug. 27, came safe to Lancaster last evening. Receive my best thanks for both. They have added to my Herbarium several valuable plants. I hasten to give you my observations,—although I had no time to compare some of them with my Herbarium. I can always give you my *curas posteriores* in a future letter. Your last packet was just added to my Herbarium when this came. I found little to add to my former observations, except 457 is something different from our common *Rudbeckia laciniata*. 472 is *Stachys hyssopifolia*, Mx.—very different from my *tenuifolia*. 478 is not *Festuca diandra*—the calyx is too obtuse: but what it is, I could not discover by the imperfect specimen. * * * Your 490 is not *Hedysarum obtusifolium*, Willd. but *rotundifolium*, Mx. *canescens*, Willd. not of Linné. [See TORR. & GRAY, sub *Desmod.*] The *Hedysara* are very superficially described; and without the *lomentum* (*legumen*, L.) not to be distinguished.

Your present numbers are—as much as I can judge at first sight:—

507. *Trachynotia cynosuroides*, Mx. formerly *Dactylis*, L. *pistillum* 1, is the distinction from *Dactylis*.

513. *Oryzopsis*, Mx. I had named it *Milium melano-carpon*.

531. *Polygala verticillata*. I could never distinguish, specifically, the one with a *reddish* flower, from the *white*. Is not your No. 23, (packet III.) *Polymnia Uvedalia*?

558. *Hedysarum paniculatum*, Willd. not of *Mx.* which has *linear leaves*. I mark, as formerly, the plants which I wish to see in more perfect specimens,—whenever you have leisure to collect them.

Quite lately I had a visit from a Mr. SHULL, who now lives at *Marcus Hook*, as Inspector of the Customs. He has an excellent botanical eye, and promises to send me a number of *Marcus Hook* plants, which, according to his description, seem to be new;—especially a blue-flowering water plant, different from *Pontederia*—with a narrow leaf: also, a white sweet-scented flower—the plant smelling like *Ananas*. Should you have any business at *Marcus Hook*, I beg leave to recommend him and his Herbarium to your notice. He mentions, also, a *Cane*, in Dr. TILTON's garden. What is that? Does it ever flower? I wish to be certain whether we have two different species of *Cane*. I have three in my garden,—one, very large: this flowers very late, and seems to be the *Arundo Donax*. I have also the *Maiden Cane*, probably the *Arundinaria*, *Mx.*—and *Butler's Cane*: But the two last have never flowered, and remain small.

I am sorry that my *Massachusetts* correspondents hardly ever answer a letter, and that nothing can be got from them. Indeed, there is but *one Doctor BALDWIN* amongst my correspondents—who is indefatigable.—How shall I thank you enough, for your packets!

Mr. OEMLER mentioned three gentlemen in *Baltimore*, who were great lovers of Botany—Mr. DE LA FOULLAY, Drs. WILKES and SMITH. Could we not get those gentlemen to let us have some of the *Baltimore* plants? I have been there several times, but had no leisure to

make any excursions. In general, I thought Baltimore an excellent situation for a close observer.

Some time before November, I expect to be at Philadelphia, to introduce my youngest son to Dr. RUSH, and the other Professors, as he intends to study medicine with Dr. RUSH. I expect to make some valuable additions to my Herbarium, from Mr. LYON's and M'MAHON's gardens. In my neighborhood, little new can be found.

I conclude this scrawl with my best respects to Mrs. BALDWIN, and remain, with unchangeable esteem and friendship,

Sir, your most obedient servant,

H. M.

DR. BALDWIN TO DR. MUHLENBERG.

Wilmington, Del. Sept. 23, 1811.

DEAR SIR: You will readily excuse the delay of this packet, as well as its want of importance, when I inform you that since I wrote last, I have lost a dear and only *brother*. He died of pulmonary consumption, from asthma, (to which he had been subject from an infant,) the 5th instant,—the day preceding the receipt of your last valuable communication. I have also been severely afflicted, myself, with a bowel complaint, bordering upon dysentery.

• • • • •

I am not acquainted with Mr. SHULL of Marcus Hook. His "blue-flowering water plant" I have heard of,—as I have no doubt it is the same that was sent to me some time ago; but the bearer (a small boy) unfortunately

lost it by the way. It was found within a mile of this borough, at the junction of the Brandywine with the Christiana. I will wait upon Mr. SHULL the first opportunity. The *cane*, in Dr. TILTON's garden, is from Carolina, and has never flowered. I will inquire further respecting it, the first opportunity.

I am extremely glad to have added to your Herbarium; and be assured, my dear sir, I feel myself abundantly compensated for my packets, by the friendly manner in which you so promptly condescended to give me the information I require. But I must now, also, inform you with regret, that our correspondence is likely to be interrupted, at least for a time. My health having become extremely delicate, and having hardly recovered from the pulmonary attack I had, last winter, I dread the consequence of remaining in a climate so cold, the ensuing inclement season; and am therefore preparing to spend the winter at the southward. My intention is to sail from Philadelphia for Charleston, about the first of November. Whether I shall remain in Charleston, or go further south, I have not yet determined. But, my friend, wherever I go—should I be favored with health, I will attend to our favorite pursuits, and share with you the result of all my discoveries.

You speak of being in Philadelphia, some time before November. If you will be so good as to inform me when, I will endeavor to meet you there, and bring on some specimens, if I have time to collect them,—and beg you to favor me with letters to some of your friends in the south.

I remain yours &c.

W. B.

P. S. I am not acquainted with Mr. DE LA FOULLAY, nor Dr. WILKES, of Baltimore: But Dr. SMITH, of that city, called at my house a few days ago, when I was from home, and left word that he would call again, on his return. He told Mrs. BALDWIN that he had a "smart" collection of plants. I shall, therefore, make arrangements with him,—should he be so good as to call again.—The purple flowering *Orchis*, which I spoke of in a late letter, appears to be the *fimbriata*—from the character which you have given of it, in your letter of August 20. I forgot, also, to inform you, that I have seen but one *Zizania*.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, October 11, 1811.

DEAR SIR: Receive my best thanks for the new packet which arrived here a few days since, and which I have looked through with a great deal of satisfaction. Some of the plants are dubious to me,—especially the ill-described *Hedysara*, species or varieties; but I will do what I am now able to do. A future day will allow more; and I may, in another letter, make supplements. I know (except *Aster*) no genus harder to get certain, than *Hedysarum*. MICHAUX has made *two* genera of it:—*Lespedeza*, with *calyx 5-parted*, and a *capsule with one seed*,—while *Hedysarum* has *Calyx sublobatus, lomentum articulatum*. WILLDENOW has kept the old name, and only made *Lespedeza*, or TOURNEFORT'S *Onobrychis*, for a subdivision. I wish very much to have all *Hedysara* alive; and I beg you, therefore, to enclose in a future packet, such *Hedysara* seeds as we have not here,—if you can get them without too much trouble. * *

Since my last, I have received a fine collection of New York plants, by my son who was there; and some

maritime plants from Dr. S. L. MITCHILL,—and have a promise of more.

The *Lichens* and *Mosses* I sent to the veteran in Botany, OLOF SWARTZ, have arrived safe; and he has returned a satisfactory answer,—confirming my names. I will collect, this winter, supplements. Some time next week, or week after next, I intend to be in Philadelphia. Have you had an opportunity to see Mr. SHULL, at Marcus Hook? My best respects to Mrs. BALDWIN.—Neither from Mr. ELLIOTT, nor Mr. OEMLER, have I received any letter in a very long time.

Adieu, my dear sir. I remain, with great esteem,
Your very sincere friend and humble servant,
H. M.

DR. BALDWIN TO DR. MUHLENBERG.

Philadelphia, November 1, 1811.

MY DEAR SIR: I have just arrived to secure my passage to Charleston, S. C., but shall not sail for a week or more. With this you will receive a small packet, put up amid the hurry of preparing for my journey; but for which I may receive, most probably, an answer before I sail. A number of the specimens are from the neighborhood of Washington (Maryland)—and were brought to me by a friend of mine, whom I requested to collect for me.

I was mistaken in the account I gave you of Dr. TILTON's *Arundo*. It has flowered for several years; and I have procured a specimen of it for you,—but forgot to bring it with me, this morning. I lately called on Mr. SHULL, at Marcus Hook, and procured a few specimens from him,—most or all of which, I think, you have seen. One, however—a Syngenesious plant, and odorous—is entirely new to me. I have but a single specimen of it. And now, my dear sir, I have only to request, that if I

can be of any service to you, while in the southern States, you will inform me in what way. I go first to *Charleston*: from thence to *Savannah*, and probably further south. Should you wish to write to any of your southern friends, I would be happy to be the bearer, and to render you all the service in my power.

I am, dear sir, yours,
W. B.

N. B. If you should write by me, you might direct to the care of Mr. MUSSER,—where I can readily obtain whatever you send.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, November 4, 1811.

DEAR SIR: This evening I had the pleasure to receive your letter of November 1, and the packet. I hasten to return you an answer, for fear of coming too late. In one respect, I shall be very sorry for your departure,—because I shall lose, at least for some time, your instructive and pleasing correspondence;—indeed, the only one that was regular and uninterrupted since its beginning. But your love of Science, and excellent eye for Botany, and natural history in general, promise so much for a future day, that you go with my best wishes for a safe voyage, and a happy return. May I expect that, even at a distance, you will remember a friend who is obliged to stay in these parts?

I shall be extremely obliged to you for any letter from the southern parts,—and for every information you give me.

Here are some of my wishes.

When at *sea*, you will have an opportunity to see many marine plants, and species of *Fucus* and *Conferva*: pray gather whatever you can get.

At *Charleston*, you will have an opportunity to see the Botanical Garden, and a number of plants—especially those left by MICHAUX. Any observations fit to elucidate MICHAUX's *Flora*, will be instructive to the Botanical public. The same elucidation we want for a number of plants mentioned in BARTRAM's *Travels*. BARTRAM has none of them left in his Garden; and if you would take his travels along, you could inform us which plants he meant.

Should you come to *Beaufort*, in South Carolina, there is that excellent Botanist and Entomologist, STEPHEN ELLIOTT, Esq. He is, like yourself, indefatigable; has seen and examined a great many Plants, Minerals and Insects; is communicative, and just the gentleman we look for. I intended, in my very next letter, to mention your name to him, as a most valuable correspondent. Should you see him personally, I am convinced you would be entirely pleased with one another. I expect every day a promised packet from him; and then I will inform him of your voyage to the southward. Perhaps he is now at the seat of the Legislature, *Columbia*, S. C.

At *Savannah*, you will find our mutual friend, Mr. OEMLER. I have written two letters to him, without receiving an answer. Mr. ELLIOTT informed me, in his last letter, that he had not yet returned to *Savannah*. This is probably the reason of his not answering. Tell him how anxiously I wait for a favorable answer; and persuade him, if possible, to let me have a sight of his *European Conservee*. I wish you to examine them, yourself, very closely.

At *Savannah* you will have an opportunity to see that excellent man, Mr. ABBOTT,—whose drawings of Georgia Insects and Plants, are so justly admired. I wish to have your opinion on the new drawings he has made for the library, at *Savannah*.

Should you, in your travels, come to the *Natchez*, there is a Mr. HENRY MOORE, a native of Lancaster, who, in company with his brother, is in trade,—but likewise attends to Botany, and every branch of natural history:—a most valuable man, who, in his travels, has made many valuable discoveries.

Without doubt you will find many other valuable gentlemen, who are unknown to me. Remember me to all such; and try to open communion and correspondence with such. By joining hands, we may do something clever for the Science. Mine, indeed, begin to get old and stiff,—but the heart still beats high, and wishes that others may do what was left undone. Away with all jealousy. * * * * *

Wishing you every success in your travels, and a happy return, I remain, with affection and unchangeable esteem, your sincere friend and humble servant,

H. M.

P. S. Pray keep a Journal of all the plants you see in flower—known, or unknown. It is of great service, as a *Calendarium*, to find the difference of the climate; and a help to remember the whole of your journey.

DR. BALDWIN TO DR. MUHLENBERG.

Charleston, S. C. December 6, 1811.

MY DEAR SIR: I am happy to have it once more in my power to make you some small return for your excellent favor of the 4th of November last,—which came to hand in due time. The recommendations and instructions contained in this letter, I value as of the highest importance to me,—and only regret my unworthiness to receive: But the liberal and dignified sentiments you have expressed, towards the close of it, with which, unfortunately, too few are actuated—excited

my sensibility almost to tears; and the spontaneous wish of my heart is, that you may yet have many years to live, an honor and a blessing to your country.

I am happy to inform you, that I have already found my health improved, and am able to take much active exercise.

The forests are here clothed in green,—and consist principally of “Live Oak” (*Quercus virens*,) and Pine (*Pinus palustris*, L.) with a few “Hickories” (*Juglans*) and “Black Oaks” (*Quercus nigra*, and *Q. tinctoria*): the leaves of the Hickories, alone, (different species,) having assumed a yellow, autumnal hue. It has only been within a few days that the “Pride of China” (*Melia Azedarach*) has in general shed its leaves. Many of the young trees of *this genus*, however, are still green; and none of the garden plants,—nor indeed any others, with the exception of the Hickories before mentioned—the *Zanthoxylon*, and a species of *Rhus* (I believe *Rhus vernix*,)—appear to have been injured by the frost.* There have been but two scanty white frosts, this season. Many plants are still flowering:—a complete list of which I hope to make out,—and most of them will be contained in the packet accompanying this letter—along with a few dried specimens from the Herbarium of Mr. NOISETTE, a French gentleman who formerly had the care of the Botanic Garden. This garden, from which I had promised myself much, is almost in ruins: and the garden of MICHAUX is a perfect desolation,—from which I can only obtain some few dried specimens that were procured from it, and are preserved by Mr. NOISETTE. They talk, however, of reviving the Botanic Garden,—and have actually purchased six acres for that purpose, about two miles from the city; and have sold the old garden, which is a barren spot, for such an advanced price as to gain one thousand dollars.

* Many of the Shrubs, however, are *Evergreens*.

I have agreeably to your request, remembered you to Mr. NOISETTE,—Mr. SHECUTT, author of the *Carolina Flora*,* and a few others,—who appear to have at least some zeal for *Botany*; and from whom I hope we shall hereafter derive advantage.

The garden is, at present, under the care of a committee of the Medical Society,—not one of whom, unfortunately, is a practical Botanist. Dr. MAGWOOD, a very worthy gentleman, has the particular superintendence of the garden—appears to be much interested in it—and has agreed to correspond with me.

I do not expect, my dear sir, to receive answers to my communications, prior to my return home. I shall then be very happy indeed to hear from you, and to have your observations in connection, on the specimens transmitted.

In a few days I shall set out for *Savannah*; and from thence it is my intention to go on to the *Creek Nation*,—having a letter from Dr. RAMSAY to the Hon. B. HAWKINS, Superintendent of Indian affairs. I have received the kindest attention from Doctors RAMSAY, GOUGH, WILSON, and others in Charleston,—to whom I had letters from Doctors RUSH, MEASE, &c.

With sentiments of unalterable esteem,

I remain, my dear friend, yours sincerely,

W. B.

N. B. You may expect to hear from me, whenever I can have it in my power to serve you.

DR. BALDWIN TO DR. MUHLENBERG.

Savannah, December 23, 1811.

MY DEAR SIR: I hope that before this time you have

*A work which, owing to pecuniary embarrassments, he was obliged to leave unfinished.

received my letter and packet from Charleston. I should have put you up another, here, had it not been for the difficulty and uncertainty of conveyance, at this season of the year. I have lost no time in making collections,—all of which, that are interesting, you shall hereafter see, if I should be so fortunate as to return home. A number of plants are even still in flower, in sheltered situations,—although we have had some severe frost. Among these are some species of *Aster*, *Gentiana*, *Lamium amplexicaule*, *Viola primulaefolia*, and *Houstonia serpyllifolia*.

My health has much improved; and I have spent a week in this city very agreeably, in the society of a number of gentlemen to whom I have been introduced, but more particularly with our mutual friend, Mr. OEWLER, who deservedly takes the lead, here, as a Naturalist.*

I have looked over, with great pleasure, the interesting drawings of the amiable Mr. ABBOTT. Those at the library are much more accurate than some others of older date,—as they have been recently executed under the inspection of the more scientific OEWLER. They are, as far as I am qualified for judging, exquisitely beautiful and scientifically accurate. * * *

I have not seen Mr. ELLIOTT, which I regret exceedingly; but must avail myself of that pleasure on my return this way, if such should be my destination.

Having been furnished with letters from Dr. RAMSAY, Gen. C. C. PINCKNEY, and others, to Col. HAWKINS, Superintendent of Indian Affairs, in the lower Creek Nation, I am anxious to proceed on thither,—where I am told I can spend the remainder of the winter in peace and security, without incurring a heavy expense. I feel anxious,

*[In a note, at a subsequent period, Dr. BALDWIN expresses his regret at being under the necessity of changing his opinion of this gentleman.]

also, to see the *natives* of our country;—to become acquainted with their plants, and obtain such other information as may be interesting. The Colonel, I am told, is a man of science; and I hope to interest him in our favor.

Nothing but want of ability, my dear sir, will prevent me from fulfilling your wishes in every respect, and contributing my feeble mite for the advancement of Botanical Science, while wandering about in search of health, far from my dear little family. I keep a journal, as you recommended; but it will contain little of importance. With sentiments of warm esteem, I remain

Your obliged friend,

W. B.

P. S. I have a printed *catalogue* of the plants in the Botanic Garden, at Charleston. I will copy it for you, should you desire it, at some future period. The whole number of plants is only 494.

DR. BALDWIN TO DR. MUHLENBERG.

Savannah, January 28, 1812.

DEAR SIR: You will not expect a letter, at this time, from *Savannah*,—as I informed you in my last of my intention to go on to the Creek Nation: But I have, perhaps, been better employed,—having since paid a visit to the LE CONTES, in Liberty county,—and spent some time with Mr. ELLIOTT, at his plantation on the great *Ogechee*. I have no time, at present, to descant upon the knowledge and virtues of these worthy men; as I am in great haste to put you up a small packet to send by Mr. KIN, who sets out immediately for Charleston, and has promised to deliver this safely to the care of Mr. MUSSER, on his arrival in Philadelphia. The *Mosses* I send you, are only part of my collection,—not

having time to put up more. Most of these were collected near the sea coast, on *Wilmington Island*,—from which place I have just returned. As I hope you have received my packet from Charleston, by the ship *Pennsylvania*, I beg that you will connect the numbers of that with this,—as I cannot, at present, lay my hands on the corresponding numbers, and have forgotten where I left off. I remain with sentiments of warm esteem, &c.

W. B.

I shall probably set out for *St. Mary's*, in a few days.

DR. BALDWIN TO DR. MUHLENBERG.

Creek Agency, on Flint River, April 20, 1812.

Lat. 32° 39' N. Long. 84° 20' W. of Greenwich.

MY DEAR SIR: AS I have found it impracticable to transmit to you any *specimens*, I will endeavor to make amends for this deficiency, by giving you a *catalogue* of those plants which have fallen under my observation, since my arrival in this country, as they have appeared in flower; and I shall embrace the earliest opportunity of forwarding the specimens, corresponding with the numbers herewith sent.

I sent you a small packet of *Mosses* from Savannah, on the 28th January, by your friend Mr. KIN,—which I hope you have received, along with the letter that accompanied it. Instead of going on immediately to *St. Mary's*, as intimated in that letter, I put my original plan in execution, and sat out for the “western wilds,” on the first of February; whither I arrived on the 21st of that month, and commenced the following *Calendarium Florae*.

Feb. 21. *Fragaria Virginiana* in full bloom, in the garden of Col. HAWKINS. * * * *

Feb. 24. A *Pentandrous shrub*, growing in clusters in

high land (Pine barrens, &c.) about two feet high. Flowers appearing in numerous racemes at the extremity of the branches, of a yellow color: no appearance of leaves. *Note*.—This shrub is a *Rhus*. * * *

Feb. 27. Salix—"Dwarf Willow" in flower: catkins very short. This is the *Micco Hoyenejau*,—"King Physick," or "Great Medicine," of the Muscogee Indians (Creeks;) and has been in use among them from the earliest times, as a tonic medicine. They use the root, bruised, in a watery infusion. When used freely, it becomes emetic. * * * *

Feb. 29. Viola pedata in flower, at Fort Hawkins, on the 16th. The Pine barrens, in many places, are covered with the *Viola pedata*, varying in color, from the brightest blue to the clearest white, and frequently variegated with the most brilliant purple. Flowers very large. * * * *

March 3. Cercis Canadensis, or "Red-bud," beginning to flower. *Indian Corn* may now be planted.

March 8. Trillium sessile beginning to flower: and in great abundance. * * * *

March 11. Bignonia sempervirens, L. [*Gelsemium nitidum*, Mx.] flowering. This plant may be seen [in flower?] every month in the year, in the maritime parts of Georgia.

March 14. Anona triloba? in flower: of very humble growth, in this country. [This is probably the *dwarf* species, now called *Uvaria parviflora*, TORR. & GRAY.]

March 16. Amaryllis Atamasco flowering. It is the "Swamp Lily" of the Georgians; and is called *Toonau* by the Creeks, who use its bulbous root as an article of food, in times of scarcity. Although most abundant about water courses, I have seen it on the highest ridges.

Aesculus Pavia, "Buck-eye," in flower, and very abundant. The *root* of this furnishes a soapy substance, peculiarly adapted to the washing of flannels and silks.

• • • • • • •
 March 21. *Sisyrinchium*.—Roots fibrous, yellow, and extremely pungent. It is considered, by the *Creeks*, to be an infallible *Emmenagogue*; and is used by the *Cheerokees* as an emetic. It is verdant throughout the year.
 • • • • • • •

March 23. *Lonicera sempervirens* in flower; and very abundant.

March 24. *Arundinaria macrosperma*, Mx. "Cane," a small *variety*, in flower. This plant, which is so rarely seen flowering, I am informed, may be made to flower, by *wounding*, or by transplanting it.

Cornus florida in flower: *Involucrum* often very large.

March 27. *Triticum hybernum*, "Winter Wheat," shooting out heads. • • • • • •

March 31. Two quarts of ripe *Strawberries* (*Fragaria Virginiana*) gathered this evening.

This must suffice for the present; but I hope to give you the remainder shortly. You will pardon the imperfections of this catalogue, when I inform you that I have not a single systematic work to refer to, and am obliged to depend altogether upon memory in my investigations; which is very embarrassing to a student who hardly understands the language of Botany.

I left Savannah, indisposed in body and dejected in mind, and came to this country on foot,—determined to try the efficacy of severe exercise, along with the difficulties that attend this mode of travelling in a *wild* country, upon my feeble constitution; and have succeeded beyond my expectation,—enjoying, at present, a comfortable state of health. The kind reception I have met with from Col. B. HAWKINS, Superintendent of Indian Affairs, in this Department, claims my warmest acknowledgments; and from his talents and industry, as a man of science, we may calculate with confidence upon his aid in future,—as he has cheerfully promised

to collect, and send on, either dried specimens, seeds, or roots, as may be required.

I shall be able to add to this *Flora*, a register of the *weather*. The *Agency* is situated on the banks of Flint river, and on the *lowest stratum* of the Granite ridge, or commencement of the Alleghany mountain. The country here is beautifully diversified into gently swelling hills, narrow vales, and numerous streams of water. The shores of these waters are very fertile,—abounding in oak, beech, and poplars of enormous size. About nine miles north easterly, we find the dividing ridge between the waters that enter the Atlantic through the medium of the *Alatamaha*, and those which, falling into Flint river, roll on to be lost in the gulf of Mexico. Although the appearance of the country, for the greatest part of the way between the *Ocmulgee* and Flint river, does not seem to merit the high and florid character which the venerable *Bartram* has ascribed to it,—as it is principally *Pine barren*, diversified with “ridges of low swelling hills” covered with *Black Jacks* (*Quercus nigra*,) yet, to the romantic, sentimental traveller, who conceives himself in a vast wilderness, the occasional appearance of an extensive lone meadow has a most charming effect, amid the otherwise dreary, naked forest. But even the Pine land, in the vicinity of the *Agency*, produces excellent wheat,—and becomes much more fertile as we advance to the westward. At the distance of one mile, in this direction, we get out of the region of the *long-leafed Pine* (*Pinus palustris*, L.,) when the *Oak* land, mixed with the *short-leafed Pine*, commences.

The *Hydrangea quercifolia*, which *BARTRAM* found at “Sweet-water Brook,” about six miles north easterly from this place, is very abundant—even on the highest hills,—and will soon be in flower. On the fertile shores of the river, I have seen it more than ten feet in height.

The *Hypericum aureum* is also abundant. The *Chionanthus Virginica?* is here only a humble shrub,—attaining to the height of a few feet; and is found almost exclusively on the highest hills. It is now in flower. The flower of the *Halesia diptera* differs very materially from that of *H. tetraptera*,—and has certainly no business in the Class *Dodecandria*, where, I believe, LINNÆUS has placed the *genus*. The *corolla* is divided into 4 distinct petals; *stamina* very uniformly 8, completely coalesced for near two-thirds of their length. But I have no room to add more; and therefore remain, with the most profound respect, your sincere friend and servant,

W. B.

DR. BALDWIN TO DR. MUHLENBERG.

Savannah, May 26, 1812.

DEAR SIR: Meeting with Mr. ———, who has just returned from *Burke County*, where he has been procuring *burr stones*, and who sails this day for Philadelphia, I send you on, in haste, four small packets, without having time to select or retain duplicates. All of them (except a parcel in which you will find a short note, signed S. BOYKIN,) I collected in the neighborhood of *Milledgeville*, when on my way to the *Creek Nation*, in the beginning of February. They consist, of course, principally of *Mosses* and *Lichens*. No. 1, was collected and put up by Dr. SAMUEL BOYKIN, an amiable and enterprising physician and naturalist, whom I am proud to recommend to your attention. He resides in *Milledgeville*, and will be happy to hear from you.

I have just come on, in haste, from the *Creek Agency*, and am on my way to *St. Mary's*, where I shall probably spend the summer,—having accepted an appointment, there, in the surgical department. My collections

made in the *Creek Nation*, still remain at the Agency,—to be forwarded in boxes to this city; from whence they are all to be sent on to Philadelphia, to the care of Mr. MÜSSER, subject to your order.

I regret the confusion that has been unavoidably produced in our correspondence; but which, I hope, will be corrected, should I live to return. In the meantime, I must beg that you will write to me, and, if possible, reduce our correspondence to regularity again,—independently of those packages which I now send you, and those which you are to receive from the Agency. When I hear from you at St. Mary's, my packages shall be put up upon our former plan.

I am, in great haste, my dear sir, ever yours,

W. B.

P. S. I still hope to return, and reside in Wilmington; but the state of my health, and some other circumstances which I cannot now detail, have induced me to remain a while in this country. Since I wrote last, I have been at the *Coweta town*, on the *Chatahoochee* river.—There are certainly two species of *Hydrangea* in this country.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, June 18, 1812.

DEAR SIR: I am extremely happy to see by your last letter, dated Savannah, May 26, that you are returned in safety and health from the *Creek Nation*,—and that I have a place mentioned within the reach of the mail, where I can address an answer to your letters. I have received them all, and return you my best thanks for each of them. Each was very pleasing and instructive to me. * * * * *

You are now at St. Mary's,—an excellent situation to

elucidate BARTRAM'S *Travels*. If you have a copy, pray let me have your observations on his dubious plants,—especially on such as are without a scientific name. *

* There is a famous root, called, at Augusta and Milledgeville, “*Black-root*”^{*}—highly recommended in dropsy, and almost every disease. What may it be? and could you persuade Dr. BOYKIN to get me some seed,—if the plant is not known? I wish, likewise, your opinion on *Cane*: Have we more than one species? And what is the real *Coontia*, of the Indians? Is it *Smilax laurifolia*, †—or do you find it figured in CATESBY, or elsewhere! Lately I received a packet from our excellent friend, Mr. ELLIOTT, which I have not yet examined, closely: Amongst the plants is an *Euphorbia*,—probably the one you mention with a red flower. It is new to me. Anything you are pleased to send to me will be exceedingly welcome. That you may gain daily strength and good health I wish sincerely.

I remain with unchangeable respect,

Sir, your most obedient humble servant,

H. M.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, September 19, 1812.

MY DEAR SIR: Your interesting letter of the 18th June, was received on the 11th of July, and has added much to the obligations I was already under. I have long waited an opportunity to make you some return; and am at length happy to inform you that I have put you up several small packets, and sent them on board

[* *Pterocaulon pycnostachyum*, Elliott & DC.]

[†The “*Coontia*” was afterwards ascertained to be the *Zamia pumila*. See subsequent correspondence.]

the Schooner Trimmer, SAUNDERS, of Philadelphia,—who has been detained for a week, in consequence of equinoctial gales and head winds. They are directed to the care of Mr. MUSSER; and hope they may be received,—as I have retained no duplicates of many of them. They have mostly been collected in the immediate vicinity of this place,—from *Cumberland, Amelia,* and the shores of *Florida*.

Such has been the nature of my engagements,—particularly since I received your letter—that it has been impossible for me to attend to Botany with any kind of success;—a circumstance that I regret extremely, in this *land of flowers*, at a season of the year in which it has been so little explored by the Botanist. But my zeal has not in the least abated; and in the midst of sickness and confusion, by which I have been surrounded, and by which my life has been in danger, I have never failed to pluck the flowers,—although I have been obliged to throw them aside in such a careless way, without having leisure to make notes, that many of them, I fear, will be inevitably lost. To put up my packages for you in the usual way, or to continue my *Calendarium Florae* has been utterly out of the question. But, if what I send on should only arrive safely to your care, I shall be satisfied,—as I know you will share with me liberally, when I return. My *Calendarium*, however, was continued up to the time of my leaving the *Creek Nation*,—and for a little time after my arrival here. This shall be copied for you, as soon as circumstances will permit.

I am hearty; but my health is delicate. I shall probably return, in October, to look after my family and affairs in Wilmington,—but shall, perhaps, return again immediately to St. Mary's;—as I have much reason to dread the effects of a northern winter. For years have I been struggling on the brink of the grave. Should

travelling and a temperate climate restore me, I shall, I hope, be humbly thankful: But should these means fail, may I quietly submit to *go the way of all the earth!*

Should I return by way of Savannah, I will bring with me Mr. OEMLER's *Algae*. Of BARTRAM's dubious plants, I fear I shall obtain but few. The *Hibiscus* family are now beginning to flower. I have just obtained a beautiful little species from Florida, and have obtained a pretty correct drawing of it;* along with a number of other plants that are new to me;—all of which shall, as early as possible, be submitted to your inspection. I have met with some beautiful species of *Ipomaea* on Cumberland Island,—drawings of which I hope to obtain, and might have obtained before now, had it not been for the indisposition of Miss GREENE, youngest daughter of the late celebrated GENERAL GREENE,—whose knowledge of Botany, perhaps, exceeds that of any other lady in America; though, like myself, she is in want of books to enable her to prosecute the study to advantage.

The *Orchis ciliaris*, Mx. is the famous "Rattle Snake's master," of the Florida Indians. They employ the root, both internally and externally, for the bite of this venomous reptile; but, I fear, with poor success. The Creek Indians employ a different plant, or plants, for this purpose,—which they call by the same name. Two different plants were pointed out to me, while in the western country,—both known by the name of "Rattle Snake's master." Neither was in season for investigation, during my stay there: but I take one to be the *Agave Virginica*,—and the other, a species of *Eryngium*. Colonel HAWKINS, or Dr. BOYKIN, will probably send me specimens of both. Dr. WRAY, of *Augusta*, writes me that the "*Black root*" belongs to the Class *Syngenesia*;†

*It is *Hibiscus Virginicus*,—as I have since ascertained.

[†It is the *Pterocaulon pycnostachyum*, Ell. & DC.]

is in flower during the months of September and October—and is found in abundance at a place called “Cracker’s neck,”—about fifteen miles from Augusta, on the South Carolina side of Savannah river. He says he will spare no pains to obtain it. Dr. BOYKIN has seen the plant—informs me that it is found on *Ogeeche*—that he will procure it, if possible,—and has been informed of its efficacy in the cure of Dropsy.

I am not satisfied that there are two species of *Cane* (*Arundinaria*, Mx. ;) but must reserve what little information I can give, for a future opportunity. The root which furnishes the *Coontia*, of the Creeks, is certainly *Smilax* ;* but I have had no opportunity of referring to CATESBY,—nor to any other work—to ascertain the species. I hope, however, to obtain good specimens of it.

I correspond with our excellent friend, Mr. ELLIOTT : but regret exceedingly that I shall disappoint his expectations, as well as yours.

That long life and health may be yours, is the wish of your sincere friend and servant,

W. B.

DR. BALDWIN TO DR. MUHLENBERG.

Philadelphia, October 31, 1812.

DEAR SIR: I did expect, when I left *St. Mary’s*, to have leisure to visit you, in Lancaster, before I returned to the South,—but am very sorry to inform you that it is impracticable ;—as a schooner is now ready to sail,—which perhaps affords me the only safe conveyance for months to come, and the winter, which I dread, is approaching.

With this, I send you Mr. OEMLER’s *Algae*,—which he

[* Afterwards ascertained to be—*not Smilax*, but—*Zamia pumila*. See letter of May 27, 1817.]

is very choice of; and which he expected, when I left Savannah, would be delivered by me. I also send a few *drawings* of Georgia and Florida plants, for your inspection,—some of which, I hope, will prove new and interesting.

The packages which were sent by the schooner *Trimmer*, I am sorry to inform you are returned to St. Mary's; the captain, on his arrival in Charleston, having changed his destination. But I hope they will not be lost,—as I have written to a friend, in St. Mary's, to secure them.

I am very anxious to have our correspondence once more established upon a regular footing; and shall, perhaps, be able to transmit some packages (franked) through the medium of a friend in Washington.

Should you deem those drawings interesting, I hope to have it in my power to procure many more,—and also to have more leisure to attend to the execution of them. Circumstanced as I have been—with scarcely a moment's leisure, and without a book to refer to—I hope you will excuse my want of method, and my neglect of furnishing you with notes.

Along with the *Algae*, you will find a drawing of a *Marchantia*; a specimen of *Asclepias Curassavica*; a native species; and a species of *Collinsonia*. These are mine; and were left in the packet through mistake: But they will be safe under your care.

With sentiments of warm esteem, I remain, my dear sir, your friend and servant,

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, November 9, 1812.

DEAR SIR: Ever since I had the pleasure to receive your friendly letter, dated September 19, at St. Mary's,

I have anticipated the joy I would have by the packet with the *Trimmer*, and still more by a personal interview. In both points you deserve my best thanks, for your good will and intentions. Circumstances will prevent the fulfilment; and we ought to learn to bear disappointments.

Your promised *Calendarium*, I wish to see very much. Perhaps it may come in a future letter; and should you be able to send the packet, it will always be a great and pleasing addition to my Herbarium. Mr. ELLIOTT informs me, that the famous "Black root" is *Conyza pycnostachya*, Mx. (*Gnaphalium undulatum*, Walter.) Mr. OEMLER'S *Algae* gave me great pleasure. I send them back to your care,—after having looked over them with some attention. We have but few of them. My collection of American *Fuci* and *Conservae* is but small; and I long to get more, from such friends as live near the sea shore. I add to Mr. OEMLER'S packet, such as are common in our parts. May I expect some of the southern ones, by your kindness?

Is the *Hibiscus*, you mention in your former letter, the same with the one figured in the drawings? BARTRAM, in his travels, mentions a number of *Hibisci*, and other plants, which I do not know.

Remember me respectfully to Miss GREENE,—whose character I have heard with pleasure. Any thing I can do for this amiable young lady, shall be done with sincere pleasure. Are some of the drawings from her hands? I also return the drawings with great thanks. They have convinced me that the southern States contain many new, and hitherto undescribed, plants. Several of the drawings will want an addition of the Calyx, Stamina, Pistillum, Capsula, Receptaculum, and Pappus,—especially the new plants. I have examined them pretty closely; and will give you my opinion candidly, with the usual proviso, errors excepted; and with

the excuse for errors, that I could not look again. * * I mark such as I wish to have in a dried state, with N. B. and I beg you will give me all the information you can, on the unknown plants. Have you shown the drawings to Mr. ELLIOTT? He is an excellent judge, in every case. So is our friend WILLIAM BARTRAM. You have, no doubt, his Travels; and are enabled, by travelling through his classic fields, to elucidate his descriptions, and dubious plants.

If you remain any time yet at Philadelphia, pray do not leave it without seeing two most excellent Botanical friends I much esteem; ZACCHEUS COLLINS, and CORREA DE SERRA, lately from Europe.

And now, my dear sir, (if I am not to see you this time, personally,) I recommend you to the protection of the Almighty. May you arrive safe at St. Mary's, have constant health, and a long life full of contentment; and may our correspondence continue with pleasure and instruction on both sides.

Remember my best respects to Mrs. BALDWIN, (does she go with you?) to Mr. ELLIOTT, and Mr. OEMLER. I remain with unalterable esteem,

Sir, your sincere friend,

H. M.

P. S. My son-in-law, HENRY HUFFNAGLE, takes the packet to Philadelphia, and will return in a few days to Lancaster. If you have time pray drop a line in return, and let me know the vessel's name in which you go, and the exact time.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, March 20, 1813.

DEAR SIR: I owe you an apology for neglecting so long your excellent letter of the 9th of November, last.

The hurry I was in, at that time, to arrange my affairs in Wilmington, made me less attentive than I should otherwise have been : but I should have returned you an immediate answer, had I not been under the impression that I had nothing to communicate, worthy of your attention. It was not until too late, that I perceived your P. S. requesting to be informed of the exact time of my sailing, and the vessel's name. It appears that I also neglected to inform you, that Mrs. B. and our little family were to bear me company. This information is almost out of season ; but I may still inform you, that we sailed from Philadelphia in the Brig Hetty, on the 23rd of November, and did not land in Savannah until the 27th of December following, nor reach St. Mary's until the 3rd of February. But, through the blessing and protection of that Divine Providence to whom you had the goodness to recommend us,—after buffeting long the stormy seas,—we reached our destined port in health and safety.

I am putting you up a packet, to be sent by General THOMAS M. FORMAN,—who resides at “Rose Hill,” near Georgetown cross-roads, eastern shore of Maryland. He will leave Savannah about the first of April, by land ; and may be depended upon for transmitting, carefully, the packet to Mr. MUSSER. I have just received a letter from my friend HOFF, of Charleston,—wherein he informs me that the packet, mentioned in my letter of the 19th of September, last, had arrived in safety ; and that he had sent it on to the care of Mr. MUSSER by the *Farmer's Fancy*, together with a letter of advice to you. I hope they have been received.

I have remembered you to Miss GREENE. She is *doubling* her diligence, in the pursuit of Botany,—and will likewise unite her exertions with Mrs. BALDWIN, in attending to Entomology. None of the drawings were executed by her hand ; but two of them, viz: *Sesamum*

Indicum, and *Mespilus arbutifolia*,—were drawn by her sister, Mrs. LITTLEFIELD. The others were all drawn by Mrs. CLARK, wife of Major ARCHIBALD CLARK, the Postmaster in this place.

The *Sesamum Indicum* is not a native; but is now found growing spontaneously in the old fields of Cumberland. Gen. FORMAN intends to introduce it into the States of Delaware and Maryland,—where I encouraged him to hope it might succeed.

Respecting the *fruit* of the *Mespilus arbutifolia*, Mr. LE CONTE informs me that he has never seen the fruit *black*, in this country,—but uniformly *red*. He considers it, however, in every other respect, to be the same plant, and calls it only a *variety*. I have not heard a word from Mr. ELLIOTT, since my arrival in this country,—and suppose that he must be much engaged in his new office, in Charleston. I wrote to him, from Savannah, in January last.

The remainder of my *Calendarium* shall be speedily transmitted. I send you a very few *Algae*,—not having had an opportunity to collect them. My best endeavors, however, shall always be used. The *Hibiscus* mentioned in my letter of September 19, is the one figured in the drawings, No. 23. It is probably, as you suppose, *H. Virginicus*, L. I have had the misfortune to lose BARTRAM'S *Travels*, in Savannah,—and I have not been able to procure another copy. I have sent to France, to obtain MICHAUX'S *Flora*, &c., which I hope will come over safe. The specimens which I left at the Creek Agency, I expect shortly to receive, *via Darien*. Possibly they may be sent on for you, by Gen. FORMAN.

I anticipate more leisure than heretofore, to attend to Botany, should I be favored with health,—which, at present, is promising: and I most heartily wish, with you, that our “correspondence may continue long with pleasure and instruction on both sides.”

Mrs. BALDWIN joins me heartily in wishes for your health and happiness. I remain with affectionate regard, my dear sir, your obliged friend,

W. B.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, March 31, 1813.

DEAR SIR: I sit down to fulfil my promise of transmitting to you the remainder of my imperfect *Calendarium Florae*, kept at the Creek Agency.

April 1, 1812. Convallaria racemosa flowering. *Note*: There was a little snow fell this day, on the Oconee, twelve miles above Milledgeville. Many of the more delicate native plants were injured by the frost, at the Agency; particularly the *Amorpha fruticosa*.

April 4. Agrostemma Githago (Cockle) in flower, among the wheat.

April 7. Triticum (called Early May Wheat) in flower.

April 8. Liriodendron tulipifera in flower.

April 17. Robinia pseud-acacia in flower. The foliage on the forest trees appears now, in general, to be perfect: But, while some of the Oaks have full-sized leaves, others are just formed.

April 18. Melia Azedarach (Pride of China) flowering. This is the universal ornamental tree, in the southern country; and has even found its way into the wilderness.

April 20. Mitchella repens in flower.

April 21. Silene?* This has been transmitted to you, No. 903. A most beautiful plant, found on Flint river. The whole plant is viscid—8 to 10 or 12 inches in height; stem and leaves hairy, of a pale green; peduncles terminal and axillary; 5 of the stamens arranged beauti-

[*This is, doubtless, the *Silene fimbriata*, Baldw. in Ell. not of Sims; now the *S. Baldwinii*, Nutt. DC. & Torr. & Gray.]

fully between each of the 5 petals—the other 5 in the centre; styles shorter than the stamens, stigmas simple; anthers twin; petals gradually widening to the extremity; and terminating with the most singular and elegant fringe,—each petal ornamented internally with a hairy margin: width of the flower $2\frac{1}{2}$ inches.

April 22. *Dactylis glomerata* (orchard grass) in flower, in the garden. It grows here, most luxuriantly—attaining to the height of more than 5 feet, and spreading greatly. It ought to be cultivated generally, in this country. * * * * *

I find I have not room to finish, here,—and will therefore go on, in future; and also give you a *Calendarium* from St. Mary's.

Your friend and servant,

W. B.

P. S. Since my last letter was written, I have received my specimens, from the Creek Agency, in tolerable order. I immediately put up a small packet of them, and sent it to Savannah,—hoping it might arrive in time to be taken on by Gen. FORMAN. * * *

The fruit of *Aesculus Pavia* is used, by the Creeks, to intoxicate fish. The *Asarum Virginicum* is called, by the Creeks, *Luchau loobe Thlucco*—signifying “*Large Turtle Liver.*” I am not certain that it is considered as important by them, as a medicine: But it is much esteemed by the whites.

Along with the specimens from the Agency, Colonel HAWKINS was so good as to send me roots of *Hydrangea quercifolia*, *Hypericum aureum*, and *Halesia diptera*,—with a pint of the seeds of the last;—all of which I hope will flourish. I am about to try the efficacy of the “*Black root,*” in a bad case of general dropsy. I find plenty of the root, here.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, April 9, 1813.

DEAR SIR: AS I have just put you up another packet, which shall be forwarded the first opportunity,—I go on with my *Calendarium Florae*.

April 22, 1812. *Iris versicolor* in flower: varying, here, in color, from a deep blue to almost clear white.

April 25. *Drosera longifolia?* (*spathulata*, of Le Conte;) very delicate; scape not 3 inches; leaves long, hairy; scape many-flowered; petals 4, broad, clear white.

April 25. *Galega Virginiana* [*Tephrosia*, Pers.] in flower.

April 27. *Itea Virginica* in flower.

April 28. *Rhus radicans* do.

April 29. *Kalmia latifolia* in full bloom.

April 30. *Datura Stramonium*.

May 1. *Spigelia Marilandica* in flower.

May 3. *Mollugo verticillata*—in cultivated grounds.

May 4. *Ceanothus Americanus*, *Viburnum acerifolium*.

May 5. *Phlox maculata*, *Bartsia coccinea*.

May 12. Wheat ripe; *Solanum tuberosum* in bloom.

May 18. *Aristolochia Serpentaria*. There is another species, with very long, lance-linear leaves.

May 20. *Sambucus Canadensis*, *Phytolacca decandra*.

May 23. *Pontederia cordata*, *Saururus cernuus*.

May 23. *Conyza pycnostachya*, Mx. [*Pterocaulon*, Ell.]
"Black root."

May 26. *Samolus Valerandi*.

May 26. *Rhexia lutea?* flower white; but, in drying, turns yellow.

May 30. ST. MARY'S. *Achillea Millefolium* in flower.

June 7. *Verbena hastata* in flower.

June 20. *Tripsacum dactyloides*.

June 29. *Erigeron Canadensis*. * * *

This is the end of my imperfect *Calender* for 1812.

But I hope to make out one more perfect, this season.

From May 4, to 10th, inclusive, was a journey to Coweta, on Chatahooche, and back again to the Agency. When I send the specimens, I can add some more particulars. May 17, to 23d, inclusive, includes my journey from the Agency to Savannah,—and from thence to St. Mary's,—where I arrived on the 30th, having had but little opportunity of botanizing on the road.—April 19.

Since writing the above, I have sent off the packet above mentioned, via New York, in the schooner Spartan, Capt. CHASE,—who, I presume, has sailed before this time, from Savannah. I directed it to the care of Dr. MITCHILL,—who I hope will forward it with care, should it reach him in safety. But I have the mortification to inform you, that the packets which I sent to Savannah, to be carried on in safety by Gen. FORMAN, were not received in time,—owing to the shameful negligence of the gentleman to whom they were intrusted, who forgot to deliver them until too late. They have been returned to me carefully, by Dr. KOLLOCK; and to-morrow will be put on board of a schooner, Capt. M'COBB, who will sail immediately for New York. They, also, are directed to the care of Dr. MITCHILL; and, as the schooner will be under Spanish colors, will be likely to pass unmolested. I shall put you up a packet, every opportunity,—and collect as much as possible. It is now a gay and delightful season, in this department. In my next, I shall commence a *Calendarium Florae* for this season. Along with it, I keep a register of the weather, the prevailing diseases, &c.

Mrs. B. joins me in wishes for your health and happiness. I am yours sincerely,

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, April 20, 1813.

DEAR SIR: I was overjoyed to see by your letter, dated March 20, at St. Mary's, that you had arrived in safety, with Mrs. BALDWIN, at your destined port. I had often inquired in vain after you, and felt very uneasy. Neither Mr. OEMLER, nor Mr. ELLIOTT, returned any answer to my inquiring letters: However, I have seen in the papers, that the *Hetty* had arrived at Savannah. Our times are so, that we must expect to be disappointed very often,—especially if letters or packages are sent by vessels.

Your packages, by the *Farmer's Fancy*, have never arrived,—although a letter of notice, from Mr. HOFF, came to Mr. MUSSER. If I remember rightly, a schooner of that name, as a packet from Charleston, was burnt at Lewistown, by the British,—and but very little saved. I am exceedingly sorry that such valuable specimens should be lost,—and still hope to recover something. I daily wish for the safe arrival of General FORMAN, and your succeeding package; probably I may hear from him, when I go on a proposed visit to Philadelphia, in the beginning of next May,

Your second letter, dated March 31, has just come to my hands. How shall I sufficiently thank you for your trouble, in copying your *Calendarium Florae* held amongst the *Creeks*? It gave me great pleasure; and I wish with all my heart you may find leisure to send me the continuation,—and whatever you can add, at St. Mary's. Our Flora, in the year 1812, began, March 18, with *Alsine media* [*Stellaria*, Sm.]. 26, *Poa annua*. April 3, *Anemone hepatica*. 4, *Hydrocotyle bipinnata* [*Erigenia bulbosa*, Nutt. T. & G.] *Tussilago Farfara*. My standard plants, *Morus rubra*, May 22, *Robinia pseud-acacia*, June 6. That is very late: other years, May 20, or 27. In

this year, 1813, the Flora began, March 20, with *Hydrocotyle bipinnata*, and *Alsine media*. In your Calendarium, I find a number of plants which I would be very glad to see. * * * The *Thlaspi Bursa Pastoris* I take to be a native [*sed quere?* W. D.] The *Orobanche Americana* is with us, also, on the roots of trees. If you let it stand in water, it turns the water black; and probably will be useful for a black dye, or as an astringent. *Rubus*, or common Blackberry, is more *villosus*, Hort. Kew. than *fruticosus*. You have another Blackberry to the southward, as well as in the Jerseys—*foliis ternatis, obovatis, subtus tomentosis*—figured in ABBOTT'S *Insects*,—which is not yet in the system.* When your specimens by General FORMAN arrive, I will add a number of queries, and desire your information. You are in a real Paradise, for plants. I have asked you, already, concerning some plants, figured, in your neighborhood, where the flowers were not plain enough. * * *

I have been, last winter, pretty clear of rheumatism, but had to beware of every excursion. My correspondence with Mr. COLLINS, was brisk: He is a very valuable correspondent. Mr. LYON has returned from England, and confirms the death of WILLDENOW.† Mr. CORREA DE SERRA, the excellent Botanist from Portugal, is still at Philadelphia; but intends to return to Europe, next June.

Dr. BARTON, it seems, has published the first 8 classes of his *Flora*,—but has sent all the copies to England; and none are left for the American Botanists, who want

[*This is probably the *Rubus cuneifolius*, Pursh, Torr. & Gray, &c.]

[†The tardiness with which intelligence was then communicated across the Atlantic, contrasts remarkably with the expedition of this era of Steam Packets. Professor WILLDENOW, the intimate correspondent of Dr. MUHLENBERG, had been dead upwards of *two years*, at the date of this letter.]

a Flora most. My *Catalogue* has lain two years with the printer, W. HAMILTON; and, after all my spurring, is printed to *Monadelphia*. He will only print 400 copies, for fear of losing too much. If you have any information, or specimens, in the preceding classes, they would still be very acceptable. The *Algae* are now my favorite study. Unluckily, I am at a distance from the sea shore,—and depend entirely on the kindness of my friends. Whatever you can find, will be a great acquisition to me.

I am very sorry that you lost BARTRAM'S *Travels*: they contain much, but imperfect information. So WALTER.—Pray, have you examined the southern species of *Pinus*?—and, what is *Pinus glabra, squarrosa, and lutea*, of Walter? WALTER has, also, two species of *Zizania*: (a) *aquatica, panicula effusa, floribus supra masculis, infra foemineis*. This I take to be our common “Water Oats,”—the *clavulosa*, of Mx:—(b) *palustris, paniculata, floribus infra masculis, supra foemineis*. This I do not know. You have certainly two species, at the South; and you will be the best judge to decide,—as you have seen the *clavulosa*. I still admire, and collect, whatever is *Grass*: but, hitherto, I have but *one Zizania*.

You mention that our mutual friend, ELLIOTT, is at Charleston;—pray, in what office? His last letter to me was dated Dec. 26:—when he had not received mine, of Dec. 3. I wrote again, January 15, but have received no answer. Probably he is engaged in public business, and from home. Should you write to him, pray remember my sincere esteem for him. He is a most excellent friend, and a very valuable correspondent. Have you observed, in your travels, an *Octandrous* plant, which Mr. ELLIOTT discovered,—and which, in my catalogue, I have named *Elliotia racemosa*? I wish to have information concerning the *fruit*,—whether it is a *Capsula*, or *Bacca*. Mr. OEMLER had the shrub, once, in his gar-

den. From Harmony, beyond Pittsburg, I received, last fall, several valuable *roots*. They are now in good order,—and being partly new, please me much. Have you a plant, near St. Mary's, called "*Mayberries*,"—used for pies—habit of a *Rhamnus*? And have you seen BARTRAM'S "*Physick Nut*" (Indian Olive, Conjuror's Nut,)—*caule 3-pedali; foliis oppositis, ovatis, acutis; drupa axillari, olivaeformi*? LYON says it belongs to *Dioecia Tetrandria*. BARTRAM has, also, a *Tallow Nut*, *Wild Lime*, I do not know; a *Malva paniculata*, and *volubilis*; and several *Pruni*.

Remember my best respects to Mrs. BALDWIN; and, if possible, to Miss GREENE,—who has so nobly undertaken to assist an absent friend, with the riches of *Flora*. Mr. HAMILTON, often mentions her name to me.

In anxious expectation of seeing the specimens soon, which you have sent—and a continuation of your letters, I remain unchangeably, sir, your most obedient servant, and sincere friend,

H. M.

P. S. Directly after my visit to Philadelphia, I will do myself the pleasure to write you a long letter,—with every information I can get, there, from CORREA, COLLINS, BARTRAM, (JOHN is dead, WILLIAM still alive,) M'MAHON, LYON, and others. W. HAMILTON, I hear, is alive,—but lost to the Science. Whether I shall find our other friend, Dr. B. at home, or in a humor to speak upon the science, I do not know.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, May 15, 1813.

DEAR SIR: Your letter, dated the 20th ult. came regularly to hand. I am sorry that the specimens by the *Farmer's Fancy* are lost,—as they consisted of a great part of my collections made last summer; and of which

I retained but few duplicates. Some of them I believe, were new, or doubtful,—particularly a little species of Plantain, found near Augusta—*Plantago (linearifolia)* unknown to Mr. ELLIOTT;* and a little plant,—habit *Melanthium*,—but the germ appears different; found on *Ocmulgee*, &c. * * * *

I opened my *Calendarium Florae*, here, the 10th of February; when the peach trees and cultivated strawberries appeared in flower: also, a Tetrodynamous plant, very common in this country, which I am not able to make out, satisfactorily.†

Feb. 15. *Centaurella verna*. I saw this plant in flower, last year, in January,—near Savannah.

March 3. *Gelsemium nitidum* (yellow Jasmine.) This, also, may be seen in flower almost every month; but particularly in autumn, winter and spring.

March 15. *Pinus palustris*. I have paid so little attention to the *Pines*, that I am unable to answer your queries respecting them; but will do my best, hereafter.

March 19. *Rubus villosus* (common Blackberry) in flower.

March 23. *Salvia lyrata*, *Hydrocotyle umbellata*, *Quercus virens*, *Lonicera sempervirens*.

March 25. *Robinia pseudacacia*. *Polygala lutea*.

March 26. *Anona triloba*. *Tradescantia Virginica*.

March 29. *Olea Americana*. *Cnicus horridulus?*

March 31. *Vaccinium frondosum*. *Ophrys spiralis*.

I rejoice sincerely that you have at length published a part of your extensive and interesting *Catalogue*.—Surely 400 copies will very soon be distributed. A number of copies, I am certain, would be taken here. I long to obtain one. WILLDENOW'S LINNAEUS, and MICHAUX

[*Probably the *Plantago interrupta*, Poir. & Ell. *sparsiflora*, Mx.]

[†Afterwards ascertained, by Dr. B. to be the *Erysimum pinna-tum*, Walter. *Sisymbrium canescens*, Nutt. Torr. & Gray.]

on the *American Oaks*, have been forwarded to me by land; but they have not reached me, and I fear will get lost by the way. They were obtained for me, by M'MAN-
HON, in Philadelphia.

I am surprised that Dr. B. should send the whole of his work to England,—nor can I guess his motive. Possibly, when you see him, he may be in a *humor* to inform you. * * *

By the same mail that brought your letter, I had the melancholy intelligence of the death of Dr. RUSH. The loss of such a man is not easily repaired. And WILL-
DENOW, too, is gone!

I have not yet heard from Mr. ELLIOTT. He has been elected President of a Bank, in Charleston.

I have made out to find a copy of BARTRAM'S *Travels*, which I have borrowed: But I have not the *Flora* of WALTER.—Your long letter will be gratefully received. To all your requests I will attend as faithfully as possible: and for all your kindness, attention and trouble, in furnishing me with so much valuable information, permit me to return my warmest thanks,—while I remain most sincerely your friend and servant,

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, May 17, 1813.

DEAR SIR: Your letter of April 9 and 19, arrived safe, much to my satisfaction. Receive my best thanks for the *Calendarium* of your *Flora*, in continuation of the first part,—acknowledged by me in a letter which went from here, April 20.

The promised packets are, I am afraid, all lost. The first, by the "*Fancy*," I suppose was burnt at Lewistown. The others, by the way of New York, are, at least, not

arrived. I have written to MUHLENBERG & SCHMIDT, merchants of New York, to inquire. If your packets are directed to them, they will come safe. If they are lost, my loss will indeed be great. So many new plants! I am afraid water carriage will be tried in vain. Perhaps something may be done by land. I formerly received specimens of small *Mosses*, from Carolina, fastened with a small piece of wafer, or glue, to the inside of a letter, without raising the price of the letter. Perhaps something might be done in the same manner.—*Seeds* might be sent, loose, if out of the capsule.

If you can find time to continue your *Calendarium*, pray oblige me with it. Nothing can be more useful than such a calender. I suppose *six weeks* may be the difference of the climate. If you add the color of the flower, and a short description, of the *new* plants, you will oblige me still more. * * *

Grasses remain my favorites; and whatever you find to be different from ours will be a valuable acquisition to me. *Seeds*, only a few of each sort, would make no bulk,—if you can expect they will vegetate, and stand our climate.

Since my last letter, I have been at Philadelphia; but I had constant rain, and but little opportunity to see my friends, or any garden. Dr. BARTON is well. Mr. LYON now returned: his nursery is excellent, and very rich in southern plants. He has two kinds of *Euonymus*, different from ours;—one with very narrow leaves; * from Cumberland Island,—the other, near *atropurpureus*. Is your new one constantly *viridiflorus*? He has three kinds of *Philadelphus*—two very villous.

Mr. M'MAHON I did not see. I spent my leisure time with Mr. ZACCHEUS COLLINS,—an excellent Botanist, who has seen and examined many plants.

Of MICHAUX'S Tree description, nothing has arrived

[*Probably *E. angustifolius*, PURSH, TORR. & GRAY.]

lately. I wish much you could see this, and give your opinion on it,—especially on his *Nyssa*. We have only one, here—the *sylvatica*, or *villosa*; the others are from the south. How many have you seen, in your travels? I repeat my wishes for an explanation of WALTER'S different species of *Pinus* and *Zizania*.

By a letter received lately from Mr. ELLIOTT, I see he would be in future at Charleston,—which will be a new and wide field for him. You are both happy in being at the sea shore; but you may expect a little trouble, during these times. May you both be preserved by the protection of a kind Providence.

Should your packets arrive, I shall have the pleasure to see a number of new and valuable plants to me, and to write fully my opinion on them. Our season, this spring, has been rainy; the *Calendarium* much like 1808. May 14, *Morus*, as a standard plant, began to flower. *Robinia* has not yet flowered. *Prunus Virginiana* (*vera, nec serotina,*) began May 11. So *Mespilus melanocarpa*. You have a *Prunus*, in Georgia, *floribus racemosis, foliis pubescentibus*; have you seen it?

I am very sorry that you have lost BARTRAM'S *Travels*, at Savannah. Much is to be explained; and you would be able to do it, now, in a very satisfactory manner. Probably you have seen almost all his dubious and new plants. WILLIAM is still alive; JOHN, his brother, is gone.

* * * * *

I drop the pen for fear of tiring you too much; but not without assurances of my unchangeable esteem and friendship,—and my best respects to Mrs. BALDWIN. I remain, dear sir, your most obedient humble servant,

H. M.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, June 1, 1813.

DEAR SIR: I am happy to inform you, that one of your packets addressed to Dr. MITCHILL, containing numbers 806—923, has arrived here on the same day with your letter dated May 15. The other packet I expect every day,—as it has arrived also at Philadelphia. Dr. MITCHILL gave each to my son, of the house of MUHLENBERG & SCHMIDT, merchants at New York. They are very willing to forward any packet to me, if the intercourse remains open. Receive my grateful thanks for your kindness.

The continuation of your *Calendarium* pleases me much, and I thank you in particular for it. If you can possibly add, with dubious plants, a number of specimens, it will be of great use to me. To show you the difference of the climate, I mention a few of the plants common to us:

<i>Fumaria aurea</i> ,	Feb'y 20.	At Lancaster,	April 20.
<i>Prunus domestica</i> ,	March 1.	“	“ 19.
<i>Viola palmata</i> ,	“ 4.	“	“ 26.
<i>Mespilus arbutifolia</i> ,	“ 10.	“	May 13.
<i>Morus papyrifera</i> ,	“ 17.	“	“ 13.
<i>Rubus villosus</i> ,	“ 19.	“	“ 25.
<i>Ornithogalum umbellatum</i> ,	“ 23.	“	“ 22.
<i>Robinia pseudacacia</i> ,	“ 25.	“	“ 24.
<i>Geranium Carolinianum</i> ,	“ 28.	“	“ 29.

Almost *two months* difference: Perhaps the plants will be nearer, when warm weather comes. Our first phanerogamous plant, was *Hydrocotyle bipinnata*, March 20, the next, *Alsine media*.

I mark a few plants from your St. Mary's *Calendarium*, which I would be glad to know closer:

“*March 4. Helianthus?*” Has it any thing like *Chrysogonum Virginianum*, which you sent from the Creek Agency?

“*March 5. Rubus.*” Our Pennsylvania Dewberry is *R. trivialis*, Willd. and Michaux. Another southern Dewberry, is *flagellaris*, Willd.

March 7. Antirrhinum arvense.

March 23. Bignonia crucigera—if it is not *capreolata*, Mx.

March 26. Anona grandiflora. I have no specimen except *triloba*.

You mention a *Plantago linearifolia*, which I shall be very glad to see. Mr. Z. COLLINS discovered a similar one, three miles from Philadelphia, which seems to be more than a variety of *maritima*.

What I have seen in my last visit to Philadelphia, I mentioned to you in my last letter, dated May 17, when I also wrote to our mutual and excellent friend, Mr. ELLIOTT. Since that time, nothing material has happened, except that I received an affectionate letter from Mr. OEMLER, at Savannah, with 12 different sorts of seeds from his garden,—chiefly *Hibiscus*. They were sown immediately. I will now add what I know of your specimens, after first and second sight, and before I had time to add them to my Herbarium. When a closer comparison shall be made, should I then find any thing new, I will mention it in a future letter: and I beg you will candidly inform me, where you find an amendment necessary, or remaining doubts.

* * * * *

The plant No. 1, figured, I wish to see. We have a *Polygala corymbosa*, Mx. *cymosa*, Walter. Can it be that? My *Catalogue* is now in the *Gynandria*,—going on very slow. Whenever it is finished, certainly I will send you a copy. You will find much to add; but a beginning must be made. Dr. B. will have an opportunity to criticize. If only the science gains, I am satisfied. I hope to see your other packet soon, and will hasten to write again. Health and prosperity attend you. My best respects to Mrs. BALDWIN.

H. M.

P. S. I enclose a *new genus*, of WILLDENOW, from Carolina,—a water Moss—*Azolla Caroliniana*. Have you ever seen it?

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, June 5, 1813.

DEAR SIR: Your letter of May 17, is now before me; and I hope that you have before this time received mine of the 15th. It is with extreme regret I learn that my packets, via New York, had not been received. Both the vessels arrived safe in New York, after uncommonly short passages. It is now two weeks since I heard of the arrival of M'COBB, who carried the last packet. Both CHASE and M'COBB promised most faithfully to deliver them to Dr. MITCHILL. They were endorsed to you, and directed to the care of Dr. SAMUEL L. MITCHILL, New York,—and to Mr. MUSSER, in Philadelphia. It will be a pity, indeed, if they are lost, after having reached in safety their destined port. But we must indeed submit to disappointments; they seem destined to befall us, here below. On your account, more than my own, I regret these frequent miscarriages,—as you cannot readily have the plants replaced.

On the 22d of May, I forwarded you another packet, *by land*,—commencing with number 982, and ending with 1044. This was sent by Mr. EDWARDS, of the U. S. Navy,—who will make some little stay in Washington; after which, he goes to Philadelphia,—and he has promised to deliver the packet, himself, to Mr. MUSSER. I shall now send you a few plants, in the mail, through the favor of LANGDON CHEVES, Esq. Washington.

I have not leisure, now, to add much to my *Calendarium*.

April 2. Xanthium strumarium in flower.

April 4. *Vaccinium stamineum*, *Viburnum dentatum*.

April 9. *Portulaca oleracea*.

April 13. *Argemone Mexicana*, *Hopea tinctoria*.

April 15. *Mitchella repens*.

April 19. *Andromeda Mariana*—very beautiful, here.

April 25. *Saururus cernuus*.

April 28. *Andromeda paniculata*.

April 30. *Sambucus Canadensis*.

Your several requests shall be complied with to the utmost of my power. I have observed the *Polygala*, of which I gave you a short description in my last letter, to be sometimes branched; and I have since seen it also 3½ feet high. Mr. JOHN LE CONTE informed me a few days ago, by letter, that he has known this plant for a long time,—and that he calls it *P. praealta*. I believe I shall be able to furnish you, before long, with a species still larger—*spicata*, *flore albo*—in Florida. * * *

In great haste, I remain, my dear sir, W. B.

TO THE HON. LANGDON CHEVES, WASHINGTON CITY.

DEAR SIR: I take the liberty of sending, enclosed to your care, some Marine Plants, &c., for Dr. MUHLENBERG,—which I beg you will have the goodness to forward, and greatly oblige your sincere friend and servant,
W. BALDWIN.

P. S. The British have lately burned several packages which I sent on, via Charleston and Philadelphia, in the mouth of the Delaware.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, June 11, 1813.

DEAR SIR: I embrace a moment to put you up a few more specimens, and to write you a few lines.

My white-flowered *Sisyrinchium* seems to differ materially from both yours. It is *Spatha diphylla, subaequali, floribus longiore; scapo alato, ramoso*. Root fibrous, yellow and acrid.* We have two blue species here;—one of which does not appear to differ from the white one, in any respect, except the color of the flower.

Of *Zizania*, I see none yet. Miss GREENE has just procured for me a singular *Tetradynamous* plant, order *Siliculosa*,—with a curious 4-sided, jointed *Silicle*. It is much branched; stem succulent; leaves very fleshy, tasting like cabbage.† Of *Pinus* and *Nyssa*, I am yet unable to give you any definite account. My specimens of *Euonymus* I cannot now lay my hands on,—and cannot say whether the flowers are uniformly *virid*, or not. I hope before long to have my Herbarium better arranged, and my notes reduced to some kind of order. Like my preceptor, Dr. B. I have too many irons in the fire. I am always in too much of a hurry; and perhaps have my notes respecting a single plant scattered over half a dozen pieces of paper.‡ A few days ago, I met with a beautiful species of *Asclepias*, on the Florida side of St. Mary's (Pine barren): stem simple, slender, about 18 inches: leaves opposite and alternate, linear; umbel terminal, supporting a few lilac-colored flowers on long capillary peduncles [*Podostigma pubescens?* Ell.]. * * * *

I shall conclude by adding a little of my *Calendar*.

May 2. *Conyza pycnostachya* [*Pterocaulon*] in flower, *Lepidium Virginicum*.

[*This was probably nothing more than a variety of "*S. Eermudiana*," Ell.]

[†Doubtless the *Bunias Cakile*, *L. Cakile maritima*, Scop. T. & G.]

[‡This was, to a remarkable extent, the practice of his Botanical "Preceptor, Dr. B."—and must have been attended with much inconvenience,—if not with some confusion.]

May 3. *Phytolacca decandra*, *Passiflora incarnata*.

May 5. *Chamaerops serrulata*. The young shoots of this plant are far more delicious than the "cabbage tree" (*Chamaerops Palmetto*). The low land round St. Mary's is covered with this vegetable.

May 8. *Magnolia glauca*, *Eupatorium foeniculaceum*.

May 11. *Hydrocotyle ficarioides* [*repanda*, Pers. T. & G.].

May 17. *Xyris Jupicai*, Mx. *Kalmia hirsuta*, Bartr. *Verbascum Thapsus*.

May 23. *Polypremum procumbens*. "Black-berries" ripening.

May 24. *Callicarpa Americana* in flower.

May 27. *Plantago major*.

May 30. "Water Melon" in perfection. * * *

The month of *April* was very dry. *May*, a sufficiency of rain, and delightful weather. Mean temperature, in *April*, 72°—range of temperature, from 52° to 88°.—Mean temperature, in *May*, 74°—range, from 58° to 90°. The weather is now becoming sultry. The mercury stood this day, at 3 P. M. at 91° in the shade of a back Piazza.

Accept my best thanks for your attention to my hasty letters, and the valuable information you always return me. Mrs. B. and Miss GREENE also send their best wishes to you. We are all anxious to obtain your *Catalogue*, could we devise a safe mode of conveyance.

With undiminished esteem, I remain my dear sir,

Your friend and servant,

W. B.

P. S. *June 12*. I have this moment received a letter from our valuable friend, Mr. ELLIOTT,—who, having got through the fatigue and difficulty of removing his family, and embarking in a new occupation, again turns his attention to his favorite pursuit,—and again offers his interesting correspondence.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, June 19, 1813.

DEAR SIR: To make up, as well as I can, for losses, I send you on again a few more specimens, by mail. I send you also a few seeds. The *Scirpus* is found in moist situations. It is called, I believe, "Wire grass," in this country. I continue my *Calendar*.

June 1. Vitis—"Small Winter Grape," in flower.

June 2. Trichostema dichotomum. "Wild Cherries," (*Prunus Virginiana*) ripe.

June 7. Erigeron Canadense in flower.

June 13. Senecio hieracifolius, Cicutu maculata.

June 17. Clethra alnifolia.

I should be glad if you would share with Mr. M'MAHON such seeds as I may send you, that you can spare. He was very kind in furnishing me with garden seeds, when I left Philadelphia; and without which I should have had a poor garden, here.

The weather is now very sultry and dry: the mercury has been for several days at 92° at 3 P. M., and at midnight, above 80°. Such warm nights are not common, here,—unless the wind has blown long from the westward. It has been S. E. for several days.

Since I began my letter, the mail has arrived, and brought me your excellent favor of the 1st of June;—for which accept my best thanks,—and rest assured that no exertions of mine shall be wanting, to compensate you for your trouble.

I hope in a very little time to put you up a large packet, which I flatter myself will reach New York in safety (unless blockaded,) as it goes in a Spanish vessel, and will probably sail in 3 or 4 weeks. I have written to Augusta for specimens of the *Plantago linearis*—

folia,—which is now in season,—and which I hope will be received.

May every blessing attend you: and that long life and health may be yours, is the sincere wish of your friend and servant,

W. B.

TO THE HON. LANGDON CHEVES, WASHINGTON.

DEAR SIR: If I intrude upon you too much, by my frequent packages, or you are put to inconvenience in any way, pray be so good as to inform me.

I am, dear sir, &c.

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, June 22, 1813.

DEAR SIR: Your letter dated June 5, arrived safe this day, and is a new proof of your friendship to me. Receive my best thanks for it, and the fine specimens enclosed. Perhaps we can continue the correspondence in the same way, as long as the Session continues. Probably you have received my letter sent from here, June 1, in which I acknowledged the receipt of your specimens 807—923. They were all in good order, and I gave you my opinion on them as well as I could; and I find no reason yet to alter my opinion. Perhaps I may when I put them up in my Herbarium, and compare them more closely.

On the 14th of June I had the satisfaction to receive your other packet, numbered 924—981, which had been carried to Reading, where I found it. I have not yet

found time to examine the plants with accuracy: However, I will give you my opinion as they appear to me, at first and second sight.

"926," *Sarracenia minor*, Walter. *adunca*, Hort. Kew. [*variolaris*, Mx. T. & G.].

"927," *Avena glumosa*, Mx. distinct, I think, from *spicata*, L.

"939," *Dalibarda fragarioides*, Mx. (?) but our Pennsylvania plant has *folia ternata* [*Waldsteinia lobata*, Torr. & Gray.].

"940," *Trillium cernuum* (*verum*) I see for the first time.

"950," *Mespilus aestivalis*, Walter, an *Crataegus glandulosa*, Mx? nec Willd. [see Torr. & Gray, under *Crataegus*, sp. 12 & 14.].

"968," *Phlox pilosa*, L. nec Mx. sed forsan *aristata*.

* * * * *

The rest of the numbers, sent by land, are not yet arrived. Mr. MUSSER is now at Lancaster, and will return to Philadelphia in a few days,—when I hope to receive them, on their arrival, in safety. I add the names of the *Cryptogamia*, enclosed in the letter, as far as they occur to me at first sight; deferring some more observations for a future letter. * * *

I shall be extremely glad to see the new plants of Mr. LE CONTE,—who appears to be a very close observer. Indeed, a fine constellation of Botanists has risen in the southern states. You are warmer, and shine brighter, than those in the north.

Utricularia is a very interesting genus, and deserves a close examination. So *Asclepias*. Of *Aletris*, I have but two species;—the *farinosa*, L. figured by WILLDENOW, in his *Hort. Berol.* and the *aurea*, Elliott.—Is the *Juglans anomala* the same with LYON'S "Leather coats?"

You have heard, no doubt, that Mr. W. HAMILTON has gone from us. He departed in the beginning of this

month. What will become of his Garden, is not known. It was almost a wilderness since some time. There is now a great *Entomologist* in our parts lately from Paris,—a Mr. ESCHER. Probably he may travel to the southward, and may call at Charleston, Savannah, and St. Mary's. I have told him that he will find great riches in your parts.

I conclude with my best wishes for your health, and beg to be remembered to Mrs. BALDWIN,—and remain with unchangeable respect,

Sir, your sincere friend,

H. M.

P. S. Is the *Polygala praealta*, Le Conte, the plant *fig. 1*, in the drawings? and how is it different from *P. corymbosa*, Mx. *cymosa* Walter? *Caule infernè simplici, summitate ramosa; floribus luteis, imberbibus*. Your *Calendarium* for April pleases me very much. O! that I could see some of the plants!

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, June 29, 1813.

DEAR SIR: Last evening I had the pleasure to receive, by the kindness of Mr. L. CHEVES, your interesting letter of the 11th and 12th of this month—with 14 numbers enclosed. I thank you sincerely for the continuance of your letters and specimens. Very soon after you sent the letter, you will have received mine dated June 1, in answer to yours of the 15th of May, and your numbers 806—923. Also my second letter of June 22, in answer to numbers 924—981, and 1045—1057. The packet by Mr. EDWARDS, from 982—1044, has not yet arrived; but as all the others came safe, I do not doubt it will arrive, and add much to my Herbarium.

Your *Calendarium* pleases me very much ; and I beg you will continue it, at least for one year. I have marked a few numbers, unknown to me—of which I would be glad to know more. * * *

Aletris—flore albo. What WILLDENOW in his *Hort. Berol.* has figured as *Wurmbea bullata*, is the true *Aletris farinosa*, Linn.

You have a number of *Asclepiadae*, unknown to me. I class them in three subdivisions :

1. *Nectariis corpusculo aequalibus*—8 species.
2. *Nectariis corpusculo longioribus*—4 do.
3. *Nectariis corpusculo brevioribus*—2 do.

Some, *corpusculo sessili* ; some *stipitato* ; some *acornia* (3),—the most *corniculata*.

To keep your observations in order, and always at hand, I recommend to open a Book, in 8 vo. allowing for every dubious plant one page,—adding the day when you found it, and *solum*. In the beginning, *anonymus* will be often necessary : in a short time you may add the proper name.

In your *Journal*, refer to your *Monographia*, page —. If we live, we can add every year supplements. If we die, our observations will be of use to others. The *Monographia* should range thus:—*Caul. Ram. Folia. Flor. Cal. Cor. Stam. filam. anth. Pist. Caps. Sem. Rad.*

In looking over your specimens, when I added them to my Herbarium, I found hardly any change necessary, except—

“No. 884.” Has exactly the flowers of *Rhus aromaticum*. Are the leaves *ternata* ?

“926.” *Sarracenia*—is *minor*, Walter ; but not *variolaris*, Mx. [See Torrey & Gray ; who suppose them to be identical.]

“939.” Is a *Dalibarda*. Are the leaves always *lobata*, or also *ternata* ? The *D. fragarioides* does not agree well with your specimen. [This was probably the *D.*

lobata, Baldw. in Ell. Sk. the *Waldsteinia lobata*, of Torr. & Gray.].

"964." *Prunus*. Is this a native? It is not *Caroliniana*, Mx. rather *occidentalis*, Willd. figured in *Catesby*. What is the color of the fruit? * * *

The plant you mention as nearly allied to *Brassica*, is unknown to me,—except it be *Cakile maritima*; which grows all along the sea shore, from Carolina to New York. Your *Uniola* I wish to see. You will remember that LINNAEUS mixed two species under *paniculata*: the one growing near our inland rivers is now named *latifolia*, Mx. and Persoon; the other, growing on the sea shore, *maritima*, Mx. and Persoon. This last is the largest we have; and very distinct from *gracilis*, Mx,—and also from *spicata*, L. which is *Festuca distichophylla*, Mx.

I am very happy to hear that Mr. ELLIOTT is now settled, and intends to give his leisure hours to Botany. I have not yet received an answer to my last letter, dated May 17. Some of the seeds, sent to me by Mr. OEMLER, have vegetated. *Cleome pentaphylla*, sown May 20, is now in flower. The rest are *Hibisci*; and I hope to see them also flowering before frost.

My best respects to Mrs. BALDWIN, and Miss GREENE. Let me soon have your observations on the names I attempted to give to your plants. You see them alive, and can decide best. I remain with unchangeable esteem,

Sir, your sincere friend,

H. M.

P. S. Whenever my catalogue is finished, I will send a copy immediately. It goes but very slowly.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, July 6, 1813.

DEAR SIR: I thank you sincerely for the continuation of your *Calendarium*, and the specimens you sent in your letter, dated June 19. They arrived here last evening. Your correspondent at Washington merits my best thanks for his speed in transmitting whatever he receives from you. Part of the seeds I have put in the garden, already; and I will not forget to transmit whatever I get to Mr. M'MAHON. He deserves encouragement; and will be of great use to our country, in the Botanical way.

By reading your *Calendarium*, I am often in spirit with you, and admire the riches of your present abode. You will oblige me much by adding the color of the *corolla*, in your different plants,—especially the new ones. Amongst your June plants, I have marked all your *Grasses* different from ours. * * *

If you can get *Seeds* of any new plants, I would be extremely much obliged to you for them. *Annuals* will probably flower, if *perennials* die in our winter. * *

“864,” comes nearest to *Vaccinium Myrsinites*. LYON has it by that name. All the *Vaccinia* are difficult; and can hardly be distinguished, except by seeing the living plant,—and especially the *fruit*. * * *

The weather has been so excessively hot, and the season so rainy, that I could make but few excursions, this year. We have just begun our wheat and rye harvest. Our fields promise a very good crop. My little garden, in which I cultivate a number of N. American plants from other parts, gives me daily some entertainment: But, how little can a small garden contain!

From Mr. ELLIOTT I have had no letter, lately. I begin to fear that my last letter to him, addressed to Charleston, has miscarried again,—as several others

have,—for which I am very sorry. Will you mention this, when you write to him? My letter was dated May 17, 1813, and went the same time with one addressed to you. You will have received, before this, my other letters, of June 22 and June 29. Both went by mail.

What you sent by Mr. EDWARDS, has not yet arrived. By the way of New York, I am afraid I shall receive nothing,—as the British have extended their blockading system to New York, and are very strict. God send us soon a good and honorable peace!

Remember my respects to Mrs. BALDWIN. May you continue in good health, and be always happy.

I am, unchangeably,

Sir, your most obedient and sincere friend,

H. M.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, July 13, 1813.

DEAR SIR: Just after I had gone through the specimens sent by Mr. EDWARDS—which arrived safe last Friday—your letter of June 26 was handed to me; of which I hasten to acknowledge the receipt.* My last letters, of June 22 and 29, will have arrived probably about this time. Sincerely I thank you for the continuance of your correspondence; and in particular of the *Calendarium* and specimens. * * * *

Should you find an opportunity to send me some seeds of Annuals, or others, not known here, I will be very much obliged to you. The living plant shows by far more than any dried specimen.

I now come to the numbers of the letter, and of the EDWARDS packet:

[* Dr. BALDWIN's letter of June 26, consisted chiefly of a *list* of the plants contained in the package, with accompanying notes.]

“809.” *Parmelia*, I think is new; *viridis* would be a proper name,—or *chlorophylla*,—but the latter we have already. It comes near to *Lichen centrifugus*, which we have on rocks. ACHARIUS has *Lichen* as an order,—divided into many Genera. *Parmelia* is when the *thallus* has leaves, and a *Scutella* with a *margo discolor*: his *Lecidea* has a *Scutella margine concolore*.

“880.” *Parmelia herbacea*—a small variety. I think, with us, it is the largest Lichen we have,—and spreads above a foot in circumference.

“1086.” *Polygala pubescens*, mihi. MICHAUX makes it a co-species of *P. Senega* (*rosea*;) but they seem very distinct. [It is *P. grandiflora*, Walt. & Torr. & Gray.]

* * * * *

The packet sent by Mr. EDWARDS.

“1001.” *Smilax hastata*, Willd, *Bona nox*, Mx. The real *Bona nox* is different.

“1008.” *Commelyna erecta*, mihi. *Caroliniana*, Walter and Willd. *angustifolia*, Mx.

“1043.” *Polygala nana*, (variety of *lutea*,) Mx. I take it for the true *viridescens*, L. [See Torr. & Gray.]

* * * * *

I have no answer yet from our good Mr. ELLIOTT. How may he be? Remember my best respects to Mrs. BALDWIN. She is right, in *Bignonia capreolata*. MARSHALL made the first mistake, in naming it *crucigera*. I am with great esteem,

Sir, your affectionate and sincere friend,

H. M.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, July 29, 1813.

DEAR SIR: Your valuable letters, of June 22 and 29 and July 6, came to hand in regular succession, for

which I beg you to receive my best thanks,—while I again endeavor to make you some return. I am highly pleased to find that you attach some importance to my imperfect communications: and I anxiously hope that I may improve by the interesting instruction which you take so much pains to return to me,—so that I may make you better amends.

The excessive heat and drought of the season,—with the rains that have followed,—together with the increasing duties of my profession, have rendered my *Calendarium Florae*, for the present month, very barren; and also prevented me from continuing my correspondence so regularly, through the medium of our patriotic friend, Mr. CHEVES, in Washington,—to whom I shall return our joint thanks, for the promptness with which he has served us.

I will first attend to some of your queries.

Polygala praealta, Le Conte, is fig. 1, in the drawings; and I do not see that it differs from *corymbosa*, Mx. &c.

Sarracenia variolaris, of Mx. I have in my Herbarium, It is, I think, the most beautiful of all the family, that I have seen.

939. *Dalibarda*—Leaves, of all I have seen, *lobata*.

964. *Prunus*—native. * * * *

Most of the doubtful plants shall be forwarded by land, in a packet I am now putting up to send by Lieut. SEVIER, of the U. S. Marines,—who will travel very slowly with his company, but I hope safely. * *

I go on with my *Calendarium*, such as it is; and shall continue it to the best of my ability,—not only here, but wherever I may go.

July 1. *Andropogon purpurascens* in flower.

July 7. *Malva rotundifolia*, *Teucrium Canadense*.

July 8. *Epidendrum Magnoliae*, Muhl. in high perfection. A friend of mine in this city [W. GIBSON, Esq.] who is very fond of plants, at my request, early in the

spring, secured this plant with a bandage, round the body of the *Melia Azedarach*. It is now flowering, although planted in an inverted position—top down! I mean, by inverted position, that the roots which, on the *Magnolia*, had taken a perpendicular direction downward, were, on the *Melia*, inverted,—and hence the flowers have shot in a direction downward.

July 13. *Marshallia angustifolia*, *Clinopodium incanum*.

July 25. *Bartonia paniculata*.

July 29. *Ambrosia artemisiaefolia*, *Apocynum cannabinum*.

July 31. I have written to Mr. ELLIOTT, and informed him of your not hearing from him,—agreeably to your request.

I also sent off a packet, yesterday, by Lieut. SEVIER, of the U. S. Marines, to be delivered with his own hand to Mr. MUSSER,—commencing with No. 2023, and ending with 2108. His setting out several days earlier than I expected, prevented me from putting up as many specimens as I intended, and forced me to be in too much of a hurry: But, as he will go by the mail coach, you may expect to receive them much earlier than I at first expected, when I began this letter.

I have a chance, also, of putting you up another packet, to send by Mr. AUSTIN, of the Marines,—should I find leisure to attend to it. He will leave St. Mary's in two days.

Yours of the 13th inst. arrived last evening, and is now before me. How shall I thank you sufficiently for your constant and regular attention to me? The specimen of *Uniola* which you have transmitted, is the one I have put down *paniculata*, L. and is found on the sea coast. But I have *another*, found in the same situations, which appears in some respects to differ from it, and grows much taller. I found it on *Amelia*, last year; and am waiting to obtain good specimens for you.

When the *paniculata* was in perfection, this *new* one was just shooting its elevated panicles. The one I send you, enclosed, is very different,—and is found along with *gracilis*, on fresh water. There seems, also, to be yet another,—which, however, may be only a variety of *gracilis*. I will send all.

“Nos. 1019, 20, & 21.” [Specimens of *Glycine*, L. *Rhynchosia*, T. & G.] ought surely to be distinct species. “1019” I would call *rotundifolia*,—or perhaps *simplicifolia* would be still better: “1020” *tomentosa*: and “1021” *erecta*, or *racemosa*. This last is erect, and attains to the height of 3 or 4 feet. But I ask pardon for my presumption, and leave it for your age and experience to decide. [TORREY & GRAY reduce them to *vars.* of *Rhynchosia tomentosa*.]

With sentiments of warm esteem and gratitude for your abundant favors, I once more subscribe myself,

Your devoted friend,

W. B.

P. S. Mrs. B. sends her hearty respects to you. We expect to visit Cumberland, shortly,—where we shall see Miss GREENE. Her brother, NATHANIEL GREENE, is here. We take our little daughter, MARIA, to the Island for her health,—as she has been very ill of a fever. I shall also visit Amelia, if possible; and in the fall, St. Augustine, I hope.

TO THE HON. LANGDON CHEVES, WASHINGTON CITY.

DEAR SIR: Once more I take the liberty to avail myself of your generosity. Permit me to tender you the thanks of Dr. MUHLENBERG, along with my own, for the promptitude with which you have served us, in trans-

mitting a number of specimens;—some of which turn out to be new,—and others, not heretofore described with sufficient accuracy.

I have the honor to be sir, most sincerely your friend
and servant, W. B.

DR. BALDWIN TO DR. MUHLENBERG.

St Mary's, August 7, 1813.

DEAR SIR: I hasten to write you once more before the adjournment of Congress, and to inform you that on Monday last I put you up some additional specimens, to be sent on after Lieut. SEVIER by the hand of Serg't AUSTIN,—who was to have followed on that day, and overtake him in Savannah, or Charleston. But I am sorry to inform you that AUSTIN has not yet left *Point Peter*; and I have been unable to ascertain whether he can still proceed, so as to overtake SEVIER, or not. Should I learn in time that SEVIER will wait for him, I may yet add the remainder of my doubtful specimens,—a considerable number of which I have still by me.

I am getting my Herbarium arranged as fast as possible; but a season of the year has now arrived in which my attention must necessarily be devoted to the sick. My little daughter remains very unwell; and some cases of bilious fever, of a high grade, have just appeared.

Beside all this, we have some reason to apprehend an attack from the enemy, who are hovering on our coast. The troops (1,000 in number, under the command of Brig. Gen. THOMAS PINKNEY,) are nearly all leaving us, for some other post, further North; and expectations are entertained that the *flotilla*, to which I am attached, may likewise be shortly removed to Savannah, or Charleston. The removal of the army, in

particular, at a period when commotions have again broke out in East Florida,—and a portion of the Creek Indians (through the influence of the British,) have become hostile,—has filled us all with serious apprehensions.

I beg you will correct a ridiculous mistake in the *numbers* of my last letter, in which I have made a most preposterous transition from 1099 to 2000! through haste and inadvertence. The numbers contained in the last packet were from 1109—1178. I now send you 1179—1191.

I remain, my dear sir,

Most respectfully,

Your devoted friend,

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, August 24th, 1813.

DEAR SIR: I thank you sincerely for your letter of the 29th and 31st of July, which arrived here, by the kindness of Mr. CHEVES, a few days ago. He deserves our best thanks for his assistance in forwarding your packets with speed. We will have now to depend more on the mail, or travelling friends,—as all intercourse by sea is stopped. No other packet—as Mr. MUSSEY is now with all his family at Lancaster: However, in a week's time he returns to the city, and will look for the gentleman you mention.

The heat has been with us, also, almost intolerable; and every excursion was forbidden to me, except to my garden,—where I had the pleasure to see several of Mr. OEMLER's plants: among them, *Cleome pentaphylla*, *Galinsoga parviflora*, and *Hibiscus diversifolius*, have flowered,—and others promise to flower before frost. Pray, are the mentioned plants native or imported?

I thank you for the observations on former numbers. Of *Prunus*, 964, I wish to know more. It cannot be *Caroliniana*, *foliis sempervirentibus oblongo-lanceolatis serratis*; but either *occidentalis*, or *sphaerocarpa*, Swartz (non Mx.). How may the *drupa* be? *Occidentalis* has *racemos laterales*; *sphaerocarpa*, *racemos axillares*; both, *folia perennantia, eglandulosa, integerrima*.

Your *Calendarium* for July has several plants new to me. * * * * * * *

Whenever you mention the sea shore, or an island, I lament that I never had the opportunity to see the many *Fuci* and *Confervae* which might be seen and gathered in such a situation. Try to persuade your friends to do it. The *Confervae*, when thrown into water, and gathered on paper, surpass any drawings: but it should be done with a nice, lady's hand. In England, it is now done especially by the ladies.

The specimens enclosed in the letter were very welcome—but naturally in part imperfect, where the genus contains many species. The *Panicums* will therefore remain partly dubious, until we have more specimens. I will do what lies in my power.

“1097.” *Uniola* (only less than our common) *latifolia*, Mx.

“1101.” (Your 2001) *Paspalum virgatum*, Walter, vix Linn.

“1114.”—*Panicum microcarpon*, mihi;—perhaps *nitidum*, Mx. which I do not know. * * *

You see I have changed your *numbers* from “2000—2022.” Even 1122 is a great number for such a short period.

My Catalogue is now printed, except the preface. When complete, I will look for an opportunity to send you and Mr. ELLIOTT a copy. A number of your plants came too late for an insertion; and you will have to assist me in filling up vacant places, for the time of

flowering, and the color of the corolla. A second edition will have many emendations.

Your number 1027 is very different from *Rumex Acetosella*; and I wish that you would inform me whether it has *flores dioicos*, and *radicem perennem*.

To-day, I had the pleasure to get personally acquainted with Dr. CLEAVER, on his return from Harmony, beyond the Ohio, to Philadelphia. He remembers you with great esteem, and is a warm friend of Botany,—and promises to forward to me whatever he finds curious and dubious. In health he is rather wanting. I enclose the spike of a southern grass, which I had several years in my garden. It is said to grow in Carolina, and is received in the system by the name of *Festuca uniolooides*, Willd. because it has the habit of *Uniola*. Did you find the same, in your excursions?

Remember my best respects to Mrs. BALDWIN and Miss GREENE. I have quite lately received a friendly letter from Mr. ELLIOTT, and shall answer it in a short time. With unchangeable sentiments of esteem and gratitude, I remain, dear sir, your sincere friend,

H. M.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, September 6, 1813.

DEAR SIR: Your packet, by Lieut. SEVIER, was handed to me a few days ago,—and directly after, your letter arrived with numbers 1179—1191; for both, receive my best thanks. About this time my answer to your last letter will have come to your hands. It was dated August 24. You will find that I altered the numbers 11 instead of 20—and 12 instead of 21. Your numbers from 1179 to 1191 will have (b) to distinguish them from the same numbers in the former collections.

Such little mistakes often happen, when we are in a hurry. I will now give you my opinion on your numbers,—as far as I can judge from the specimens.

“1124.” *Hypericum aureum*, Bartram, *frondosum*, Mx.

“1129.” *Kalmia ciliata*, Bartr. *hirsuta*, Mx.

“1137.” *Vitis rotundifolia*, Mx. *verrucosa*, mihi.

“1168.” *Scleria oligantha*, Mx. not *pauciflora*, Willd.

“1173.” *Asclepias* N. S. (*connivens*, mihi.)

“1182.” *Anona grandiflora*, Bartr. *obovata*, Willd.

* * * * *

Often I might have added the Qu. am I right? I add it now; and beg you will inform me of your doubts, and my mistakes. You have the living plants; I, only dried, and sometimes imperfect, specimens. To such as I wish to see again, N. B. is added,—or your observations are wanted.

In my last letter I mentioned my great desire for water plants,—*Fucus* and *Conferva*,—and for some *Filices*, mentioned in MICHAUX, and not to be found here, viz: *Vittaria angustifrons*, *Blechnum serrulatum*, *Adiantum nigrum*, *Acrostichum aureum*, and *Psilotum Floridanum*. Probably you will discover some new ones.

Have you made any observations for the elucidation of BARTRAM'S *Travels*? and in explanation of the figures not yet explained—Nos. 16, 28 and 30?

I beg you may give me the pleasure of seeing your *Calendarium* continued as long as possible: at the end of the season, we may compare notes.

Our mutual friend, Dr. ISAAC HIESTER, continues to send me the plants of Reading. Hitherto, of 279 specimens, only one was new to me,—*Polygonum cilinode*, Mx. Perhaps we will have better luck in future.

My best respects to Mrs. BALDWIN. Wishing you health and prosperity, I remain with great esteem and affection, sir, your most obedient and sincere friend,

H. M.

P. S. What I chiefly wish to see explained, in BAR-
TRAM'S *Travels*, is

<i>Asclepias fragrans</i> , p. 19.	<i>Rajania</i> , 136.
Is it <i>pedicellata</i> , Walter?	<i>Cucurbita peregrina</i> , 137.
<i>Malva coerulea</i> , 35, 327.	<i>Anonymos volubilis</i> , 436.
<i>Mimosa procumbens</i> , 24.	<i>Ixia coelestina</i> , 155.
<i>Pancreatium fluitans</i> , 35.	<i>Crinum</i> ; White Lily, 59.
<i>Physic nut</i> or <i>Indian Olive</i> , 4.	<i>Zamia pumila</i> , 162.
<i>Tallow nut</i> , <i>Wild lime</i> , 94, 114.	<i>Hydrastis</i> , 364.
<i>Hibiscus</i> , 104, 105.	<i>Arborescent aromatic Vine</i> 436.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, September 15, 1813.

DEAR SIR: Your valuable letter of the 24th ultimo, found me in mourning for the loss of my dear little MARIA,—who died on the 18th with *Hydrocephalus internus*, after great apparent suffering for eleven days. This dear little object of my fondest affection, who has now left forever this troubled scene, had completed her fifth year; and was, even at this infantile age, a most interesting companion to me. After three months tuition, since our arrival here, she had learned to read, not having known the alphabet before; and was more fond of her book than of play. Many a time she has collected flowers to send to Dr. MUHLENBERG,—and as often requested me to inform him that she had found them. Although I bow to this afflicting dispensation of the Great Disposer of events, and admit that it may even be in mercy,—I have found it the most severe: and the loss of a father, a brother, and a sister, whom I dearly loved, was not a loss like this! She was daily improving in every thing calculated to please, and to inspire the most flattering hopes of the fondest parents; and my attachment to her was increasing in proportion.

“I loved her much; but now I love her more:

“Thus blessings brighten as they take their flight.”

I once expected to have gone before her. To have left this mortal scene would then have been more painful: now, to anticipate the period when I shall follow after, is mixed with something joyful.—You, my dear friend, will please to excuse this short, melancholy digression, from the subject of our correspondence;—You,—whose holy office it is to dispense the benign doctrines of the Saviour of men, who came to heal the broken-hearted,—will not, I know, be offended at such reflections.

September 24.

And must my letter totally consist of a detail of sorrows and misfortunes? Immediately after writing the above, I was sent for to visit a patient in great affliction, twenty miles distant, at the south end of Amelia Island. I went prepared to collect all I could, in this flowery department; but was disappointed from the state of the weather,—which, early the next morning (16th) after my arrival on the Island, exhibited tokens of a storm. During the fore part of the day, the wind was variable, with frequent showers of rain, and some thunder. In the afternoon, it gradually increased to a gale, with the wind about North-east, accompanied with much rain. I was in a house,—considered the strongest on the Island, inhabited by a Capt. H. with a large family,—situated on the Sound, and in sight of the Bay of St. John’s. At 10 P. M. the gale had increased so much that our safety became precarious,—as the house was cracking to its foundation, and most of the negro dwellings, corn and cotton houses, were already blown away. In this situation, we abandoned the house, and retreated (men, women and children,) with great difficulty to a kitchen, which, being low, was considered the only place of

safety. Shortly after the house was evacuated, one of the chimneys fell, and most of the windows, and all of the outside doors, were blown away. A little after midnight, the wind abated; but it was only to excite more fearful apprehensions of what was predicted to follow,—and which in a little time took place. The wind suddenly shifted to the S. W. and blew (if possible) with redoubled fury. Such was the transcendent force of the wind,—accompanied with torrents of rain,—that, in assisting to prop up the kitchen, (which we had little expectation of saving,) I was blown off,—or, at least suffered myself to be carried before the wind, until I got hold of some piles of wood that had been driven into the ground for a domestic purpose. Here, it was with the utmost difficulty that I could maintain my hold, and prevent my face from being lacerated with the sand and shells, that were driven by the wind in horrible confusion. The rain, all the time, came down in such torrents, and was driven in such a manner, as to resemble the waves of the sea. It was impossible to retreat, and I remained in this situation for about an hour,—when, the wind abating a little, I scrambled back to the kitchen (having been almost given up for lost); which, though much wrecked, still remained on its foundation. After 3 o'clock, the wind gradually abated. But what a dreary scene of desolation did the light of day present! Almost every neighboring house was torn down, or miserably wrecked. Whole families had spent this dreadful night unsheltered from the raging storm. Not a flower was to be seen! Not an ornamental tree left standing! The Cotton and Rice all destroyed!

In returning, I had to pass through a low, rich *Hammock*, consisting principally of Live Oak, but mixed with other Oaks, and the great *Magnolia grandiflora*. Thousands of these were all prostrate, blocking up the way; and it was with the greatest difficulty and hazard I could

penetrate at all,—being frequently under the necessity of dismounting from my horse, to cut loose from Grape vines, Green briars, &c. Nearly the whole forest was also under water; and in some places up to the saddle, so as almost to swim the horse. Passing out of this into Pine Barren (consisting exclusively of *Pinus palustris*), every tree, of any importance, was prostrate!

I had next to learn, that in Fernandina (the Capital,) 28 houses were blown down, and every vessel in the harbor (—one brig excepted—that had dragged on shore with 5 anchors, and when the wind shifted, dragged back again,) on dry land! It is, however, wonderful to relate that no lives were lost. I had yet to learn the fate of St. Mary's,—where all my hopes and fears were centered. Here, on the morning of the 18th, I witnessed a similar scene of destruction;—and what was infinitely more melancholy, Gun vessel, No. 164, had sunk, and 20 of her crew perished,—while the Revenue Cutter shared the same fate, with the loss of 2 men.—The harbour was clear, while the city and adjacent shores were filled with shipping. I had the satisfaction, however, to find that my little family were safe; they having taken shelter at a neighbor's house, in my absence. But I am truly sorry to inform you, that my collection of specimens has suffered much, and many of them are entirely destroyed;—among which, are some of the most rare from the Creek country, that cannot readily be replaced. Had I been at home, they could have been saved, with care. The oldest inhabitants, here, observe, that this gale has not been paralleled since their memory,—even in this land of hurricanes. But it appears not to have been extensive. I learn that in St. Augustine, but little of it was felt; and that in the opposite direction, its ravages did not extend beyond *Darien*, on the Alatomaha.

Thus circumstanced, my dear sir,—and having also

many sick and wounded to attend,—I feel in a poor condition for writing any thing that will be interesting to you, at this time. I send you, however, a small specimen of the *Uniola*, mentioned in my letter of the 39th July. Is it the same with (*Festuca unioloides*) the one you sent enclosed? I have not been able to procure any fresh specimens; and I consider the one I send you as rather too young.

I am very glad to hear that your Catalogue is published, at last; and rather than fail to receive it in time, I must beg that you will send it by the mail,—the postage of which I will most cheerfully pay. Or, should you not send it on immediately in this way, it may be sent through the hands of Mr. CHEVES, after the meeting of Congress. But I should be glad to receive it before. I received a letter from Mr. CHEVES, dated the 2d of August,—wherein he expressed the pleasure it gave him to aid us in our correspondence. It gives me pleasure to hear from Dr. CLEAVER, and to be remembered by him. The recollection of those happy days, when I attended medical lectures with him, and others, is like a pleasing dream. I wish it were in my power to realize such days again.

Mr. OEMLER's plants, which you have mentioned to me as flourishing in your garden, are, I believe, all exotics. *Cleome pentaphylla*, however, might be taken for a native,—as it is found growing spontaneously about the suburbs of Savannah, and is likewise in this place. The *Canna glauca* is called, in Florida, "Wild Sago." The root of this plant has been substituted for "Arrow root" (*Maranta arundinacea*,)—and I am told cannot be distinguished from it. The latter is raised and manufactured, here.

I have not seen Miss GREENE for some time. The house she resides in, though covered with copper, has been unroofed in the gale! Mrs. B. is well, and is now

on a visit to Fernandina. It will be some time before many flowers appear in the vicinity of this place,—such have been the destructive effects of the gale.

As soon as an opportunity offers, I will send you specimens of the *Epidendrum Magnoliae*. The *Rumex* (1027) appears to be *dioicous*. I am not certain about the *root*; but will attend to it further. I considered it very different from *R. Acetosella*. I found, yesterday, on Amelia, *Crinum? spatha diphylla, triflora*.

I remain most affectionately yours,

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, November 18, 1813.

MY DEAR SIR: Your letter of the 15th and 24th September, last, arrived here in the middle of October,—with the distressing account of the hurricane, and the severe loss of your good and amiable MARIA. I feel sincerely for you; but we must be satisfied with the ways of Providence. “Maria has chosen that good part, which shall not be taken away from her.” Since that time, I have been with you often, in spirit, intending to write,—but have been hindered from time to time; and have been waiting to hear whether you had received my Catalogue,—which I had sent to you before the arrival of your letter, viz: September 29, by mail. I wish it may not have miscarried. You will find that a number of your plants came too late for insertion. Some of them were entirely strangers to me. Will you give me your additions and corrections,—and try to get me such as are marked (†)—or entirely wanting? Do not forget to mention if the plants are not natives,—but only naturalized, or garden plants. You mentioned several in your *Calendarium*, of which I

would be very glad to have a description, or a specimen,—and, if not too much trouble, seeds. I very often look over your *Calendarium*, and wish exceedingly to see it continued,—that we may compare the time of flowering in the different States. A new correspondent, at Boston, Dr. JACOB BIGELOW, has promised to do the same, at that place.

From our mutual excellent friend, ELLIOTT, I had a letter, lately. He had received my *Catalogue*, which went some time after yours,—and promises additions. In *Fucus* and *Conferva*, hardly anything has been done; and I wish assistance from every quarter.

The time draws near in which Congress meets. If Mr. CHEVES is a member, he may be persuaded to assist us with his former goodness. It is a pity that all the specimens must be rather small. Pray let me know if you have received the *Catalogus*. Should it have miscarried, I will send again. Since my last, I have been favored with a valuable acquisition to my Herbarium, by Mr. Z. COLLINS,—who has been at the sea-shore. Also by Mr. WHITLOW, with a number of *Genesee* plants. I cannot expect any thing from Europe, until these troublesome times are over. If our American Botanists would join a little closer, we would do better.

Mr. CORREA, an excellent Botanist, had gone to Boston with the determination to return to Europe. He has changed his mind, and will remain in America for some time longer; probably he will visit the Southern States.

Dr. BARTON, you know, is now in the place of the excellent deceased BENJAMIN RUSH. Whether his new situation will hurt his Botanical pursuits, time will show. Mr. COLLINS is an excellent observer, and indefatigable. Of Messrs. M'MAHON, and LYON, I have not heard, lately.

* * * * * * *

Your *Salix*, 1103, seems new,—but cannot be distin-

gushed for want of adult leaves. I would thank you very much, if you could enclose of every southern *Salix* a grown leaf, numbered. This can easily be done in a letter. Of No. 1188, *Ephedra*? I wish to see the female plant, or seed. I can do pretty well by examining the seed with GAERTNER, *de fructibus*,—especially when the flowers are minute. * * *

You have a number of *Centaureas*, in your *Calendarium*, which are strangers to me. I know but three,—*Jacea*, *Calcitrapa*, and *benedicta*—perhaps a native. Your former native *Marygold*, in Charleston, also remains a *dubium*. Have you found it any where in your excursions?

I do not remember whether you have *Walter's Flora Caroliniana*. It is an excellent book, and would deserve a new editor. You, or Mr. ELLIOTT, would make a valuable present to the public, by giving a new edition, with supplements and emendations.

As soon as I know for certain that you have received my *Catalogue*, I will send you what I have added since; and the sooner you send me your additions, the greater my obligation will be to you.

Remember my best respects to Mrs. BALDWIN, and believe me to be unchangeably,

Sir, your most obedient servant, and sincere friend,
H. M.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, December 9, 1813.

MY DEAR SIR: Your letter, dated the 18th of November, came by the last mail; but it was not in my power to return an immediate answer. On the back of my letter of the 15th and 24th, I acknowledged yours of the 6th of September. Your *Catalogue* arrived on the 16th of

October. I ask your pardon, seriously, for not having acknowledged earlier the receipt of so valuable a present. From day to day I put off writing, with the expectation of having something worthy of your acceptance, to communicate. But the *Gale* having deranged my collection, and produced universal disorder,—together with an increase of troublesome professional duties, and a variety of other objects engaging my attention,—all conspired to prevent me from attending to my favorite pursuit. I hope, however, soon to renew my attention to it with increased ardor.

The *Arum*, or *Calla*, with a white spatha, which you mention, is found native in the neighborhood of Savannah. I met with it in the spring of 1812. Specimens of it were lost in the mouth of the Delaware. I was informed that BRICKELL called it *Calla*.*

* *

I go on with my *Calendarium Florae*,—which will be very barren the remainder of the season.

August 4. *Sida rhombifolia*.

“ 15. *Rhus copallinum*.

“ 19. *Andropogon nutans*. *Poa flava*, L.

Septem. 5. *Statice Limonium*.

“ 10. *Cassia chamaecrista*.

“ 24. *Eupatorium foeniculaceum*.

October 4. Plum trees and Whortleberries, in flower: most probably in consequence of the *Gale*.

“ 8. *Morus papyrifera*, L. [*Broussonetia*] again in flower. *New Leaves* every where appearing, since the *Gale*.

“ 21. Apple and Peach trees in flower.

Novem. 1. *Second crop Mulberries* ripe, on *Amelia*.

[*It is, doubtless, the plant called *Caladium glaucum*, by ELLIOTT. *Calla sagittifolia*, Mx.]

“ 8. *Salvia lyrata*, and *Cercis Canadensis*, in flower.

“ 19. Hard frost; and many vegetables destroyed by it.

“ 30. Mercury at 34°. Hard frost.

The weather has been very moderate so far, this month. The mercury has been as high as 74°. My *Calendarium* shall be continued.

I hope your new correspondent, Dr. BIGELOW, of Boston, will keep, along with his *Calendarium*, a register of the weather,—which will render it more important.

Mr. CHEVES will no doubt aid us in our correspondence, as formerly. I shall very soon avail myself of his kindness, and transmit to you my doubtful plants.

The native *Marygold*, of Charleston, I have not found, in my excursions. The keeper of the Botanical Garden thought it belonged to that genus; but he was probably mistaken.

I have not the *Flora*, of WALTER; for which I am very sorry. I saw a copy, in Savannah, that had belonged to the late Dr. BRICKELL,—but could not obtain it. It well deserves a new edition.

The additions to your *Catalogue*, I shall look out for with much pleasure; and as soon as possible, I will send you all I can.

I am sorry to learn that the packet, mentioned in my letter of the 7th of August, which I sent on after Lieut. SEVIER, by Serg't AUSTIN, has never reached you. The numbers were from 1109 to 1178, inclusive; and contained many of my most important specimens. Among these was a *Gratiola prostrata*,—and an *Orchis*, unknown to Mr. ELLIOTT,—with several other doubtful plants.

Miss GREENE, and Miss PAINE (her niece,) are present, and send their best respects to you. The latter is now studying Botany with great diligence, and will shortly be able to do something *clever*. Mrs. B. also wishes to

be remembered to you. Accept my best wishes, and thanks for your attention to me:—I am most sincerely your friend,

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, December 17, 1813.

MY DEAR SIR: I have the pleasure to inform you, that a packet you were pleased to send to me, August 2, by Messrs. SEVIER, and DUVAL, has come, after a long passage, safely to my hands. I thank you sincerely for your continued friendship. In a letter, dated November 18, I have informed you that I sent you a copy of my *Catalogus*, September 29, by the mail. No answer has hitherto come, and I am very anxious to hear from you,—especially since the former friend is at the seat of government, and perhaps will continue to do what he did in the last session—all *pro Bono Publico*. Your *Calendarium* continued, would be a great acquisition to me.—Pray let me have it,—at least for one season. Amongst the last plants, several are new to me; and as the specimens are *uniques*, I entreat you to send more, whenever I add N. B.—As I have *Gaertner de Fructibus*, much depends on the sight of ripe seed, to find the genus: and if you would be pleased to add your description, and the sign of duration, my obligations to you will be enhanced. In the same manner, I entreat your additions, and emendations, to my *Catalogue*,—mentioning the *North American* plants missing, and filling up the many blanks, in the *color of the corolla*, *duration*, and *time of flowering*. Should the *Catalogue* have miscarried, I will send again. * * * *

How have you and your family been, since your last mournful letter of September 24? May you all be preserved;—especially in these turbulent times, when our

enemy threatens to visit (not in mercy, indeed,) the southern States.

It is only to-day that I hear of an excellent *Mycologist*, in North Carolina, who is a teacher among the Moravians, at Salem,—and has written upon *Fungi*, in Germany. His address is Rev. L. DAVID DE SCHWEINITZ, at Salem, North Carolina. Pray mention it to our mutual friend, Mr. ELLIOTT, who is nearer than we, and would find great assistance in making a complete *Catalogus* of Carolina *Fungi*. It is a very wide field.

Wishing you, with all my heart, health and prosperity,—and anxious to hear from you soon and often,—I remain with unchangeable esteem,

Sir, your sincere friend and servant,

H. M.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, December 25, 1813.

DEAR SIR: I wish you a happy Christmas! While most of my neighbors, of all colors, and different nations, are preparing to celebrate the day,—I sit down to put you up a few more specimens, to send viá Washington, through Mr. CHEVES, who I hope is there. It is a wet and stormy day,—or I should probably have passed it with a friend in the country.—I have just been spending a few days on Cumberland Island: But met with nothing of importance,—as the weather permitted me to travel but little; and there is not much now to be found, except a few *Mosses* and *Lichens*,—and these, many of them, not in season. Mrs. MILLER (mother of Miss GREENE) gave me a few seeds of a shrub, found on St. John's, which you will find enclosed.

I begin with 1209, which I believe is my next highest number. I feel ashamed of the blunders I have made

in my numbers; but I hope to go straight, hereafter. Some further particulars respecting the enclosed specimens shall be added, on a future occasion. With unabated esteem, I remain, my dear sir,

Your affectionate friend,

W. B.

DR. BALDWIN TO DR. MUHLENBERG.

St Mary's, January 7, 1813.

DEAR SIR: By the last mail, I had the pleasure to receive your letter of the 17th ult., and before this time I hope you have received mine of the 9th. I wrote also on the 25th and sent you a few specimens, through Mr. CHEVES. I now give you the remainder of my *Calendarium*,—which is very short.

December 13. Found the *Epidendrum Magnoliae* on a species of Hickory (*Juglans.*)

“ 21. *Aster laevis* in flower.

January 7, 1814. (This day) *Erysimum pinnatum*, Walter, in flower.

Enclosed you will find a specimen of the *Epidendrum Magnoliae*, taken this day from the *Melia Azedarach*, where it had been transplanted last spring. It is remarkable, that it has continued to flower all the winter, on the *Melia*,—while in the woods, no flowers are to be found.

* * * * *

The winter, even here, is too cold for me: But we may now anticipate the speedy arrival of the spring season, and its charming warmth. It is now our time for planting Northern garden seeds, &c. We have already planted Irish potatoes, peas, &c. Some of our neighbors have peas fit for the table.—While I fondly reciprocate your kind wishes for me and mine,

I remain ever yours,

W. B.

TO THE HON. LANGDON CHEVES, WASHINGTON CITY.

DEAR SIR: Again I trouble you in the old way. If it be in the least inconvenient, I beg you will inform me, and I will desist: But it is my only mode of transmitting specimens, these war times.

I am, my dear sir, yours, &c.

W. B.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, January 14, 1814.

DEAR SIR: I put you up a few more plants,—none of which, I fear, will be interesting. * * *

I ought to have mentioned, in my last letter, that on the 22d of December, the following plants were flowering, on Cumberland Island, viz: *Sonchus oleraceus*, *Houstonia serpyllifolia*, *Mitchella repens*, *Alsine media*, and *Lamium amplexicaule*.

I will take the liberty of suggesting a few little improvements in your *Catalogue*,—should you publish another edition, which I hope you will be able to do shortly, with many additions.

1. Would it not be well, where old Generic names are changed, to retain them all—at least in the index?—as, without a previous knowledge of such change, we are embarrassed in looking for some plants: as for example, *Cynosurus* (*Eleusine*,) *Sideroxylon* (*Bumelia*,) &c., which are not to be found in the catalogue, nor index.

2. I should be glad to see the names of the different discoverers, or nomenclaturists, affixed to each species, as well as all the different names by which the same genus, or species, has been called: which appears not to be uniformly the case, in the catalogue.

3. Perhaps some plants are marked as indigenous,

which are exotic,—as several species of *Cucurbita*, &c.

It has just been snowing a little; but was soon followed by rain:—Mercury, in Fahrenheit, 49°.

The weather has been, for some time, cold, rainy, and very unpleasant to me. In the spring, I hope to visit *Occonee*, *Ocmulgee*, and *Flint* rivers, if the times will admit. With much esteem I remain, my dear sir,

Yours, &c.

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, January 14, 1814.

MY DEAR SIR: Two of your letters are now before me,—one, dated December 9, with the continuation of your *Calendarium*, the other, dated December 25, by the assistance of Mr. CHEVES, with 12 specimens;—for both, receive my best acknowledgments. My last letter, with my observations on your Nos. 1209—1278,—which went from here December 18, you probably have received long before this. In your *Calendarium*, several plants struck me; of which I much wish to hear and see more.

* * * * *

Your specimens, in the second letter, were very pleasing,—though some had suffered a little. A little paste-board would preserve them better; but that would make the number less. O how we miss our former peaceable times! I will give you my opinion on each number. * * * * * The *seeds* enclosed, were of *Ptelea trifol'ata*. They can be used instead of hops. Your number 1133 was an imperfect specimen of the same. It stands our climate very well; and I have a living plant from Tennessee seed. Nature seems now sleeping, with us. But the Cryptogamia give sufficient employment to a Botanist; and a number of

water plants would reward him for his exertions. The *Confervae*, and small *Fuci*, can be transported best without harm,—as they revive, when put in water. I should suppose the shores of Cumberland, and other Islands, would give a very plentiful harvest. Have you made a list of your Georgia and Florida *Filices*?

Since my last, I had a very pleasing visit from Mr. CHARLES WHITLOW, of New York,—who intends to go to England, and return again immediately. He brought with him about 420 plants, chiefly gathered in Genessee. Amongst them, *Vinca minor*, native [?], several *Ranunculi*, *Potentillae*, *Pruni*, *Melilotus vulgaris*, native [?],* *Pulmonaria Sibirica*,—in all about a dozen. By him I have begun a correspondence with Dr. ROMAYNE BECK, at Albany,—who, in company with others, is indefatigable in exploring the Flora near the lakes. By the old settlements of the French, many European plants are entirely naturalized.

From our mutual friend, Mr. ELLIOTT, I have not heard, lately. His last letter was dated October 30. My last, November 8, and December 6. Probably he is too much engaged in other business.

My health has been rather precarious,—being apt of getting cold: However, I am clear of rheumatism.

Remember my best respects to Mrs. BALDWIN,—and the ladies who practice Botany. I remain with unchangeable affection,

Sir, your most obedient and sincere friend,

H. M.

[*Mr. WHITLOW was probably poor *authority*, on the subject of “native,” or indigenous plants. Those here mentioned, as *native*, are not believed to be such, by the more respectable American Botanists.]

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, January 22, 1814.

DEAR SIR: I again put you up a few specimens. * * I see no *Andromeda formosissima* in your catalogue.* Is *Convolvulus obtusilobus*, in your catalogue, the same as *Ipomoea obtusiloba*, No. 859? The flowers of this plant are not white, but a beautiful yellow. Is *Ipomoea Quamoclit* a native of any part of America? 1277 *Convolvulus trichosanthes*. The flowers of this are white. I have another, as small, or smaller,—leaves sagittate, flowers white. This is the smallest of all, and very different from *C. sagittifolius*, Mx. which has flowers purple. You have no *sagittifolius* in your catalogue. I hope to have an opportunity to send you all these in good order, should I live until they are again in perfection. The mail has arrived, but brought no letter from you. I therefore conclude, for the present, and am with unabated esteem, ever yours,

W. B.

TO THE HON. LANGDON CHEVES.

St. Mary's, January 22, 1814.

DEAR SIR: As I hope I am not intruding too much on your goodness, I continue to trouble you with my packets.

Yours &c. W. B.

HON. L. CHEVES TO DR. BALDWIN.

Washington, February 3, 1814.

DEAR SIR: I have received yours of the 22d ult. and several preceding packets,—all of which I have for-

[*The *A. formosissima*, Bartram, is *acuminata*, of Muhl. catalogue,—*reticulata*, Walter,—and *Leucothoe acuminata*, DC. Prodr.]

warded with great pleasure. I am happy to be an useful, though humble agent, in assisting you in your laudable exertions in the cause of Science. I am, dear sir, with great respect and esteem, your obedient

LANGDON CHEVES.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, February 12, 1814.

DEAR SIR: I will now attend, as far as I am able, to your letter of the 14th ult. and first of the plants in my *Calendarium*,—of which you wish to know more. * *

“*Sept. 2. Verbascum?*” Leaves setaceous. This is No. 30, in the drawings. It is hardly *Verbascum*. It has much the habit of *Gerardia*; but the 4 stamens are all of uniform length. Corolla pale yellow. * *

“*Rubia peregrina.*” I suppose the same as *R. Brownei*, Mx. in your catalogue. I see a *R. peregrina* in WILLDENOW; but it can hardly be this one. I would thank you much to inform me, still, by whom the respective plants have been named, and the different names by which the same plant is frequently called. This would often prevent embarrassment and difficulty. Mr. ELLIOTT returned this to me as *Galium hispidulum*, Mx. It can hardly be *G. hispidulum*, and *Rubia Brownei*, both, of Mx.* * * * *

I have scarcely any *Fuci*, or *Confervae*. I am truly sorry to disappoint your wishes in this respect: but I do assure you, I have explored the shores of Cumberland, and other Islands, in vain. In reaping a “plentiful harvest,” I have been disappointed,—either because these plants are not abundant, or I am too ignorant and unfortunate to find them. The search, however, shall not be

[*TORREY & GRAY, however, have referred the *Rubia Brownei*, of Mx. and the *R. peregrina*, Walter, to *Galium hispidulum*.]

relinquished. Of *Filices*, I have had very few. Some of these, found in the neighborhood of Savannah, have been lost. What I have, shall be sent to you by the first opportunity. I have altogether but 10.

The last letter I had from our mutual friend, Mr. ELLIOTT, was dated November 8. I expect to hear from him by every mail. * * * * *

With undiminished esteem I remain, my dear sir,
Your sincere friend, W. B.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, February 19, 1814.

MY DEAR SIR: The mail has just arrived, and brought me a letter from Mr. CHEVES, (dated Feb. 3,) who again expresses the great pleasure it affords him to aid us, in our correspondence for the promotion of science. He says he has received and forwarded my letters to you, up to the 22d ult. Had we but a friend in Washington, during the recess of Congress, who would take charge of packets for you, I could frequently have opportunities of sending them, by Naval officers, &c. Perhaps I shall set out, to-morrow, on a journey of 50 or 60 miles up the St. Mary's, in pursuit of Botanical objects. * *

In haste, I remain your sincere friend, W. B.

TO THE HON. LANGDON CHEVES, WASHINGTON CITY.

DEAR SIR: Your obliging letter of the 3d inst. has just reached me. Accept my warmest thanks for your polite attention. As the session is drawing to a close, I shall take care not to extend my troublesome packets beyond the proper limits. With the highest respect I remain, my dear sir, yours &c. W. B.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, February 26, 1814.

MY DEAR SIR: As Congress is on the eve of rising, this will be the last packet I can send you, for a time, by mail. I have just returned from the journey, mentioned in my last letter; and send you enclosed such of the result as can be thus conveyed. Of the *Phanerogamia* which I met with, you shall be informed when I transmit my *Calendarium* for the present month.

My tour extended to within about 12 miles of the celebrated *Okefanoka Swamp*, at the head of *St. Mary's*: and there I found a country vastly more rich in plants than the sea coast. I hope to visit it again, at a more proper season.

The *Crinum* mentioned in my *Calendarium* of Sept. 23, is the same spoken of by BARTRAM, in page 59. Is not your *Euphorbia cyathophora* the *E. picta*, of BARTRAM? And the *Lycium Carolinianum*, *L. salsum*? I have only seen the latter in the garden, at *Dungeness*,—where many beautiful native plants are to be found.

Of the plants of BARTRAM, which still require confirmation,—with the exception of the abovementioned *Crinum* (“White Lily,”)—I know nothing worth communicating. I have a solitary imperfect specimen of an *Asclepias* that is *fragrant*, which was brought to me by a friend. It is a small plant, but very different from *A. pedicellata*, Walter (I do not know that *A. pedicellata* is fragrant): flowers whitish; leaves long, narrow-lanceolate,—almost *graminifolia*. *Ixia coelestina* is said to be abundant on *St. John's*. LE CONTE thinks it a new genus.

I see no *Chironia gracilis*, nor *C. stellata*, in your catalogue. Pray, have you those plants under other names? The mail has just come in, but has brought me no letter from you. I hope that indisposition is not the cause of

your long silence,—and that I shall shortly hear from you. My letters ought now to be received by you, up to the 5th of February. I have since written on the 12th, and 19th. I remain, my dear sir, your friend, &c.

W. B.

MRS. HUFFNAGLE TO DR. BALDWIN.

Lancaster, February 16, 1814.

SIR: At the request of my father (HENRY MUHLENBERG), I drop you these few lines. On the 24th of January, my good father was taken very ill with something of a paralytic affection,—as he found it difficult to speak, and his memory extremely weak. At present, he again sits up, and articulating as distinctly as ever he did; and his memory is almost quite restored. Your kind letters, containing specimens, were received; for which, receive father's thanks. His mind was very uneasy, thinking you might attribute his not writing to neglect, or want of inclination: and your still continuing to send, would gratify him very much. His last letter, dated January 14, he hopes you received. I am in hopes that in a short time, father will be able to return you some of your attention.

With respects from father, I conclude,—and hope you enjoy good health. With sentiments of esteem, I remain yours,

ELIZABETH HUFFNAGLE.

P. S. Receive my best respects, and pray continue your letters.

H. MUHLENBERG.

MRS. HUFFNAGLE TO DR. BALDWIN.

Lancaster, March 14, 1814.

ESTEEMED SIR: In all probability my letter prior to

this (mentioning the indisposition of my father,) you received. During that time father has received many packages from you,—which he has all overlooked with pleasure: But, although he is now in a state of convalescence, his head is too weak to examine them closely, or write to you on that subject. But I am in great hopes a short time will remove that difficulty.

Father has desired me to mention the name of his friend, Doctor OTT, of Georgetown near the federal city. He would be happy to take charge of any packages you would send to father, and forward them by Baltimore to Lancaster.

ZACCHEUS COLLINS, of Philadelphia, would likewise forward any thing for father.

Since my last letter, we have met with a severe loss in our family; namely, the death of JOHN MUSSER, of Philadelphia,—who, after a short illness, left this world of wretchedness, and was numbered with those that have been. He has left a widow and 7 small children to deplore his loss. Long, in this “valley of affliction”, will his loss be felt. But we must not murmur at the dispensations of God. *Christianity*, I hope, will be the widow’s solace. That, alone, can lift the soul above affliction’s power.

Father has received no letter from Mr. ELLIOTT since October 30. I must now, my esteemed friend, bid you adieu. Father and mother desire to be remembered to yourself and good lady. Be pleased to accept my respects to Mrs. BALDWIN, and self. I remain with sentiments of esteem, yours,

ELIZABETH HUFFNAGLE.

P. S. I hope in a short time to add, myself, my observations on the specimens. God bless you and your lady and family, My apoplexy is going fast.

H. MUHLENBERG.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, March 19, 1814.

MY DEAR SIR: On the 12th inst. I received a letter from your daughter (Mrs. HUFFNAGLE,) dated the 16th ult. containing the painful information of your having been visited with a severe illness. By the same letter, however, I had the consolation to find that you were fast recovering,—and were even able to satisfy me on that interesting subject, by adding a note containing your kind respects, with your own hand. I had become very uneasy, supposing that sickness alone had occasioned your silence,—as you had ever been so prompt a correspondent.

Agreeably to your request, my dear sir, I shall continue to write, and contribute all I can to gratify your wishes. Indeed, I shall ever feel bound, in gratitude, to make you all the returns in my power, for the numerous favors you have conferred upon me. Pray do not be too anxious to answer my letters, until you feel so well as not to run any risk by making such exertions.

I will now give you my *Calendarium* for February. You will perceive that the plants have generally flowered earlier this season, than the last.

Feb. 2. *Bartonia verna* [*Centaurella*, Rich.] in flower.

“ 5. The mean temperature of this climate, for the last year, ending this day, is $67\frac{1}{2}^{\circ}$. Range of temperature, from 30° to 96° .
Note. I take the temperature three times a day,—and add the mean, daily, monthly, and yearly.

“ 7. *Amaryllis Atamasco* in flower. This plant is not abundant on the sea coast.

“ 10. *Spergula saginoides*, L. [*Sagina decumbens*, Torr. & Gray.] and *Amygdalus Persica*

(Peach) in flower. The latter has mostly been destroyed, in this neighborhood, by the *Gale* in September, last.

- Feb. 15. *Polygala lutea* in flower; but rather sickly.
 “ 20. *Viola palmata*, *Rubus procumbens* [*Canadensis*, L. Torr & Gray.], *Cercis Canadensis*, *Acer rubrum*, and *Antirrhinum Canadense*, all flowering.
 “ 25. *Rubus villosus* (Blackberry) in flower.
 “ 27. *Symplocus* (*Hopea*) *tinctoria*, *Geranium Carolinianum*, *Mitchella repens*, *Plantago Virginica*.

* * * * *

That Heaven may grant you a speedy recovery, is the fervent wish of your obliged friend, W. B..

P. S. Pray give my best respects to Mrs. HUFFNAGLE. I hope she will continue to inform me how you are, until you are so far recovered as to be able to write.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, March 26, 1814.

MY DEAR SIR: Finding, by the last mail, that Congress will not rise until the 11th of April, I put you up a few more specimens to be franked by Mr. CHEVES, who is so kindly disposed to aid us.

I hope that you are daily recovering, and that I shall soon have the pleasure of hearing from you.

With warm esteem, I remain, &c.

W. B.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, April 1, 1814.

DEAR SIR: I now send you my *Calendarium*, for March,—which will be less full than that for February, on account of the unusual severity of the weather.

March 1. This morning the mercury stood at 26°! Ice was formed near an inch and a half thickness. The flowers, leaves, and many young plants, totally destroyed.—The cold commenced after a thunder-gust on the 27th of February. It continued frosty for several days.

- “ 11. *Polygala viridescens* [*nana*, &c. T. G.] in flower.
- “ 20. *Azalea nudiflora*, & *Ascyrum amplexicaule*, in flower.
- “ 27. *Krigia Virginica*, *Festuca tenella*.
- “ 28. *Hydrocotyle umbellata*, *Vicia Caroliniana*, *Aesculus Pavia*.
- “ 31. *Broussonetia papyrifera*, *Olea Americana*, *Celtis occidentalis*, *Rosa laevigata*, *Agrostema Githago*, *Gnaphalium purpureum*, *Scorzonera pinnatifida*.
Jatropha stimulosa, *Samolus Valerandi*, in flower.

This has been a cold, blustering, and variable month; and very sickly. I have been much indisposed; but since the weather has become pleasant, I have recovered my health.

In looking over your *Catalogue*, I find that *Sarracenia minor*, Walter, has *flor. lut.* “Number 926” has, I have no doubt, always *flor. purp.* Can it be the same plant? In a letter I received from Mr. ELLIOTT, by the last mail, he informed me that he considered *Sarracenia variolaris*, Mx. as the true *minor* of Walter. There is no

S. variolaris in your *Catalogue*. I have never seen the *S. flava*,—unless it be the *S. variolaris*. There is some confusion in these plants, which I do not know how to reconcile.† * * * * *

April 2. I have just returned from the country, and received Mrs. HUFFNAGLE's letter of the 14th ult. and have only time to express, before the mail closes, the pleasure it has given me to learn that you are still in a fair way to recover,—and that the specimens I sent you afforded some amusement.

I sympathize with you all in the loss of Mr. MUSSER,—with whom I had the pleasure to be acquainted. Having tasted deeply of the cup of sorrow, I can truly say, with Mrs. HUFFNAGLE, that *the doctrines of Christianity furnish the only solace that can lift the soul above affliction's power*.

Mrs. B. joins me in best wishes for yourself and lady,—and Mrs. HUFFNAGLE, who has been so good as to write.

I remain your affectionate friend,

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, April 15, 1814.

MY DEAR SIR: After a long silence, I begin to feel some strength to try what I can do, to thank you personally for your letters and communications. I send you a list of the numbers, although I am not able to say much: Indeed, many were fragments by the carriage. In a future day, when close examination follows, I will know more; and I have to beg your assistance in naming the plants. * * * * *

[†The species of this genus (6 in number) have been well determined by CROOM, and TORREY & GRAY.]

My youngest son, FREDERICK AUGUSTUS, a pupil of Dr. RUSH, has taken his degree, at the late commencement, as M. D. and will live at Lancaster. He will assist me in Botany: Probably you will see his hand more than once. I recommend him to your notice. I mentioned in a former letter, Dr. DAVID OTT, of Georgetown, near the seat of Congress, as willing to take charge of packets.

Favor me with emendations, and additions, to my *Catalogue*.—May you fare well. With compliments to Mrs. BALDWIN, and the botanical ladies, I remain unchangeably, sir, your sincere friend,

H. M.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, April 30, 1814.

DEAR SIR: Hoping that you continue well enough to take an interest in Botany, I will now give you my *Calendarium Florae* for the present month.

April 1. *Verbascum Thapsus, Vaccinium stamineum, Drosera Americana, Helonias angustifolia*, in flower.

“ 3. *Juncus effusus, Cynodon Dactylon, Cornus florida*.

“ 9. *Bignonia capreolata, Viburnum nudum, Salvia lyrata, Lampyrus* (Fire-fly) numerous.

“ 10. *Oenothera fruticosa, Campanula perfoliata*.

“ 16. White frost! Vegetation killed, in many places.

“ 24. *Itea Virginica, Erythrina Corallodendron*.

“ 26. *Acalypha Virginica, Polygonum scandens*.

“ 27. *Prinos glaber*.

“ 29. *Magnolia grandiflora*.—Fruit of the “Dew-berry,” *Rubus procumbens*, ripe.

Since writing the above, I have received your letter of the 15th inst. I cannot express the pleasure it gives me to hear from you again, after so long a silence. Every assistance in my power shall be given you, in naming the plants, &c.

I congratulate your son, FREDERICK, on his obtaining a medical degree. Pray inform him that he has my best wishes; and that it will afford me much pleasure to cultivate an acquaintance with him.

I expect to set out, to-morrow morning, with a view of ascending the St. Mary's 80 or 90 miles, by water; and shall pick up all I can by the way,—and inform you of the result, on my return.

In my last letter, I enclosed you a little water plant. I now send you another. Neither of them is numbered,—as they are single.

Accept my best wishes for your welfare,—while I remain your sincere friend,

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, May 25, 1814.

DEAR SIR: I had the pleasure to receive your last letter, dated the 30th of April. The *Calendarium* of the last month was very valuable to me. The beginning of the year may be much sooner,—but after the flowering of the *Robinia*, you approach within one month. Our *Robinia* began May 17, the *viscosa*, May 25.

I have marked some of your plants, of which I long to see and hear more. The others are known to me.

* * * * *

I have looked over your numbers, sent by Mr. CHEVES. Unluckily, a great number have been so much damaged, that I remain uncertain until I see more. I wish your kind annotations:—

1. Which are your plants not mentioned in my catalogue?

2. Which should have the mark, C. being probably not natives?

3. What do you say to so many of your numbers, left without a name—dubious plants?

A great number of your and Mr. ELLIOTT'S specimens, I left in doubt,—and will be left to you. Some you will find amongst other names. *Sisymbrium Sophia?* (WALTER'S *Erysimum pinnatum*,) is now in flower, with me. *Rumex hastatulus*, mihi, flowers also with me, from your seeds: in habit, very near to *Acetosella*: root perennial. Of my ELLIOTTIA, I wish exceedingly to see more: My specimen is very imperfect.

Anxiously I look for MICHAUX'S figures of *Populus*,—which is a very difficult genus; of which several *N. Sp.* are in Carolina.

The "water plant," enclosed in your last letter, is rather a *Zoophyte*,—rather too young. The proof of a *Zoophyte*, is the particular *oyster smell*, when you burn it.

Had you any luck, in your last excursion? And does Mr. ELLIOTT continue his correspondence? He is an excellent observer.

I hope you will not be disturbed by the threats of the enemy. My respects to Mrs. BALDWIN, and the botanizing ladies. I remain with great esteem, sir, your sincere friend,

H. M.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, June 17, 1814.

DEAR SIR: Your letter, dated the 25th ultimo, came to hand by the last mail, and gave me great pleasure,—

as it afforded an evidence of returning health, which I hope will be permanent.

To your queries, I will endeavor to make some reply:—

“*Anona obovata*,” (1182)—flowers generally white; but I have seen them tinged with purple, on *Satilla river*, and not differing in any other way.

“*Clematis reticulata* :” Leaves beautifully reticulated; leaflets oval, mucronate, rarely three-lobed; flowers varying from a rose color to white.

“*Iris hexagona*”—does not appear to differ materially from the northern *versicolor*,—except that the flower has not so much of that *mottled* appearance, and does not smell so strong. LE CONTE informed me that it was the *hexagona* of WALTER; but that he could only consider it a variety of the *versicolor*.

“*Trifolium pumilum*”—is new. Enclosed you will find a head of seed, which I hope will vegetate. Found on the flat common, close to this city; and in a similar situation at *Coweta*, on Chatahooche. It is unknown to Mr. ELLIOTT.

“*Utricularia purpurea*.” The leaves, and manner of growth, of this, resemble the northern *vulgaris*,—but it is much smaller. Scape mostly one, but sometimes three-flowered; flowers dark purple, small. * * *

Of the plants not mentioned in your *Catologue*,—and of those requiring the mark, C,—I will try to be more particular, in future.

Of the numerous *Cryptogamia*, which are left in doubt, I am much in the dark for want of books; and Mr. ELLIOTT, for the same reason, informs me that he cannot render me the necessary assistance. Of the doubtful *Phanerogamia*, I will, in a future letter, tell you all I know.

I have not heard from Mr. ELLIOTT, since I wrote last, and suppose he must be very busy. I have not seen the *Elliottia*; and Mr. ELLIOTT informed me that he was

fearful it would turn out to be only an Octandrous *Clethra*.

The result of my last excursion up St. Mary's, shall be detailed to you, presently, in my *Calendarium* of May 1st and 2d. I was obliged to hurry home, in consequence of the enemy appearing off our bar, and threatening invasion: and was afterwards miserably afflicted, for near a week, from having taken hold of the *Rhus vernix*—although with all possible care—to obtain specimens. I now go on with my *Calendarium Florae*:—

May 1. *Lobelia Claytoniana* in flower. *Cactus Opuntia*.

Glycine simplicifolia. *Andromeda Mariana*.

Arethusa divaricata. *A. ophioglossoides*.

Hypericum galiodes. *Asclepias fragrans*.

Bartr? flowers white, fragrant; many stems from one root, procumbent; leaves linear, crowded, inclining to one side of the stem; umbel terminal, flowers small, *nectariis corpusculo aequalibus*. *Plantago*

sparsiflora? in flower and seed; leaves lanceolate; spike very long, thinly flowered. *Polygala* (1085.) I call it *P. aphylla*,—as it is not furnished with leaves,

like the true *setacea*, of Mx. but merely *stipulae*. *Asclepias*—resembling the above

(*fragrans*,) but the flowers variegated, whitish and purple, scentless; umbels axillary and terminal. May it be your *debilis?* or may the *fragrant* one be that?

Euphorbia pumila—leaves oval, verticillate; flowers in a kind of umbel, very minute, whitish: Plant about 5 inches high.

Euphorbia linearifolia—leaves scattered; stem supporting a single, small, white flower. I cannot tell whether either of these is in your *Catalogue*. *Schrankia uncinata* in flower.

- May 2. *Ruellia parviflora*—I think new,—as I have all that are marked in your *Catalogue*: Stem 6 inches, erect, angular, glabrous, branching; leaves opposite, oval, obtuse, entire, smooth; flowers axillary, sessile, small, pale blue: *Hab.* in marshes.
- “ 3. *Linum Virginianum*, *Nymphaea odorata*, perhaps,—almost destitute of odor: flowers very large—44 petals in one flower.
- “ 8. *Passiflora incarnata*; *Magnolia glauca*.
- “ 15. *Eleusine Indica*; *Digitaria sanguinalis*: *Vitis rotundifolia*, Mx. *Ammi capillaceum*.
- “ 16. Fruit of *Vaccinium Myrsinites* ripe.
- “ 19. *Sambucus Canadensis* in flower.
- “ 23. *Ceanothus Americanus*; *Asclepias tuberosa*; *Panicum glaucum*; *Chamaerops serrulata*.
- “ 29. *Gaura angustifolia*; *Buphtalmum frutescens*: from this plant, Soda may be manufactured, abundantly.
- “ 31. *Cassia Tora*; *Sanicula Marilandica*.

Beside these, are several other plants, so much in doubt that I cannot yet say any thing certain about them. Perhaps I have, among others, *Serpicula* (*Elodea*, Mx.)—*Tragia*—and, I think, at least two species of *Galega* not in your *Catalogue*.

My *Calendarium* for June, will also furnish several new, or doubtful plants. The early part of the month of May was cool and rainy,—the latter part, dry and sultry;—the mercury rising as high as 96°, which is not usual in this month. * * * * * If you would be a little more particular in returning the names of my specimens, as far as they are known to you, according to your *Catalogue*, I should then be better qualified to answer your query—“which are your plants not mentioned in my catalogue?”—No. 1278, you have returned *Polymnia Tetragonotheca*, L. How

am I to know certainly that this is *Tetragonotheca helianthoides*, in your *Catalogue*?

I hope, before long, to have an opportunity of sending you some more specimens; but cannot say when.

Pray send one of your catalogues for Mr. WILLIAM GIBSON, of this place,—and mark the price. Have you completed the *supplement*, mentioned in a former letter? I am anxious to see it. Hoping that you may continue many years in the enjoyment of health and happiness, I remain your sincere friend,

W. B.

P. S. Mrs. B. sends her best respects. The *botanizing* ladies are all married! But say they will not forsake the Science. One of them is in Savannah, and writes that she is collecting specimens for me.

Dr. BOYKIN has forsaken me; and I have not heard from Col. HAWKINS, since the commencement of hostilities among the Creeks.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, July 4, 1814.

DEAR SIR: Your excellent letter of the 17th June arrived safe, and gave me much pleasure. In particular I thank you for the *Calendarium* of May, last, which has been rich,—corresponding with our June. With us, the common run of *Flora* is, April, 53 [Plants flowering,]—May, 91—June, 177—July, 184—August, 166—September, 141—October, 20.

I have selected some of your plants for closer notice,—if ever you have an opportunity to send specimens, and further observations.

May 1. *Asclepias fragrans*, Bartram. } Both re-
A. fragranti aff. flor. variegatis: } main un-
 certain to me; perhaps because I have only
 dried specimens. * * * * *

Polymnia Tetragonotheca is the same with *Tetragonotheca helianthoides*, Willd. and PERSOON. Being used to the old names, we are apt to use them without distinction. Room would not permit the synonym every where.

Your last specimens, by Mr. CHEVES, were necessarily small, and some imperfect. Wherever I am certain, and become certain, I will add the name of my catalogue. You see how much can be added. I will be much obliged to you to add your name to such specimens as are not in my catalogue.

In a late publication of MICHAUX, there was a good figure of his *Planera ulmifolia*,—mentioned to grow on the Savannah; habit of *Ulmus*. Have you the same? I would be glad to see a specimen. I am sorry that no certain account can be given of my *Elliottia*, and of its fruit. LYON will have it to be a new Genus,—and I sincerely wish to be certain.

I will send by the mail, a copy of my catalogue for Mr. GIBSON, under your address,—and beg him to receive it as a present. The postage he may pay, as it goes surer. Mr. ELLIOTT has not favored me with an answer to my last letter. Indeed, my former correspondents,—if I except my indefatigable Dr. BALDWIN, and friend COLLINS,—seem to have forgotten me; and I am reckoned amongst the dead. My excursions are narrowed very much, and I am confined to my garden. Your *Phalaris* (1186) has been in flower some time, in my garden. It was new to me,—near to *minor*;—and very different from *arundinacea*. Is it perennial? and certainly a native? I had a very small specimen from beyond the Mississippi.

Remember my best respects to Mrs. BALDWIN. I remain unchangeably, Sir, your sincere friend, H. M.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, July 15, 1814.

DEAR SIR: I have this moment sent off a packet for you, containing 39 specimens, via Washington city, to the care of Dr. OTT. They are entrusted to Mr. BRUCE, of the U. S. Navy,—who goes on by land to the vicinity of Washington, and has engaged to forward them with care. He gave me, however, such short warning of his departure, that I had not time to write by him.

Before I make any observations on the specimens, I will give you my *Calendarium* for June.

- June 1. *Phytolacca decandra* in flower. *Cephalanthus occidentalis*. *Callicarpa Americana*.
- “ 3. *Cuscuta Americana*. *Bignonia radicans*.—*Polygonum aviculare*. *Tripsacum dactyloides*.
- “ 4. *Galactia glabella*. *Chironia stellata*: I do not find this in your catalogue: The flowers are white. *Xyris flexuosa*.
- “ 6. *Cyrilla racemiflora*. *Typha angustifolia*. *Viburnum dentatum*. *Zizania clavulosa*: I have seen but one species of *Zizania* in Georgia,—and that at Jefferson, on Satilla river. *Bartsia coccinea*: this is the first time I have met with the *Bartsia* on the seacoast of Georgia. It does not appear to be in its element, here. *Amaranthus spinosus*.
- “ 15. *Senecio hieracifolius*.
- “ 16. *Rhexia Mariana*; *Uniola gracilis*; *Viburnum scandens*? I call it so, until better informed.* No. 1473. I have not seen the flower. It climbs, like *Celastrus*, to the tops of the

[*This proved to be *Decumaria barbara*, L. See Letter to Dr. M. dated January 3, 1815.]

highest trees,—shooting out many horizontal branches which, covered with broad green leaves, give it a beautiful appearance.

June 26. *Bidens bipinnata*; *Xanthium strumarium*.

“ 29. *Rhexia Virginica*; *Eupatorium rotundifolium*: this *Eupatorium* is in as high repute here, as a medicine, as the *E. perfoliatum* is in Pennsylvania. *Lechea major*, Mx.

The greatest part of this month has been excessively rainy. Mean temperature, 78°. Range of temperature, from 66° to 96°: But very healthy.

As soon as circumstances will admit, I will give you further information. In the mean time, I am with esteem, your friend,

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, August 2, 1814.

DEAR SIR: With gratitude I acknowledge the receipt of your letter, dated July 15, with your pleasing *Calendarium* of June, 1814. Probably soon after, you will have received my letter, dated July 4, and the catalogue for your friend, Mr. GIBSON,—to whom I beg you will remember my best respects,—and my wishes to get a few more specimens of the curious *Targionia*? No. 1471.

Mr. ELLIOTT has favored me with a letter and packet, forwarded to Mr. COLLINS,—which I acknowledged immediately. His packet was very acceptable to me. *

Your promised packet, by Mr. BRUCE, has not yet come to hand. I do not doubt Dr. OTT will forward it in due time. I have mentioned it to a friend of mine, O. RICH, at Georgetown,—who has published a Synopsis of American (or rather N. A.) Genera, and sent me a copy. It is rather a copy of PERSOON'S Genera (Americana); and, although he has added the Genera men-

tioned in my catalogue, will remain imperfect until more is done.

As you have so often fulfilled my wishes, I add a few for a future day. *Oenothera grandiflora*, Bartr. we have lost in our gardens: If possible, I wish to have a few seeds. It is not the *grandiflora*, Don,—which is probably only a variety of *muricata*; but seems to be the *longiflora*, of Curtis.—*Salix* is a difficult genus; and I long to see a perfect leaf of each of your species, numbered. If a capsule could be added, the present would be the more welcome. In winter, a twig of *new* species, perhaps, would propagate.—*Planera* I have not yet seen. Mr. LYON has promised me a specimen, when he returns from Tennessee. * * * * *

The continuation of your *Calendarium* I wish to see,—especially if you will be pleased to add, as heretofore, the color of the corolla, and the duration of the plants, to fill up the many blanks left in my *Catalogue*. * * I remain with great esteem and affection, sir, your most obedient and sincere friend,

H. M.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, September 17, 1814.

DEAR SIR: Your interesting letters of July 4, and August 2, were duly received; for which accept my best thanks. My packet, by Mr. BRUCE, I hope has reached you in safety. Your *Catalogue*, also, for Mr. GIBSON, came safe to hand,—for which he returns you his best thanks; and will, if possible, procure you better specimens of the *Targionia*? Since I wrote my letter of the 15th July, I have found it impossible to pay much attention to Botany. I have had many sick to attend to; and alarms from the enemy have necessarily prevented me from making any important excursions, off the sea-

board. The month of July has likewise been excessively rainy,—so that my *Calendarium* will be very poor. Such as it is, I communicate for your inspection.

July 2. *Schoenus effusus* flowering.

“ 6. *Sarothra gentianoides*. *Teucrium Canadense*.

“ 11. *Acalypha Caroliniana*.

“ 12. *Epidendrum Magnoliae* in flower. This was placed, last winter, upon a dead *Melia Azedarach*.

“ 13. *Polymnia Uvedalia*. *Spartina polystachya*.

“ 24. *Aralia spinosa*.

Aug. 3. *Hieracium Gronovii*.

“ 4. *Aster tortifolius*. *Solidago*—with this family of plants I am much embarrassed; but will send on my whole collection, when an opportunity offers.

“ 10. *Marshallia angustifolia*.

“ 15. *Glycine Apios*. *Vernonia Noveboracensis*.

“ 18. *Asclepias verticillata*. *Scirpus retrofractus*.

“ 23. *Mikania scandens*. *Phaseolus perennis*. * *

Beside the above, I have met with a few that remain in doubt,—of which I shall speak hereafter, when more at leisure: and also attend to your several queries.

I remain, my dear sir, most respectfully, &c.,

W. B.

P. S. Mrs. B. sends her respects to you. We are all favored with health, at this sickly season. Mrs. MILLER, the mother of Miss GREENE (now Mrs. SHAW), died of a bilious fever, on the night of the 2nd inst.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, October 4, 1814.

DEAR SIR: Your letter of September 17, has arrived, and given me great pleasure. The packet, mentioned

in your former letter, has not arrived. Probably, by the troubles in Washington, it has been mislaid, or lost; for which I would be very sorry,—in particular, on account of your *Viburnum scandens*, *Caladium*, and other valuable specimens.

Your *Calendarium* of July and August, has added much to my information: and I beg you may continue it, with further observations on dubious plants,—and observe which plants continue longest in flower, at the approach of your winter. Our autumn is now visible, by the change of leaves: the *Broussonetia* is, with *Juglans*, turning yellow,—although we had no frost.

* * * * * * *

By a letter from the Rev. Mr. VAN VLECK, at Salem, N. Carolina, I hear that two of your Southern Botanists have been at Salem, on a Botanical visit;—Dr. MACBRIDE, a near neighbor of the excellent WALTER,—and Mr. LE CONTE;—looking for mountain plants. By information from Mr. ELLIOTT, I know that WALTER has not only described the Carolina plants near his place,—but also mountain plants, collected by FRAZER, and left with WALTER for a description. Both Mr. LE CONTE and Dr. MACBRIDE could add much to our information, if you could persuade them to communicate illustrations to WALTER's *Flora*.

I mention a few dubious plants; in particular, *Obolaria Caroliniana*; *Collinsonia praecox*—*Hydrastis Caroliniana*; *Zizania*, different from *clavulosa*; *Rajania*. Mr. ELLIOTT has tried to assist me; but we must have more assistance. Have you heard any thing, lately, of this our most valuable friend? My last letter to him, was July 13, since that I had no answer! I had expected from him an answer to some queries on the Charleston Botanic Garden,—and your numbers, * * whether native! What is *Carthamus Carolinianus*,—or *Stokesia*? It would give me great pleasure to hear something cer-

tain. In my last letter, I began to mention my *addenda* to my *Catalogue*, as far as I have gone. I now continue, according to the pages of the catalogue:

Page 32. *Viburnum* — shall I add *scandens*?

“ 37. *Rumex hastatulus*, Baldwin—Georgia. * *

“ 50. *Rosa*—The American *Rosae* deserve a revision.

“ 50. *Dalibarda lobata*, Baldwin—Georgia. * *

Have you seen a *Castanea nana*, BRICKELL sent to me from Savannah? and is it really a distinct species? It seemed, to me, very distinct; but I wish to have your opinion. I have seen it but once: and so of the *Prunus pubescens*, from Georgia. I cannot describe the pleasure I should find, by all your specimens of *Solidago*, and *Aster*, of the Southern States,—with *your opinion* on them. They are really *adversaria*. Mr. LE CONTE, I hear, has made excellent observations on these Genera. We have a great number of new species.

I am sorry to hear of the loss of Mrs. MILLER; and hope often to hear of the health of the rest of our botanical circle. My health is neither good, nor bad; but my friendship and gratitude unchangeable. With my best respects to them, and in particular to Mrs. BALDWIN, I remain, sir, your very sincere friend,
H. M.

DR. BALDWIN TO DR. MUHLENBERG.

St. Mary's, November 11, 1814.

DEAR SIR: On my arrival here, the day before yesterday, from a cruise of near three weeks along with the Flotilla, I had the pleasure to receive your letter of the 4th of October,—for which I return you my sincere thanks. Since my letter of the 17th of September, my time has been so wholly engrossed in attending upon the sick, that Botany was out of the question. Just at

the commencement of the sickly season, my Mate quit the service,—and left me, not only to prescribe, but to put up medicines, for more than 40 patients, daily. The enemy having threatened to break up the inland trade, between this place and Savannah,—on the night of the 6th of October, he sent his barges into St. Andrew's sound (between the Islands of Cumberland and Jekyl,) and cut out one of our gun vessels, along with several coasters that were under convoy. This induced us to send on our whole force towards Savannah,—with a hope of chastising the enemy, should he have the temerity to make another attack with his barges. In this expedition I volunteered,—having employed a Surgeon to attend the Hospital, in my absence. The enemy made his appearance, without venturing to attack us.—But this must be a dry detail to you.

Of the few plants which I met with, in this cruise, on the *Islands of Jekyl, St. Simon's, Sapelo, St. Catherine's,* &c. I shall inform you in the proper place. We have had a little frost,—but not sufficient to check vegetation completely; as *Asters, Solidagos, Verbesina, Tripterella, Liatris, Inula,* &c. &c. are still in flower.

I am very sorry that my packet by Mr. BRUCE has not reached you,—as I do not know when I shall be able to replace it. Of *Viburnum scandens*, I think there can be no doubt; but I wish to be certain,—and shall carefully observe its flowers, should I live till the ensuing spring.* The berry and seed are *Viburnum*, as near as I could judge from the imperfect state in which I met with them. *Caladium*, I find Mr. ELLIOTT calls *C. speciosum*. The generic character of this plant makes it unequivocally *Caladium*—if there be any precision in *generic characters*: and from my recollection of *Arum Virginicum*, it is distinct.

The last letter I received from our worthy correspon-

[* *Decumaria barbara*, L. See letter of January 3, 1815.]

dent, Mr. ELLIOTT, was dated the 20th of September; in which he informs me that he is preparing a *Catalogue of the Plants of S. Carolina and Georgia*, for publication. He has since sent me a printed address, to the Philosophical Society of S. Carolina,—which he delivered on the 15th of August: So that, although he has neglected us for some time, he has not neglected his scientific pursuits. He informed me, however, as an excuse for his long silence, that the affairs of the Bank of Charleston had, for a considerable time, required his unremitting attention.

The few plants that I noticed in September and October, I will now attend to.

September, 1. *Lobelia crassiucula* [*glandulosa*, Walt. DC.] in flower.

“ 3. *Aster Carolinianus*.

“ 8. *Lythrum verticillatum*, in flower and seed.

“ 18. *Eclipta brachypoda*; *Iva*. * * *

October is almost a blank. It has been our sickly month. On the 23d, I observed in flower, on Jekyl Island, *Solidago lanceolata*, *Aster diffusus?* and some others. *Cenchrus tribuloides* nearly done flowering.—28th, on St. Catharine's, I observed the *Cakile maritima* still in flower. *Salicornia* in seed.

Of your many queries, which have been neglected so long, I must beg a little longer indulgence, to enable me to answer them more correctly than it is possible at present.

It is a *midnight hour* that I have this time embraced, to thank you for your attention to me. I have not leisure even to make the necessary references, to enable me to speak with certainty: But hope shortly to have a little respite from the unremitting anxiety and toil, which for months I had to endure,—when I shall again most joyfully resume my favorite pursuit, and render you all the assistance within my limited power.

I must request you to direct your next letter to Savannah. It has been thought most proper, under existing circumstances, to make that city our Head Quarters, for the winter. The week after next, we expect to move on. It is anticipated that we shall return to this station again, in April.

Accept my most hearty well-wishes, along with those of Mrs. B. while I remain unchangeably your sincere friend,

W. B.

P. S. The *leaves* of our native forest trees have hardly changed. Those of the *Melia* (Pride of India), have faded and are falling,—which they do with the slightest cold—almost without frost. Those of the *Broussonetia*, remain green. On the 29th ult. at B—, 9 miles south of Savannah, I observed the common locust (*Robinia Pseud-acacia*) in flower.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, November 28, 1814.

DEAR SIR: I was much overjoyed to receive a letter from you, after waiting for some time, and getting afraid of some accident which might have happened in our perilous times. You have been on an expedition full of trouble. At Savannah, I hope you will find more ease and recreation. For your continued *Calendarium*, receive my thanks. * * * * *

I will thank you very much for your names of *Asteres* and *Solidagines*, which you have sent;—especially if you can add ELLIOTT'S and LE CONTE'S names. No two other Genera want elucidation more. If ever an opportunity happens, specimens would still be better. Your last packet I am afraid is lost forever.

When you arrive at Savannah, I have many *desiderata*, as usual.

1. Does Mr. ABBOTT continue his drawings of American plants? What has he figured? Probably you will find the first edition, done by J. E. SMITH. Some of his plants want explanation, on a second edition. No. 7, *Asclepias amplexicaulis*; is it *A. amplexicaulis*, Mx. or rather *obtusifolia*? * * * No. 60, is this *Prunus Chicasa*,—or another, not sufficiently described? *

* * * I only saw the book at Dr. BARTON'S, in a great hurry.

2. When you have an opportunity to see Mr. OEMLER'S collection of *Algae*, I wish you to look again, and examine his numbers. Perhaps you may discover some native. I think I have seen some of them, since I sent his collection back: But, in such nice affairs, it is necessary to look again and often. Is there no possibility to get a copy of a few? Mr. OEMLER is an excellent hand, himself. Of his specimens, I would desire your opinion on *Fucus*—1. *coronopifolius*. 3. *mamillosus*. 4. *selaginoides*. 11. *sinuosus*. 12. *ceranoides*. 13. *alatus*. 21. *aculeatus*. The rest, I remember well. Of his *confervae*, I wish you to examine *crinata*, with your No. 1045. Mr. OEMLER is a friend whom I esteem very much. He will be of service to you, to send my *Elliottia*, and *Collinsonia, flore purpureo*,—of which he gave me the first information,—though I have no *good* specimen.

3. Mr. KIN, a curious botanist at Philadelphia, sent me, a few days ago, two specimens of *Prunus*, which have excited my attention. Indeed, *Prunus* is very difficult, and wants our examination:

a. *Prunus*, at Ebenezer, Georgia; *foliis ovatis, acutis, argutè et aequaliter serratis, petiolo quadriglanduloso; drupa viridi-lutea, eduli*. Beside several other new ones, on the road to St. Mary's.

b. *Prunus*, on the sea-shore, from Virginia to Caro-

lina;—*foliis lanceolatis, margine glandulosis*: nearly allied to *P. Chicasa*,—but, according to KIN, different. Is this ABBOTT'S 60? I take it for the real *lanceolata*, Willd. and the same which is brought to Baltimore market, as "*Mountain Plum*."

I had a new *Prunus*, from ELLIOTT, found at Waynesborough, different from both;—my *pubescens*. Have you seen this? The *serotina*, *Virginiana*, *pygmaea*, *Pennsylvanica*, I know well. *Pumila*, and the most common Wild Plum [*Americana*? Marshall,] are dubious to me.

What I have thought to be *Ephedra*, has raised my wish to see more,—and to inquire, can it be a *Salsola*?
* * * Living at a distance from salt water, I am no judge. * * * * *

I have given you so many not yet answered queries, that I dare not add another question. The winter is long: satisfy my curiosity by degrees; and every answer will be a great addition to me.

Mr. ELLIOTT has written to me. He sent his oration, which pleases me very much. In a year's time, he intends to finish his catalogue of Carolina and Georgia plants. May his health be preserved! I am sorry that so many Georgia and Carolina plants were dropt, in my catalogue, for want of clear specimens: However, all may be added, at a future day. I long to hear *your names*,—which would be sacred to me. Looking over your Delaware specimens, I find a number not yet seen, or named, by any other Botanist. * * * *

Your *Viburnum scandens* (even a leaf) would please me very much. Certainly it is a discovery. How does it differ from THUNBERG'S *virens* (*scandens*, Pers.)?*

Algae, *Lichens*, and *Fungi* have undergone an entire revision: that is, all remain which were given,—but

[*See letter of January 3, 1815.]

very many have been added. Mr. COLLINS has assisted me by many specimens from the Jersies, and elsewhere.

When you look over again what is wanting in my catalogue, very many will occur to you. Pray do not forget to mention such—with your, or Mr. ELLIOTT'S names.

My health is still precarious. Mr. BIGELOW continues to send letters and specimens. The northern plants are not much different from ours.

With unchangeable esteem, I remain,

Sir, your most obedient and sincere friend,

H. M.

DR. BALDWIN TO DR. MUHLENBERG.

Savannah, January 3, 1815.

DEAR SIR: At last we are moored in this place; but have hardly yet had time to feel ourselves at home, or to become settled, so as to attend with ease to any favorite pursuit. But, after a voyage of two weeks through an intricate inland passage, we arrived in health and in safety, on the evening of the 26th ult., and found your letter of the 28th of November in the post office. For this valuable letter, accept my best thanks. As you will be anxious to hear from me, I shall wait no longer,—but give you such information as I already possess. * *

The *Elliottia*, Mr. OEMLER informs me, is found in the neighborhood of Waynesborough. Roots shall be procured, if possible. His *Collinsonia*, with *purple flowers*, is alive; but cannot be investigated at this season.

Of the genus *Prunus*, I have many undetermined species,—some of which are probably *new*;—particularly one from the high lands between Flint and Chatahoochee rivers: *foliis ovalibus, obtusis*. This is a small

shrub of 3 or 4 feet in height; the leaves very broad, and the racemes very long. Of those that you speak, I am not certain.

My *Viburnum scandens* turns out to be *Decumaria barbara*! Not having an opportunity of seeing it, either in flower or seed, I made the mistake: but Mr. JOHN LE CONTE, who is familiar with this plant, has put me right. Hence the necessity of not being in too much of a hurry. LE CONTE says that the *D. barbara*, and *sarmen-tosa*, are the same plant. But I have the pleasure of giving you a short description of a *new* species of *Eryngium*, which I discovered on the 4th of June last; and which, after having shown it to ELLIOTT and LE CONTE, I have called *E. tenue*. I think it may be adopted without hesitation. It is No. 1477 in the packet that has been lost. It was not completely in flower until the 15th of June,—when I ascertained it to be *Eryngium*, and sent it to Mr. ELLIOTT; and it has this day been further confirmed by Mr. LE CONTE,—who has no doubt of its being *Eryngium*. *E. tenue*: *Rad. fibrosa; caulis ramosissimus, tenuis; foliis inferioribus ovalibus, integris, caulinis trilobis, superioribus ternatis, linearibus*.* This plant, as far as I have seen it, is from 8 to 15 inches in height: the leaves are very variable,—some of the lower ones being oval, and others ovate; above these, they are lobate, the lobes lanceolate; at the extremity, ternate, linear, and extremely small.—The flower-heads are very small; but so numerous, that I at first proposed to call it *polycephalum*. The flowers are extremely minute,—appearing first of a white, but changing when full blown, to a blue color. I have, beside this, all the species which you have enumerated in your Catalogue. Should you, from this description,

[*This is the plant afterwards published, by ELLIOTT, as *E. gracile*, Baldw. It is now, *E. Baldwinii*, Sprengel, DC. Torr. & Gray.]

adopt it as an *Eryngium*, you can choose for a specific name, either *tenuë*, or *polycephalum*. I prefer the former, in consequence of its being so much less than any of the other species, that are known. It is found in wet situations, near fresh water; but whether annual, or biennial, I have not ascertained.

Mr. ABBOTT has not been in Savannah for more than a year. He resides in *Scriven county*; but whether he continues his drawings, or not, I cannot ascertain: nor do I know where to find the work you mention, published by SMITH. No doubt it requires revision; as ABBOTT'S drawings, though beautiful, are generally very defective. * * * * *

I continue my *Calendarium Florae*:

November 7. *Triptterella coerulea* still in flower.

" 15. *Hamamelis Virginica*: the leaves not yet fallen. *Utricularia ceratophylla*. *Gerardia aphylla*, Le Conte. *Lobelia crassiuscula*: a variety of this has white flowers. *Lycopus Americanus*. *Polygala lutea*. *Chironia*, flore albo: this, LE CONTE says, is the true *C. paniculata*.

" 16. *Aster concolor* in full bloom, on Satilla river,—and near six feet high. * *

December 16. *Inula Mariana*, and a number of garden plants, in flower at the garden of M. MONTELOS, on Sapelo Island: although we have had hard frost.

I have thus concluded my *imperfect Calendarium*, for 1814.

Immediately upon my arrival here, I had the pleasure to meet with Mr. J. LE CONTE. We are together every day, examining specimens, &c. He has authorized me to inform you, that he will write to you, as soon as he returns to his habitation, near Riceborough, Liberty county.

I would attend to some more of your queries,—but every thing remains still in confusion. As I have, here, a Surgeon to assist me, I anticipate more leisure than I have yet had, in Georgia; which I hope to devote to Botany.

Of *Castanea nana*, I have some doubt,—as I cannot find any one who has seen it. I did meet with a very humble one, both in Georgia and Florida,—which I supposed might be *nana*. It differed, principally, in having broader leaves: but I wish to examine it again, before I decide with certainty. Hoping that your health may be preserved, I remain unchangeably, &c.

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, January 20, 1815.

DEAR SIR: Great was my pleasure on receiving your first letter for this year, dated January 3, from Savannah: And may it be an earnest for many other letters,—if Providence continues our lives. *My* time will soon be gone;—that, I feel: But let us labor, while we live, to be useful as far as we can.

Much was I pleased to hear that Mr. JOHN LE CONTE was at Savannah. I have heard how indefatigable he is; and if he favors me with his correspondence, it will indeed be a great favor to me,—although the writing is sometimes much against my head. We can take time, and not write too much at once, and finish a letter by degrees. Very glad I will be to hear what observations you made upon American plants, by your mutual conferences. Dried and imperfect specimens must be looked at, again and again; and truth will be found, by many guessings and trials, at last. In particular, I will be glad to hear what you have found in the different

genera of your numerous *Asteres* and *Solidagines*. Seldom we see a good specimen from a distance. By comparing many specimens, from Europe and all parts of America, with my garden plants, I know a great number: but, still, many remain uncertain.

Other genera are also uncertain, with me. Whatever, amongst your plants, you do not find in my *Catalogue*, pray inform me. Your names will be very acceptable; and they shall remain sacred to me,—whenever I am able to give a new edition. So, *Eryngium tenue*, and others: Mr. LE CONTE'S *Gerardia aphylla*,—if I only had a description, or specimen. The *Chironia paniculata* I have from Dr. BRICKELL, and others. It differs from *chlorantha*, Pursh, or my *venosa*, sufficiently. *Chironia* is a difficult genus; and has been latterly named *Sabbatia*.

Of our mutual and valuable friend, Mr. ELLIOTT, I have heard nothing since my last letter, November 14. Probably he is too much engaged, and I ask too much. His other engagements are too numerous. I am almost afraid I shall not see his promised *Catalogue*. When the year is past, he will find so many queries, and difficulties, that the work will not be finished. Let us give what we have, of *Plantae huc usque cognitae*, and leave the rest for a future day. In the southern States, I have left a great number, for my valuable friends. To you, my dear friend, I look for emendations and additions. Let Mr. LE CONTE, and others join. Runs, creeks, and rivers join,—and are then strong.

The *Pruni* are very difficult. I should suppose the *Prunus Virginiana*,—different from our common *serotina*,—will be found in Georgia. The *P. pubescens*, of my *Catalogue*, is a Georgia plant; *flor. racemosis*. A leaf of every *Prunus*, numbered,—with *Racem.* or *Pedunc. solit.*—would give much information: and so a grown leaf of *Salix*, with a short note,—*flor. praecoc.* or *coetaneis*,—or *serotinis*,—would do, until better times.

Mr. OEMLER informed me, that ABBOTT had made drawings of plants for the Savannah Library company. Have you seen and examined them? I remember what pleasure I had, from Georgia drawings,—and how useful they were to me. An enumeration of ABBOTT'S drawings, would be very pleasing. Mr. ELLIOTT gave me the numbers of ABBOTT'S and SMITH'S collection, in the Library of Columbia, South Carolina.

Mr. OEMLER'S *Algae* is a most excellent collection.—It was a pleasing sight to me; but the time was too short. O! do look again, and mention what you have seen, native. Many of the *Confervae* you probably will see near Savannah. My collection from New York,—by my son, and my son-in-law, SCHMIDT,—is pretty large. I expect a very general collection of specimens from Sweden,—which were sent off. Mr. ELLIOTT intended to send all he had, to Mr. DAWSON TURNER,—who now has published a number of *Algae*. Another, M. LAMOUREUX, has begun the same. How little has hitherto been done, in N. America, you see by my Catalogue. Probably many are new species.

Your *Calendarium* gave me much satisfaction. The Phanerogamous plants are now finished. Can't you furnish a course of Cryptogamous plants,—to see the difference, during winter? The time of putting off the *calyptra*, or opening the *operculum*, would be the best. As the *Filices* are generally alive during winter, they would be a pastime. I wish to hear, from you, of some southern plants: as *Ophioglossum bulbosum*, *Vittaria angustifrons*, *Blechnum serrulatum*, *Asplenium Adiantum nigrum*, *Acrostichum aureum*, *Psilotum Floridanum*; in particular, a better specimen of *Targionia*, and *Porella*, with fructification.

In your *Calendarium*, I mark as *desiderata* your names, for future specimens,—when better times come; or for a corner in one of your letters.

November 15. *Inula argentea*, *Liatris lanceolata*, *Gerardia aphylla*, Le Conte, *Lobelia crassiuscula*, var. *alba*, *Eupatorium angustifolium*.

November 16. *Collinsonia*—*purp.* *Decumaria*—is it *caps.* 7.—10 *locularis*?—*Elliottia*—what fructification? My specimen bad.

Lately Dr. MITCHILL has written much on American Fishes. Long ago, I made a *Catalogus* of our Susquehanna and Lancaster Fishes. We are very poor,—and have few more than 20 species. I have compared CATESBY, and BROUSSONET,—and find but one or two, known to us. Will you give me leave to put a few questions to you?

1. Which of the American Fishes do you find common to the sea, at St. Mary's, and the Delaware?

2. Which, in inland water, peculiar to Georgia, according to BARTRAM'S names? The synonyms of other places would be very pleasing.

If you have BARTRAM'S Travels, now, any explanation of his names would be an acquisition to me. *Ixia coelestina*, Bartr. has not been discovered by any other Botanist; and is much wished for. So *Gnaphalium luteum*, at Savannah, from Dr. BRICKELL: and *Phalangium*—two species—*croceum*, and *virgatum*.

Since my last letter, I have had several letters from other parts; of which I mention the chief, to inform you what we, in our botanical circle, are doing:—

December 6. The first snow.

“ 15. A collection of plants from Dr. WILLIAM BARTON, for nomenclature—from No. 37—137. *Asteres*, *Solidagines*, *Eupatoria*: among them, 10 from gardens: nothing new.

“ 21. A collection of N. York plants from Mr. GREEN D. BECK; No. 1—212.—Among them, *Raphanus Raphanistrum*, C.

Scutellaria galericulata, *Lamium purpureum*, *Chrysanthemum flore purpureo*: nothing else new.

January 10. From JACOB BIGELOW, No. 431—460—nothing new.

A gentleman (GEORGE TICKNOR,) intends to travel through France and Germany, as a lover of science. I give letters along, to BEAUVOIS, PERSOON, SPRENGEL, SCHWAEGERICHEN, &c., with my catalogue, and a number of dubious plants,—chiefly *Fucus*, *Conserva*, *Musci*, *Umbellatae*, and *Gramina*,—in hopes of hearing something certain.

Probably our Dr. B. S. BARTON goes next March, and intends to return in November, from Germany, France, and England,—with the riches of the old world, and all the information he can collect.

Mr. CORREA DE SERRA,—who has been from New England to Kentucky, with a very observing eye,—returns also to France. How much will he hear, in a short time, by such united labors of Botanists and Naturalists!

I have written so much, that I am afraid of having tired you. Remember my best respects to Mrs. BALDWIN, to Mr. OEWLER, and, when you write, to Mr. LE CONTE: and favor me soon with your continued observations.

I remain unchangeably, sir, your most obedient and sincere friend,

H. M.

DR. BALDWIN TO DR. MUHLENBERG.

Savannah, February 13, 1815.

DEAR SIR: Your letter of January 20, was duly received; but our daily expectation of an attack from the enemy—and the confusion thereby produced—prevented an immediate reply. Beside attending to my profes-

sional duties, I have been laboring on the fortifications, which, through the unremitted industry of the citizens, and others, are now nearly completed; and will, I hope, render this city safe from the grasp of a foe, who has ceased to respect the usages of civilized warfare. Mr. LE CONTE has, almost ever since I wrote last, been employed as an engineer; but informed me, a few days ago, that he should embrace the first leisure moment to write to you.

Having just ascertained that Mr. BENJAMIN TREVETT, late of the U. S. Navy, sets out to-morrow, in a chaise, for Washington,—I will once more venture to send you a small packet, directed to the care of Dr. OTT; hoping that it will not share the fate of the former one. * *

1520. *Polygala*. This, LE CONTE says, is the true *corymbosa*, Mx. *cymosa*, Walt. and different from 1013, which he calls *praealta*. They are certainly distinct.

1531. *Gentiana*. This varies considerably. It is sometimes much branched: I have even seen it supporting 23 flowers. * * * *

LE CONTE has just been here, looking over the specimens I have put up—and renewing his promise to write to you. Mr. OEMLER's *Algae* shall be farther attended to; but I am sorry to inform you, that many of them are *rotten*, for want of care.

Mr. LE CONTE supposes that BRICKELL's *Gnaphalium luteum* was an *Inula*! I have a *G. nodosum*, which is probably new, from Florida. The specimens are so large, that I cannot send any now. Of the *numbers* that you wish information upon, I will endeavor to satisfy you as soon as possible. To some of them, I have ventured to give names,—all which shall be submitted to you. Of *Coreopsis*, I have several doubtful: To one, I have given the name of *teretifolia* from the singular form of the leaf.

Most of my Grasses, and two volumes of Phanero-

gamia, have been left at St. Mary's, with Mr. GIBSON; and I have not yet heard whether they have fallen into the hands of the enemy. The best part of our furniture was likewise left, and may have been destroyed,—as we have understood, in general, that no respect was paid to private property.

I am, dear sir, most sincerely your friend,

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, March 16, 1815.

DEAR SIR: My last letter to you was dated January 20, in answer to your very acceptable one of the 3d. Since that time, you have had hard times, at Savannah. God be praised that the danger went over, and that peace at last was made. I felt for you, in particular,—and for our friends at St. Mary's, and Cumberland: And now I begin to wish anxiously to hear from you soon. My friend, Mr. ZACCHEUS COLLINS, at Philadelphia, opposite Christ Church, has offered me kindly to receive and forward any packet for me, from the Southward; and I have desired him to look over any thing coming for me, and add his observations. He has an excellent botanical eye,—and is a second BALDWIN. From Mr. STEPHEN ELLIOTT I had no letter since last November. Do you know any thing from him,—or of Mr. JOHN LE CONTE.

Although I have put too many queries to you, in my last letter, I will add some more for a future day. Take your own time. Every new observation will give me great satisfaction. Specimens will be in particular pleasing—and seeds:

1. Of any plant not mentioned in my Catalogue.
2. Such as were sent in imperfect specimens.

3. *Gramina, Calamaria, Aster, Solidago, Prunus, Liatris, Planera.*

4. If possible, let the Genera be together in natural classes: Phanerogamia, Cryptogamia, Frutices, Herbaceae, Gramina.

5. If you give me leave to choose, I prefer some of those mentioned in your *Calendarium*: *Juncus maritimus, Trifolium pumilum, Asclepias fragrans, Ruellia parviflora, Psoralea simplicifolia, Galega ternata, Gerardia aphylla, Liatris lanceolata, Collinsonia*—every species, except *Canadensis*,—with the time of flowering.

I have lately received some notice of PURSH'S *Flora*, published in England. I anxiously wish to see it. He has examined, in London, beside CLAYTON'S, the Herbarium of FRASER,—with WALTER'S plants. * * * * Probably, of many dubious plants, we will now get a certain nomenclature. However, he has left a great number to future investigation. All Cryptogamia, except *Filices*, are left untouched.

Quite unexpectedly, a long lost packet has arrived from you, directed to Dr. OTT, at Georgetown,—containing numbers 1472—1510. The plants were in pretty good order, and I thank you sincerely for them. They are, as far as I can judge at their first examination:

1474. *Caladium speciosum*, Elliott; but I cannot distinguish it from *Arum Virginiaicum*. * * *

1489. *Centunculus*—hardly distinct from the European.

1491. *Trifolium Carolinianum*: how does it differ from your *pumilum*? * * * *

The *Panica*, sent in letters, are very dubious to me; and this genus deserves particular notice. The *Nyssae*, described by MICHAUX, I am also uncertain about,—for want of the female plants. Have you a real *Nyssa tomentosa*? Your 1500 is only *N. candicans*. I have no *Nyssa*, alive, figured by WANGENHEIM as *N. denticulata*.

Your numbers, formerly mentioned, are still belonging to the *Adversaria*. * * * * *

Your Carolina *Asteres*, and *Solidagines*, you will not forget to show to Mr. LE CONTE,—who has examined the American species with great accuracy. I have many from Europe, collected in Botanical Gardens; but still, of the described, some are wanting in my Herbarium.

Have you determined to remain in Georgia, or may we expect to see you return?

My health has been pretty good; but writing is rather troublesome to my head. Have, therefore, patience with me; and forgive the short letters which only I can write.

I remain with unchangeable esteem, and by best respects to Mrs. BALDWIN,

Sir, your most obedient and sincere friend,

H. M.

P. S. Spring has just begun; but only three Phanerogamia have appeared in flower:—*Alsine media*, *Poa annua*, and *Euphorbia helioscopia*.

DR. BALDWIN TO DR. MUHLENBERG.

Savannah, April 12, 1815.

DEAR SIR: On my arrival in this city, a few days ago, from St. Mary's, I had the pleasure to receive your letter of the 16th ult. which, as usual, has given me great pleasure. I am glad that the lost packet has been found, and that you are interested with some of the specimens. But I find that my letter of the 13th of February, which accompanied a packet forwarded to Washington by Mr. TREVETT, had not come to hand. I should have written again, long before this time, had it not been for the difficulty of the times. I have been several weeks at St.

Mary's, on business, since the enemy evacuated that place; and have been other ways unexpectedly occupied. A good opportunity of forwarding a packet to Philadelphia, by my friend Mr. SHOEMAKER, has just been lost, in consequence of my long absence to the southward; and Mr. ELLIOTT left my house only three days before my arrival: so that I have been much disappointed in not seeing him. But as peace has again blessed our shores, the opportunity of sending packets, I hope, will be frequent. I have not made up my mind to return to the northward,—nor shall I determine any thing until I hear from the Navy Department. This southern climate has been, thus far, so congenial to my health, that I shall perhaps return to *St. Mary's*; or, should I leave the service of the U. States, go still farther south. But I desire much to see my friends in the north; and, should I receive a furlough, I may pay them a summer visit.

Of ABBOTT'S drawings, in the library, I find the following numbers,—many of which are imperfect, as well as the numbers deficient. * * * *

261. *Gerardia Afzelia*. This was No. 30, in my drawings: but it cannot be a *Gerardia*, as it is truly *Pentandrous*. It ought to be made a new genus. * * *

Caladium speciosum, Elliott. I hope I shall soon have it in my power to decide upon this plant,—as, what I take to be your *Arum Virginicum*, I have found here. * * *

With respect to the *Insects*, that are drawn upon these plants, I do not feel qualified to give you a correct Catalogue; and Mr. OEMLER does not appear to be familiar with them. I shall review them all again, when more at leisure. Mrs. B. can assist me: but the cares of a family have induced her to neglect very much her favorite pursuit. * * * *

Among other specimens of plants which OEMLER brought from Virginia, I find *Echium vulgare*. Can it be native?

It has not been in my power to make out a *Calendarium* of the *Mosses*, during the late winter of alarms,—as I was mostly confined within the lines. From the observations I have made, the greatest number of *Mosses* are in perfection in this climate, the latter end of *January*, and the beginning of February. Some of the genera may be found in perfection for several months: as *Trichostomum pallidum*,—which is now, and was in January, in complete perfection. I shall mention a few, along with the continuation of my *Calendarium*.—Of *Filices*, I still have very few.

1815. Jan. 8. *Bartonia verna* in flower.

- “ 18. Dug up, at the Fortifications, a glass snake, and lizard [*Lacerta Bullaris*],—both alive. The Mercury, in Fahrenheit, 58.°

January 24. *Alsine media* in flower.

February 11. *Sambucus Canadensis* has put forth its leaves.

- “ 18. *Gelsemium nitidum* (yellow Jasmine) flowering.

“ 19. *Viola cucullata*, *Jungermannia*.

- “ 25. *Cercis Canadensis*; *Marchantia*; *Hypnum*; *Fumaria*; *Leskea*,—all in perfection.—The young shoots of *Poke* (*Phytolacca decandra*) fit for the table.

“ 26. *Amygdalus Persica*; *Rubus procumbens*.

March 3. *Sonchus oleraceus*.

“ 5. *Trillium sessile*; *Veronica peregrina*.

“ 7. *Amaryllis Atamasco*; *Pyrus arbutifolia*.

“ 10. *Chrysogonum Virginianum*; *Acer rubrum*.

“ 18. *Corydalis lutea* in flower and seed, on Cumberland Island. * * *

“ 20. *St. Mary's*: *Pinguicula pumila*; *Broussonetia papyrifera*; *Plantago Virginica*; *Samolus Valerandi*; *Datura Stramonium*.

- March 22. *Polygala lutea*; *Cymbidium pulchellum*.
 “ 24. *Olea Americana*; *Andromeda ferruginea*.
 “ 27. *Cornus Florida*; *Anona parviflora*; *Salvia lyrata*; *Anona triloba*; *Vaccinium arboreum*.
 “ 31. *Melia Azedarach*.

I have also the pleasure to inform you, that on the 25th of February, I met with the *Targionia*, floating on the water,—but without any appearance of fructification. It now exhibits something like fructification. What is the *Porella*, that you speak of? I have no recollection of it.

1491. *Trifolium Carolinianum*. Probably the same as my *pumilum*: But my *pumilum* is *caulis erectus*, and very small,—perhaps owing to the poverty of the soil.

* * * * *

1508. *Buchnera*—always *angustifolia*. LE CONTE supposes only a variety of *Americana*.

I found my grasses, and other specimens, left in St. Mary's, undisturbed by the enemy. My household furniture,—with the exception of a large looking-glass, and some other furniture where I had kept the U. States medical stores,—was all safe. The looking-glass they broke to pieces for amusement! I found the city almost a desolation. It had been plundered of public and private property to the amount of near half a million of dollars. A great deal of private property, not taken away, was wantonly destroyed. At *Dungeness*, on Cumberland, the devastation was comparatively trifling. About 300 lemon trees, and some fig trees, that interfered with the fortifications of the enemy, were cut down. The valuable sugar works of Mr. SPALDING, on Sapelo, remain safe.

On the 16th of February, I wrote to Dr. BARTON,—but have not yet received any answer. Pray, has he gone to Europe? Mr. LE CONTE left Savannah, for

Riceborough, about the middle of last month, and I have not heard from him since. He told me that, immediately upon his return, he would write to you. I shall visit him, shortly,—as I have engaged to assist him in putting up a long Catalogue of southern specimens for a German Botanist, at Salem, N. Carolina (whose name I cannot now recollect), who has written for them.

Through the blessing of a kind Providence, we are all in good health; and Mrs. B. joins with me in wishing for you that distinguished blessing. That you may yet live many years, is the anxious wish of your ever sincere and affectionate friend,

W. B.

P. S. The day on which your letter is dated (March 16,) I was on board of Gun Vessel 168, on my way to St. Mary's. Notwithstanding the peace, we were attacked, off Warsaw Island, by a 32 gun ship belonging to His Britannic Majesty;—the commander of which, although we had politely informed him who we were, threatened to sink us; and fired several shot into us! A musket ball passed within a few inches of sailing master HUBBARD's breast, and was evidently aimed at him. This insult to our flag was offered by one BARTHOLOMEW, who commanded the *Erebus* Bomb Ship; and who, when he found (although his force was so vastly superior,) we could not be bullied with impunity, made an awkward apology, and we separated. (Enclosed is a little *Targionia*?)

DR. BALDWIN TO DR. MUHLENBERG.

Savannah, April 27, 1815.

DEAR SIR: Along with this you will receive the following specimens:

1551. *Ludwigia*. This, Mr. ELLIOTT calls *virgata*. How

does it differ from *alternifolia*? It is sometimes *caulis ramosus*.

* * * * *

1558. *Rosa laevigata*, Mx? Cultivated here, and called "Cherokee Rose." In Charleston, it is best known by the name of "Nondescript Rose." When in Charleston, I was informed that it had been *introduced* there by JOHN BARTRAM,* as a Nondescript, many years ago: hence called *non descripta*. It is, in my estimation, the most beautiful of all the Roses. It runs and climbs to a great extent: and when in full bloom, the flowers are so numerous, that, at a little distance, they appear like a perfect white sheet. Mr. ELLIOTT has made use of it for *hedging*, on his plantation, on Ogochee. * *

I am still often at a loss to know what are the plants in your *Catalogue*, for want of the descriptions. If you would be so good as to note the authors, for such of my specimens as are not found in WILLDENOW, it would be a great assistance to me: and when not in your *Catalogue*, please to inform me,—as the same plant is often known by different names. * * * *

A few days ago, I received a letter from Dr. BARTON, in which he informs me that he was on the eve of going to Europe, for his health.

Mrs. B. has been trying her hand at drawing the *Azaleas*. Copies shall be sent to you, if you desire it.

With unchangeable esteem, I remain, my dear sir,
Your sincere friend, W. B.

P. S. *Asarum foetidum*, mihi. I found this on Flint river. The flowers are extremely foetid, and more than twice as large as the *Virginicum*, or *Canadense*. The smell of the flower, when recent, is as disagreeable as flesh in a state of putrefaction.

[*This tends to confirm the opinion, expressed by TORREY and GRAY, in the *Flora of N. America*, Vol. 1, p. 462.]

DR. BALDWIN TO DR. MUHLENBERG.

Savannah, May 7, 1815.

DEAR SIR: I wrote to you on the 27th ultimo, and sent the letter, along with a packet, to Philadelphia, in the schooner *Economy*, Capt. STUBBS, directed to the care of ZACCHEUS COLLINS. It has since happened through the vicissitudes of fortune, in this world of ever-varying events, that, instead of returning either North or South, I go to Bermuda along with THOMAS SPAULDING, Esq., a Commissioner of the United States, for the purpose of obtaining property that has been carried away, by our late enemy, contrary to the Treaty. I go as Secretary, as well as Surgeon, upon this mission. As well as Bermuda, we expect to visit Jamaica, the Havanna,—and perhaps some other places. We shall most probably sail to-morrow; and I am hurrying to prepare for the voyage,—having had very short notice.

I was in great hopes to have heard from you, before we sailed: But, as the time is short, I give you this information to enable you, should you think proper, to direct a letter of instructions to me at Kingston, Jamaica; whither I suppose we shall repair, after remaining some time in Bermuda. We hope to accomplish the voyage in about three months. As Mrs. B. will remain here until my return, your answers to my late letters may be sent to Savannah, as usual. Whatever I can do for Botany, while among the Islands, shall be done,—and the result made known to you as early as possible.

Hoping that you continue in the enjoyment of health, I remain, my dear sir, your ever affectionate friend,

W. B.

DR. MUHLENBERG TO DR. BALDWIN.

Lancaster, May 11, 1815.

DEAR SIR: I was very happy to receive your letter of the 12th of April last, and to hear of your health. The other letter you mention, of the 13th of February, by the way of Washington, and Mr. TREVETT, has not come. Probably the packages by vessels, and addressed to ZACCHEUS COLLINS, at Philadelphia, will come safer and quicker. I had written to Mr. STEPHEN ELLIOTT, April 10, but have heard nothing of him since. Is he returned to Charleston?

The Rev. Mr. VAN VLECK, my friend at Salem, has been at Lancaster, and will return next month to Salem; and will be very glad to get some Southern plants,—which, he mentioned, are more scarce with them, than the plants of the *Flora Virginica Gronovii*.

His companion, VON SCHWEINITZ, has sent 56 cryptogamous plants—chiefly *Fungi*—with his own names, named in a work printed in Germany. Some are new to me;—and others known to me, but hitherto not named in my Catalogue. He will be an excellent correspondent, for cryptogamous plants. Doctor PERSOON informs, in a late letter to me, dated in February, 1815, that he had sent me his nomenclature in a former letter, to Dr. BARTON;—which, unluckily, has never come to my hands,—as several others, under cover to the Doctor. He is now gone to France. May success attend him! and may he return to enrich Botany, for the lovers of science in general.

Should you pay a visit to our northern climate, do not forget us, at Lancaster. I will be very happy to see you, and compare notes. Mr. COLLINS will also be anxious to see you. He is a most excellent Botanist.—I have a promise to see him at Lancaster some time in June. The Philadelphians are much pleased with the

study of Botany, and have a number of lectures. Mr. CORREA DE SERRA reads lectures with great applause.

Mr. LE CONTE has promised something to our North Carolina friends; and, by your last letter, you will have an opportunity to see his collection, and compare his observations with yours. Remember my best respects to him,—and add my wishes to see some of his plants, not known in Pennsylvania.

Mr. PURSH has not returned from England; nor has his *Flora Americae* arrived in our parts. As he has compared the Herbaria of the FRASERS, I expect some elucidations of WALTER'S *Flora*,—which I long to see. Indeed, an American new Edition of WALTER, with Synonyms, would be a great acquisition: and who can give such explanations better than the new Southern Constellation?

For the continuation of your *Calendarium*, I thank you sincerely. If it is too troublesome, mention only such as you had not before. You will always find a few. * * What is *Prinos coriaceus*, Brickell? The "*Targionia*!" deserves particular notice. *Porella*, L. and Dillen. I take only for a *Jungermannia*. * * * *Coreopsis*, 1502, is *dichotoma*, Mx.—*gladiata*, Walter, being the older name, received in my Catalogue. In a *Catalogus* it would be better to keep both names. We have *Dracocephalum denticulatum* at the Susquehanna. *Speciosum*, Pursh, is larger,—comes from Ohio; but I could never distinguish it sufficiently from *Virginianum*, *foliis acuminatis, argutè serratis*. The third species comes from Georgia; and that I took for *variegatum* (*Prasium*? Walter). I wish you to compare WALTER'S three species.

When you have seen Mr. LE CONTE'S Herbarium, you will oblige me much by informing me of his names. He has an *Epilobium laevigatum*. What may this be?—PERSON informs me, in his last letter, that nothing of

the *Species Plantarum*, WILLD. has been printed, after *Filices*. The *Musci* were left in manuscript. Messrs. SCHWAEGERICHEN & FLOERKE were engaged to finish the *Mosses* and *Lichens*. The former has written the supplementa on HEDWIG,—and he has generally my specimens, sent long ago to him. FLOERKE is well known to me;—a good Lichenographer. PERSOON had the offer to finish the *Fungi* and *Algae*; but is uncertain whether he will accept. He has about 300 specimens of *Fungi*, sent by me,—and *Confervae*, and *Fuci*, as far as I could find them. His names to my specimens have not come to my hands. Should they arrive, I will give them according to our old numbers.

My *Calendarium*, this year, shows little difference from other years. The *Morus alba* has just begun to open the flowers full; now all frost is gone,—and not before.—I will give you a list, as they began this year:

March 7. *Alsine media*. *Poa annua*.

“ 16. *Hydrocotyle bipinnata*.

“ 23. *Viola odorata*. *Salix rubra*, C.

“ 28. *Iris Persica*, C. *Crocus vernalis*, C.

“ 31. The Martins.

April 2. *Hyacinthus*, C.

“ 7. *Ribes spinosissima*, West America. *Carex peduncularis*. *Amygdalus Persica*.

“ 8. *Arabis bulbosa*, fl. violacea. *Clupea alosa* appears.

“ 11. *Fumaria Cucullaria*.

“ 12. *Pyrus Botryapium*. Oats sown. *Plantago cordata*.

“ 13. *Thalictrum dioicum*. *Mitella diphylla*.

“ 14. *Glechoma hederacea*. *Prunus Cerasus*. *Thlaspi Bursa Pastoris*.

“ 16. *Prunus domestica*, C. *Pyrus communis*, C.

“ 17. *Trilium sessile*.

“ 18. *Sambucus pubens*. *Leontodon*. *Fritillaria*, C.

April 19. *Fragaria*.

“ 20. *Viola rostrata*. *Trollius*. *Dodecatheon*.

“ 21. *Malus*, *C. Viola obliqua*, *palmata*. *Convallaria majalis*, *C. Chelidonium majus*. *Dentaria*.
Vinca.

“ 23. Swallows. *Veronica peregrina*.

“ 25. *Caltha*. *Erythronium*. *Claytonia*. *Ranunculus repens*, *fascicularis*.

“ 28. *Verbena Aubletia*.

“ 29. *Amsonia*. *Hydrastis*.

May 3. *Scandix dulcis*. *Veronica serpyllifolia*, *arvensis*, *agrestis*. *Staphylea*. *Fumaria glauca*, *et aurea*.

“ 5 *Euphorbia helioscopia*. *Plantago lanceolata*.

“ 7. *Iris cristata*.

“ 8. *Lonicera villosa*.

“ 10. *Morus alba*. *Trifolium pratense*.

The official business,—which, near Whitsuntide, is rather too much on me,—hinders from adding more.—May you preserve your health, and not forget your faithful friend. My best compliments to Mrs. BALDWIN.

Affectionately I remain your most obedient and sincere friend,

HENRY MUHLENBERG.*

DR. BALDWIN TO DR. MUHLENBERG.

St. George's, Bermuda, May 30, 1815.

DEAR SIR: We reached this little spot in the great

[*This is the last letter from Dr. MUHLENBERG to Dr. BALDWIN;—and is among the latest, if not the last, ever written, by that distinguished Botanist and most estimable man: inasmuch as he died on the 23rd of May, 1815—only twelve days subsequent to the date of this.]

ocean, on the 19th inst. after a passage of nine days,—in which nothing worthy of notice occurred.

I have not had much leisure to Botanize; and many of the small Islands that constitute this group contain, of shrubby plants, hardly anything but “Cedar” (*Juniperus Barbadosensis?*), and the “Wild Sage” (*Lantana odorata*). These abound throughout all the Islands; and the former constitutes the principal value of the land, here,—as scarcely anything is cultivated. The main Island is more rich,—and contains of spontaneous growth, the *Papaw*, *Calabash tree*, *Celtis occidentalis*, *Callicarpa Americana*, *Viburnum*, *Andromeda*, *Ascyrum*, *Chamaerops Palmetto* (which, next to the “Cedar,” is the most valuable, for the manufacture of hats), *Rhus radicans*, *Ampelopsis quinquefolia*,—with some others unknown to me. The Marine plants, that I have seen, are mostly found on the Sea Islands of Georgia;—as the “Samphire” (*Salsola?*) *Cakile maritima*, *Bupthalmum frutescens*, *Zapania nodiflora*, &c. Among the native annual and biennial plants, I find *Anagallis arvensis*, *Salvia*, *Sisyrinchium Bermudianum*, *Arenaria serpyllifolia*, *Alsine media*, *Asclepias Curassavica*, *Verbascum Thapsus*, *Medicago sativa*, *M. lupulina*, *Plantago major*, *P. lanceolata*, *Plantago*, with lanceolate woolly leaves; *Verbena Jamaicensis?* this is partially shrubby; *Sonchus oleraceus*, *Leontodon Taraxacum*, *Ranunculus reptans?* *Datura Stramonium*, *Lamium amplexicaule*, and another species; *Senebiera incisa*, *Sida rhombifolia* (shrubby); *Euphorbia*, 2 species, *Erysimum*, *Daucus Carota*, *Urtica*, *Acalypha Caroliniana*, *Malva rotundifolia*, and *Caroliniana*, *Bidens*, *Erigeron Canadense* (not in flower), *Cactus*, *Lepidium Virginicum*, *Argemone Mexicana*, *Oxalis corniculata*, *Matricaria?* *Dichondra Carolinensis*, *Portulacca oleracea*, *Atriplex hortensis*, *Passiflora* (not in flower), *Phytolacca decandra*, *Salicornia*, *Ipomaea Bona nox*, *Solanum nigrum*, *Galium*, *Polymnia Uvedalia*, &c.—Of Gras-

ses, I have noticed *Chloris petraea*, *Paspalum*, *Panicum glaucum*, and other species; *Agrostis Indica*, *Digitaria sanguinalis*, *Digitaria Dactylon* (Bermuda grass), and a few others.—Of *Ferns*, there are a few very beautiful; as *Pteris*, *Asplenium*, *Adiantum*, *Osmunda*, &c. of which, as well as *Phanerogamia* and *Grasses*, I shall carry home, and transmit to you as soon as possible,—with all the information that I can obtain.

Of *cultivated Plants*, I found much fewer than I expected. In Governor COCKBURN'S garden there are several *Date trees*; but they have never borne fruit,—I suppose for want of the staminate plants. He has one *Apple tree*,—the only one I have seen in all the Bermudas. *Grapes* and *Figs* succeed well,—but are little attended to. I have seen a *Fig tree*, which they say is a *native*; but I cannot distinguish it from the cultivated one. It is found, however, like the *Coffea*, in the Islands. *Peach trees* are said to succeed well. The *Olive* (*Olea Europaea*) grows large,—but is barren. There are a few of the *Pride of China trees* (*Melia Azedarach*),—and they are still flowering.

Circumstances have occurred which prevent our going to Jamaica, &c. and to-morrow we intend sailing for Savannah.

With great esteem, I remain, dear sir,

Your sincere friend,

W. B.

P. S. I send this viâ Alexandria, in the brig *Eliza*; and hope that you will receive it in good time.

DR. BALDWIN TO FREDERICK AUGUSTUS MUHLENBERG, M. D.

Savannah, June 28, 1815.

DEAR SIR: On my arrival in Charleston, S. C. from Bermuda, I received the mournful intelligence of the death of your venerable father: and after reaching my

place of abode, in this city, a few days after, I had the melancholy satisfaction to find a letter from him, dated the 11th of May,—which forever closed a correspondence that had been to me a source of the most interesting pleasure. I now, my dear sir, solicit the correspondence *the son*,—in whom I hope I shall find the best substitute for the loss of *the father*. I am the more readily induced to make this solicitation, as it appeared to be the wish of your father, that you should continue the correspondence, when he should be no more. In a letter which I received from him, dated the 15th of April, 1814, he informed me that you, having finished your Medical education, would assist him in Botany,—and recommended you to me, as one with whom I might afterwards expect to correspond.

You will therefore, I know, excuse the liberty I take in thus addressing you;—and inform me in what way I can render you any assistance, in the prosecution of the study of Botany;—or in the publication of your father's posthumous works,—which I presume will be an object of your early attention. Messrs. ELLIOTT and LE CONTE will also lend their aid, if required.

As I have seen no particulars of the sickness and death of your amiable Father,—will you be so good as to gratify me with a short account? I published a brief, imperfect tribute to his memory, in the *Savannah Republican* of the 24th inst., having only seen a short notice in a Charleston paper.

May the lovers of Botany, throughout the United States, do honor to his memory by walking in his footsteps! He was not only worthy of imitation, for that most active zeal and industry, which characterized him *the Linnaeus of our Country*,—but also for that unbounded liberality of sentiment, which he uniformly manifested towards his contemporaries: and which ought ever to distinguish the genuine Christian Philosopher, and Na-

turalist, from the narrow-minded despot in science, who would exalt his own fame even at the expense of those around him. However we must deplore the loss of such a character, it is consoling to reflect, that he attained to a *good old age*, and has left a name behind which will be transmitted along with those of LINNAEUS, WILLDENOW, and others, to the end of time.

Wishing you all happiness,—and hoping to hear from you soon,—I am, my dear sir, most respectfully your friend,

W. B.

P. S. I wrote to your Father from Savannah, the 27th April, the 7th May, and from Bermuda the 30th, which of course, were not received in time.

DR. BALDWIN TO F. A. MUHLENBERG, M. D.

Savannah, September 13, 1815.

DEAR SIR: I wrote to you on the 28th of June, and as I have received no letter, am fearful that mine may have miscarried. At all events, I hope you will excuse the liberty I take, in troubling you a second time. Very anxious I have been to hear from you, after having corresponded so long with your excellent Father. But, should it not be convenient for you to continue the correspondence, will you have the goodness to inform me of the particulars of your Father's death,—and in what manner, and when, will his Botanical works be published? The notices taken of your Father, in the *Analectic Magazine*, and *Port Folio*,—which I have observed with great pleasure,—are proofs of the high estimation in which he is deservedly held by his countrymen.

I continue to make collections of plants; and would fain hope to add a little more to your Father's large collection. Pray excuse the liberty I take,—who am,

Dear sir, most respectfully &c.,

W. B.

DR. F. A. MUHLENBERG TO DR. BALDWIN.

Lancaster, September 19, 1815.

DEAR SIR: On account of absence from Lancaster, for a considerable length of time, I had not the pleasure of seeing your letter of the 28th of June, until a few days previous to this date.

The distressing event of my father's death, has left me almost inconsolable; and the numbers of papers, and letters, which I have been under the necessity of examining, has kept my mind in continual anxiety and regret. During his lifetime, he frequently observed to me, that I should cultivate your acquaintance, and consider you as a friend; that he himself had derived great advantages from your correspondence; and that, of all his friends, he valued and esteemed you the most. But circumstances are changed. As highly as I should estimate your correspondence, I have not the vanity to suppose that my communications could, in any manner, be interesting to you,—particularly in the science of Botany;—as I am, as yet, but a very young student,—my professional avocations demanding the greatest portion of my time. But, sir, if you would occasionally condescend to appropriate a very small portion of your time to me, I should forever be indebted to you,—although there are few prospects of repaying your kindness, except with gratitude.

As far as respects my father's posthumous works, there is one on the *Grasses*, which will be published in a short time; perhaps during the winter—at farthest, in the spring. It is in the hands of Mr. S. W. CONRAD, of Philadelphia. The work is not very extensive; but will nevertheless form a volume, in octavo, of about two hundred and fifty pages. You will find, after its publication, that my late father has done justice to your research. There is also a *Flora Lancastriensis*, or a

uberior descriptio of the plants that are found in the neighborhood of Lancaster:—a work which, although it contains not much new matter, would be highly useful to the student of Botany;—as the descriptions are minute, and very exact; being taken from the living specimens. What would have been interesting to the Botanist, has been inserted into the works of WILLDENOW, and others; and frequently without giving my father due credit for it.

As much as I am desirous of seeing it published, (for it has been *in obscuro* too long,) yet, as I have not met with sufficient inducements, or encouragement to publish it, I believe I shall retain it until the book on *Grasses* is finished, in order to see the reception it meets with. What would be your opinion concerning its publication? There is another work—rather in a confused state—which would demand a good compiler, a good Botanist, and one who was somewhat acquainted with the German language,—as some of the observations are in that language, which would have to be translated. It is the description of the *North American Plants*,—exclusive of those which are indigenous to *Lancaster*. This, no doubt, contains much original matter.

The *Herbarium* I shall retain,—although frequent applications have been made to me concerning its disposal. * * * * * I believe the *Philosophical Society* would be willing to possess it,—as several of its members have made application to me, concerning it. It would certainly be a desirable circumstance, to have it in a situation where the public could be benefitted by it.*

During the latter part of my father's life, he was very much predisposed to *Apoplexy*. He had several attacks

[*The *Herbarium* subsequently came into the possession of the *American Philosophical Society*, at Philadelphia, where it now is.]

of the disease. The predisposition increased, as he advanced in age, until the last fatal attack, which put a period to his valuable existence. Early in the morning of the 23d of May, he felt symptoms of an approaching paroxysm: he complained of a difficulty of hearing and seeing, which was soon followed by a paralysis of the tongue: he soon after became comatose, and remained in that state until in the evening of the same day, at 8 o'clock, when he suddenly expired in a convulsive state.

He was born November 17, 1753, in New Providence, Montgomery county. His father was HENRY MUHLENBERG,—at that time Minister of the German Lutheran Congregation, in Philadelphia. In 1763, he was sent to Europe, in order to be educated for the Church, in the University of Halle. In 1770, having finished his education, he returned to America. Finding that Botany, in North America, displayed a vast field of inquiry, he very soon engaged in its study with ardor and perseverance; in which he was assisted by his European friends, HEDWIG, SCHREBER, and others. Whether any thing has been done by him for the advancement of Botany, and Science in general, candor may decide.

I remain, my dear sir, with the greatest esteem,
Your humble servant,

F. A. MUHLENBERG.

DR. BALDWIN TO F. A. MUHLENBERG, M. D.

Savannah, October 8, 1815.

DEAR SIR: Your letter dated the 19th ult. I had the pleasure to receive a few days ago. It gives me much satisfaction to find, that, although you are unable to devote a great portion of your time to the science of Botany, a correspondence will be agreeable.

I, too, am only a student of Botany, and a practitioner

of Medicine; and can *only* devote a portion,—sometimes a very small portion—of my time, to that charming science. Much depends upon our habits of industry, and the manner in which we economize our time.

BOERHAAVE, DARWIN, WITHERING, and many others, accomplished much for Botany, as well as for science in general; and were, nevertheless, laborious Practitioners of Medicine.

But, my dear friend, whatever may be the *bent* of your inclination, which is to regulate your pursuits in life,—be assured, I shall ever esteem it a pleasure to correspond with the son of HENRY MUHLENBERG.

I am glad to hear that your father's valuable work on the *Grasses* is already in the hands of the printer. With respect to the publication of the *Flora Lancastriensis*,—would it not be advisable to issue proposals for publishing by subscription? This is the mode which our literary friends, here, recommend: and I feel confident that a large subscription could be obtained in this Southern country. I would cheerfully undertake to distribute the proposals, and to obtain subscribers. This work would enable us to compare the plants of Georgia and South Carolina with those of Pennsylvania; and, from the accuracy with which I know the plants are described, would in every point of view, be highly interesting here,—as well as to the student of Botany in Pennsylvania.

The sooner these valuable works are published, the sooner will the plagiarisms of European Botanists be exposed. The publication of the last work you mention,—which I suppose must be the largest,—might be delayed a little longer:—Not longer, however, than it may take to prepare it completely for the press,—should proper encouragement be given to the preceding works. For this work, I would gladly prepare more particular descriptions of some plants which your father received

from me, and adopted as new species. The names of a few of them, which I gave in too much haste, I would change: for example, *Eryngium tenue* (see the supplement to your father's catalogue). *Tenuë* is a correct name; but as there is a foreign *E. tenue*—a different species,—I would call mine, *Eryngium polycephalum*: and so of some others, to be noticed another time.

You are, I presume, sufficiently acquainted with the German language, to make the necessary translations: and would not Z. COLLINS answer, for the Botanist, and Compiler?

I highly approve of your resolution to retain the
Herbarium. * * * * *

Accept my best thanks for the Biographical notices of your father, which you have been so good as to give me. Any thing relating to him will always be dear to my recollection. In May, 1811,—the only time I had the pleasure of seeing him,—he gave me a similar account of the commencement of his career in life; with some interesting anecdotes of his beginning, and progress, in the study of Botany.

When you have leisure, I shall be happy to hear from you. In the mean time I remain, dear sir, with the greatest esteem, your sincere friend,

W. B.

P. S. Please to present my best respects to Mrs. HUFFNAGLE and Mrs. MUSSER.

DR. BALDWIN TO F. A. MUHLENBERG, M. D.

Savannah, April 23, 1816.

DEAR SIR: I expected, before this time, to have heard of the publication of your father's work on the *Grasses*. Will you be so good as to inform me how it progresses? It will give me great pleasure to receive a copy of it as

soon as possible. Mr. ELLIOTT is about to publish a *Flora of South Carolina and Georgia*, by subscription,—and has, I believe, obtained a great many subscribers. Have you seen the work that has been published by PURSH, in England? and in what estimation is it held? Mr. NUTTALL, an English Botanist, who paid us a visit last fall, informed me that it contained numerous errors. NUTTALL spoke of publishing a new edition of it; but I have not heard from him since he left this place for Philadelphia. With esteem I remain,

My dear sir, your friend,

W. B.

DR. BALDWIN TO A. B. LAMBERT, ESQ., VICE PRESIDENT OF
THE LINNEAN SOCIETY, LONDON.

Savannah, February 7, 1817.

SIR: Your letter of the 3d of June last, reached me on the 6th of August. I was then confined on a sick bed, and continued unable, for several months, to make any acknowledgment for so kind and unexpected a favor. In November, I began to put you up some specimens; but before I could finish, the state of my health—as well as urgent business—obliged me to go to St. Mary's. Here I was unexpectedly detained, without any opportunity of even acknowledging the receipt of your letter. Having at last returned in good health, it will afford me great pleasure to comply with your request: and although I may fail to answer your expectations, I will at least be a punctual correspondent. My thanks are due to Mr. NUTTALL, for having introduced me to your notice. That I may be able to reciprocate your favors, is my anxious wish; and no exertions to do so shall be wanting.

For a beginning, I have put you up 300 specimens, to

be forwarded the first opportunity. In order to obtain your observations, I have numbered the specimens, and occasionally added a few queries. As some of the plants that I now forward, may be already known to you, I take the liberty to request that you will freely make your comments upon them, and correct me when you find I am in error. I have many new and doubtful plants to send, when our correspondence becomes established. I am chiefly anxious, at present, to investigate the plants of my native country: but am very desirous to ascertain what plants of other countries correspond with ours. For example, we have *Callitriche verna*, *Gratiola officinalis*, *Syena fluviatilis*, *Hottonia palustris*, *Lycopus Europaeus*, *Cerasium vulgatum*, *C. semidecandrum*, *C. arvense*, *Isnardia palustris*, *Nymphaea alba*, &c. &c. Specimens of these, from Europe, would be very acceptable. Some of them, I have no doubt, will be found, when strictly compared, to be distinct plants.

Any specimens will be acceptable; but those from the West Indies, and Guiana, would, at this time, be the most interesting,—as likely to approach the nearest to those of this southern country.

I have not been so fortunate as to obtain the work of Mr. PURSH; and as Mr. NUTTALL did not send me a copy from Philadelphia, I presume it was not to be obtained. You will therefore greatly oblige me by sending a copy.

The transactions of the Linnean Society I have seen in the Library of this city; but I shall become a subscriber, when I return to Wilmington, Delaware,—the place of my abode. I accept, with gratitude, your kind offer to propose me for a member of the Linnean Society. Should I be elected, I can only hope that it may be in my power to contribute *a mite* to that vast *treasury* of Science.

Any Botanical news will be very acceptable. I shall send you a work, now publishing by Mr. ELLIOTT, of

Charleston, S. Carolina, which will contain some of my new plants: also, any other work that may appear, which will be worthy of your acceptance,—along with the Botanical news from this side of the water. Some of the specimens, I now send, are not good; but I hope to have it in my power to renew them, before long,—and thus be able to replace any of those which you may be desirous to receive. *Insects* are very destructive to our *Herbariums*, in this country; and I have not been able to succeed, effectually, in preventing their speedy and destructive ravages. In December, I crossed over from St. Mary's into the Province of East Florida, and had the good fortune to find specimens, roots, and seeds, of some rare plants. Among them, were *Crinum Floridanum*, *Lantana Camara*, *Pancratium*, and some others, that have been noticed by Mr. WILLIAM BARTRAM,—but not confirmed, that I know of, by any succeeding Botanist. It will, I hope, be in my power to furnish you with the above plants, at a future period, should you desire it, as well as many others that may be equally interesting. I propose setting out, shortly, on a more extensive excursion in the same Province. It is my intention to ascend the river St. John's, at least as high as Lake George, 150 miles from the Ocean—explore the shores of Musquitoe—and perhaps go on to the Capes of Florida,—where I should expect to find many of the plants of Cuba.

I am, dear sir, most respectfully, &c. W. B.

DR. BALDWIN TO A. B. LAMBERT, ESQ., LONDON.

Savannah, February 17, 1817.

SIR: I wrote to you on the 7th inst., and forwarded the letter in the Brig Braddock, HENRY JACKSON, Commander, bound to Liverpool. Not meeting with an op-

portunity for London, from this place, I now forward the box of specimens (marked with your name) to the care of a friend in Charleston,—who will ship them for London in the first vessel that sails. I have added a few more specimens, principally *Grasses*,—and will thank you to send me, in return, any that are natives of England, or the West Indies: particularly *Poa*, *Festuca*, *Cyperus*, *Elymus*, and *Rottboellia*. I will also thank you very much to send me specimens of the true *Convolvulus Jalapa*. In comparing our *Ipomoea macrorhiza* (which has been generally supposed to be *Convolvulus Jalapa*,) with the engraving and description of *C. Jalapa*, in WOODVILLE'S *Medical Botany*, I can perceive no essential difference; and yet it is certain that the *Ipomoea macrorhiza* and the *Officinal Jalap* are very different in their *medical* qualities: the former is destitute of purgative properties, and may be eaten with impunity, like the *Convolvulus Batatas*. Be so good as to inform me, whether the *Convolvulus Jalapa*, that is cultivated in England, has been tested, by its employment as a cathartic.

I have this day received the first two numbers of Mr. ELLIOTT'S publication, and have packed them up for you, along with the specimens. In glancing hastily over the first number, I find a *singular mistake* annexed to my account of *Collinsonia verticillata*. The *varieties a*, and *b*, there mentioned, apply to *Erianthus strictus*! "Grows near Milledgeville, between the Oconee and Ocmulgee rivers, Georgia"—is all that belongs to *Collinsonia*, in the two concluding paragraphs.

As it is possible that my former letter may not reach you, I will again inform you, that my delay in attending to your obliging favor, was owing to sickness and absence from Savannah: that I should be glad to receive a copy of the work of Mr. PURSH,—and accept of your kind offer to propose me for a member of the Linnean Society: and requested you to direct your communications

to the care of EDMUND KINSEY, corner of Chesnut and Third streets, Philadelphia.

In a few days I shall set out for an excursion into East Florida. Any thing interesting that I may find there, I shall be happy to inform you of, and to share with you.

I remain, sir, very respectfully yours &c.,

W. B.

DR. BALDWIN TO F. A. MUHLENBERG, M. D.

Wilmington, Del., July 23, 1817.

DEAR SIR: It is so long since I heard from you, and so uncertain whether a letter would find you, in Lancaster,—that I had almost given over writing again.—But, as I have returned once more to this part of the country, and still recollecting with pride and pleasure, the interesting correspondence with which your father favored me, I thought I could do no less than once more address a few lines to you.

I have just been informed that the work on the *Grasses* has at last appeared. I shall immediately send for a copy. I have also been informed, that the other work of your father would soon be published. There are many specimens in your father's Herbarium, which I furnished, that I should be glad of an opportunity to see again. Should the work on the American Plants, in general, be published, I might furnish some additional information respecting some of them, before the work went to press.

It would give me great pleasure to hear from you, and to be informed particularly respecting your father's works. Has no one yet undertaken to write a Biography of the *American Linnaeus*?—to which appellation your father was so justly entitled. I did expect, before this

time, to have seen at least some notice of his death, and character, in some of our periodical publications.

I have only just returned from the South, and have not yet had leisure to attend to Botanical matters: but hope, before long, to be more at leisure.

In the mean time, I am yours, sincerely,

W. B.

DR. BALDWIN TO A. B. LAMBERT, ESQ., LONDON.

New York, September 2, 1817.

DEAR SIR: Your most acceptable letter of March 17th reached me in Wilmington, Delaware, on the 31st of July,—and your valuable present, a few days afterwards, I do not know how to thank you enough for such a favor, and shall not pretend to do it by words. Nothing but want of health, or loss of life, shall prevent me from compensating you in the best manner I am capable of, and as early as possible. When your letter came to hand, I was engaged in preparing for publication, “Notices of East Florida, and the Sea Coast of Georgia, &c.” But have been called off, hastily, to attend to Naval concerns here,—which has produced a momentary derangement in my Botanical plans, and prevented that immediate reply to your letter which you requested, and to which you were so highly entitled,—from the promptitude with which mine of the 7th of February was answered, and a collection of books forwarded, before any thing had been received from me. I am daily expecting liberty to return to Wilmington,—where I shall put up for you all the specimens you request, that I can command; with some others from E. Florida which appear to be new,—along with as many seeds as I possess, that may be interesting to you. The work of Dr. MUHLENBERG, on the *Grasses*, has just

been published, in Philadelphia. I shall send you a copy, along with BIGELOW's Flora of Boston. My own work, (which I fear will be too trifling,) shall also be forwarded as soon as it is published.

The specimens put up for you, in Savannah, along with the first two numbers of Mr. ELLIOTT's "Sketch," were forwarded under the care of Mr. JOHN FRASER,—who sailed from Charleston the beginning of June. I soon after sent on the third number of the "Sketch," by a Mr. SADLER, of St. Mary's, who sailed from Savannah; but I cannot recollect the name of the vessel.—I saw Mr. KER, in Savannah, just before I left there, in June last. He delivered your message;—expressed the pleasure he had in your company;—and requested me to inform you that I had seen him,—and to present his best respects.

When I put up the specimens, &c. I shall write more particularly.

The work of PURSH will be of infinite service to me. It will be in my power to correct some errors Mr. PURSH has made, in regard to southern plants, which he had not so good an opportunity of investigating. He has frequently erred in regard to the *habitat* of plants.—I will venture to assert, that the *Ceratiola ericoides* has never been found in Georgia; nor is it "in great plenty on" any "Island in the mouth of St. Mary's river." It becomes plenty on *Talbot Island*, south of Nassau river, and 20 miles south of St. Mary's. *Ixia coelestina* has never been found in S. Carolina, nor in Georgia; nor has it been seen any where,—except near Lake George, on St. John's river,—where Mr. BARTRAM discovered it. Even Mr. ELLIOTT has adopted the error, in regard to this rare plant. *Oenothera minima* is hardly distinct from *O. sinuata*. The Florida *Lantana*, which I mentioned in a former letter, is unequivocally distinct from the West Indian *Camara*,—which I lately saw in Phila-

delphia. I have called the former, *Lantana Bartramii*; and will send you a specimen and description: also, a specimen of the *Zamia pumili*,—which is a valuable plant in domestic economy; of which I shall speak particularly in my account of E. Florida. This has not been found North of St. Augustine. I found, on the head waters of *Matanza*, *Mimosa aurea*, Bartram. At the ruins of New Smyrna, and elsewhere on Musquito—evidently indigenous—a *Myrtus*, 20 feet high. *Passiflora* n. sp.—or a variety of *incarnata*, *floribus albis*: two species of *Rivina*, &c. &c.

I write with a mind embarrassed with other concerns; which I hope will be some excuse for this slovenly letter. I flatter myself it will not be long before I shall be able, uninterruptedly, to make you a better return for your kindness—a better reward than words. I have had but little leisure to look over your elegant engravings of the *Pines*, &c.

Our Georgia *Pinckneya* must certainly be a *Cinchona*; or, as PURSH observes, some of the *Cinchonas* are *Pinckneyas*. But I think the Georgia plant a true *Cinchona*,—both from its *habit* and *qualities*: and the difference in its fruit is too slight to produce a separation,—or *Genera* might be multiplied *ad infinitum*, to the exclusion of all species.

The box of *books* was placed in a situation on board the ship, which rendered them very damp,—particularly the engravings of the *Pines*: but, by carefully drying them, they are not materially injured.

I am, my dear sir, your very sincere friend, W. B.

DR. BALDWIN TO A. B. LAMBERT, ESQ., LONDON.

Wilmington, Del., October 16, 1817.

DEAR SIR: I have been waiting to send my packet

under the care of the Hon. Mr. RUSH, who goes to London, in the Franklin, to supply the place of Mr. ADAMS,—with whom you are acquainted, and who has returned in safety to his country.

Some of the specimens you wish, are not at present in my Herbarium. The *Juglans myristicæformis* I have not seen,—but have written to a southern correspondent to procure specimens for me,—which, when received, shall be shared with you. * * *

On the specimens I now send you, I beg you will comment freely. Some of them, I think, will be new to you. 381 has much the habit of *Stellaria media*; but is destitute of that well defined pubescence which distinguishes the “Chick-weed,”—and has a fistulous, forked stem: *foliis ovatis, acutis, glabris, petiolis longissimis; caule prostrato, cylindrico, fistuloso, dichotomo, subpubescente; pedunculis solitariis, longis; floribus parvulis, heptandris; calyce erecto*. Sometimes the lower leaves are cordate and sessile. Grows in rich, springy, uncultivated land, in E. Florida: flowers in March and April. I have measured it more than three feet in length; but it is very variable in size and appearance. I had frequently passed over it for the common “Chick-weed,”—from which it is very distinct.*

Lantana Bartramii: foliis ovatis, obtusis, crenatis; caule herbaceo, angulato, aculcato, piloso, ramoso; floribus capitato-umbellatis, foliosis. The leaves are slightly pubescent; stem armed with a few scattered prickles.—This plant, which inhabits the Sea-coast of East Florida, was discovered by Mr. WILLIAM BARTRAM more than 40 years ago. He called it *Lantana Camara*;—from which it is very distinct. I have lately seen the West Indian *Camara*, and had an opportunity of comparing them.—

[*This is the *Stellaria prostrata*, Baldw. in ELLIOTT'S Sketch, and TORREY & GRAY'S *N. American Flora*.]

The Florida plant much resembles the *aculeata*, of South America, in some respects. Its common height is 2—3 feet: but I have seen it upwards of 5. The specimens cannot be preserved; but it is a most beautiful plant: its umbels of flowers changing from a bright yellow to crimson and purple,—all of which colors are seen on the same plant at the same time. I am sorry that the specimens of some other plants are not so perfect as they ought to be. I have many *new Rhynchosporae*, which I will send to you, when I get them properly arranged. * * * * *

* * * * * Mr. PURSH does not appear to have done much in this department of Botany [scil. the *Cyperaceae*],—although he has changed some names.—Several of the *Scirpi*, in particular, although marked *v. v.* seem defective. Is not *Scirpus acicularis*, and *pusillus* the same? * Both appear to be the *trichodes*, of Muhlenberg. *Scirpus ovatus*, and *capitatus*, are the same.

Botany has just sustained a loss in the death of Dr. JAMES MACBRIDE, of Charleston, S. Carolina. Mr. ELLIOTT has been obliged to suspend the publication of his work, on account of the mortality in that city. The 4th number was printed in August; but I have not received it,—although I have written repeatedly for it. The work of Dr. MUHLENBERG, on the *Grasses* (which I am sorry he did not live to publish, himself,) I have put up for you. BIGELOW's *Flora of Boston* I have sent for; but it has failed to come to hand. But, what I cannot send now, shall be attended to, in future. I have also put you up a few *seeds*. I wish I could have added more: but shall continue to collect. I do not know

[*Dr. TORREY makes *Scirpus pusillus*, Pursh, distinct from *S. acicularis*, L. and *trichodes*, Muhl. See "N. American Cyperaceae," under *Eleocharis*.]

whether the *Grasses* are interesting to you; but hope you will write for whatever you want.

The engraving of *Rhexia lutea*, in PURSH, furnishes but a poor sample of that fine species. In the south of Georgia, and in Florida, it grows much larger than where LE CONTE procured his specimens. The leaves are broader, and stem branching at summit,—supporting many flowers of a beautiful yellow color (not “small”). The *R. ciliosa* is also a fine plant; varying much in size.

I am with great respect, my dear sir,

Yours sincerely,

W. B.

DR. BALDWIN TO A. B. LAMBERT, ESQ., LONDON.

Rio de Janeiro, February 7, 1818.

DEAR SIR: I have but a moment to spare, and merely write to inform you that I am here, and shall not forget you wherever I go,—although I cannot now transmit any thing to you. I have been here since the 29th ult. and have found many plants, new and interesting to me. We sail, to-morrow, for the *La Plata*, via St. Catharine's. Any thing I may obtain, shall be shared with you, when opportunity offers.

I was present, yesterday, at the coronation of the *ci-devant* Prince regent of Portugal,—which afforded me much amusement.

In haste, I remain, dear sir, yours very respectfully,

W. BALDWIN.

LETTERS

FROM DR. BALDWIN TO DR. DARLINGTON.

St. Mary's, January 15, 1817.

MY DEAR OLD FRIEND: Your interesting letter of the 9th ultimo, met me yesterday morning at Fernandina (Amelia Island), on my return from an excursion among the *Dons*, in the adjoining province of East Florida. To renew an acquaintance with an *old friend* whom I ever highly valued, will be at once easy and delightful. Indeed I had often contemplated this *renewal*, but neglected it from time to time, until you have at last done me the favor to open the way,—for which accept my best thanks.

It gives me great pleasure to learn that you are becoming a *devoted lover of Botany*. I continue to be fond of that Science, and shall be as glad to communicate any information relating to it, within the compass of my power, as I shall be to receive information from others. Several years residence in this *land of flowers*, where I have had an opportunity of extending my excursions almost beyond the region of frost, has enabled me to add a few new or undescribed plants to our Southern catalogue, some of which will be published in the work of Mr. ELLIOTT;—perhaps the whole in an *Appendix* to that work, should I find leisure to complete my descriptions of them. My present excursion into Florida will enable me also to confirm some of our good old friend BARTRAM'S doubtful plants. I have

found his *Lantana Camara*, *Crinum*, and a few others, not since noticed by any Botanist. I met with the *Lantana* still flowering on the Island of Fort George (in December). His *Crinum* is not now to be found on St. Simon's; but is abundant on Amelia Island, and in many places on the St. John's. I have had a delightful excursion as far South as St. Augustine, and afterwards up the St. John's about 80 miles from the sea—nearly as high as Picolata; and am now engaged in packing up the roots and seeds, of which I have collected many, to send to my botanical friends in Charleston, and elsewhere, to be cultivated, in order to complete the descriptions.—Go on, and by all means publish your *West Chester Flora*. I once thought of publishing a Catalogue of the *new* plants found here; but as I have since found many undescribed plants elsewhere, even in the vicinity of Savannah (where I have been residing for two years,)—and as ELLIOTT has commenced the publication of his *Sketch of the Botany of South Carolina and Georgia*, I have concluded to throw in my mite, and thus in one work present as many of our Southern plants as possible. If you have not subscribed for this work, I will send you a copy *gratis*,—and with some comments upon it, in a future letter.

You are ahead of me, in books. The work of PURSH I have not received, although a botanical friend promised to send me a copy. Mr. NUTTALL, of whom you have probably heard, informed me, a year ago, that he intended to publish a new edition, with additions and corrections, in Philadelphia; but I have not heard from this gentleman since. Mr. LAMBERT, Vice-President of the Linnean Society of London, (who by the way is the real editor of PURSH's work,) from whom I lately received a letter, offered to send me a copy, if I had not received it. I have not yet answered LAMBERT's letter, and must beg you to inform me as soon as

possible, whether a new edition is likely to be published,—or whether any copies of the old remain; as I do not wish to impose too much upon the liberality of Mr. LAMBERT, who has been so good as to request me to become a member of the Society, and to correspond with him, &c.

You hope for a long letter; and really, I have so much to say, that I have been at a loss how, or where to begin. But if this should not come out as long as you *hoped for*, I will endeavor to make amends in future; and can only *hope* that my long letters to you, may prove as interesting as I know your communications in return will be. My present place of residence is, *any where*. Once more I have determined to attempt living in Wilmington, Del. and my family are now there,—having left Savannah early in November. An attack of my old *Pulmonary* complaint, in July last, has induced me to remain in this southern clime until spring; and the excursion I have just taken has restored me to my usual good health. In a short time I shall return to Savannah, where you will please to direct your next letter. As I do not expect to return north before the month of June, I have it in contemplation to make a still more extensive excursion in Florida, at a more interesting season. Not expecting, when I left Savannah, to have travelled much in Florida, I carried no books with me,—not even BARTRAM'S 'Travels.—Next time, I will go better prepared. Could you only come, and go up the beautiful St. John's along with me, with what delight would we pursue the steps of BARTRAM. Even now—I mean, in the middle of winter—there are plenty of *Alligators* to be seen, and of an enormous size, in that river: and you may eat *oranges* from morning till night, at every plantation along the shores,—while the *wild trees*, bending with their golden fruit over the water, present an enchanting appearance;

but the fruit is sour. After ascending this river about 35 or 40 miles a westerly direction, it then takes a southerly course, parallel with the sea, and may fairly be considered as a chain of lakes. While at its mouth it is not more than 1000 yards,—at its first bend to the south it is not less than nine miles wide. You then pass on from point to point, at distances of four and five miles, the coves and points on each side corresponding with each other,—thus widening and narrowing until you reach Lake George, which is 20 miles wide,—the most extensive lake on this river. Beside which, there are many fine lakes at some distance from the river.—You pass out of the main river into narrow inlets, which soon widen into spacious lakes, bounded by rich and luxuriant shores. But unless I could enter more largely and intelligibly into a detail of these things, I had better say nothing; and as I am on the point of re-crossing St. Mary's river in pursuit of some more plants, before I return to Savannah, I conclude for the present—and am, my dear old friend, most affectionately yours,

W. BALDWIN.

P. S. There has not yet been any frost in St. Augustine,—while the mercury, at Savannah, has been as low as 27°. On the south and east side of St. John's, there has not been frost sufficient to destroy the Potato vines, the Cotton, or the Castor plant (*Ricinus communis*). I had, last evening, 3 Jiggars (*Pulex penetrans*) extracted from one foot. These little *rascals* are the curse of Florida; and are *plenty enough* in this city. I am glad to hear that MUHLENBERG'S work on the *Grasses* is likely to be published at last. I have been daily expecting a letter from Dr. F. A. MUHLENBERG, on that subject; but he is not so faithful a correspondent as his late venerable father.

Do pray inform me, in a *confidential way*, of what the determination of our Government may be, respecting

the Floridas. There is not a decent man in the province of E. Florida, who does not wish that it belonged to the U. States;—as the Spanish Government can afford no protection from the ravages, either of Indians or another description of people, called *Patriots*. Let me hear from you immediately.

W. B.

To WM. DARLINGTON, Esq.
Representative in Congress, Washington city.

Savannah, February 8, 1817.

MY DEAR FRIEND: Your letters of the 23d and 30th of January are both before me. It gives me great pleasure to find that in the midst of your political and professional concerns, you are willing to devote your leisure hours to the study of plants. I shall cordially co-operate with you to the best of my abilities,—and be very happy to exchange specimens, should I live to return north. I, too, have a rising family, claiming my best exertions in their behalf; and it has only been—and will, no doubt, continue to be only at intervals—that I can amuse myself with my favorite pursuit. You must not, therefore, calculate upon my having made great proficiency in my botanical studies. The Grasses have latterly interested me much; and it will be truly delightful to attend to them, the ensuing season, with your aid. You have not informed me whether you have an *Herbarium*. I hope you will, at all events, collect largely the ensuing spring,—not only of Grasses, but of all the phanerogamous plants; preserving of each species half a dozen or more specimens. This will enable you to divide with your botanical friends; and I shall be very anxious to add to my southern collection, as many northern plants as possible. Do you attend to

Cryptogamia! I would thank you, should you find it convenient, to collect any coriaceous *Fungi* that may come in your way. I am not yet prepared, for want of books, to do much in this department of botany; but have enjoyed, for some time, the interesting correspondence of the Rev. Mr. SCHWEINITZ, of Salem, N. Carolina,—who has been attending almost exclusively to the above mentioned *order*; and has promised to procure for me a work which he has himself published in Germany. He has been adding to the catalogue by *hundreds*; and I shall be glad to continue my correspondence with him, after I return to Delaware. I was in hopes that you could have given me some definite information relative to the Floridian provinces. I did imagine, from the disposition which our Government has recently manifested, in observing a strict neutrality between the Spanish Government and her revolted colonies, that negociations might be progressing, which would speedily result in the peaceable cession of East and West Florida to the U. States. I do think it passing strange, that the Spanish Government—greatly indebted, as she is, to our Government—should not be willing—nay, anxious—in this way to discharge her debt;—especially when we reflect on the notorious fact, that these provinces cost *her*, annually, several hundred thousand dollars,—and that at a time when she requires all her resources, in men and money, to defend her Mexican and South American provinces. Is not the hand of England in this thing! Almost the only settlements now found in E. Florida,—independent of the 3 Garrisons, Fernandina, Cowford, and St. Augustine,—are on the South and East side of the St. John's; and those extend only as high up that river as Picolata.—The best part of the province is higher up, on the west side of the river,—and now inhabited only by wandering Seminoles, along with a far more dangerous des-

cription of people, who live by predatory excursions, which they occasionally make across the St. John's,—stealing negroes, cattle, hogs, &c.

The Spanish Government is entirely unable to protect the peaceable inhabitants,—who have been almost totally ruined by the late most unfortunate revolution. But enough of politics. It has not been of late my most favorite study,—although in a government like ours, it ought more or less to interest us all. My motive for speaking as I have done, in relation to E. Florida, you may consider *interested*, when I inform you that I have really been thinking about endeavoring to secure a little winter retreat on the St. John's, in case of necessity. But in the present uncertain state of affairs, it is out of the question. For one thousand dollars I could now purchase a tract of land that would be worth ten, under the U. States Government. You are now fairly in possession of the whole secret; and if you can persuade the government to take possession of the aforesaid province, in some way or other, so as to *accommodate me*, I shall be forever exceedingly obliged to you!!

Enclosed you will find,—No. 1, a few seeds and *legume* of *Cassia strigosa*, n. sp.—2, *Liatris*, n. sp.—3, found south of St. John's. I have not yet been able to assign it its place among the known genera—it may be new.—4, *Sida*, new to me, but not yet fairly examined; found south of St. John's in fruit and flower, December 12, 1816. It is a beautiful *frutescent* species, worth cultivating as an ornamental plant. These are the first that have come to hand. The Cotton and Indigo seeds shall be enclosed in my next,—as I am unable to procure them this evening. Other matters, for which I have here left no room, shall be attended to in my next. Please to deposit the above seeds in earth as nearly resembling that found in the Jersey *Pine Barrens*, as you can find; and be careful not to moisten too much until the cold weather be past.—I am &c.

P. S. Excuse this hastily written letter. I should have written more, and more carefully,—but have just received from ELLIOTT a request to furnish him, in *great haste*, with some Botanical information for his 3rd number; to do which, in time, I shall be obliged to break in upon the Sabbath.

Savannah, February, 1817.

MY DEAR FRIEND: I have been waiting in vain to receive the first two numbers of Mr. ELLIOTT's work, before I wrote to you again.* It has not arrived here, although noticed in Charleston several weeks ago.—When it will be completed, I can only conjecture,—certainly in not less time than 16 or 17 months, according to his own calculations: but at the rate he has been going on, much longer time will be required. Although I do flatter myself that this work will do honor to the Southern States—and tend to the promotion of our *Botanical independence*,—Mr. E. found (as he very candidly acknowledged to me in a letter,) after he began, that he was not so well prepared as he imagined, for so responsible an undertaking. Botany had been long his favorite *amusement*; but when he began to publish, he found it was necessary to *labor*.

Your comments on the work of PURSH are very just. I understand he has paid too little respect to ancient authorities. While *innovations* that are real *improvements* ought always to be made,—long established names should be changed as seldom as possible. For exam-

*The *first* number appeared in October last,—but has been *recalled*, and *reprinted*. The *comments*, therefore, which I hinted at in my letter from St. Mary's, may not be applicable: at all events, I must see it, before I say any thing about it.

ple, we have *Marshallia*, Schreber,—which is *Athanasia*, Walter,—*Persoonia*, Michx. and *Trattenickia*, Persoon. Surely the *name* imposed by SCHREBER—as being much the oldest—ought to be retained. I hope the time is not far distant, when we shall possess something like a *standard work* of our own,*—in which we ought fairly to assert our botanical independence, and rescue from oblivion the *names* and *labors* of our native Botanists,—who have been treated with injustice by foreigners. It is greatly to be regretted that Dr. MUHLENBERG did not long ago publish his works. Had his love of *fame* been equal to his love of the *Science*, European Botanists would have been obliged to have quoted him, instead of changing his names. A mere *Catalogue* was not sufficient to prevent him from being plundered of his well-earned fame.

I have put you up some more seeds;—most of them, I think, with a little nursing, may be made to grow, and at least flower. No. 5, is *Eryngium aromaticum*, from the pine barrens of E. Florida. The root is strongly aromatic. Discovered in 1812. Not known in Georgia. No. 6. *Trichoma tinctorium*,† Elliott (*Dilatris*, Persoon). This plant is almost an aquatic,—but will answer near water. No. 7. *Ludwigia capitata*. We have many *Ludwigias* here. I have all that are found in MUHLENBERG's catalogue, and a few more. I do not know how Mr. ELLIOTT may have managed them. I sent him specimens of all I had, without any *very specific* information along with them. He had confounded the *capitata* with the *mollis*, and the *alternifolia* with the *virgata*. I should be glad to see them all cultivated in the North. It is by attending closely to plants *in families*, that we are ena-

[*There is now a prospect of the Doctor's *hope* being fully realized—in the *North American Flora* of TORREY & GRAY. Feb. 1841.]

[†Published, by ELLIOTT, under the name of *Lachnanthes*.]

bled correctly to discriminate the species and varieties. Seeds of all I can muster shall be sent or brought on.—

No. 8. *Petalostemum candidum*, or *carneum*. I have seeds of both; but not marked distinctly—and not to be distinguished. No. 9. *Asclepias*—This is a noble genus, and requires a revision. I have several new, or doubtful species, that have been neglected. No. 10. *Sesbania platycarpa*. Dr. MUHLENBERG has placed the *habitat* of this plant in Carolina and Mississippi. I have only found it native in E. Florida,—and cultivated in Georgia and S. Carolina. It is called “*Senna*,”—but I believe is nearly *inert*, as a cathartic. No. 11. *Agrostis Indica*, Swartz. “Black seed,” or “black grass.” It is subject to a disease which frequently turns the seed and spike black. A very hardy perennial grass, affording good winter pasture in this country. No. 12. *Cyperus*, v. *Mariscus*—perhaps a new species. Seeds procured south of the St. John's. No. 13. *Xyris flexuosa*. This family is respectable here, and requires a revision. All found in wet or moist situations. I put up seeds of this without recollecting that I had seen it in Delaware. It may be well, however, to compare them. No. 14, *Prunus Caroliniana*. A beautiful tree. Found not only on the Sea-coast, but far to the west. Said to be very *poisonous*. Smells strongly of the *Prussic acid*—which is now said to be the active principle in this natural family of plants. No. 15. *Adelia porulosa*, Mx ? No. 16. *Schoenus macrocarpus*, n. sp. Fort George, E. Florida.—

No. 17. *Lycium Carolinianum*—a marine shrub, and may be difficult to cultivate. No. 18. *Uniola paniculata*. No. 19. *Ilex Dahoon*. No. 20. *Gaura angustifolia*.—

No. 21. *Magnolia grandiflora*. I have not taken time to make a selection, but have put up whatever came most conveniently to hand. I have just obtained for you, from a neighboring plantation, some “Sea Island” Cotton seed. You are not perhaps aware that this and

the "upland" change into each other, according as they are transplanted further from, or nearer to, the Sea. Mr. J. LE CONTE, however, has informed me that there *are* two distinct species in cultivation. I have paid no attention whatever to these plants. "Indigo" not being now cultivated, the seed is difficult to obtain. I may however procure some, further south,—where it has become in some measure naturalized—growing spontaneously about houses.

As I cannot have the pleasure of your company in my excursion into E. Florida, I shall set out for that province in a few days; and must request that you will direct your next letter to St. Mary's.

I remain with sincere respect, &c.

Savannah, February 19, 1817.

MY DEAR SIR: Yours of the 10th, reached me last evening. Nothing can give me more pleasure than the *kind of liberties* you are taking, in requesting to be furnished with seeds from the Southern States. Such is the interest I take in the cultivation of southern plants in the north, that I am extremely obliged to you,—as you will, I hope, be sensible, when you receive the seeds already put up for you. Before I received your first letter, I was at a loss to know to whom I could with propriety entrust my collections; and could think of none except the PEIRCES, in East Marlborough.* In

[*JOSHUA and SAMUEL PEIRCE; two brothers, who, about the year 1800, commenced the cultivation of rare and interesting plants—particularly ornamental trees and shrubs,—on their farm, in Chester county, Penn'a. The industry, skill, and taste of these gentlemen, have rendered the premises, thus embellished, one of the most delightful Botanico-agricultural seats within that ancient county.]

my collection, are seeds of many new plants, which require to be cultivated before I can finish my descriptions of them. To whom, then, could I apply with so much probability of attaining my object, as to you!*

I have heard of Mr. WHITLOW through the medium of LE CONTE and NUTTALL;—not as a very great scientific character,—but as pretty much of an imp**r.—But let every man be fairly judged by his works. His *nettle* may be of huge importance, for any thing that I know; and his *exhibitions*,† at Washington, may be really useful. In London, I am told, he has latterly become somewhat noted,—from having retailed, at a good price, many *very important* seeds, which did not, after vegetating, exactly correspond with his luminous descriptions of them! Poor PURSH, I hope, will remember him with gratitude, and make a liberal distribution of all the *reputation* to which he may in justice be entitled.—The works of KEITH, and DESFONTAINES, I have not seen; nor the others, in such a way as to be much benefitted by them. I have written for PURSH,—but shall be glad to receive also any *corrected edition* that may be published from an American press.

The first two numbers of Mr. ELLIOTT'S "Sketch" reached me the day before yesterday. I have looked hastily through them. In page 37 of No. 1. he has most *ludicrously* blended *varieties* of the *Erianthus strictus* with the account of *Collinsonia verticillata*! As the *joke*

[*A number of the seeds, here spoken of, grew so as to afford tolerable specimens for the Herbarium; but the greater portion—either from a want of congenial soil and climate, or, more probably, a want of skill and proper attention—failed.]

[†Mr. W. was, at that time, giving a course of Lectures on the rudiments of Botany, at the seat of the General Government,—illustrating the structure of flowers, and the principles of the Linnaean Classification, by means of large transparent paintings.]

falls most heavily upon *me*, I must lose no time in explaining; for, (whatever may be the case with WHITLOW,) *my* botanical *reputation* is so scarce that I have none to spare. Take out, then, (when you see the work,) from *Collinsonia verticillata*—"var. *b. purpurascens*, with flowers (or calyx rather) of a purplish color, and panicle short: grows near Crooked River bridge, Cambden county, Georgia"—and place it under the description of *Erianthus strictus*, p. 40. and it will be as I originally intended.

With the *Panicums*, in No. 2. I am not altogether well satisfied. At present I will only hint at one objection, or two. *Panicum viscidum* (p. 123.) is, in the first place, incorrectly named. This species is remarkable for secreting a resinous substance insoluble in water.—It ought, therefore, to have been called *resinosum*. I did think, (and my truly scientific friends, the LE CONTEs, thought with me,) that this was an *unequivocally* new species: but Mr. E. has taken it into his head that it is the *scoparium*, of Michaux (*Flor. Bor. Amer.* 1. p. 49.); while he has given us, at p. 119. a *scoparium*, La Marck, which is to me, the *scoparium* of Michaux, exactly. Mr. E. however, in his description of it, has unfortunately omitted, what, to me, constitutes its strongest specific character—the *setae* on the peduncles. No other *Panicum* that I have seen, is furnished with this character,—which, in a family so extensive, is of the utmost importance. Had *P. viscidum* been the *scoparium* of Mx. is it not likely that so sagacious a Botanist would have noticed particularly its *resinous* qualities? which are so remarkable, that it would have been impossible for him to have touched it without soiling his fingers almost as much as though he had thrust them into a tar-bucket! At the same time, he speaks of *setaceous peduncles*,—while in *this* plant, the peduncles are all nearly as smooth as the chrystal of my watch!

Again, at page 126, we have *Panicum ensifolium*. There never has been, and I suspect there never will be, a *Panicum* with *sword-shaped leaves*, in the true *Linnaean*, or botanical sense of the term. But Mr. E. will not bear the blame for this blunder. It rests upon the shoulders of *another* character, as you will see. I feel much interested, and somewhat mortified, about these *Panicums*. At the time when I ought to have attended to them, last season, I was on a sick bed—or, at least, I was sick on a bed,—that is, I mean, on a *Litter*, with a blanket under me, according to the custom of this hot country. Were I only in possession of a sufficient stock of sense and health, and all the other ingredients necessary to enable me to accomplish elegantly whatever I desired, I would immediately publish a *Monograph* of the American *Panicums*.

As I had made up my mind to bestow a copy of the above “sketch” upon somebody—and as you have declined accepting it, in so accommodating a manner,—I have disposed of it to Dr. JONAS CUTTER, a worthy young Physician and man of Science, who accompanied me in my late excursion.

You inquire whether I wrote a *Critique* upon HENRY'S *American Herbal*, &c. I *did* scribble something; but not exactly that jumbled up, heterogeneous communication, which you allude to, as having seen in the *Analectic Magazine*.* I did think that the *Herbal*, itself, was really a few degrees below the point of *criticism*,—and that the weight of its intrinsic worthlessness would soon sink it into merited oblivion. My object, therefore, was to *gently touch* Dr. MITCHILL, *and Co.* for sanctioning such trash with their names,—and thus giving currency to productions which disgrace the literary character of our country:—When lo! and behold! the *im-*

[See *Analectic Magazine* for March, 1816—Published at Philadelphia.]

partial and independent editors of that Magazine lopt off all that part of the communication, and otherwise altered it,—I suppose for fear of vexing Drs. HENRY and MITCHILL. Then, to excuse this (I should think) unwarrantable liberty, they came out with an *ex post facto* law,—declaring that they had a right to abridge, alter and amend all communications, unless forbidden by the authors. Certainly, had I known of the existence of such a law, I should at once have withdrawn the communication,—rather than suffer it to have been mutilated, and the object for which it was written entirely defeated. To crown all, they must publish my private letter,—or as much of it as suited their purpose,—with the *initials* of my name! What added still more to my vexation in this affair, I had neglected to keep a copy; and endeavored in vain, through the medium of a friend, to obtain the one transmitted. There was certainly no scurrility in the observations I made, respecting those scientific gentlemen who preposterously encouraged the publication of the disreputable work of HENRY.—On the contrary, my respect for their literary characters constituted the strongest motive for cautioning them against such acts of imprudence,—which was done in as delicate a manner as the nature of the subject would admit,—without my feeling any thing but real respect for them. I even went so far, in their behalf, as to endeavor to excuse them on the ground of inadvertency. I was willing to believe that they had really *looked over* HENRY'S book, without *once looking into it*,—or they might surely have been acquainted with its foolish contents. After all, and at all events, I do not begrudge these learned gentry (for whose reputation the *sapient* editors of the An. Magazine were so much concerned,) the *honor* of having their names recorded in the *Herbal* of S. HENRY, *Botanist!* Don't be uneasy:—I may chance to write as *freely* and *frequently*,

and nonsensically, as you could wish. However, it is my intention to write as much sober sense as possible, and to confine myself pretty much to botanical matters,—rejoicing most sincerely that I have a correspondent so well qualified to aid me in all my plans. It is now half past 11 o'clock, P. M. To-morrow, I will endeavor to muster up some more *seeds* for you.

In the mean time I am most affectionately yours.

P. S. *February 20.* No. 22. *Euphorbia Cyathophora*, Muhl. Catal. *picta*, Bartram. No. 23. *Glycine*—not certain which—may be *monoica*. No. 24. *Hibiscus speciosus*--inhabits swamps; but readily accommodates itself to a dry soil, here. No. 25. *Anonymos*, mihi—habit of *Cuscuta*. No. 26. *Convolvulus*—not certain which,—but very pretty. No. 27. *Eryngium Yuccoefolium*,—called "Button Snake-root." No. 28. *Glycine*—or something. No. 29. *Oenanthe teretifolia*, Muhl.—No. 30. *Cleome cuneifolia*,—from the Sand Hills near Fort Barrington, on the Alatomaha. No. 31. *Xyris cylindrica*—if not a variety of *fimbriata*. Take most special care of this,—as the establishing of a species, or variety, depends upon it: *Capitulis cylindraceis, floribus albis*. Plant it in a wet situation,—or, at least, very moist. Try a few seeds in a pot, keeping the earth moist. I hope you will not find fault with me for sending you so many "Botanical plants." Mr. N. showed me a letter he had received from an English Gardener, requesting to be furnished with *Lilies, Roses*, and I do not recollect what, from this country,—but not a *single Botanical plant*; as he had *enough of them*, already! No. 32. *Xyris fimbriata*. W. B.

Prospect Hill, Fort George Island,

East Florida, March 30, 1817.

DEAR SIR: Seated alone on the summit of the highest

land on the Island, which is elevated about 50 feet above the surrounding country, and commanding an extensive and varied prospect of the Ocean, the mouth of St. John's, and the different hammocks and cultivated fields,—it just popt into my head, that while taking this little *resting spell*, I might as well occupy it in giving you a short sketch of the vegetable productions by which I am surrounded.—There is then, within the circumference of about 20 yards—and all to be recognized, from my seat,—the following productions, viz:—*Magnolia grandiflora*, *Quercus virens*, *Laurus Borbonia*. *Olea Americana*, *Ilex opaca*, *I. caduca*, vel *prinoides*, *Vaccinium arboreum*, *V. stamineum*, *Andromeda ferruginea*, *Chamaerops serrulata*, *Smilax pubera*, Mx. *Tillandsia usneoides*, *Galactia pinnata*, of Elliott, (as there is a foreign *pinnata*, this name must be changed,) *vulgò* “Devil's shoe strings,”—*Pteris caudata*, *Schoenus macrocarpus*? But among all these, not one flower is to be seen; and the only specimen in flower, that I have in my *Port Folio*, after a ramble of 2 or 3 hours, is *Hopea tinctoria*,—(*Symplocos*, Willd.)—but, if there is any precision in Generic characters, it is truly *Hopea*, and not *Symplocos*. But, think not there are no flowers to be found on the Island. Although the season is at least a month behind, there are *Cnicus horridulus*—a few specimens of which would fill a cart,—*Scorzonera pinnatifida*, *Krigia Virginica*, *Houstonia rotundifolia*, *Bignonia capreolata*, *Gelsemium sempervirens*, *Aira obtusata*, *Allium inodorum*, *Fumaria* (now *Corydalis*) *aurea*, *Vicia Caroliniana*, *Spartina juncea*, *Silene Antirrhina*, *Carex*—not determined by me,—*Cardamine Pennsylvanica*, *Tradescantia Virginica*, *Prunus Caroliniana*, *P. Virginiana*, *Erysimum pinnatum*, *Rumex hastatulus*—if distinct (which I think it is) from *acetosella*; *Geranium Carolinianum*, *Viola cucullata*, *Antirrhinum Canadense* (it might as well be called *Floridanum*,)—*Panicum latifolium*,

Sesuvium Portulacastrum: and the following, which may be new; *Galium*, with very large hispid fruit; *Selinum*? *Ruppia*, (*maritima*!) *Urtica bicolor*, mihi; I have also *Parietaria*, from the Main; *australis*;* or something, I shall call it; and, I cannot just now think of any more.

One beautiful little *Lacerta bullaris* has made its appearance since I began to write. Like the Chamelion, this innocent little creature has the faculty of changing color. Could I only see a huge "magnanimous" (BARTRAM) rattlesnake, it would help out my story very much. During 5 years that I have been in this southern country, I have seen but one living rattlesnake! But, had not BARTRAM been here before me, I would astonish you with my account of the *Alligators*. I should like to wind up this *interesting* botanical letter with some notice of *Insects*—could I call them by names less vulgar than sand-flies, horse-flies, &c. which have been buzzing about me since I began to write.

I must now rise and "advance backwards" to Talbot Island,—where I design to take up some roots of *Ceratiola ericoides*, &c. to be forwarded to Charleston.

Acorns of the Live Oak, I have not obtained; but it is my intention to carry on with me to Delaware a box of young plants,—to a large portion of which you will be welcome. This ornament of the sea coast is now flowering. The winter has been so severe, that many of them have shed their leaves,—or at least lost them by some means or other. There was a white frost on the 21st inst. so severe as to nip the young cotton on Nassau river, on the Main, a few miles north of this Island. It is now cold, cloudy, unpleasant, dry weather,—very discouraging to the planters.—A new

[*This was probably the *P. Floridana*, Nutt. First sent from Florida by Dr. BALDWIN to Mr. ELLIOTT, under the name of *P. lucida*. See ELLIOTT'S Sketch, Vol. 2. p. 576.]

Governor is daily expected in this Province, from old Spain.

P. S. I cannot boast of the enjoyment of good health. While in the act of travelling, I have generally experienced an exemption from disease. After visiting Musquitoe, it is my intention to return North: but it may be only to be buried among my kindred and my friends,—which will be some satisfaction.—I have also friends in Georgia, and in Florida, who will ever be entitled to my best wishes. The Floridians have lost none of their ancient hospitality.

Fort George, April 19, 1817.

MY DEAR DARLINGTON: Your letter dated March 10th, was received the day before yesterday. What a treat—to receive such communications here on this solitary Island. For several weeks I had not received a line from the United States. But what an *awful* job of work you have been cutting out for me. I must confess that it reaches a little beyond the scope of my ambition,—and very far, I fear, beyond my skill to execute,—notwithstanding the *stimulating* quality of your *suggestions*. The day, I hope, is not far distant, when we shall talk these matters over; and I do assure you, that your hints shall not be lost sight of by me. Whether they will produce the effect you so much desire, is another affair.

I will now briefly answer some of your queries.—There are no *mountains* in E. Florida.* How far the

*On the 30th ult. I wrote you from the top of one of the highest hills in the Province! a sand hill, about 50 feet above the surrounding level. On the south side of St. John's, about 9 miles from the Bar, is a chain of sand hills (covered principally with *Ceratirole ericoides*) the highest of which may be 70 feet.

western waters connected with the bay of Mexico, might be made to communicate with those of the Atlantic, I cannot from actual observation determine,—not having been in West Florida; but I have no doubt, from the credible information I have had, that those waters could be usefully connected by canal. You must not now look for details. With the waters of this Province I am rather better acquainted. A canal of only 8 miles would open a water communication between St. John's (near its mouth) and St. Augustine. About 40 miles from the Bar, another canal of only 4 miles would open a communication with the above mentioned capital. Scarcely any labor would be required to connect the head waters of St. John's with Indian river, &c. In short, no country can be better situated for the convenience of inland navigation; but unfortunately, there is not a single good *inlet* from the ocean. St. Mary's is the best. All the *Bars* on this coast are subject to great changes. At present, there is but 7 feet water on St. John's bar, at low water; and little more than 14 at spring tides. Those of Musquitoe and Indian river are still worse. After getting inside of St. John's bar, you may carry (to use the sailor phrase) at least twice the depth of water you bring over the bar, for 150 miles. How much, then, is such an *entrance* into so noble a water to be regretted: but I see no remedy. The *inlet* to St. Augustine will only admit of small sloops, &c. I have had a *grand scheme* in my noddle, to remedy this sad defect—although too *visionary* to be made public. *Picolata* lies westerly from St. Augustine, and distant only about 18 miles—gradually (as it seems to me) descending towards the latter place. To open a canal would therefore be easy: and might not the conveyance of so vast a body of water (as could be thus conveyed) have the effect of opening a channel from the ocean, deep enough to admit large vessels?

Indians—These are now far from being numerous; and would be no object of dread, under a well regulated government in this Province. The “wandering Seminoles,” since the late war, have been principally driven west of the *Suwanna* river (little St. John’s, BARTRAM); and would be perfectly harmless, could they be happily placed in a situation so as not to be *murdered*, and insulted by their unprincipled and *worse* than savage neighbors. Notwithstanding the government of the U. States do appear disposed to award something like justice to these truly unfortunate Proprietors of the Forest; the genuine philanthropist, who views the whole human race as one vast family, still sees much to deplore. The Africans, unjustly held in bondage, as they are, protected by their owners, experience few of those distresses and privations which the Aborigines are subjected to. Detested in the estimation of the tawny savages must the white men naturally be, when, notwithstanding all that the United States have done, continual depredations are still committed upon them,—in the stealing of their cattle, horses, hogs, &c. Every attempt to do themselves justice necessarily results in their own destruction; and the cry of vengeance rings from one end of the U. States to the other. The late ever-to-be-lamented Col. BENJAMIN HAWKINS so far succeeded in doing justice to the *Lower Creeks*,* as to draw down the *curses* of the State of Georgia upon his head: but the *blessed* effect of his enlightened and humane policy, as agent of Indian affairs, was so far to interest the Savages in the cultivation of the soil, and in a respect for the U. States, as induced them to resist the temptations of the enemy, and to take an active friendly part on the American side, during the war. I cannot mention, or think of the name of HAWKINS, without sensations

*The *Upper Creeks* alone were hostile, in the late war. These were situated too far beyond the influence of Col. H.

of the deepest regret. Blest with all that wealth, learning, and the most refined civilization could bestow, in the meridian of life, he left the land of his kindred and his friends, to wipe the tears of misery and wretchedness from savage eyes, in the western wilds. He caused the cheerless solitary wilderness "to rejoice, and blossom as the rose." When such a veteran in the cause of humanity slept with his fathers, we lost another BENEZET. The tears of the once wild and ferocious *Muscogees* have watered his grave. How sincerely could I join them in lamentations for his loss: for I fear it will be long, very long, before we shall look upon his like again.

No one act of our excellent Government has ever surprised me more than the appointment of T. B. M., Esq., late Governor of the State of Georgia, as successor to Col. HAWKINS. Whatever might be the qualifications of this gentleman, it was making him *a judge in his own cause*.* The most important duty of the Agent, is to see that justice is done between the Indians and the Government and citizens of Georgia. Upon what principle in law, then, has such an appointment been made? Were it known that Mr. M. had the same just regard for Indian rights that his predecessor had, his appointment might have been judicious, however illegal: but, *I know him well*,—and cannot entertain a doubt but that in all his decisions he will lean to the side of Georgia,—the State in which he is *popular*, and where the *popular cry* is—*exterminate the savages!* The Government may be, and often have been, imposed upon, at such a distance from the theatre of their deliberations. It will be no dif-

[*I have no enmity towards this gentleman. I am personally acquainted with him, and have an esteem for him:—but, recollect the *depth of prejudice*. Many people in Georgia, who might be considered *pious*, nevertheless think that the Indians ought to be *exterminated!*]

ficult matter, under such a state of things, to produce disturbances among the Indians which will lead to their destruction,—and the Government sanction the horrid deed, from the want of real knowledge of the *infamous causes* which would alone produce such an event.

As a member of the great Legislature of a nation, less corrupt than any in the world, I beg you will reflect upon these *serious things*. It may be in your power to aid greatly the cause of humanity.—But I am straying far from your *Queries*,—and have almost filled a sheet of paper at the very beginning of my letter.—*Live Oak*, fit for ship building, considerable. It is abundant in the Province; but that *only* which is in the immediate vicinity of salt water, is considered *prime* for ship building. That kind of land which is here called *Hammock*, is generally covered with *Live Oak*. It is a little elevated, calcareous, still abounding all along the coast with undecomposed oyster shells, &c. But by far the greatest quantity of land along the sea board is low Pine barren, covered with *Pinus palustris* (long-leaved Pine), principally. *Undergrowth*, *Chamaerops serrulata*, or Saw Palmetto,—with some fine shrubs,—as *Andromedas*, *Bejaria*, &c. This is the most sterile of all descriptions of land. What we call *Savannas*, in this country, correspond pretty well with the *Prairies* of the West; but are seldom so extensive. The soil in them is clayey,—while the Pine barren is *sandy*. There is, as yet, but little *naked sandy desert*; but should the weather continue, a few years longer, as dry as it has been for the last two years,—and fires should rage as extensively, destroying the vegetation,—a large portion of the maritime part of Georgia would be rendered like *the deserts of Arabia!* Were I a member of the Georgia Legislature, my most strenuous exertions would be made to prevent, by law, the burning of the Forests,—which impoverishes the land, and does incalculable

mischief, without one single advantage resulting from it. Yet many of the stupid people do it, to destroy the rattlesnakes—make the grass grow—and I believe for the *fun* of looking at it. Adieu! You may hear from me again from St. Augustine,—should I halt there, and have an opportunity. My health is tolerable.

P. S. You speak of having received two letters from me, containing seeds. I cannot now distinctly recollect; but I think I sent you three letters with seeds. My last must have been dated somewhere about the 19th or 20th of February. May one have arrived in Washington after you left there, and be detained in the post office? I have now plenty of *Indigo* seed for you,—which I intended to have sent, before you left Washington, and I left Savannah;—along with a sample of *starch*, procured from the root of what appears to me to be a species of *Palm*, growing at Matanzas, 30 miles south of St. Augustine. I shall know more about it, shortly.

I have this day been examining one of the artificial curiosities of the country,—an *Indian Mound*. I find it filled with *human bones*, deposited in particular order, &c. I am in momentary expectation of my companions, and may leave this place to-morrow, or next day.

St. Augustine, May 3, 1817.

MY DEAR FRIEND: I made some reply to your letter of the 10th of March, before I left Fort George. As I am now advancing to the southward pretty rapidly, you will readily believe that I cannot take up a great deal of time in letter-writing. Therefore, as I am in a hurry, and do not feel in a disposition to study much, I will copy from a letter I have just written to THOMAS CHASE,*

*Son of the late JUDGE CHASE, of Maryland: a gentleman possessing the most amiable qualities, along with a classical education,

of Baltimore, a few loose observations on the salubrity of the climate of E. Florida,—and annex some additional information, should it occur to me, without being at the trouble of squeezing my brains.

—“ But above all, the salubrity of the climate in this Province must ever render it desirable. That in the course of its cultivation, to the westward, and particularly on the St. John’s, a sickly period must be expected: but I know of nothing that can occur to interrupt the health which is enjoyed all along the sea coast.

Through the sultry months of summer, you are duly regaled with the S. E. [qu? North? E.] trade wind; and most of the tropical fruits, with a little attention, could doubtless be cultivated here in the greatest abundance.* St. Augustine may be justly considered one of the most healthy cities in the world. Neither intermitting nor remitting fevers are known here; nor have I heard of a case of pulmonary consumption.”— (You will readily understand that I except from this general account, all *sporadic* cases of disease,—whether occurring among natives, or strangers. Neither, however, are liable to those destructive fevers which ravage

and an ambition to render himself useful in society. He has travelled in the Southern States for his health. I became acquainted with him in St. Mary’s, in 1812. Afterwards, when on a tour to the western country—and particularly among the Cherokee Mountains,—he gave me important topographical sketches of the country, as he passed along. His letters are written in a style of neatness, elegance, and classical purity, not often (I think) excelled. They are entitled to full credit; and I am happy, when travelling, to make him returns for his kindness.

[*This idea, of introducing tropical plants into Florida, was recently acted upon with great energy and public spirit, by the late Dr. PERRINE,—whose melancholy and untimely fate the country has so much reason to deplore.]

most of the sea ports of Georgia and S. Carolina. The causes of this mighty difference may be attended to hereafter.) "There are not those extremes of heat and cold, which are experienced, even in the States of S. Carolina and Georgia. The inhabitants (I mean old residents,) have entirely a different aspect from those of Georgia. If they are not exactly so ruddy or fair-skinned, as the northern people, they possess all that plumpness and solidity of flesh, which constitutes sound health, along with the pleasing evidences of it." I do not know where to find a better country for valetudinarians.—You will observe, from the above observations, that no part of the Province has yet become sickly; nor need it necessarily become so. Slight intermittents have occasionally prevailed on St. John's; and the town of Fernandina, on Amelia Island, has been visited with fevers of a higher grade,—from causes which readily admit of a solution, and which (I think,) could readily be removed.

Comparatively speaking, but little land has yet been cultivated on St. John's; and the customary manner of clearing, and exposing the swamps, &c. would inevitably produce disease and mortality: but by judicious management—(for example, cultivating *sugar*, instead of *rice*—) I have no doubt it would be possible to cultivate the land without rendering it sickly. Fortunately, this is not so *swampy* a country as Georgia,—and would more readily admit of dry culture.

I am now travelling in a mode that exactly accords with my objects of pursuit, *viz*: by water, and by land—on horseback, and on foot—in such a leisurely manner as to afford me an opportunity of looking a little about, as I pass along. We have three stout Africans, and one horse to convey our baggage, on which we alternately take a stride to rest ourselves. The sight of such a *Caravan* would no doubt amuse a *Chester county man*.—

In this delightful manner we have travelled from St. John's. We left Fort George before day on the morning of the 1st, and, including the distance by water, we travelled at least 25 miles. In the evening, we encamped at the cottage of an ancient *Minorcan*, on the borders of the *plains of San Iago*. Here we procured plenty of milk, and feasted sumptuously on a fat *Gopher*.* Our venerable old host, whose roof was thatched with the Palmettoes by which he is surrounded, has not less than 200 head of fine fat cattle,—with other stock in proportion; and quietly lives in peace and plenty. He is one of those, who, more than half a century ago, were enticed from their native land, by the famous Dr. TURNBULL,—and experienced nine years of slavery at New Smyrna, on Musquitoe river, (See BARTRAM, &c.) The plains of *San Iago*,—situated immediately on the sea coast, about 15 miles south of St. John's,—occupy at least a space of 9 square miles. The land is of an excellent quality, affording the finest range for cattle; and this is all the use that is now made of it. It would produce the finest sugar cane, cotton, or almost any thing which an industrious agriculturist might choose to plant. In my last letter, I intimated the probability of connecting the *Western waters* with those of the Atlantic. Upon further inquiry, I find this to be impracticable. Yesterday, with the rising sun, we again moved cheerfully on. After passing the plains, and crossing the head waters of North river, we travelled through Salt flats, Pine barrens, and occasionally a good hammock,—and reached this city early in the evening. It was the anniversary of the *Massacre of Madrid*. High Mass was in celebration, and the flags displayed in mourning. * * * [After giving a ludicrous account of an accident, by which his port folio of specimens was damaged, the Doctor proceeds.] * *

[* A species of *Testudo*, or Tortoise.]

Misfortunes never come singly. This morning, when about dressing to wait on his Excellency, DON JOSEPH COPPINGER, GOVERNOR, &c. &c. on examining my wardrobe, I found it completely immersed in the contents of a bottle that had been full of gin, which had unluckily foundered on the road, through the mismanagement of one of our Africans. I sent his Excellency an apology, and staid at home. We intended to have pursued our journey to-morrow,—but it seems that *Father* CROSBY has an objection to our setting out on such a holy day. I am therefore preparing to offer my devotions on Fish's Island,—where the famous quarry of testaceous stone is found, of which this city and its fort are constructed. The Surveyor General will honor me with his company.

In haste,

Tomoko, May 15, 1817.

MY DEAR FRIEND: I intended to have written to you from the *Ruins of New Smyrna*, but I could not find leisure. Meeting with two fishing smacks* from Charleston, in Hillsborough Lagoon, near Musquitoe Bar, an opportunity was afforded me of shipping a box of roots, &c. and of giving Mr. ELLIOTT a little sketch of my discoveries in this quarter. We have now made good our retreat 30 miles north of Smyrna, to good quarters for spending a *rainy day*,—which has arrested our progress, and given me an opportunity to devote a little time to you. The day after I wrote you from St. Augustine (May 3rd,) I visited Fish's Island. The leading object was to see the *quarries*. These are situated

*The number of fish, of the most superior kind and quality, found in these waters, is almost incredible. Four hands, with hooks, caught 700 "*Sheep's-head*" in one day. Some of these sold in the Charleston market for \$1 50 each,—average price, 75 cents.

on a ridge that runs parallel with the sea, the whole length of the Island, and at a distance of one to two miles from the beach. The Island is here about three miles wide; and the width of the testaceous ridge 300 to 400 yards, and of unknown depth. The quarries have not been sunk more than 12 or 15 feet,—as excellent fresh water obstructs all further progress downwards. But there is no necessity for running deep, to obtain an infinite abundance of this valuable material,—as it reaches in many places the surface of the ground.—Loose shells generally cover the surface; after which a thin plate of stone, and so on, alternately,—the intervening loose shells gradually diminishing, and the plates of stone increasing in thickness, until it becomes perfectly solid. It splits with the utmost facility, horizontally; and is easily dressed, with a hatchet, into the forms required. A little to the west, is a chain of Sand Hills,—which evidently proves that the shelly ridge had been the intervening beach, where the ocean, at some former distant period, rolled its waves along, depositing the shells,—which have thus been cemented together by a chemical process. I shall not stop to theorize,—nor will I inform you, at this time, what kind of *shells* afford this stone,—*as I do not know*;—being but a poor Conchologist. This can, however, be ascertained some time hence. I may add, that the little animal, which originally inhabits these famous shells, makes excellent soup. This Island is 20 miles in length, but contracts, near its southern extremity, to a few hundred yards; and here the shelly ridge passes across Matanza river to the Main. As you advance south, these stones become harder,—and of course of a more delicate texture,—but more difficult to manufacture. They probably continue all the way to the Cape,—certainly as far as Indian river.

The evening proving squally, we were unable to re-

cross Matanza river; and took up our abode for the night, in the ancient and venerable fabric erected by the *old* FISH, who was the original proprietor of the Island. He was a native of Flatbush, in the State of New York; and made improvements which have hardly been exceeded in any part of the Province. Here are the remains of perhaps the most celebrated *Orange Grove* in the world. Some trees still remain that are 30 feet in height,—and still retain a portion of their golden fruit. But all is now in ruins. Two generations have passed away.

We were very politely entertained by two handsome young ladies (mulattoes), the grandchildren of the above-mentioned FISH. Their father was killed by lightning a few years ago, and no one is left sufficiently qualified to keep the premises in good order. The quantity of good land, on this Island, is pretty considerable; and it is a delightful summer retreat. On the morning of the 6th, we decamped from St. Augustine, and embarking in a snug canoe boat, ascended Matanza river south, between FISH's Island and the Main. At a few miles distance, on the western shore, we passed an elevated spot which once contained the habitation of Governor MOULTRIE. A small cabin, and a few Date trees, are all that appear to mark the place where the hand of high cultivation and improvement once extended. At the southern extremity of FISH's Island, and near Matanza bar, stands a Spanish tower, where a corporal's guard is stationed to look at folks, as they pass by. Early in the evening we encamped on *Peñon* (Rock Island), situated on the north shore of Matanza Inlet. This is a small barren Island; containing, however, a remarkable *mound* of oyster shells, full of bones of the aborigines, along with the domestic implements with which they were interred,—as earthen vessels, hatchets, &c. In a little time we caught plenty of fish

for supper. Here we spread our blankets under the canopy of a *star spangled* sky; and after a little *persecution* from the musquitoes, reposed in peace. Our heads were defended by "Spanish bayonets" (*Yucca aloifolia*). The leaves of this elegant plant (which is now in flower,) are furnished, at the extremity, with most formidable spines,—and, spreading out horizontally, they inflict serious wounds, when carelessly stumbled upon. I have not been able to discover a *Y. gloriosa*, distinct from this plant. Next morning, crossing the Inlet at the southern point of *Peñon Island*, we ascended upper Matanza river,—which, running south 10 or 12 miles close to the sea shore, originates by several heads in the swamps, a little westerly. Tracing the eastern branch, we landed early in the afternoon at the plantation of a Mr. HERNANDEZ. Here, in a thin sandy hammock of small Live Oaks, Cabbage, and Saw Palmettoes, I had the gratification to find the "Wild Sago," or *Coontia*,* of the Seminoles,—and to assign it its place in the sexual system; *Dioecia, Polyandria*: natural order, *Palmae*. I have no books with me to refer to; but it is probably a new genus,—approaching very closely in habit to the real Sago family (*Cycas*). At supper, I had the pleasure to eat the bread prepared from the large tuberous root of this plant. In the late times of difficulty many negroes, and others, were prevented from perishing with hunger by having recourse to it; and the slaves on this plantation now save half their allowance, in consequence of using it. I have no hesitation in saying that it *will* be found among the most important of our *Esculentia*. I believe I have already given you a hint of this plant. At some future period, I will give you more particular information.—

*BOW-LEGS, the grandson of BARTRAM'S "Long Warrior," says, that "*Coontia*" signifies *Bread plant*. [This proved to be the *Zamia pumila*. See subsequent letter, of May 27.]

We spent a whole day reconnoitering, here; and in a ramble near the beach, I had the pleasing horrible prospect of a living rattlesnake, *six feet* in length. He had the *generosity*, when unperceived by us, to give the dread alarm; but a sudden leap, I apprehend, alone saved my companion from feeling the full force of his *magnanimity*. Never have I seen any thing so awfully, so horribly terrific, as this rattlesnake in anger. Even the gigantic alligator, with his *iron sides*, and formidable tusks ever grinning horribly, with *ghastly smiles*, bears in my estimation no comparison. The fangs of this reptile were double, and an inch and an half in length.—Nothing but the difficulty of procuring proper accommodations for conveying him to Georgia, prevented me from saving his life, and taking him on with me to introduce to you, when I returned north.

From this plantation we again took our land tacks on board, and reached this place (Tomoko river) on the evening of the third day,—50 miles southerly of St. Augustine. The land, I find, increases in fertility as we advance south,—the Hammocks more rich and extensive,—and even the Pine land of a better quality. From this place we again took to the water, cruising down Tomoko, in the midst of shoals of alligators, for 3 or 4 miles in a N. easterly direction until we entered Halifax river (a Lagoon, or arm of the sea,)—when we again bore up south, straight as a line could be drawn, 14 miles to the habitation of Mrs. CARR, a widow, on the western shore. Here was a noble spontaneous grove of Orange trees—principally the “bitter sweet” (Seville)—loaded with fruit in high perfection, and at the same time in flower. Here, also, I discovered a species of *Myrtus*, and a *white Blackberry*! Recollect, I am only telling you a *part* of the story. I have seen many other new plants, and fine things, too tedious to mention. The night was spent with the widow; and the

following evening we landed safely at the *Ruins of New Smyrna*,—about 16 miles further south, and the same distance from any settlement. A short distance south of Mrs. CARR'S, we floated over acres of the *Ruppia maritima*, attached to a soft bottom of mud,—and either floating, or withdrawing under water, as best comported with its pleasure. Like the *Vallisneria*, the *peduncles* supporting the flowers are spiral,—some of them 10 inches in length. The flowers are unequivocally hermaphrodite, and singularly constructed. I have amused myself for hours in attending to them: indeed it requires some time, and very close examination, to become acquainted with the fructification of this aquatic; nor have I seen it accurately described,—although I have no doubt it is the same plant mentioned by all European Botanists, as a native of Europe. A few miles further south, the river—heretofore wide, straight, and uninterrupted—begins to wind among numerous small Islands, covered with the ever verdant “*Mangrove*” (*Rhizophora Mangle*, L.). One of these small Islands has been selected (time immemorial,) and occupied by the large *Grey Pelican*. Thousands were here assembled, feeding their young. The nests, composed simply of “marsh grass” (*Spartina glabra*,) covered the Mangrove trees as thick as apples. We landed among them: and such a screaming as they made, could hardly be exceeded by the Indians. I was surprised to find among them, great numbers of the “*Forked tailed Hawk*.” These soon soared aloft, and disappeared. Here and there, also, was a hungry Buzzard, watching to catch the offal. Such a rendezvous of feathered gentry I have never seen,—unless it be the *Cormorants*, which roost by hundreds of thousands on a sandspit, running off from the north end of Talbot Island: But *there* were Cormorants alone,—and not Hawks, Crows, Buzzards, Cranes, Curlews, &c. But I have reached

the last page, without saying any thing about *New Smyrna*,—which was intended to be the subject of my letter. The fertility of the soil, the beauty of the situation, and the extent of former improvements, far exceeded my expectation. The houses were all neatly built with those fine materials peculiar to the country; but naked walls and chimneys alone remain to mark the spot where *New Smyrna* stood. So luxuriant has been the vegetation, that it was difficult getting along, without cutting our way. Where the Car of TURNBULL once drove in triumph, we find Cabbage trees (*Chamaerops Palmetto*) 15 feet in height.

With respect to obtaining land in this Province, in my present situation, some difficulties stand in the way. Were I not in the service of the United States, I believe I could obtain a grant of land from this Government, without *swearing allegiance* to his Catholic Majesty,—as I find I am *quite a favorite* with the Governor, and several high in office under him. Perhaps I may, somehow or other, contrive through the agency of friends here, to obtain a few hundred acres,—either on Musquitoe, or St. John's, or both.

Lake George is only 20 miles west of *Smyrna*, and Indian river 30 south. To the latter river, is a water communication nearly the whole way: Little more than one-eighth of a mile would require to be opened, to connect the waters of Musquitoe. I have already informed you that St. John's could be connected with Indian river. How I regret not being able to extend my researches in this quarter! It is time to begin to think of *frying other fish*. I shall be the bearer of this to St. Augustine—perhaps to St. Mary's;—intending now to make rapid marches. I am, &c.

P. S. My health has improved;—as has always been the case, when mind and body have both been actively employed.

St. Mary's, May 27, 1817.

MY DEAR SIR: I wrote to you twice from Fort George, once from St. Augustine, and lastly from Tomoko.—Should all these communications be received, with this enormous one immediately in the rear, they will altogether amount to something very much like a *bore*: but that is nothing to me,—as I have fulfilled my engagement of writing “freely and frequently.” For several years I had no correspondence with the friends of my youth, and my country. Some had *gone the way of all the earth*: to me they were all gone! When I left the University of Pennsylvania, I calculated that I had formed a league of friendship with a group of young men, which would be lasting as life. But how uncertain and unstable are all things in this little busy dirty world of ours! I have not heard from one of them since I have resided in Georgia. I suppose they think I have become a negro, or something worse. Now, although I have since formed a pretty extensive correspondence among *strangers*, in the south, &c. the opening of a correspondence with you, has been among the most pleasing little events I have experienced for a long time;—as the universal neglect of all my *old friends* had made me a little melancholy, and sometimes almost vexed me. This, I hope, will be some apology for my writing so carelessly and foolishly. On our return to St. Augustine, we had some reason to congratulate ourselves in not having fallen in with any of our red brethren, while at New Smyrna,—as they manifest a disposition rather hostile towards Americans, and have attempted a re-settlement a little further south, on Indian river. A number of them were frolicking in St. Augustine, and were not backward in disclosing their sentiments. These Florida Indians (*Seminoles*) are not in much repute with any nation: they are indolent and perverse,—and are looked upon with contempt

both by the Upper and Lower Creeks.* We returned from St. Augustine by a different route,—ascending North river 11 miles, and then by land traversed an extensive flat country immediately on the sea board,—and had an opportunity of seeing the whole extent of the *Iago Plains*. We reached St. Mary's in the midst of deluges of rain, on the evening of the 25th. It was with difficulty that I preserved my collections from destruction. I now find that my *Coontia*, or “Wild Sago,” is nothing more nor less than *Zamia pumila*.—See BARTRAM, p. 16.—Could I have extended my excursion a little more westerly, I should in all probability have found many of BARTRAM's doubtful plants. I am happy to say, that his authority is good in most instances, where I have had it in my power to travel over the same ground. He is most defective in his *Geography*; and you rarely find his plants in the situations pointed out in his Travels. One of the most extraordinary of his geographical blunders, is that of the mouth of the St. Mary's,—which he says enters the Atlantic between Amelia and Talbot Islands. How he could have made such a blunder is inconceivable: and it has been copied by MORSE, and other Geographers. The St. Mary's discharges itself between Cumberland and Amelia, 20 miles north of Talbot. The waters of Nassau river are discharged between the southern extremity of Amelia, and the northern extremity of Talbot Islands.

Sloop Hermit, May 28.

I sailed from St. Mary's this morning; and we are now moving slowly along through Cumberland Sound,

*BARTRAM has incorrectly confounded the Lower Creeks with the Seminoles. The *Lower Creeks* would feel themselves very much insulted by being ranked along with their eastern neighbors; who are, nevertheless, derived from them.

with every appearance of pleasant weather, and a prosperous voyage. Cumberland Island is about 18 miles in length, and from 1 to 2 miles wide,—extending north and south. It contains but little good land: mostly Pine barren, and thin Live Oak Hammock. The southern extremity of this Island was formerly granted by government to GENERAL GREENE. An elegant house, 4 stories high,* was erected afterwards by a Mr. PHINEAS MILLER, who married the widow,—and here a daughter of the famous Quaker General now resides. * * * But families, like nations, have their decline,—and sometimes they slip, and fall.—* *—For myself, I would tread lightly, and with solemnity, upon the grave of Mrs. MILLER. She was to me like a mother, when I first arrived—sick and a stranger, in a land of strangers. * * * * *

In the dusk of the evening we crossed St. Andrew's Sound, between Cumberland and Jekyl Islands; but were soon afterwards obliged to anchor, in consequence of a heavy thunder squall. *Jekyl Island* is 9 miles in length, and contains a pretty large body of valuable calcareous Hammock. It is the property of one man,—Mr. DEBIGNON, a Frenchman. I shall now go to bed, in a warm crowded cabin,—with plenty of *fleas* in company.

May 29. Passing Jekyl, we cross St. Simon's Sound, about one mile wide. On the southern extremity of St. Simon's a neat light house has been erected,—where, however, as the trade has centered, it is of little importance. Few vessels come in here. The village of Brunswick stands a few miles to the S. W. at the mouth of Turtle river. This is the best inlet on the

*Built of "*Tappy*" (oyster shells)—[Hispanice, *Tapia*, a mud wall,—or calcareous cement.]—and beautifully situated on a rising ground. A fine garden adorns the front. The prospect is extensive and delightful.

coast, except Savannah: but the arable land on Turtle river being far inferior to that of the Alatomaha—both in quantity and quality—the trade centres at Darien. A number of valuable rich settlements are found on St. Simon's.* We passed *Frederica* in the evening. This was once a place of much greater importance than it is at present. Some of the old works of OGLETHORPE are still visible. They were of "*Tappy*,"—and out of them the light house has been constructed.

Darien, May 30. This city is now improving pretty rapidly; but its situation is ineligible,—both on account of trade and of health. I paid a visit, this evening, to Mrs. SPALDING, widow of — SPALDING, Esq. the brother of THOS. SPALDING, the great Sugar Planter, on *Sapelo*. This venerable old lady requested me to present her best respects to W. BARTRAM,—whom she well remembers, when, in days of yore, he travelled in Florida.—She says that his account of the *Alligators* is not exaggerated.

Savannah, May 31.

Taking the stage, this morning, I am now here,—after a pleasant ride of more than 40 miles. Being very sleepy—my pen bad—ink and paper no better—and supposing that what I have already written will be a bore of sufficient length,—I conclude; and am most affectionately, yours.

P. S. The very first vessel in which I can stow myself and baggage, will convey me to Philadelphia,—should the voyage prove prosperous.

Philad. June 19, 1817. Schooner Eagle.

MY DEAR OLD FRIEND: Meeting with J. VALENTINE

*I. COOPER, Esq. who first planted the *Sugar Cane* in Georgia, resides here.

this morning, from your town, I embrace the opportunity to inform you that *I am here*, in 5 days from Savannah;—but a *prisoner* on board,—and in momentary expectation of being sent back to the Quarantine ground; having past last evening without being aware of the regulations. This will be a terrible *bore*, after so short a passage, with all my collections on board;—some of which—and particularly your box of Live Oaks—will suffer by the delay. This day week, I ate a hearty breakfast in Savannah; and yesterday morning at sunrise, I was 25 miles south of Cape Henlopen,—and in sight of this city last evening at 7 o'clock. We lay to, notwithstanding, one day, off Cape Hatteras,—with head winds and squalls.

Pray come to Wilmington after your box of Live Oaks, &c. immediately after you receive this;—in which time, quarantine or no, I shall be there,—as there is not a soul on board that has even a head-ache. I am in no humor for writing. To have escaped the Indians in Florida, to run foul of a silly quarantine, so near home, is too bad. In haste, &c.

P. S. 10 o'clock, A. M. Fortunately we have got clear; and I hope to be in Wilmington to-morrow evening. I have other articles for you, beside Live Oaks: So be sure and take a ride to see me as soon as possible,—in order that no time may be lost in talking over Florida, and other important matters.

Wilmington, Del. July 3, 1817.

MY DEAR DARLINGTON: I regretted much not seeing you, after you had been at the trouble of coming down. My journey into the country was indispensable; and such is the situation of my affairs, that I see no prospect of visiting West Chester before the latter end of

August, or beginning of September. I have had no leisure to review any of my notes,—nor write to Mr. ELLIOTT, to whom a letter is due.

The Live Oaks, &c. which were brought on in the best state of preservation, begin to show symptoms of decline: perhaps in part for want of judgment in the management of them,—as well as some neglect, and a want of proper accommodations for them. I am pretty well versed in the art of packing plants for exportation; but have not had practice in horticulture, for want of leisure and the necessary conveniences.

Should it be in your power to pay me a visit, you may calculate upon finding me at home on any day between this and the middle of the ensuing week. I have scarcely looked at a plant since I came home. My Herbarium requires reviewing, and re-adjusting; and I wish most anxiously that you could spare the time to look over it along with me. I should not much relish the confinement and trouble that would be required, to make out any notices, or Sketches of East Florida, for publication. It ought to be done: But I have two powerful motives for declining it—viz: delicate health, and a want of ability to render it interesting to the public. I still enjoy pretty good health; but the weather is so cool, that I am afraid I shall suffer without more active exercise. It appears to me, that carrying the mail, (or some such employment,) two or three times a week, on foot, between this place and West Chester, would suit me better than writing "Sketches of E. Florida."—But I should be glad to consult you about it, should I ever be favored with the sight of you. I am, &c.

P. S. I am very anxious to see the venerable BARTRAM. Before I left the Province, I received through Mr. FRASER, an extract of a letter from him, in which he pointed out the *habitat* of several of his new plants,—some of which I do not recollect to have seen in his

Travels. He informed me, in 1812, that these Travels had not been published under his own inspection; but that he had by him all his original manuscripts, from which a more correct work might be compiled:—that it had always been his intention to publish a correct edition,—but had neglected it until old age prevented. Colonel HAWKINS had proposed to me to procure these manuscripts, and unite in the publication of a Topographical account of the Creek country, &c. The death of Col. H. and afterwards the destruction of most of his valuable papers by fire, through the infernal villainy of the Savages (not *Indians*,) put a stop to this business,—and I fear has left a blank in the history of the *Muscogees*, which will not soon be filled up correctly.

Wilmington, August 7, 1817.

DEAR SIR; Although I have progressed but a little way with my “*Floridian Letters*,” I cannot well avoid informing you that I have just received a long letter from Mr. LAMBERT, with all the Botanical news from t’other side of the water. He has forwarded a copy of PURSH, along with his own works on the Pines and Cinchonas,—and informs me that many more will come as soon as he receives the packet I sent him from Savannah. Thus, he is so far as prompt as a general; and should he continue so, with the aid I may expect to derive from SMITH and FRAZER, my Botanical Library may swell, in a few years, to the size of your own. But, notwithstanding all this good fortune, I feel most deucedly in the dumps. Some cursed little vexatious thing, or other, assails me almost every day, and keeps my mind in a continual state of distraction.* I almost wish to be

[* Dr B. was at this time a good deal annoyed with some difficulties in the settlement of an Estate, in which he was collaterally interested.]

driven from men to eat grass with the cows, until seven years shall have passed over me without beholding the face of man,—and my hairs become converted into turkey-buzzard's wings—and my nails into alligator's claws.

“As sunshine's succeeded by rain,” &c. &c.

I received a letter from ELLIOTT yesterday, in which he calls upon me for all the plants I may wish to have inserted in his work, “down to the end of *Decandria*.” Will it not be best for me to endeavor to raise the wind, and get ahead of him a little,—and then describe the remainder in my own work; from which, he may afterwards quote me, if he chooses?

I want all the advice, caution, counsel, and comfort, you are so well able to afford me; for I am almost sinking under the magnitude of the undertaking you have been putting me up to. Should it terminate in the ruin of my fame and fortune, I must contrive it so that you may be ruined along with me;—for misery always wants company.

I do not find among the letters you furnished me, that in which there is some mention made of Col. HAWKINS, nor the one written on my return to Georgia—which, however, may not contain any thing of importance. I also left on your desk, or lost by the way, some *notes* I made from PURSH: But this will be of little consequence, when I receive the work. My agent in Philadelphia, wrote me yesterday, that the packet of books was stopped at the Custom-house, for want of an Invoice; so that I have been obliged to send up LAMBERT's letter, to prevent it from being broken open. Such a delay is mortifying. I have no time to write more,—and ask pardon for having written at all, when I had nothing interesting *to you* to write about. I am &c.

P. S. I forgot to inform you, that I have in my possession MUHLENBERG's *Grasses*;—which I suppose you

have received before this time. I do more or less at my "letters" every day,—and may get on faster, when I get fairly under way. I am obliged to break off in the afternoons, on account of my breast: but if I had nothing to vex me I should get on much better.

Wilmington, August 20, 1817.

MY DEAR SIR: I found your letter of the 13th, with its enclosures, on my return from Philadelphia, the following evening; and I now return you my sincere thanks for the interest you take in my anticipated work. Nothing but want of health shall prevent me from pursuing this object; but I am afraid imperious circumstances will prevent its completion at so early a period as could be wished. I was obliged to pay a hasty visit to the city, for the purpose of receiving my annual stipend, and of squaring off with the Navy Department. I returned as speedily as possible, with my head *chock* full of *Floridian letters*, which I intended most rapidly to arrange,—when lo! a letter awaited me, written by order of the Hon. Naval Secretary, inquiring whether the state of my health would permit me to take a cruise, as surgeon, in the *Gulf of Mexico*, on board the ship *John Adams*,—and requesting an answer by the return of mail! This put me in a dilemma. No time was to be lost. Thinks I to myself, if I now refuse to go,—although I could frame a pretty good excuse,—I cannot in future ask favors with so much confidence;—and then, again, the cold winter is approaching, and this cruise may really tend to the promotion of my health, as well as afford me opportunities for extending my knowledge of southern plants,—while I could take so much of my library and notes along with me, as to enable me at least to go on in the framing of my "letters,"

on board. At all events, I immediately wrote that I would await the orders of the Secretary,—which I have this day received; and which of course allow me little time to delay. In about five days I expect to be under way to join my brother *Tars*, at New York. As it was your intention to pay me a visit shortly, I hope you will find it convenient to come immediately, and see my new books, &c. before I leave this place. I shall be very anxious to know whether you approve of the step I have taken: and I have many things to say to you, which I have neither room nor leisure to say, in this letter.

After getting through my business in the city, I paid the venerable WILLIAM BARTRAM a short visit on my return homewards. Though far advanced in the vale of years, I found him in the possession of good health; and all the faculties of his mind were as brilliant as in the morning of life. So pleased was he with the little details I gave him of East Florida,—and so interested was I in the information which he was capable of affording me, that we parted with great reluctance, and mutual wishes for a further and more intimate acquaintance. Such, he informed me, was his partiality for that delightful country, that he often fancied himself transported thither in his dreams by night. My being able to confirm several of his doubtful plants, was extremely gratifying to him; and he wished most anxiously that I would return and find others of them, before he descended to the grave. Aware of the suspicions which some entertain of his veracity, it was truly a feast to me to observe how his time-worn countenance brightened up at the vindication of his character, which I informed him I was prepared to offer. By this visit I am prepared to make his *Lantana Camara* a new species, without hesitation. I saw the true West Indian *Camara* in perfection; and I find it unequivocally distinct from the Florida plant,—which I shall describe, and

send to him, under the name of *Lantana Bartramii*. It is an elegant plant. How and when, from the arrangement I have now been making, shall I be able to compensate Mr. LAMBERT? He has sent me, beside the works mentioned in his letter, of which I informed you, HUMBOLDT'S Treatise, *De Distributione Geographica Plantarum*. I shall no more than have leisure, at present, to answer his letter: and I despise paying my debts with *promises*. I fear, alas, that I am disappointing your expectations, and drawing too much upon your time and generosity: But I must repeat my wish to see you, and know your sentiments, before I go. Your observations on the plan of my "Floridian Letters," meet my approbation exactly; but I am not quite certain that the few which I have already prepared will agree precisely with it. When you see them, you can judge:—and judge I hope you will, with the most perfect and unrestrained freedom.

There are many inaccuracies in the work of PURSH, —particularly in regard to southern plants: so there is, indeed, in the work even of Mr. ELLIOTT;—and so there would doubtless be in any work I might attempt to publish. It must be by correcting one another, that the science will be gradually improved. But some of ELLIOTT'S blunders are from pure carelessness, or laziness; and I shall therefore very freely—though in the most friendly manner—take notice of them. Before I received your letter, I had written to Mr. E. and informed him of the demand for his *Sketch*, &c. I will be more particular in my next letter to him. I have since received through his kindness, a packet of specimens collected for me by Mr JAMES JACKSON in West Georgia; but nothing new to me in it.

I, too, have been disappointed in the work of Dr. MUHLENBERG. It is rather *bald* for a "*Descriptio Uterior*;"—and would not have been published thus, had

the author lived. What is to become of his general work? I have written to the son about it, but received no answer. I feel anxious in consequence of having sent the old gentleman specimens of *new plants*,—some of which, from the Creek nation, I have not now in my Herbarium. Should these fall into the hands of strangers, I may not only be cheated out of all the credit, which the old Doctor would have awarded me, —but the specimens themselves may be lost, or imperfectly described.

.

U. S. Ship John Adams,
New York, August 29, 1817.

MY DEAR SIR: I arrived here two days ago, and learned to my infinite regret and mortification, that this vessel will not be ready for sea under two or three months; and that she will afterwards probably cruise for 18 months, or 2 years,—having during this long time little or no intercourse with any shore. Under such circumstances, whatever duties I owe to the Navy, those which I owe to myself and family are much stronger; and I have not hesitated in determining to leave the ship, at all events,—should it even cost me my commission. You will, I think, readily agree with me, that such a cruize would in all probability injure my health more than the climate of Wilmington: besides cutting me off from my family and pursuits, without a remuneration adequate to the risk and loss of time.—That I did not decline this cruize sooner, is much to be regretted,—as it may stigmatize me with whimsicality: but we cannot always judge correctly. There is an officer here, who has had one cruize in the Gulf of Mexico; and he reports it to be the most dreary and hazardous of all his cruising. Had Capt. HENLY been

here, I should have first begged leave of absence, and perhaps have gone myself to Washington: But as he is absent, and may be for some time, I wrote yesterday to the Department, and very plainly stated my objections to remaining in this vessel,—intimating my willingness to surrender my commission, if further indulgence could not with propriety be granted. I do not feel well: and really, to be bamboozled about as I have been for some time past, in such a variety of ways, is enough to make any man sick, or crazy,—or both.

I spent about an hour with Z. COLLINS, as I came through Philadelphia. I was delighted with him. We immediately recognized each other as old acquaintances (we had never seen each other before,)—and entered rapidly upon the subject of Botany, in less than a minute. But until I can get this Navy concern adjusted, I cannot think of Z. COLLINS, or *Botany*, or any thing else.

I shall no doubt be here long enough for you to answer this letter; and a word of comfort would be grateful, flowing from the lip of friendship. I only wish I may be able to return suitably your kindness,—and am, &c.

Wilmington, September 18, 1817.

DEAR SIR: I have this day heard from the Navy Department, and have had all my requests granted, and something more; being continued under full pay until I report myself fit for service. I arrived here a few days ago, on leave of absence from Capt. HENLY. Not having heard from the Department, I began to be in doubt for the result,—and intended setting out for Washington to-morrow, had I not heard from there. I have been quite unwell, but begin to feel better;—and having my mind at rest once more, I hope to be able to

guard against the recurrence of pulmonic symptoms,—and intend paying them a visit at Head Quarters, before long. * * * *

Z. COLLINS wrote to me before I returned; and I received at the same time a notice of my having been elected a corresponding member of the “Academy of Natural Sciences of Philadelphia”—an institution I had not heard of, before. My residence at New York was not altogether unproductive of Botanical interest. It has enabled me to add several plants to my Herbarium,—and to examine others which I was anxious to compare with southern ones. In passing through New Jersey, I fell in with the *Polygonum articulatum*,—and am satisfied that it is not specifically distinct from the southern *Polygonum*. Many plants that ought frequently to have come under the observation of PURSH, in the immediate vicinity of New York, have not, in my opinion, been well described by him; and some even appear to have been omitted altogether,—notwithstanding it was so long his botanizing ground. I found a *Cyperus* with esculent tubers, on Long Island, which does not agree with *tuberosus*, of PURSH,—and it is very widely distinct from ELLIOTT’S *repens*—or the one I found in Georgia.* I have not yet examined MUHLENBERG’S *phymatodes*. A letter from Mr. ELLIOTT awaited my arrival. He wanted descriptions of several plants, which I fear I shall be too late in furnishing.—He corrected the last proof-sheet of his 4th number on the 21st ultimo. * * * *

I wrote to LAMBERT from New York. The first thing I now attend to, must be to put him up a packet of specimens: after which, go on with my “Letters” as fast as the state of my health will permit. I remain yours.

[*See, however, Dr. TORREY’S “North American Cyperaceae,”—where the *C. repens*, Ell. *C. phymatodes*, Muhl. and *C. tuberosus*, Pursh, are considered as identical.]

Wilmington, September 27, 1817.

MY DEAR SIR: Yours dated yesterday was handed to me by your brother last evening. I have not been idle since my return from New York: but the state of my health has kept me pretty much from my desk, and from close application to any thing. I begin to feel better, and shall not abandon the "Florida Letters."—Our friend COLLINS also wrote to me yesterday, and says he will pay me a visit in a few days. It will be to me an interesting visit; for this gentleman, I find, is an acute and accurate investigator of plants. He has not, it is true, been flouncing from one extremity of the U. States to the other—giving to each plant an investigation of five minutes, for the purpose of making a book: but, for the love of the science, he investigates closely as far as he goes.

The more I consult PURSH, the less interesting I find him. In all those great families of plants which required to be re-investigated, he is a mere copyist; and yet informs you that he has seen the plants alive. He may have seen many, or most of them; but I am sure he failed to investigate them,—and was only *traditionally* acquainted with them. Look at his account of the *Scirpi*. One description will serve for 3 or 4, or half a dozen; and yet I would bet a trifle that he might be shown three radically distinct species of this genus which he would pronounce *identical*. See, also, his description of *Scirpus capitatus*—beginning and ending with, "*spica subglobosa*." *Scirpus ovatus*, Willd. and *S. capitatus*, L. are the *same*: yet PURSH has seen them *both* alive! He has scarcely in a single instance, that I have noticed, mentioned those characters, in this family, by which the species are to be truly discriminated.—MUHLENBERG's descriptions are rather confused, in general, but of this plant pretty good: but he is unequivocally mistaken, in supposing the *S. tuberosus*, of

Mx. to be the same plant. The seed, tubercle, and bristles, are different. ELLIOTT's account of this family I think the best.*—But I am aware that it is easier to find, than to mend, faults; and have no doubt but that any thing I could do—or my betters—would also be susceptible of further improvement.

How are you coming on with your *Catalogue*? I wish you would extend it into a work like that of BIGELOW, at once. I am sure there is plenty of need to mend most of the descriptions of plants already known.

Judge COOPER has been analyzing half a pound of the roots of the *Zamia*,—and obtained but 12 dwts. 9 grs. of a brown faecula. With all due deference to him, and his knowledge,—the Florida negroes understand the analyzation of this plant better than he does;—or the root itself must have changed since it left Florida.

I have written in haste, for fear your brother should be gone,—and I fear hardly intelligibly: but make the best of it. I am most sincerely yours.

Wilmington, October 30, 1817.

MY DEAR SIR: I might perhaps have written to you before now, and reported progress,—had it not been my wish first to ascertain my destiny for the winter. Information received from Washington this morning has decided that matter. I go out in the Congress Frigate, along with RODNEY & Co. I am not allowed to say where; but to a country, and to places in that country, which (judging after the manner of men,) will not only be best calculated to suit the state of my health,

[*For a more recent and full elucidation of the species of this family,—see TORREY's "North American Cyperaceae."]

(already somewhat impaired by the cold, and perhaps too close confinement,)—but afford me a good opportunity of attending to the productions of said country, which are little known.

I have been at Washington, and talked the matter all over at the Navy Department. It was highly gratifying to me, to find among the great folks, at Head Quarters, some lovers of science; and that I was not so much of a stranger to them as I had supposed. They took all the interest in my situation and views that I could wish,—informing me that I was entitled to any indulgence that I required, which came within their limits to grant; that I had been selected for this very cruise, on account of my knowledge of Natural History,—did the state of my health and other circumstances admit. In short, the result of the interview was this:—We wish you to go this cruise,—but leave it entirely to yourself to determine whether your health and interests will be promoted by it.—The only difficulty with me, then was, the extent and length of it. It was not then known, at the Navy Department, but what the Commissioners might be sent round Cape Horn.

This matter being now settled, I received a letter this morning, marked *private*,—stating every thing necessary for me to know, to enable me to decide upon going. I have answered that I will go. You, I think, would say go; and all my friends here, say go: and RODNEY, in particular, (who has not yet received his final instructions,) has all along been anxious that I should go. If you were here, I would tell you more,—and perhaps I might, as it is; but you will excuse me.

The "*Columbian Institute*," I think, promises to do something. I am to be furnished with a copy of the Constitution, by the President, Dr. CUTBUSH, (the oldest Surgeon in the Navy,) to enable me to promote its interests. There is a division of the society which attends

exclusively to Botany. They have a library, in which they have the best modern works, PURSH, &c. and a collection of specimens. But perhaps you know all this. In an excursion with Mr. WATTERSTON, (Librarian to Congress) I found in the midst of the great city, a new *Scirpus*,—with a number of plants not found in PURSH. I have described this *Scirpus*, and sent it to Z. COLLINS. In this department of botany, PURSH is worse than no authority at all. MUHLENBERG is good, as far as he goes. PURSH is a mere copyist, without *copying* correctly, (unless when he means to change names)—although he has the impudence to insult us, at the end of every description, with “*v. v.*” instead of *n. n!* It would require an *angel* to discriminate his plants. I am sorry the work of PURSH fell into the hands of Mr. ELLIOTT—(and I have told him so,)—as it only has served to mislead him, and lessen his independence as an American Botanist: for, wherever PURSH has erred, ELLIOTT has been sure to copy him;—and so we go on, increasing confusion and synonyms, without benefiting the science. Better burn all, and begin anew.

Should I not see you, I hope to hear from you soon. I have a volume to write; but neither time nor room.—I have been making a revolution among the *Schoeni*. I wish I had time to tell you about it. I have informed COLLINS about it. He has been to see me.

P. S. I have sent my packet to LAMBERT, in the Franklin,—under the care of Mr. RUSH.

Wilmington, November 10, 1817.

MY DEAR FRIEND: I had the pleasure to receive yours of the 5th, on the ensuing day: and the same day, my orders arrived from Washington, to proceed without delay to Norfolk, and join the Congress. The letters,

therefore, will not be in time; but they are not important,—and may as well be retained in your hands until I return. I suspect there is still another missing,—unless the one you speak of having lately received be dated *Tomoko*—which may be the case. Those I have, are packed up along with all my notes,—to enable me to go on with “*the letters,*” on the voyage. Since I have had an opportunity of examining the work of PURSH, I feel more than ever stimulated to attempt something, without loss of time,—although I fear you over-rate my qualifications. As our venerable botanical friend, BARTRAM, will perhaps be somewhat disappointed, in not seeing or hearing from me, I should be glad if you would call on him, the first opportunity, and make an apology for me. It is my intention to do him all possible justice, in my notices of Florida plants. The *Lantana* which he discovered, I have called *L. Bartramii—foliis ovatis, obtusis, crenatis; caule herbaceo, angulato, aculeato, piloso, ramoso; floribus capitato-umbellatis, foliosis*. This is a beautiful plant, attaining to the height of 6 feet,—and abounds along the sea coast of Florida. The account given of it, by BARTRAM, is very correct. It may come very near the *L. aculeata*, of S. America. I still hear nothing from Mr. ELLIOTT; and feel uneasy about him. I hope you will lose no time in preparing your *Flora of West Chester*; and I should wish that you would make it somewhat similar to that of BIGELOW. The descriptions of so many plants—and particularly grasses—require improving, that I hope you will not shrink from the undertaking. Should I return in time, I might render you some assistance in arranging the grasses; but a close attention will soon render you familiar with them. We have really no work (MUHLENBERG excepted, as far as it goes,) that is worth referring to,—or in which the descriptions are sufficiently accurate, to distinguish the species.

It is now midnight. Within 3 hours I expect to be on my way to Elkton,—from whence I proceed, via Baltimore, to Norfolk. RODNEY sets out to-morrow. Although the state of my health is not such as to render my situation alarming.—yet, as life under any circumstances is uncertain,—there can be no harm in just mentioning, that in case I should never return, I leave all my Botanical concerns to you; who, with the aid of Z. COLLINS, must make the best of them. It is with shame and regret, however, I must observe, that both my Herbarium and Notes would be found in such a state of confusion, that I fear no one could make much of them: and therefore I hope to have the management of them myself,—at least a few years longer. With my best thanks for the affectionate regard you have so often manifested for me, I conclude—and remain truly yours.

P. S. I shall certainly not neglect writing to you by every opportunity that may offer, in which I may have any thing worthy of your notice to communicate. I reciprocate your sentiments on the pleasures derived from a knowledge of Botany; and rejoice to hear you speak in that way. But I regret that you are not, at this interesting period, (like *me*,) *a member of Congress!* The ensuing session, I suspect, will be uncommonly interesting,—from the political topics, relative to South America, which will probably be discussed. As RODNEY goes via Washington, the Congress may not sail for a week, or more;—so that a letter might reach me.

Adieu!

U. S. Ship Congress, (Norfolk,) Nov. 20, 1817.

MY DEAR FRIEND: Precisely as I predicted the day before I left Wilmington,—a letter, accompanied with the 4th number of Mr. ELLIOTT's work, arrived in that

place the day *after* I left it! By an extract from the above-mentioned letter, transmitted by Mrs. B. I find that a quantity of his *Sketch* will be immediately forwarded to Philadelphia, directed to my charge,—agreeably to an arrangement made about two months ago. I have written to Z. COLLINS, to act for me in this business in Philadelphia; and to J. D. and R. P. through Mrs. B. in Wilmington. You can therefore be supplied, either in Wilmington or Philadelphia; and I shall feel much gratified (for the sake of Mr. ELLIOTT,) if you will promote the sale of this work, in your vicinity, as much as possible. On account of the mortality in Charleston, Mr. E. was obliged to remove to Sullivan's Island,—which produced the delay I had been complaining of. He has written for such descriptions of plants as I can furnish him, from the end of the 4th number down to the end of *Icosandria*,—which will complete the 5th number, and *first volume*; which he wishes to have ready for the printer by the latter end of this month,—when he will be obliged to attend the Legislature, in Columbia. I regret that I cannot now send him a description of several Icosandrous plants,—as *Cactus*, *Myrtus*, &c.—The *Myrtus (latifolia)* is mentioned in the introduction to BARTRAM'S Travels. By straining hard, I might have sent him an account of the above plants before I left Wilmington; but, wanting the stimulus of a letter from him, it was not attended to. I hope, however, soon after my return from the south, to include them in my "Florida Letters." I have sent him, since my arrival here, a more full account of the *Lantana*, than in my haste, I sent to you. Here I am, in the ward-room of the U. S. Ship Congress, surrounded by ten or a dozen as decent officers as, I suspect, ever adorned a national vessel. I am much pleased with them, and feel my situation quite comfortable. Two good *mates* are ordered: one is on board, and the other, I hope,

will be in a short time. I have nearly completed my stores and medicines,—which have kept me very closely occupied since I came on board. I have laid in for a cruise of 9 months and 400 men; but Capt. SINCLAIR calculates upon returning in May. I fear, from information received to-day, that we shall not sail before the first of December. It is rumored that we shall go up to Annapolis, to take in the balance of ship stores, and the Commissioners; and that we leave this place about the 25th. Possibly this information may be incorrect. I hope it is; as it will produce unnecessary delay.—I have felt my health improved since my arrival, and active exertions here.

On my passage from Elkton to Baltimore, I became acquainted with the “Chevalier CORREA DE SERRA,”—who, I suppose, is known to you. I was pleased with his plainness: and had a good deal of botanical talk with him. He said he should have paid me a visit in Savannah,—but was afraid of the climate.

I spent one day in Baltimore,—becoming acquainted with NILES,—and our *Secretary*, BRACKENRIDGE, who, I have no doubt, will prove as interesting, as I am very certain he will be amusing, and eccentric, on the voyage. He will lay in (he says) *ample stores for the mind*: and I am told that he sings an excellent song,—and can, if we require it, give us the *Speeches* of G * * * *, exactly. His knowledge of the Spanish language may be of much importance. He translated the *Exposition*, of PUEYREDON,—which you may have seen in the papers. Nothing has yet occurred to render the prospect of this cruise unpleasant,—except what naturally arises from being so long separated from my family. Do, when you have an opportunity, remember me to Dr. CLEAVER,—and such other of our Philadelphia friends as may not have forgotten me;—and whom I have not had leisure to visit since my return from Georgia.

Not having been inside of a theatre for about 8 years, I attended last night—principally for the sake of seeing COOPER perform. I was amused. It would give me great pleasure to hear from you before we sail. In the mean time, I am truly yours.

U. S. Ship Congress, Hampton Roads, Dec. 3, 1817.

MY DEAR FRIEND: AS we have not sailed so soon as was expected, and as you have done me the favor to request to hear from me often,—although I have little of interest to communicate,—I will send you a Cape letter. I wrote to you on the 20th, since which time, having got a little through my hurry in laying in stores, &c. and become familiarized with the ship,—I have been amusing myself in arranging the “Florida Letters.”

Since yesterday we have had a fine wind, and are only detained for want of Capt. SINCLAIR’S final orders,—which ought to have reached us several days ago: but, from foul weather, or some cause, two Washington mails are due. I hope we shall go to sea to-morrow;—for continuing here, this cold weather,—neither at sea nor on shore (as the sailors express it,)—is rather uncomfortable and tiresome.

The first port we shall touch at, will probably be Madeira,—from whence I will, of course, write you, should there be any possible opportunity. I will also further state to you, *in confidence*—(for, if *confidence* cannot be placed in such men as you, there can be no such thing in the world—)that this vessel *may* go round Cape Horn: but this will depend upon circumstances not yet known to the *Commissioners* themselves.—Should this be the case, some one or more of them (along with myself, I hope,) may go across from Buenos Ayres to Chili. After all, it is just as likely we shall

return the ensuing May. Nothing has been omitted that seemed calculated to promote the interest of this cruise. The Commissioners are well furnished with all works, that could be collected, which throw light on the interesting country which it is our object to visit; and they have not even neglected works of Natural History and Science. Judge BLAND says that he will now lay aside, for a while, the dry pursuits of Law, for those of *Chemistry* and *Botany*! It gives me great pleasure to add, further, (and perhaps I mentioned it in my last letter)--that we have a fine set of officers,—most or all of them men of intelligence, with more or less taste for Science,—independent of their nautical learning and skill. All seem animated with the prospect of contributing something, during this voyage of discovery (as it may be termed,)—which will redound to the honor or interest of their country.

We have in the wardroom, six Lieutenants, one Lieut. of Marines, one Sailing-master, one School-master, and one *Chaplain*;—the latter great character has been transferred to my department. I shall station him in the cock-pit, and teach him a different *duty* from that of *commanding our consciences*,—which he said he was authorized to do! But the cry is this moment, (4 P. M.) *all hands unmoor ship!*—I have not another moment to devote to you,—as I have some other letters to finish.

Yours, with unabated esteem.

U. S. Ship Congress,
Harbor of Rio de Janeiro, January 30, 1818.

MY DEAR FRIEND: I have just finished a long letter to Mrs. B. and you come next on my list of correspondents. It was not known to me until after I had written my last letter from Norfolk, that this was determined

upon as the first port we should enter,—unless the Cape de Verd Islands should chance, from the state of the winds, to fall conveniently in our way. This not happening, we arrived here on the evening of the 28th, after a long passage of 55 days,—in which we experienced our full share of heads and calms; and had not the good fortune to speak a single American vessel.—Our passage from the Equator—which we crossed on the 16th, has been pleasant. The usual ceremonies, on this great event, were not omitted. The old ludicrous Neptune boarded us in great style,—complaining bitterly of the *dustiness* of the roads, in these regions, producing a dryness in his throat. He and his family were treated to a few bottles: but, to be brief on this sublime subject,—the whole business was conducted with the utmost order and decorum.

At 10, A. M. yesterday, I first landed in South America,—on an Island outside the harbor of Rio. It is not a little curious to observe, that the first two plants which met my observation, I had been familiar with in the south of Georgia, and in E. Florida: viz. *Ruppia maritima* (growing in the water,) and *Ipomaea orbicularis*, of Elliott (on the sandy beach). Of the complete identity of these plants, I have not the smallest doubt,—as I am too familiar with them to make any mistake. But I am up to my eyes in investigating others not before known to me; and with which the Island most plentifully abounds. Among others, I have just made out the *Malpighia crassifolia*, a very beautiful shrub;—and that elegant parasite, *Tillandsia lingulata*,—which I hope to convey alive, and in full bloom, to the United States. We let go our anchor here at half past one P. M. yesterday; and this morning I visited the capital of Brazil,—of which, at present, I shall say nothing.—Every respect and attention is paid to us by the Portuguese authorities,—and by the commanders of vessels

of war, in port,—consisting of Austrians and English: and I am almost continually interrupted by visitors coming on board—to whom it is necessary for us all to show attention,—as they generally wish to see all parts of the ship. The King is to be crowned on the 6th proximo; but we calculate upon sailing before that period.

The Portuguese still hold possession of Montevideo (*on La Plata*); and the talk is, that they intend to hold it,—and are sending on more troops for that purpose.—We were the first to communicate the news of the death of the *Princess CHARLOTTE* (obtained from an English merchant vessel,)—for which they have been firing minute guns, and making a terrible fuss, both in the harbor and on shore. But I have had yet but a poor opportunity of obtaining any thing like a connected detail of news. I have been mostly occupied in attending to the natural productions of this romantic place; and have regretted exceedingly that I am deficient in drawing and sketching. Had I the talents of Dr. SYNTAX, I would

“ Rhyme it here, and prose it there,
And *picturesque* it every where.”

In a short time I shall ascend a mountain, in the vicinity of the capital, said to be above 2000 feet high.

January 31. The weather is so excessively sultry, that I have not ventured to go on shore, this morning. My health has been much improved in the voyage; but I find it necessary, after so long a confinement on board, to exercise with caution. We have not yet had any disease worth noticing; and I am well convinced that the excellent provisions, stores, and internal regulations on board, have contributed much towards preserving health in this crowded community. In looking over what I have written, I feel almost ashamed to transmit it. Arriving in a place so novel, after a long

passage, and occupied with so many objects altogether new and interesting, has confused my weak brain, and this must be my excuse, should you feel disappointed in reading this letter. We are preparing to receive the American Minister (Mr. SUMPTER,) on board; and owing to that, and other matters, I can write no more to-day.

February 1. Yesterday afternoon was spent on shore, in a rich situation for botanizing: and a more extensive excursion is arranged for to-morrow,—no less than to ascend the afore-mentioned mountain (3 miles distant), said to be 2200 feet high. RODNEY and BRACKENRIDGE are to accompany me.

February 4. I have been variously and agreeably occupied since the 1st inst. but have not yet ascended the mountain. Instead of ascending the mountain, I have traced the *Aqueduct*, which supplies the city with water, from its source to its termination. It is a stupendous work; but of no great importance. This day, I have had a peep at *Royalty*, in the Palace Royal; and as it is Ash-Wednesday, narrowly escaped bowing to the Host—which is carried about in great style. We shall sail for St. Catharine's, in 3 or 4 days;—from whence, should opportunity offer, you shall hear from me again.

I remain in haste, yours.

P. S. *February 7.* We sail to-morrow for St. Catharine's. Yesterday I saw (in the estimation of the vulgar,) the greatest event that has ever taken place on this side the water;—no less than the crowning of the Prince Regent. I have only time and room to say, that I had a good view of all the great folks belonging to the house of *Braganza*,—and was amused with the show, as I would be at a good farce.

U. S. Ship Congress,
At Sea, Lat. 27° 40' S.—Long. 46° 56' W.,
February 11, 1818.

MY DEAR FRIEND: Since I have escaped from the depressing heat at *Rio de Janeiro*, and breathed the pure air of old ocean, a little further south,—my spirits begin to revive: and as I have more leisure here, than I shall have after we reach the *La Plata*, I will fill up an hour or two in writing to you,—and thus make up, I hope, in some degree, for the defects and omissions of my last letter, dated at *Rio*.

Although I have resided several years on the southern frontier of Georgia, and frequently observed the Mercury, in Fahrenheit, to rise to 96°—the heat of *Rio de Janeiro*, with the mercury fluctuating between 76° and 85° has proved infinitely more insupportable and oppressive. This fact accords with the experience of all hands on board,—or I should have suspected that the state of my constitution, after long confinement at sea, had rendered me peculiarly susceptible of the influence of heat in taking exercise on shore, and said nothing about it. But even when the sun was veiled in clouds, it was impossible for any of us to take the most moderate exercise in walking, without suffering severely from excessive perspiration: and I several times apprehended syncope, even when not exposed to the rays of the sun. Is this effect of the temperature owing to the air being loaded with moisture? I suspect this to be one great cause,—although but little rain fell during our stay. The mornings were frequently cloudy, calm, and sometimes rainy; but the sea breeze generally sat in before noon—when the weather became fair, with a serene sky,—and not unfrequently a thunder shower (rarely accompanied with much wind,) would close the evening. I regret to state that our *Barometers* are out of order,—and not to be depended upon for making any

experiments or observations. But notwithstanding the heat of *Rio*, it has the character of being healthy. To this character it may be in some measure entitled.—Bilious epidemics, of every grade, appear to be unknown. But the citizens in general do not exhibit a healthy appearance. Many of the ladies, who live well and take little exercise, are corpulent; but nevertheless want the appearance of vigorous health.—Judging from appearances, as well as from my own feelings, I was not greatly surprised on being told that *haemoptisis* was not uncommon: but I could not learn that it was often followed by pulmonary consumption. The negroes are subject to a dreadful disease of the *legs*. They become of an enormous size; and, to be brief for the present, very much resemble the back of a young *alligator*. Respecting the cure, I obtained no information; but I recollect having under my care a case of this description, when I attended the Poor House of New Castle county, in 1808 or 9.

No writer that I have ever read, has conveyed to us any thing like a correct idea of the face of the country on the Brazilian coast.

In approaching closely the entrance to the harbor of Rio de Janeiro—within which, at the distance of only 3 or 4 miles, is found a city more populous than Philadelphia,—not a habitation is to be seen: and the country presents as wild and uncultivated an appearance as it did on the day of its discovery. Mountains, terminating in cones that intercept the course of the clouds, strike the eye in every direction, and present an appearance more grand and picturesque than can well be imagined. We enter through a narrow strait, of only one mile wide, into a spacious harbor,—on the west side of which, situated in two narrow valleys, and skirting the hills, stands the modern capital of Brazil. The churches, convents, and other buildings, all suddenly

opening to view amid the rude surrounding scenery, appear like enchantment. My attention to other subjects has prevented me from attending particularly to this city; but I suspect that it will rank in riches, and even splendor, with many in Europe. The streets generally possess the common fault of being too narrow, —but they are paved with stone. The houses are built of the same material, and are rarely less than two stories in height. (MAWE, a late English traveller in Brazil, erroneously informs us that “the dwellings are generally of *one* story, only.”) There are some spacious squares, and the public buildings appear to great advantage.

The mountains, their composition, and productions, were objects of far greater interest to me, than the city with all its wealth, and its *Royalty*. But even these mountains, I had not a sufficient opportunity of attending to with success. They are thrown together in such a manner as to leave but narrow ravines between them. These ravines, winding in various directions, often containing delightful streams of water, and studded with neat habitations, gardens, orchards, and grass plots, have a most singular and romantic appearance. The internal composition of these singular mountains is primitive *Granite*. The detached masses of rock scattered about their bases, and elsewhere, have a *Gneiss-like* appearance,—with numerous veins of impure micaceous *Feldspar*. It is remarkable, that many of these elevated masses of rock contain little or no vegetable mould,—or any thing that we should denominate *soil*,—and yet are richly adorned with plants to their very summits. In some places a partial, and in others a total, decomposition of the rock has taken place,—affording sufficient nourishment for a luxuriant vegetation.

The “*Sugar loaf*,” a conical mountain of 900 feet in height, and almost perpendicular, stands on the south

side of the mouth of the harbor of *Rio*. Its summit is clothed with evergreen frutescent plants,—and even its steep, inaccessible sides, are ornamented with a species of *Bromelia*, and other plants. Similarly situated on the *soil-less rock*, near the base of another mountain, up which I scrambled at the risk of breaking by neck, I found a beautiful species of frutescent *Cleome*, along with several splendid shrubby species of *Melastoma*. But, the most extensive and interesting excursion I had, was hinted at in my last letter.

This was to the mountain said to be upwards of 2000 feet high, and about three miles to the southward and eastward of the city. It is called, from the peculiar form of its summit, as presented to mariners on approaching the coast, the "*Parrot's Head*." We (Messrs. BRACKENRIDGE and READ in company,) ascended this mountain by a narrow circuitous path, until we had reached, as we supposed, a height of 700 feet,—from whence a road has been cut round to its southern side; between which and another mountain—or rather a deep excavation in the same mountain,—rushes down, in a natural channel of Granite, the stream of pure and excellent water which supplies the capital. Here the *aqueduct* commences, which we were three hours in steadily tracing, through all its windings, until it led us into the city. This aqueduct was completed in the year 1748, as we learnt by an inscription on a pillar of Granite at its source. The aqueduct is built with stone; is about 5 feet square, arched over,—and would contain a column of water of one foot square, or more. Conveyed along the sides of the rocky mountains, which in some places are perpendicular, it is altogether a stupendous work; but fails, at last, to answer completely the great object for which it was constructed. The water is so partially distributed through the city, that it is even purchased by those who live remote from the

fountains: and in this trade of water-selling, some of the poor are said to obtain a livelihood. In the course of this excursion, I picked up many plants that were new to me. We reached the city in the evening, weary and faint with heat, and with hunger. It happened to be on one of those days,—observed throughout the Portuguese dominions in this country—in which every body is privileged to do mischief.

The ladies of the better sort provide themselves amply with *wax balls*, about the size of oranges, which are filled with scented water. These are thrown liberally from the doors and windows on every passenger; and many a spruce beau, this day, had his ruffles well drenched. The lower orders are not so nice. They smear each other with almost every kind of filth. It is contrary to all rule for any one to take offence,—as no redress can be obtained. All must be borne patiently; unless you are prepared to retaliate in the same way. A poor Frenchman, a stranger, fretted and fumed, and swore vengeance,—but it was all in vain. The louder he bawled, the more he was pelted, and drenched,—until he retreated to a place of safety. We did not entirely escape participating in the universal fun. This wonderful mode of diversion continues three days. Whether the Portuguese have the *honor* of inventing it, or derive it from the *Aborigines*, I know not: but I cannot learn that it is practised in the old world.

But it is time to bid adieu to the capital of Brazil, and to the mountains that surround it. I have obtained no political information worth communicating; nor have I seen much to attach me to the climate, the government, or the people, of this extraordinary country.—The event of proclaiming a King—the first who was ever proclaimed on the American shores—I mentioned in my last letter. The sight of his *Majesty*, thus exalted

—with the royal family all glittering in gold, and sparkling with diamonds—while it excited the reverence of the gaping multitude, had a very different effect upon me. Although a kingly state of things has again been cobbled up, throughout Europe, and a *Petticoat-maker* been placed on the throne of Spain,—a judge of fat capons, protected by British bayonets, on the throne of France—and a good-natured sort of a simple unfeeling character perched upon a throne, in the Brazils,—they all stand upon a baseless tottering foundation; and are hugely at a loss how to devise *Holy alliance schemes* to prop themselves up,—and to regain, if possible, the power and influence which the revolutions of the last 40 years have wrested from them. The *King of Brazil* is the first,—and very probably the last,—that will wear the title, on this side of the water. The influence of *example* from the neighboring Spanish territories,—should the people, as I trust they will, ultimately, establish their independence,—must extend to the Brazils. Already has there been an insurrection in Pernambuco. * * * * *

We sailed from Rio de Janeiro on the 9th, in company with his Britannic Majesty's sloop of War, *Blossom*, Captain HICKEY,—bound also to the Rio de La Plata; who very politely offered to bear us company. The invitation was accepted; (although we sail about two knots an hour faster,) on account of the intricacy of the navigation in that great river,—with which he is acquainted. We have recently taught surly John Bull to be as polite as a Frenchman. Wherever we have fallen in with him, he has seemed to value and court our friendship. We have delightful weather, and are almost constantly exchanging civilities with the *Blossom*. Captain H. appears to be as intelligent as he is polite, and has seen much of the world. He was a midshipman on board the *Lion*, during the famous em-

bassy of Lord MACARTNEY to China,—and a Lieutenant with NELSON, at the battle off Trafalgar. We converse together on the events of the late war, with perfect good humor. “I regret the war,” said Capt. H. “because it has raised you, and sunk us in proportion :”—an observation of good sense, as well as liberality. The British officers, generally, express themselves very freely on the subject of Spanish Independence. They appear to wish for the emancipation of the Colonies,—and, even, that *we* might aid the Patriots in the production of that great event:—*their* hands being tied by the stipulations of the *Holy alliance*. How much sincerity there may be in all this, I know not. I give it as talk.

We have declined touching at St. Catharine's,—having no particular object in view there, and the season advancing. I will write again, and enclose this,—should we have the good fortune to get into port. I remain for the present, most affectionately yours.

P. S. *Montevideo*, February 23, 1818. We anchored off this place two days ago; after a safe and pleasant passage of ten days from Rio de Janeiro, until we anchored near the Island of *Lobos*, in the mouth of the Rio de La Plata, on the 19th instant. In ascending the river, I had an opportunity of exploring the little Isle of *Flores*;—while the Commissioners, and the officers of the Congress, amused themselves in *murdering Seals*,—who are the only inhabitants found here. *Montevideo*, which I have this day visited, is very pleasantly situated, on an elevated Peninsula formed by two bays, on the north side of the river. I have taken but one short botanical excursion,—in which most of the plants I found are new to me. The political state of affairs, here, renders it dangerous to travel in the country.—But, as I am preparing to go to B. Ayres, I will defer all further accounts of this place until my return; and carry this letter with me; in hopes of finding an opportunity to forward it.

Buenos Ayres, March 3, 1818. At length we have reached the most distant part of our destination. I left the Congress—in company with Capt. SINCLAIR, and the Commissioners,—in a small Patriot Hermaphrodite Brig, on the evening of the 26th, and landed in this great city on the morning of the 28th, having had a pleasant passage. It was concluded unsafe to take the Congress up, on account of the difficulty of the navigation: and now, I have a vast deal to say, but cannot say it in this letter,—nor have I leisure to write another, before the vessel will sail, which is to convey our letters to Baltimore. I will say, that already I feel myself more at home, than I did at Rio de Janeiro: and Mr. BRACKENRIDGE, who is writing along side of me, concurs with me in opinion. We feel that we are among a people more like ourselves.* Different and strange as the people are, compared with our own countrymen,—those of the above mentioned *royal city* are vastly more so. Something like the air of sacred freedom is really to be felt, here. The sullen gloom of despotism has at least been banished from the countenances of these people; and I do hope—and more firmly believe than I ever did—that they will succeed in establishing their independence upon a republican basis. I think I can safely say, that there is as much difference between the political state of those born in this country, and in old Spain,—as there was between

* While at *Rio*, I could feel no interest in any thing but *plants, &c.* Here, I have unavoidably caught the enthusiasm of a people struggling for their long lost rights; and am involuntarily compelled to feel a deep interest in it. There is,—as Mr. BRACKENRIDGE has just observed,—an union of sentiments, and interests, felt between the members of *Republics*, which the subjects of despotism never can feel,—even towards each other. By the bye—I will just *quietly* hint, that I think Mr. B. will be likely to do as much service, in this commission, as the commissioners themselves.

the English and Anglo-Americans, at the commencement of our revolution.

They know more of us, and of our institutions, than I had imagined: they *read*, *think*, and *observe*,—and hence we are cordially received as their brethren. But they have doubtless much yet to learn—and I fear much to suffer,—before they arrive at the enjoyment of that state of political tranquility and security which we possess. That they have greatly improved, within the last 10 or 15 years, is undeniably true; and this affords the best evidence that they will continue to improve, until they reach that summit of political perfection, which I cannot but flatter myself the whole of the American continent is destined to attain. How desirable is such an event, in the present state of the old world! It is in vain to persuade me, that the interests between republican governments are not stronger than between other governments. They are founded upon different principles; and in which every man has an interest.—The *American* side of the water free—the balance of the world could not shake it. About 3000 Portuguese troops are cooped up in Montevideo,—and completely blocked by a detachment of 200 men, belonging to the army of ARTEGAS, under the command of Col. ORTEGUEZ.

Of the unfortunate differences that exist between PUERRYDON and ARTEGAS—and the respective merits of these men—I can yet say nothing with certainty. The ex-General, CARRERA, is an exile in Montevideo. Of this unfortunate patriot I can yet say but little,—except that he has politely offered, on my return, to escort me into the country: there being an understanding between him and ARTEGAS. Upon what principle he is suffered by the Portuguese to have intercourse with their enemies, I know not: but the Portuguese, I believe, are trembling for their fate,—and are not very particular.—

Although CARRERA is friendly with ARTEGAS, he says he is not a supporter of his cause ; and in this way reconciles the difficulty.

I must now close my letter, and prepare to be introduced to MONS. BONPLAND, the Botanist, (and companion of HUMBOLDT,) who has fixed his residence here.

I remain ever yours.

Buenos Ayres, March 11, 1818.

MY DEAR FRIEND : I came to this country, prejudiced against the Spanish character. I took it for granted, that a Spaniard here was much like a Spaniard every where else. A people educated in the slavish principles of the Roman Catholic religion, of whatever nation, I thought must be poorly qualified for understanding what was meant by freedom ; and of course, would not be able very soon to establish any thing like a true representative, or democratic, form of government.—The results of the French and Spanish revolutions, were both fresh in my recollection. It is true, (having myself been educated a republican,) I did come here with a belief, that all men had equal rights ; and even that, under the same circumstances, they were much the same kind of animals,—whether derived from Catholic, Jew, Gentile, or Mahomedan : but, judging from the events recorded in history,—and having observed that political and religious habits of thinking—like certain diseases of the body—become hereditary, and are cured with great difficulty,—I could hardly flatter myself that the people of this country were yet in a condition to be governed by any thing but a despot, in some shape or other ;—although they had, from their own peculiar situation, and the situation of affairs in Europe, declared themselves independent.

Since my arrival, I have been induced to change my opinion in favor of the people of this country,—for various reasons, which can be readily stated, and which (as they are derived from plain and simple facts,) are easily comprehended. To state them as briefly as possible, is the object of this letter.

There has never been any order of nobility permanently established here; nor has the influence of the clergy obtained such an ascendancy as in the mother country. The difference, therefore, between a people thus circumstanced, and those from whom they are derived, must at once be obvious. But they have been in a state of revolution for eight years. What was their situation prior to this revolution, compared with what it is now?

Before the revolution, the government was vested in the hands of a *Vice-roy*, appointed by the Monarch of Spain, whose powers were of course absolute. Under the domination of this *creature of majesty*, neither the person nor property of any individual was secure.—*This despotic order of things is now no more.* A provisional constitution has been framed, which secures to the people the right of choosing, from each province, a delegate to represent them in a general congress, or convention. This convention of delegates elect, from their own body, an executive officer, under the title of *Supreme Director*,—who remains in office *during good behavior*. Such is the advance already made in the organization of a free government. The congress act as a check upon the ambition of the *Director*,—while the members are themselves influenced, in their political conduct, by the community at large.

Before the revolution, there existed an inquisitorial power, by which many a hapless victim of clerical vengeance was immured. From the arbitrary decisions of this Ecclesiastical Court, there was no appeal, either in

religious or political affairs. *Since this important revolution*, the clergy from Old Spain have been removed—the authority of the Pope renounced—the inquisition abolished—and religion left to stand on its own foundation. All this has been gradually effected by the dawnings of religious and political light,—without that effusion of blood, which disgraced every revolutionary step, in France.

Before the revolution, there were no schools, or seminaries of learning of any kind, except such as promoted the slavish views of the Church, or the State with which it was connected. *Now the case is quite altered*. Public schools are instituted for the instruction of youth in general; in which are taught, beside the common rudiments of learning, the principles of free government, and the elements of military science. It is thus that the people are rapidly acquiring a correct knowledge of their inestimable rights, with the means of defending them,

Before the revolution, the clergy possessed the power of suppressing education in general. They sought for, and seized all books which were judged inimical to their system of religion and politics,—and exacted penalties from those with whom such books were found. No individual, or family, was exempt from this odious examination; and all publications having a tendency to enlighten the mind, or improve the understanding, were doomed to destruction. *Now*, literature in general is freely tolerated. Political writings are sought for and read with avidity. The constitution of the United States, along with the constitutions of the individual States, and the works of distinguished political essayists, are found in translation among them. The clergy themselves are rendered useful, in being placed at the head of literary institutions, where they promote the interests of the revolution by teaching the principles of free government, as well as the catechism.

Before the revolution, Foreigners, calculated to promote the best interests of society, were not allowed to settle in the country. *Now*, merchants, mechanics, and tradesmen in general, from almost all parts of the civilized world, may be seen in every street in Buenos Ayres. But few have yet located themselves beyond the confines of the capital, although every encouragement is given them to do so. Land should be granted by the government to agriculturists; and much benefit would arise, not only to the great cause of *agriculture*, but to the general interests of society,—by this *most useful and virtuous part of any community*—availing themselves of the privileges held out to them.

Such are a few of the most indisputable and prominent facts, relative to the political situation of this part of South America. It is the *only* part I have seen in a state of revolution,—and may, perhaps, be considered as the most important. It will of course be seen that my observations apply only to those provinces on the southern and western side of the Rio de la Plata,—which at present constitute the Buenos Ayrean government. It is one of the most populous, and may be one of the most enlightened of all the S. American dominions,—either north or south of the Equator. It claims, at least, a superior rank and consequence, from its having first shaken off the Spanish yoke, and conducted all its revolutionary measures in a spirit of moderation which evinces a knowledge of rational liberty, abstracted from that licentiousness which spread ruin and desolation, and finally terminated in despotism, in one of the fairest and most populous portions of the old world. Chile, Peru, &c. are following the example of *Bonaria*. They are all in a revolutionary state. *Chile* was declared independent on the 16th of February last. The spontaneous effusion of joy which the news of this great event produced in the Buenos Ayreans, I have just witnessed. It was not the *illumination* of the capi-

tal with *artificial* light, that produced the best evidence of sincere rejoicing, on this occasion: A brighter and more interesting flame could be seen illuminating the countenances of its inhabitants, and thereby evincing that unfeigned regard which one portion of a great community may feel for another, struggling in the same righteous cause, and assuming the same independent attitude. But they have a government to establish; upon the principles of which their political happiness will depend. Already they are deliberating upon a constitution which is to be permanent. May wisdom guide their councils in this most important of all human concerns! Their independence has been solemnly declared; and they will undoubtedly be able to maintain it while they continue in a state of Union,—even without the addition of the provinces on the eastern and northern side of the great Rio de la Plata, which belonged to the viceroyalty of Buenos Ayres, under the royal government. These provinces are the *Banda Oriental*, *Entre Rios*, and *Paraguay*. The two former are under the dominion of ARTEGAS, a refractory *chief*, who refuses to send delegates to the general congress, and appears to aim at a separate government,—but professes to be a good republican. The latter is under the government of Dr. GRACIA, who styles himself dictator. He, also, refuses to unite with the Buenos Ayreans; but is likewise opposed to the royal government. All the sea-ports in the dominions of ARTEGAS, are either blockaded by, or in possession of, the *Portuguese*—with whom he is unable to contend. Hence the Buenos Ayreans suffer the encroachments of these foreigners—who have availed themselves of this unfortunate division of political interests; which, it is to be hoped, will not last long.

St. Salvador, May 30, 1818.

The above rude sketch was hastily written before I

left B. Ayres. I then expected to have had an opportunity to transmit it soon, but was disappointed; nor have I since had an opportunity to forward any letters to the United States. I transmit this, with all its imperfections,—although we may chance to reach the United States nearly as soon. Much important information respecting the Buenos Ayreans, and their concerns, has since been obtained; and I am happy to state, that Mr. BRACKENRIDGE, from his knowledge of the Spanish language, is eminently qualified for obtaining useful and correct information,—and he has lost no time in attending to it. He has unquestionably added greatly to the importance of the mission; and to him I am much indebted for many valuable facts, which I have not now leisure to communicate.

After leaving Buenos Ayres, I spent my time alternately at Montevideo and Maldonado,—from which places I have picked up many new and rare plants; the specimens of which I have in a pretty good state of preservation. The Commissioners joined the Congress, at Montevideo, the latter end of April. Just before they left B. Ayres, the official account arrived of the total defeat of the Spanish army, in Chile. This glorious event was achieved by SAN MARTIN,—who commanded the combined forces of Buenos Ayres and Chilians. This will probably be a prelude to the overthrow of Royal power in Peru; and thus, I hope, put a final end to the Royal Government on the western side of the Cordilleras.

We sailed from Maldonado on the 4th, and have had a tedious passage of 24 days,—having run short of wood, which was difficult to obtain in the La Plata. We expect to sail in 3 or 4 days for Margarita,—and may touch at a few places on the Spanish main, before we reach the United States.

I think St. Salvador much more pleasant than Rio Janeiro. It is a well-built city, situated upon a hill, affording most delightful prospects. Yesterday was wholly spent in botanizing in its environs,—which afforded me a considerable addition to my herbarium. The temperature at this season is delightful; and I am told that it is always cooler than at Rio Janeiro: 75 degrees of Fahrenheit has been the usual height of the mercury, since our arrival.

My health is now good; but I felt some slight returns of my old complaint, before we left Maldonado. The weather had become cool, with a humid atmosphere, and frequent heavy gales of wind (*Pamperos*) from the S. West. My last letter was dated at B. Ayres, on the 2d of March, and transmitted via Baltimore in the Brig Plattsburgh. I had not then seen M. BONPLAND, the French Botanist, who travelled with, and published his botanical works in conjunction with, the Baron HUMBOLDT. I believe I mentioned his having located himself in the vicinity of Buenos Ayres, in my last letter. He will form a valuable addition to my correspondents; and will be very happy to exchange South for North American plants; and has already furnished me with some specimens. It was cause of some exultation to me, to find that the plants in the vicinity of Buenos Ayres were very little better known to him, than they were to me: but his authority served to confirm the new genera and species, which I picked up when there.

Some time ago, I began to amuse myself by copying off for you a catalogue of the plants which I found on the small Island of Flores; but other duties, accompanied with a small share of laziness, prevented me from getting through it,—and it would not have been of much importance.

To conclude,—although I have no reason to com-

plain,—I am weary of being a *member of Congress*; and anticipate most anxiously the period when I shall return again to private life, and the enjoyment of domestic happiness.

I am, my dear friend, most affectionately yours.

*U. S. Ship Congress, at sea—
Somewhere within 100 miles of Cape Henry,
July 7, 1818.*

MY DEAR SIR: At length we approach our native shore,—having just made the land to the southward of Cape Henry, with a fine breeze, and joyful hearts, after so long an absence. My last letter to you was dated from St. Salvador, on the 29th of May,—containing some loose details of South American affairs, &c. which may not yet have reached you,—as we have been favored with a fine run from that port.

We sailed on the 5th of June, and arrived at the Island of Margarita on the 23d, thus performing a voyage of near 3000 miles in 18 days. We spent but two days at this interesting Island,—which scarcely afforded the commissioners time to obtain the necessary information relative to the political state of this department. But, the information obtained was favorable to the great cause of Venezuelan Independence. The royal army on the main was dwindling away, while the patriots were gaining strength. In a battle recently fought near Calaboso, the royal forces were beaten; and General MORILLA said to be dangerously wounded. An unofficial report was in circulation that he had actually died of his wounds.

The more I see of the South Americans, the more I am surprised that we should have so long remained in the dark respecting their real character. By most of our countrymen, who have been among them, they

have been confounded with the people from whom they are derived; but from whom, I am confident, they differ even more than we do from the English. I have called the island of Margarita *interesting*: it is so in many points of view. By nature it is almost impregnable; and may be termed the *Key to Venezuela*. Here, less than twelve months ago, feats of valor were performed by its patriotic inhabitants which would do honor to any people. Hence, there is no dissension in politics. Every man—and every woman—is a soldier and a patriot. All things are in common among them; and all their views are directed to the grand object of maintaining their independence. But, we have politicians among us who object to the color of their skins! that they are nothing but a parcel of wild Indians, or negroes! This constitutes their superior excellence. The *Indian* blood, particularly, which flows in the veins of the Venezuelans, is what has improved their character,—and rendered them vastly superior, both in their corporeal and mental powers, to the poor degenerate King-ridden and Priest-ridden Spaniards. But more of all this, when I shall have the pleasure of seeing you. I cannot, however, but add, that this mission to South America will derive a great deal of its importance from the talents, acquirements, and indefatigable exertions of Mr. BRACKENRIDGE,—of whom I have spoken in my former letters. He has taken up the cause of the South Americans with a zeal which does equal honor to his head and his heart.

I do not recollect that I informed you, in any of my preceding letters, of my finding the *Solanum tuberosum* indigenous about Montevideo and Maldonado. This is the fact,—although it is unknown to the inhabitants; who inform you that they cannot cultivate this noble plant!

Lastly, I have to inform you, that my health has been declining since we left Margarita; but I hope has not de-

clined beyond the bounds of recovery, when I can have the pleasure of exercising on shore. I have been (much against my inclination) obliged to abstain from all study, the most part of the voyage: latterly, I have not even attended upon the sick,—except to consult in a few instances.

8th. We are slowly beating up from Lynhaven Bay (where we anchored last night) towards Hampton Roads. I have already applied for leave of absence on the ground of indisposition,—and expect in a few days to leave the Ship for Wilmington; where I shall expect to hear from you immediately.

I am most affectionately yours.

Wilmington, July 17, 1818.

MY DEAR DARLINGTON: I arrived here 3 days ago,—and already find myself recruiting. My letter from Hampton Roads, I hope has been received. I now require, and must take a time for complete relaxation; but should be glad to see you, or hear from you, as early as possible. I write this in great haste, at the Post office,—and remain yours, &c.

P. S. I long to hear the Botanical news from all parts of our country,—and particularly respecting your *West Chester Flora*.

Wilmington, July 23, 1818.

MY DEAR FRIEND: I have this evening received yours of the 19th, and am so pleased to hear from you once more, that I cannot attend to any thing until I return you an answer.

Accept my thanks for the Botanical news you have detailed;—although you have been anticipated by our

friend COLLINS, in every thing, except your own discoveries, in a letter I received from him two days ago. From Mr. ELLIOTT, I received a letter this morning,—in which he informs me that his health, also, has been impaired so much as to disqualify him from prosecuting his studies,—and even to endanger his life. He has now pretty well recovered; but has not yet published the 6th number of his *Sketch*,—and intimates a wish to hear whether I have any plants to insert, before he sends it to the press.

Although I have *Florida Letters*, and a vast deal to attend to,—I will leave all, to put in practice at least a part of your kind scheme.* My situation in regard to health requires it; and I can go to no place with more pleasure, than to West Chester. Those *Florida Letters*, in which you take so deep an interest, have remained, like your *Flora*, for many months *in statu quo*. On the passage out from Norfolk to Rio Janeiro, I did progress with them a little,—after which, as may be readily supposed, other objects seized my attention.

In the homeward passage they were not attended to; and the state of my health, for a considerable part of that time, prevented me from attending much to any thing. I hope when you come down with your gig, you will allow yourself leisure to look over my collection of South American specimens. I will boast that some of them are in as fine a state of preservation, as any specimens in the world ever were. In consequence of the succulency of tropical plants particularly, I was obliged, in order to preserve them from speedy destruction, to set my invention to work. I hit upon a plan which has succeeded admirably.

[*This was an invitation to spend a few weeks with me, and amuse himself with Botanical excursions in Chester county, for the benefit of his health. He accordingly came, and staid some days with me, in West Chester.]

The eagerness of the public to obtain political news from S. America, has induced me to furnish the *Delaware Watchman* with the substance of my letter to you,—which was finished at St. Salvador on the 29th of May. It was principally written at Buenos Ayres,—and contains a little more fully my opinion of the people of that country, than any of my other letters. The *Nectris pinnata*, Pursh, as well as some other plants you mention, is entirely unknown to me. I wish I had been with you, in your late excursion westward.*

I am very deficient in Pennsylvania plants. The late Dr. MUHLENBERG would have enriched my herbarium with many of them; but I waited to return from Georgia,—when, alas! he was no more. With sincere esteem I remain your friend.

Wilmington, Delaware, August 6th, 1818.

MY DEAR FRIEND: AS I took a kind of French leave of you yesterday morning, and posted away home on “Shank’s horse,”—I feel myself bound to inform you how I got along, and to return my thanks for your attention to me. It is to you, to Tincture of Bark, to *Laudanum*,†—and such like medicinal articles,—that I

[*Alluding to a trip, I had then recently made, along the Susquehannah river, and across *Pokono* mountain.]

[†While staying with me, Dr. B. went one day to my medicine case, to help himself to a dose of Huxham’s Tincture of Bark,—and took, by mistake, near half an ounce of strong *Laudanum*.—Both he and my family were much alarmed on making the discovery; but he immediately set out on a long botanizing excursion, with a view to *walk off* the effect of the medicine. One of the family followed him, at a respectful distance, to watch the result.—He returned, however, in a few hours, without experiencing any unpleasant effects,—and even thought he was benefitted by the dose. It is to this accident, the allusion is made in the letter.]

ascribe such an improvement of my health as enabled me to reach home yesterday, (after botanizing all along,) at half past one, P. M. I wish you would attend to a water plant, which covers a small pond on the left hand side of the road, as you travel this way, but a short distance north of Dilworthstown. Being heated by walking, I did not think it prudent to wet myself by going after it. A little further on, I met with *Sida spinosa*, by the road side. About a mile on this side of the half-way house tavern, I found abundance of the *Anagallis arvensis*. You may recollect pointing out to me a *Potamogeton*, at a bridge near this place, on our way to West Chester. It is the same (*P. lucens*,) as that found at the forks of Brandywine, without fructification. Here it was in full bloom,—and the leaves under water precisely like our Brandywine plant. * *

I must now write to ELLIOTT—and bid you farewell.

Yours.

Philadelphia, August 14, 1818.

MY DEAR SIR: I came here yesterday, and am pretty well. Mr. COLLINS is not at home, and will be absent for two weeks. Mr. NUTTALL is in Germantown, and I shall not see him. It was my intention to have been in West Chester to-morrow; but have declined it, and shall return home. I spent several hours yesterday with our worthy old friend BARTRAM; and have made an arrangement with Col. ROBERT CARR, who has the management of the garden, to cultivate my S. American plants. He has now the *Lantana Bratramii* (for the first time) in flower in his garden. How would it answer to have an engraving of this elegant plant, as a frontispiece to my work? Mrs. CARR (daughter of the

late JOHN BARTRAM,) draws elegantly,—and has engaged to execute as many drawings for me as I want.

In a letter which I received from Mr. COLLINS, a few days ago, he informed me (without previous solicitation,) that he would have my intended publication announced. This annunciation may, perhaps, stimulate me to more industry in preparing it; and I have not therefore forbidden it. Among the first plants which I shall notice, will be *Veronica hederifolia*,—which I perceive has only been noticed in *Muhlenberg's Catalogue*. It was sent to him by me, in 1811. I found yesterday, on Shellpot, near Wilmington, a new species of *Prunella*,—certainly, I would say, too distinct for a mere variety. It was 18 inches high, much branched, branches opposite, heads nearly twice the length of the *Pennsylvanica*, and covered with large flowers of the clearest white: a beautiful plant. On showing a specimen of it to Mr. BARTRAM, he thought he had seen it,—and considered it a new species. He will search for it, and let me know. A few days ago I had an interesting visit from JOHN JACKSON. I am pretty certain he has, in his collection, some new plants. I will propose a scheme. Inform me, by letter, when you can spare the time, and I will (in my turn,) take you in my gig (for I have both horse and gig,) to see this worthy old lover of Nature. Do strain a point, and let us go soon,—as he speaks of one fine plant which will soon be out of flower. On the way, we will call upon Dr. BAILY, and insist upon his obtaining for us some memorial of the late HUMPHRY MARSHALL. I am determined to notice him in my work,—and would wish to do it fully.

It is late at night: I am sleepy and extremely weary from my ride yesterday on horseback. This is my excuse for incoherence. Should I think of any thing else in the morning, I will add it. I am &c.

P. S. I forgot to inform you that Mr. BRACKENRIDGE

is in Wilmington,—and will remain there until he prepares for publication.

Wilmington, Del. August 16, 1818.

MY DEAR SIR: Meeting with a private opportunity, I embrace it to reply to yours of the 13th, which I received last evening, on my return from Philadelphia. It would have been entirely superfluous for you to have directed me to your father's to breakfast, on my return home from West Chester. Had not my anxiety to return in haste prevented, I should have called at your father's without any direction;—as I should there, also, have felt myself perfectly at home.

The *Anagallis arvensis* is still flowering (as well as seeding,)—and if I do not greatly mistake, will continue to flower until frost.

* * * * *

But the great object of my letter is to inquire of you, when you will be ready to go with me to visit JOHN JACKSON. I wrote to you from Philadelphia upon this subject,—informing you that the old gentleman had been to see me, and that I thought he had, in his collection, some new native plants that would soon be out of season. I informed you that I would call on you, and we would go together in a gig,—taking Dr. BAILY'S in our way, where we would endeavor to obtain some account of H. MARSHALL. I hope your practice will not prevent such an excursion soon. Do give me, if possible, an answer by the bearer,—who will be returning soon. Although I am now anxious to devote every moment to making preparation for my work,—my health requires that I should mix exercise with study; and your company, on such a journey, would be one half the battle. This letter has been scrawled in great haste,—and I shall not look over it to correct blunders; but remain yours.

Wilmington, Del. September 3, 1818.

MY DEAR FRIEND: Health about the same: Have not been idle: Have added to Diandria Monogynia, *Salvia linearifolia*,—which had been overlooked; and inserted *Boerhaavia diffusa*, from E. Florida,—not hitherto known to be indigenous. The *linear-leaved Salvia* is from Cumberland Island. Met with some interruption, viz: a letter from J. LE CONTE, which required an immediate answer, and gave me an opportunity of proposing some queries to him. He is full of publishing a great work.

.

I am packing up specimens, minerals and seeds in order to go towards the city to-morrow. On my return from West Chester, some 400 or 500 yards north of the road leading to Concord Meeting-house, I passed something like *Physalis Pennsylvanica*. The leaves appeared much smaller and smoother than the common one. I am sorry I did not attend to it; but hope you will find it, and examine it. I shall return from the city in two or three days; when it would give me vast pleasure to see you,—could you possibly stretch this far. MICHAUX is important to me. WITHERING or SMITH might be of use in a few instances,—but it is hardly worth while to borrow them. But, as a matter of curiosity, should you think of it, you may bring RAFINESQUE* along: and you might as well give me *your Note*,† respecting the 12th class,—as I shall have some plants to insert under it,—at least one. I have now for certain the *Scirpus tenuis*, of Muhl. as well as the *capillaris*,—both from JOHN JACKSON'S herbarium. The latter I mistakenly

[* *Florula Ludoviciana*.]

[† Containing a suggestion to change the name of the 12th Linnean class to *Calycandria*. This change, I afterwards learnt, had actually been made *eleven years* prior to the date of this letter, by M. RICHARD. See *Flora Cestrica*, p. 283.]

took for *castaneus*. You have specimens of the latter.

In haste,

P. S. This has been written since I shut up shop to go to bed: and therefore no time has been lost.

Wilmington, Del. September 17, 1818.

MY DEAR SIR: As you did not get your *Report* last week, I must be remiss no longer. Being in the city, closely engaged with COLLINS, &c. prevented me from writing. I have therefore to inform you that I go on *slowly*,—and I hope the more surely. It will not do to hurry: There has been too much hurrying, among our Botanists. But you may rely upon it, that nothing but death or disease will prevent me from going on steadily. Both interest and knowledge increase, as I get along. My interview with COLLINS was as interesting as it was pleasing. * * * On presenting for his examination our *Jacksonia*, he had no hesitation in considering it a new genus—if an American plant: but, in his usual cautious manner, recommended omitting the publication of it until the ripe seed-vessel could be obtained; lest, possibly, it might be something exotic.*

Of the *Darlingtonia*,† of which I gave him specimens

[*The *traditional* history of this plant was, that it had been obtained, by the late HUMPHREY MARSHALL, from the mountains of *Tennessee*; and, supposing it to be a *new genus*, Dr. B. and myself had proposed to dedicate it to our estimable friend, JOHN JACKSON. But the characteristic caution of our friend COLLINS saved us from making a great blunder: for, on examining the plant in a more perfect state, I ascertained it to be the *Saxifraga crassifolia*, L. Of course, there must have been some mistake in the history of its derivation;—as it is only known as a *Siberian* plant.]

[†The plant here alluded to—which Dr. B. at one time talked of naming thus—is the "*Satureja? rigida*, Bartr." in BENTHAM'S noble work on the *Labiatae*, p. 354.]

and seeds, last year, he knows nothing; but will aid me in the investigation of it. BARTRAM says he recollects it, in his travels in Florida—and thinks he referred it to *Stachys*, or *Satureja*. *Stachys* it cannot be. I will compare it with *Satureja*, and all other genera belonging to that order.

I am now deep in the *Xyrides*,—having added to *juncea* and *fimbriata*, another species (*elongata*). The *X. Indica*, of PURSH and NUTTALL, I am now satisfied, is nothing but the varying *Caroliniana*—or *flexuosa*, of Muhl. The name of MÜHLENBERG ought to be adopted by all American Botanists. While Europeans copy from one another, without giving definite descriptions, we ought uniformly to reject their authority.

COLLINS has lent me RAFINESQUE (*Flora Ludoviciana*). It is a shocking production, to come from one who has placed himself at the head of the botanical profession in our country,—and who finds fault with, and criticises all his predecessors and cotemporaries. • • •

I was in hopes to have seen you before this time. If you cannot come, let me hear from you sometimes. It is my intention, the ensuing week, to arradge in better order my late collections. This is absolutely necessary, to enable me to get on regularly and correctly with my work. • • • I have no more to say,—and it is time to go to bed. Good night.

Wilmington, Del. September 24, 1818.

MY DEAR FRIEND: Yours of the 17th, was duly received; and mine of the same date has in all probability been received by you. I continue to progress slowly, with tolerable health,—and certainly do not want industry, so much as capacity, to get on more speedily. I have this week, also, been subjected to some unavoidable interruptions.

For some time past, I had been looking for a letter from JOHN LE CONTE, big with botanical information, which I had earnestly solicited,—in relation to some plants in his former vicinity; when lo! after his forgetting whether he had answered my letter, or not—he comes out as follows:

“An expedition to explore the western waters that run into the Missouri, and probably those also that fall into the Columbia, is now in a state of preparation. I am anxious that you should accompany it. I may probably be one of the officers attached to it. We shall travel with a sufficient company to make observations of every kind that may be necessary, and to secure from any danger; and the fatigue and hardships that have heretofore rendered journies of this nature disagreeable, will be entirely avoided. I wish you immediately to answer me on this head,—directing your letter to the care of Mr. CHARLES PERRY, No. 69, North Water street, Philadelphia, where I myself will be next week. Cannot you contrive to meet me there?—Excuse the shortness of this letter. My time is so much occupied, that I can devote but little of it to my friends.” Signed, JOHN LE CONTE—who, by the bye, is now a captain in the U. States Engineer Corps. Thus have I given you the whole—*verbatim et literatim et punctuatim*: and really feel anxious to understand a little more about so great an expedition,—which, if already prepared for an immediate start, would ill comport with my situation, plans and arrangements, to accompany; but which, should it not set out until spring, and I could arrange with the government, would exactly suit me in every point of view. I have not yet answered the Captain,—and am hesitating whether to write, or go up the ensuing week and have an interview. I wish you would upon this, as upon all other great occasions, give me your advice and opinions freely.

In an excursion, a few days ago, south of Christiana, to look for a *Xyris*, I found a *Panicum*, which I think is very unequivocally *new*—and possessing characters which will render it easy to describe. How much is yet to be done near home! In this excursion I found, also, the *Scirpus intermedius*, of Muhl. But ought such a specific name to stand? I am glad to find you are continually adding to your *Flora*. It will be much more rich in plants than BIGELOW'S. I wish to adopt your "*Calycandria*,"—as it is correct and appropriate,—tending to simplify rather than confuse; which cannot be said of many modern innovations. I shall, for example, enter my protest against the cutting up of the *Asclepiades*, by ELLIOTT, NUTTALL, &c. In a family of plants so naturally allied, in every essential character necessary to constitute a *Genus*, no real knowledge is displayed by separating them. The characters on which these new Genera are founded, ought to make only *Sections*, or *Divisions*, in the *Genus*,—which would simplify, instead of burthening the science with names. There is not one of these plants but what a child in Botany would at once call *Asclepias*. Sooner than adopt such an innovation, I would add to *Asclepias* all the *Cynanchums*, in a separate division.—It is half past 11, P. M.

Wilmington, Del. October 1, 1818.

MY DEAR SIR: I have just recollected that another *Report* is due. It will be a short one. Yours of the 24th ult. was received. May I receive many more such *Medleys*, of Botany, and good wishes—and even scandal and all—when so appropriately applied! I am not yet through the *Rhynchosporae*,—as I have many new species. You will observe, therefore, that I adopt *Rhyn-*

chospora. In it I make two divisions, viz: *Spicis unifloris*—and *Spicis multifloris*. You may observe that Mr. ELLIOTT has a *Scirpus schoenoides*, described from a specimen sent by me. Of this he says that “the structure of the flower is strictly that of a *Scirpus*.” I say it is not so: but I cannot now stop to explain. There are many of the same *character*: Even the *Schoenus rariflorus*, of Michaux, has spikes three-flowered. The whole genus requires revolutionizing. In *Scirpus*, I make such divisions as will include *Dichromena*, and *Fimbristylis*, &c. I shall probably hear again from LE CONTE, to-morrow. Several short interruptions, since last *report*. I have been occasionally dragged into consultations, &c. much to my annoyance. I am now engaged in writing to, and putting up a packet for, M. BONPLAND,—to forward by Com. TAYLOR,—who is now here, and about to return to Buenos Ayres.

Wilmington, Del. October 9, 1818.

MY DEAR FRIEND: I continue progressing slowly. Your letter of the 1st contains exactly the advice, caution, and counsel which I anticipated,—and which I entirely approve, and thank you for.

A second letter from LE CONTE, was received at the same time;—stating, that “the expedition fitting out by government will leave Pittsburg, in the ensuing March, in a steamboat building there for the purpose, &c. &c.” It appears that this expedition will be a very extensive one; and will explore our south western territory, along the Mexican border, &c. LE CONTE concludes thus—“I am now going to Washington, and shall endeavor to settle the plan of proceeding—which is not yet perfectly matured—so that the whole business shall be worthy of our Government. You will of course (if

agreeable) be attached to the expedition, as Surgeon ; and have the direction of a part of the scientific persons who will accompany it." Thus, you perceive, our friend calculates upon cutting a figure in this expedition. It appears, by the papers, that Major LONG will command. With this gentleman I am acquainted ; and a better could not perhaps be selected. I suppose I shall not see you until after the election. I do sincerely hope you may be again elected ; and thank you for your kind intention to promote my interest.

My health continues much the same ; but I feel that rather more exercise would be advisable, than I have taken lately. Should you call on me next week, I shall then again, probably, have heard from LE CONTE—who has promised to write me from Head Quarters. Yours.

P. S. I have put up for BONPLAND 138 specimens ; and requested in return such as I think will be most useful to me. Among those already sent to me, is the *Syena fluviatilis*, of AUBLET, from *Guiana* ; by which I find our plant, with which it has been confounded, is distinct.

Wilmington, Del. October 23, 1818.

MY DEAR SIR: Yours of last week was received. I omitted writing, from an expectation of seeing you.—Accept my sincere congratulations on your election to the next Congress. I regret that you cannot take your seat immediately,—so as to add one in favor of South American Independence. Will not your cousin ISAAC* be on that side of the question? Mr. BRACKENRIDGE leaves us, in a few days, for Baltimore. He wishes to see you, and have some conversation on S. American Politics.

[*The late Judge DARLINGTON,—then a Representative in Congress, from Chester county, Penna.]

I go on as usual with my work: more speedily would be desirable, but impracticable. My health is rather improving, if any thing,—with the exception of occasional head-ache and pain in my eyes—I believe from long and close attention to the seeds of Gramineous plants. I am happy to say, that I feel *myself* pretty well satisfied with the progress I make,—slow as it is: but I shall solicit your criticisms, and those of COLLINS.

I have heard nothing further respecting the grand expedition. In a letter received from Mr. COLLINS, a few days ago, he queries thus: “How would it do for you to accompany Major LONG, in the steam-boat Expedition? You might go, I presume, if you pleased, in your official capacity, and reap much new matter. *Would not the trip give great force to your work?* Mr. THOMAS SAY, our Entomologist, is going,—and you would be pleased with him.” Thus you see how doctors disagree. In my reply, I informed him that I wished to publish previous to travelling again. When I get fairly through the Grasses, I shall, I hope, progress a little more rapidly. With esteem and respect, &c.

Wilmington, Del. November 19, 1818.

MY DEAR FRIEND: I continue progressing slowly.—Since I had the pleasure of seeing you, I have described above one dozen plants,—and am nearly clear of all the *Cyperaceae*. For two or three days past, I have been much interrupted by various little unavoidable matters requiring *exercise*, by which I have been benefitted.—and which I do not therefore regret. My final arrangement of *Rhynchospora*, *Dichromena*, *Scirpus*, *Fimbristylis*, and *Trichophorum*, is,—that I have added *Dichromena* to *Rhynchospora*,—and *Fimbristylis* and *Tricho-*

phorum to *Scirpus*. Some of our Botanists will of course be surprised at the union of *Dichromena* with *Rhynchospora*, instead of *Scirpus*—in consequence of the want of bristles in the *Dichromena*. I have been induced to make this arrangement in consequence of having found (since I saw you) among my South American specimens, a *Rhynchospora single-flowered*, and in every other respect a true *Rhynchospora*, but wanting the bristles! This, then, constituted another division: *Spikes single-flowered, bristles wanting*. I then found, to my surprise and pleasure, that the spikes—as well as the form of the seed, and the tubercle—of the *Dichromenas*, corresponded exactly with the *many-flowered Rhynchosporas*; and hesitated not to add them, under the head of *Spikes in terminal heads, involucred, many-flowered, wanting bristles*. Of the propriety of uniting* *Fimbristylis* and *Trichophorum* to *Scirpus*, no one can doubt, who will be at the pains to examine the plants attentively. In order to give the finishing stroke, I wish to see the Herbarium of MUHLENBERG; and shall probably repair to Philadelphia in the course of a week, for that and other purposes;—among others, to obtain a copy of MICHAUX,—as I know you ought to have yours. Along with a letter which I received from COLLINS, this evening, is an addition to my Herbarium,—the *Schoenus mariscoides*, of Muhl. This is a real *Schoenus*,—destitute both of tubercle and bristles: and yet, in habit, it comes extremely near to *Rhynchospora*. Since I saw you, I have also satisfactorily ascertained the distinction between *Scirpus brunneus* and *atrovirens*, of MUHLENBERG,—which

*Or rather *restoring* them,—as they have been improperly separated from *Scirpus*. The *Dichromena leucocephala* was also the *Schoenus stellatus*, of Swartz,†—about which PURSH has made another mistake.

[†See, however, Dr. TORREY's Monograph of the North American Cyperaceae.]

have been confounded by PURSH & NUTTALL. Although PURSH gives the synonym, *brunneus*, to his *exaltatus*, upon the authority of MUHLENBERG himself, he is most unequivocally mistaken. The *exaltatus* of PURSH, is the *atrovirens* of Muhl. or merely a *variety* of it. The name of MUHLENBERG ought to be adopted. The plant is well described by him, and very distinct from *brunneus*. What a shame it is, that Mr. ELLIOTT should adopt all the innovations and errors of this *book-making* Botanist!

Neither the old Abbe [CORREA], nor Mr. LE CONTE, has given me any further account of the *grand expedition*. All I know further, is derived from Mr. RODNEY, this evening. He says that the President (in his presence) ordered the Secretary of War to note my name, and place of residence, &c. The appropriations for this expedition are yet to be made. I should join it with great reluctance before I had something prepared for publication,—although I should be sorry to miss it;—as it would lead me into a kind of life which I have always found congenial to my health. * *

Do give me your opinion about the propriety of separating the *Gentiana crinita* from its congeners. It differs much more widely than many plants that have, in modern days, been separated. I shall ask the opinion of COLLINS, the first opportunity. I have not yet collected any seed of the real *Gentians*. The genus *Exacum* must come near the *G. crinita*: but I have never seen that genus. It would give me great pleasure to dedicate such a plant to you; and I am much inclined to think that its separation will admit of an ample defence. Yours.

Wilmington, December 7, 1818.

MY DEAR FRIEND: Yours of the 2nd, has been received. It was my intention to have written to you by

the last mail; but I accidentally let the period pass over. I have not much to say, at last; but I continue jogging on slowly, and endeavoring to do well as I go. Since I wrote last, I found several more new species of *Cyperus* than I was aware of;—and have been obliged to halt, and re-examine a genus called *Mariscus*,—for which I can find no *character*—and scarcely *habit* to distinguish it from *Cyperus*. Compare *Mariscus echinatus* with *Cyperus strigosus*,—(I mean *strigosus* of *Mx.** for the *strigosus* of *Linn.* and *Muhl.* is a very different plant,—although both *PURSH* and *ELLIOTT*, in their notices of the former, refer (incorrectly) to the latter—) and they will be found to agree in every respect, except that in the one the spikelets are collected into a head. Again, compare *Mariscus umbellatus* (*Scirpus cyperiformis*, *Muhl.*) with any of the compressed—spiked *Cyperis*,—and they cannot be distinguished, except, as in the former instance, by the spikelets being collected into a head. Even the *Mariscus retrofractus*—which is most unlike in *habit*—is, I will venture to assert, *Cyperus* all out, as far as *character* is concerned.—In short, these plants require a thorough re-investigation. As for *PURSH*, one of his descriptions will apply to half a dozen; and we shall never know any thing about our Botany if we rely upon such works, instead of examining the plants.

I have not yet been in the city,—but must go shortly. If, after conferring with our excellent friend *COLLINS* on the subject of *Gentiana crinita*, I should conclude to separate it from *Gentiana*, I would gladly avail myself

*I have consequently changed the name of *this strigosus*, to *subulatus*.† See *PERSOON*, who has both under the same name.—*Vol. I. p. 63—64.* One of the same name is sufficient in a family, I should suppose.

[†See *Cyperus Michouxianus*, *Torr. Monogr. N. Am. Cyperaceae.*]

of the Generic character of it, which you have made out so correctly. I received a letter from Mr. ELLIOTT, a few days ago. He informs me that he has just returned from his trip to the *Alatamaha*; but without finding much that was new, or interesting, in Botany. He says it is his intention to get rid of his public employments,—both for the benefit of his health, and to enable him to devote more time to Botany.

* * * * *

Sincerely yours.

Wilmington, December 25, 1818.

MY DEAR FRIEND: Although I have not been idle since I wrote last, I fear you will think my progress has been too slow, when I inform you that I am not *even yet* clear of the *Cyperaceae*. I have added 15 species of *Cyperus*,—and have yet a few *Kyllingias* to add, to clear me fairly of *Triandria monogynia*. Perhaps you will be less severe upon me when I state, that I shall have little short of 70 plants inserted, when I enter upon *Digynia*. I believe I informed you in my last letter, that I had rejected the genus *Mariscus*,—and perhaps added, *prematurely*, that the plants included under that head would all arrange with the *Cyperi*.—This turns out not to be exactly correct: so necessary it is—as Dr. MUHLENBERG once told me—to “look again and again,” before you decide. One half of them are, indeed, unequivocally *Cyperus*; and the other comes so much nearer to *Kyllingia*, than to *Mariscus*, that I do not know where else to dispose of them. The *Mariscus echinatus*, (*Scirpus echinatus*, L. *Kyllingia ovularis*, Mx.) when its spikelets are single-flowered (which is frequently the case), is *Kyllingia* exactly, according to the characters given to the genus;—whereas, not one of our established *Kyllingias* corres-

ponds with those characters. I stated all these difficulties, a few days ago, to COLLINS; but have not yet received an answer,—and the weather is so abominably cold that I am afraid to go to the city. COLLINS sent me, lately, a specimen of a most singular little plant, the *Scirpus subsquarrosus*, of Muhl. supposing it to be the *Kyllingia maculata*, of Michaux. It is not only not *K. maculata*—but not a *Kyllingia* at all,—as *all* the scales, or glumes, are *single-valved*; and yet, in *habit* it is *Kyllingia* exactly. The *K. maculata* has always calyx 1-valved, with a 2-valved Corolla. Can it be the *Cyperus minimus*,* said by NUTTALL to have been found lately by Dr. CLEAVER! Could you obtain specimens from Dr. CLEAVER?

I have at last received, through J. M'QUEEN, a specimen of the *Saccharum Officinarum*, from Jamaica.—This will enable me to determine whether our *Erianthi* ought to be united to that genus,—according to PERSSON, &c. I have not yet entered upon the investigation, so as to find the *character*,—but as far as *habit* goes, it would unite them.

The cold weather pinches me severely; but I continue as healthy as usual,—whatever the result may be. Unless pinched to death, I don't think another winter will find me in this bleak, dreary, and comfortless clime. Since the winter of 1810—11, I have gathered flowers in every month of the year, and basked in the sunshine of milder regions.

Wishing you a *merry Christmas*,—I remain ever sincerely yours.

[*It was, doubtless, the plant now called *Isclipsis subsquarrosa*. See TORREY'S *Monogr. N. Am. Cyperaceae.*]

Wilmington, January 7, 1819.

MY DEAR FRIEND: I write to inform you that I do, at last, see the end of *Triandria monogynia*: and to thank you for the interest you have taken in my being attached to the *western expedition*—as expressed in your letter of the 30th ult.*

[*This refers to a letter, in which I had informed Dr. B. that I had written to the Secretary of War, in behalf of his appointment as Botanist, in the proposed expedition. The following is a copy of the letter to the Secretary;—to which is subjoined his reply.

TO THE HON. JOHN C. CALHOUN, SECRETARY OF WAR.

West Chester, Penn. December 23, 1818.

DEAR SIR: As this is not, strictly speaking, a *letter of business*,—if you should happen to be engaged in the duties of your office at the time you receive it, I will thank you to put it in your pocket, and favor it with a perusal at your leisure, by your own fireside.—The acquaintance which I had the honor to make with you, during the sittings of the 14th Congress, encourages me to address you on the present occasion,—and to hope that the procedure will not be deemed impertinent, or improper. I have heard, with much pleasure, that it is in contemplation to send a party of scientific gentlemen to explore the country, and its productions, to the westward of the Mississippi;—and the great interest which I feel in the successful accomplishment of the object, induces me to obtrude myself for a few moments upon your notice. No one, I am satisfied, can appreciate more justly than yourself, the lustre which a government derives from the successful and liberal promotion of Natural Science: and I am convinced that you will be gratified with so fair an opportunity of enhancing our reputation, in that respect, among the learned of the old world. It will also be a source of laudable pride to the citizens of this republic, to see their government as eminent for the promotion of useful science, as it is for the protection of civil liberty. I have no doubt but every care will be taken, to select gentlemen for the proposed expedition, who excel in their respective departments of natural knowledge; and I trust a rich reward awaits

I have not had a syllable from Washington, upon the subject;—although Mr. RODNEY and others (voluntarily) stated my claims to Mr. CALHOUN, and also to the President. But, I would infer, from a letter I received a few days ago from Major LONG, that, either he has been empowered to make selections in his *scientific corps*,—or, that the government has communicated to him the names of those who are thus to accompany him. He writes thus: “The Botanic chair will be filled by yourself; the Zoologic, by Dr. SAY of Philadelphia; and the

the nation, from their labors, in the augmentation of its fame, and the development of its resources. Next in importance to the character of the soil, and the topography of the country, will be a knowledge of its animal, vegetable, and mineral productions.—Among these, the *vegetable* products are by no means the least interesting. From the successful attention which has latterly been paid to that branch of Natural Science, in all parts of the civilized world, it is important that the reputation of our country should be sustained, by the appointment of a skilful and scientific *Botanist*.

The principal object of this address is (in case the appointment is not already made, or determined upon), to recommend to the notice of the proper authority, a gentleman whom I consider pre-eminently qualified to fill this department of the expedition: I mean Dr. WILLIAM BALDWIN, of the U. S. Navy. From the rank which this gentleman holds in the service of his country,—and, more especially, in the estimation of men of science,—his merits cannot be unknown to the administration. He had the honor to accompany the late mission to Buenos Ayres, as Surgeon of the Frigate Congress; and I have no doubt but the Commissioners will cheerfully testify to his worth—if they have not already done so. I have understood, indeed, that his name *has* been mentioned to the President, as a suitable person: but I could not refrain from adding my testimony in his behalf,—both because I am desirous that accomplished Naturalists should be selected for the expedition, and because I am satisfied, from a long and intimate acquaintance with Dr. BALDWIN, that he is peculiarly fitted to do justice to the Botani-

Geologic, by Dr. JOHN TORREY of New York." He adds further: "It gave me the highest pleasure to learn from our friend, that you had consented to be one of the exploring party;—a decision on which I rely with the fullest confidence, in every point of view." Am I to consider this as absolutely official,—and sufficient without orders from Philadelphia?

The Major calculates upon leaving Pittsburg the 1st of March,—or as soon as the ice breaks up: but says, "I shall probably be at Wilmington before that time,

cal department. To settle any doubts which may possibly exist on this head. (i. e. his *fitness*), it will only be necessary to refer to ZACCHEUS COLLINS, Esq. of Philadelphia, STEPHEN ELLIOTT, Esq. of South Carolina,, and Mr. CORREA, the Portuguese Minister;—who are unquestionably among the best judges of Botanical merit, in the United States.

It may perhaps be proper for me to observe, that my troubling you with this communication is exclusively an act of my own. So far from being solicited by Dr. B. to interfere in his behalf, I assure you, that gentleman does not even know that I have such a thing in contemplation. It is a free-will offering on my part, for the reasons above stated.

Should it, therefore, be compatible with the views of the administration to give him the appointment, and to render it eligible for a man situated as the Doctor is—with a young and growing family—it will be a source of great gratification to me: inasmuch as I am convinced, that if he should be favored with life and health, the highest expectations from that branch of the expedition will be amply fulfilled. Trusting that you will excuse this well-meant officiousness, I beg leave to subscribe myself, with great respect, your friend and obedient servant,

WM. DARLINGTON.

P. S. Although it may be altogether superfluous, yet if I might be permitted, I would respectfully suggest, that there should accompany the expedition, among others, a scientific Geologist—Surveyor and Draughtsman—Astronomer—Zoologist—Botanist—Mineralo-

and will do myself the pleasure to call on you. In the mean time, please to communicate freely on every subject connected with the objects we have in view." As I have no doubt Mr. Secretary CALHOUN will answer your letter, I shall defer replying to Major LONG until I hear from you.

The *Cyperaceae* have led me a dance, and I cannot but congratulate myself on getting clear of them;—although I do not accuse myself of tarrying too long gist—and a person qualified to make *accurate drawings* of such objects as might require it on the spot. With a corps of *Savans* such as this—furnished with the necessary apparatus and conveniences—we might confidently anticipate an accession to our stock of natural knowledge, which would be as honorable to our government, as its results would be beneficial to the interests of society. Our national character would thus be accelerated towards its destined eminence. The garlands of Science would be appropriately blended with the civic wreaths of our Republican Polity, and the chaplets of our military glory.

W. D.

REPLY TO THE PRECEDING.

War Department, 6th January, 1819.

DEAR SIR: I have received your letter of the 23d December, in relation to the exploring expedition which has been projected under Major LONG. Dr. BALDWIN will be one of the party; and I am happy to have your good opinion, with so many others, in his favor. The original object of the expedition was to extend the knowledge of the Geography of our country; but it has been determined to make it as subservient to science, as possible. With this view, the expedition will be accompanied by citizens eminent in the several branches of knowledge, which you have enumerated.

In serving our country, it will always afford me pleasure to contribute to the advancement of science.

Accept of the assurance of my sincere respect and esteem.

J. C. CALHOUN.]

Hon. WILLIAM DARLINGTON, }
West Chester, Penna. }

among them. I now know more—or fancy I know more—about them, from one month's application of this kind, than I should have known in 7 years, as a mere amateur: So necessary it is to be always preparing for publication.

Including the *Marisci*—which I have added to *Cyperus*,—and some other plants imperfectly known—with some from South America (which I have added for the sake of illustration, or for other reasons),—I have upwards of 70 plants described.

My health is not to be complained of,—notwithstanding the inclemency of the weather: Indeed it appears to improve. Were it not for the difficulty of removing goods and chattels, I believe I would send my family to West Chester, during my absence (should I go),—in case a suitable house should offer for their accommodation. I am &c.

P. S. We expect JOSEPH LANCASTER will give us a lecture on education to-morrow. I have more to say, but must defer it for another opportunity.

Wilmington, Del. January 21, 1819.

MY DEAR FRIEND: I cannot avoid paying early attention to your friendly and interesting letter of the 13th. Although I fear you over-rate my talents and acquirements, I do hope that the zeal and friendship which you have so often manifested in my behalf, will have the effect of stimulating me to greater exertions, in the wide botanical field which now opens before me.—Since I wrote last, I have received another letter from Major LONG, headed “Circular,”—in which he informs his scientific corps of the weight of baggage, &c. which will be allowed them; with hints to be prepared in time for the expedition. He manifested the greatest zeal in

our behalf; and I cannot but flatter myself that, under his command, every possible facility will be afforded. I have answered these communications; and shall repair to the city, in a few days, to confer with Mr. SAY on matters relating to the expedition.

With respect to the publication of the botanical matter which I have already prepared,—or may prepare, before setting out for the west,—I hardly know how to decide. COLLINS has informed me, that its publication has been announced in the *Port Folio*; but in what manner I know not. As he offered to announce it, I did not give him any specific instructions about it. As something of this kind has been long expected from me,—and as it would furnish the evidence of what I am capable of performing,—I have thought of adopting the plan suggested by Mr. CORREA—to publish in the Transactions of the Academy of Natural Sciences, of Philadelphia. I should then state, in my preliminary observations, my reasons for adopting such a plan: and the botanical public would be prepared to judge of the probable extent and value of what I might afterwards publish,—if favored with health and life.

Mr. CORREA further suggested, that the *Academy* ought to publish a number of copies, in a separate form, to be presented to me, for distribution among my friends.—My health continues good. I am now among the *Paspalums*;—of which I have one new from E. Florida—and several from South America. I should hope to clear the *Panicums*, before the first of March. My progress has indeed been slow—much slower than I had anticipated,—but it has not been too slow. To become sufficiently acquainted with a single individual in a large family of plants, so as to be able to describe it well, it is necessary to be acquainted with the characters of all, or many in that family:—and hence I have examined, re-examined, and examined again,—and think I have been repaid for my trouble.

I shall be truly glad to see you before I go. There can hardly be a doubt on the subject of my finding the *Darlingtonia*.* It is a plant that I have been seeking for; and I shall cherish it as the choicest of my discoveries. I remain truly yours.

Wilmington, February 4, 1819.

MY DEAR FRIEND: I returned last evening from Philadelphia,—where I spent several days in examining the Herbarium of Dr. MUHLENBERG, &c. I took with me, for the inspection of our mutual friend, Mr. COLLINS, the 4th and last number of my work,—embracing a part of the genus *Cyperus*, *Kyllingia*, *Leersia*, and the beginning of *Paspalum*. With his critical observations I am well satisfied. They were, I think, judicious,—and rather complimentary than severe. As I expected, some few inaccuracies in my *Latin*,† were pointed out; and some of the *descriptions* were considered rather long. With respect to publication, he advised me to defer it, for the following reasons: 1st It was already too bulky for a periodical work. 2nd. I should thereby

[*I had jocosely suggested to Dr. B. that he might, perhaps, find the *Darlingtonia ignota*, somewhere along the margin of the Missouri: and it so happened, that his successor in the expedition, Dr. E. P. JAMES, *did* find a species of the genus, afterwards named *Darlingtonia*, by Prof. DE CANDOLLE. See *Annals of New York Lyceum*, Vol. 2, p. 101.]

[†Dr. B. had received no other education, than such as the common English schools in Chester county afforded, and his knowledge of Latin was merely what he had acquired by his researches in Botanical works. He derived considerable assistance, however, in the study of that language, after his marriage, from Mrs. BALDWIN,—who had received a classical education, rather unusual for American females of that day.]

lose a portion of the profit which such a work, published independently, ought to produce. 3rd. He disapproved of my having blended the *South* with *North* American plants. 4th. The work was already announced in an independent form. But he most earnestly requested me to prepare a communication, of moderate length, for publication in the Transactions of the *Philosophical Society*,—in anticipation of what I may hereafter publish; selecting for the subject of it, an account of any plant or plants, I may think proper.* This, I think, I can accomplish without much labor; and I have almost made up my mind to select the genus *Rottboellia*,—as I have several species. * * * *

With the *Herbarium* of the venerable MUHLENBERG,—precious and valuable as it is, and ever will remain to be,—I have been disappointed. Unfortunately for my purposes, he has too frequently failed to give us any reference from the specimens of his Grasses, &c. to the plants described; and hence they are frequently found, in the Herbarium, under different names from those of the same plants in his work. But I was much gratified to find, that the specimens communicated by me, were carefully marked, and kept separate. At the request of COLLINS, I made out some explanatory notes, as we passed along in the examination. I had only leisure to look over the *grasses*.

I had an opportunity, for the first time, of attending a meeting of the *Academy of Natural Sciences*. Two communications, on New Genera, from the redoubtable pen of RAFINESQUE, member of ten thousand learned societies, had been examined by a committee,—and rejected, as unworthy of publication!

I am truly glad to find, that “*my new and approved*

*And also to present to the *Society*, specimens of all my new *Rhynchosporae*.

method" does not indiscriminately go down, with the members of the Academy; and that they have sufficient independence to reject the wild effusions of a *literary madman*. He is now in the city; but as he is *huffed* at the Academy, I had not the honor of seeing him there, and did not think it worth while to seek after him. But I was delighted with a truly scientific production from Mr. SAY, on several *crustaceous* animals, found in his late excursion in Georgia and Florida. There can be no doubt but this gentleman will do honor to his department, in our projected excursion to the West. * * *

Another good thing has happened to me. I have fallen heir to the copy of MICHAUX's *Flora*, which belonged to my departed friend, Dr. MUHLENBERG,—with his marginal notes. It had fallen gratuitously into the hands of COLLINS; and he, hearing me speak of wanting a copy, immediately presented the above,—assuring me, in his sententious way, that I did him a favor by accepting it; as I was most intitled to it. The very first thing I attended to, in conjunction with COLLINS, on my arrival in the city, was the plant I had originally designed for *Darlingtonia*.* I had never relinquished the idea of its being a new genus; but the observations of BARTRAM, and COLLINS, induced me to pause. COLLINS had previously—and we now together—examined, and compared it with elegant figures of all the genera belonging to its order,—in which they are all dissected, and explained, in a late French work. The result is, a *new genus*,—whether *Darlingtonia*, or no. I made no mention of *Darlingtonia* to COLLINS; but was highly gratified (at the winding up of the business,) with his proposal to drink your health in a glass of good old (7 years) Madeira. Thinks I to myself, there may be something ominous in this: but I only observed, that he could not have proposed a toast more pleasing to me.

[* *Satureja ? rigida*, Bartr. in BENTHAM, *ubi supra*.]

The many other things I have to say, must be deferred until I see you,—which I hope will be shortly. The near approach of a period in which I must be so long separated from my family and friends,—and in which my reputation—my every thing—appears to be in some measure involved,—makes me feel thoughtful, if not a little melancholy. Can you not contrive to spend a day or two, or three, with me? see the arrangement of my Herbarium—and other matters, too tedious to mention?

In the meantime accept my best wishes.

P. S. I rode to Philadelphia on the 29th ult. and suffered much with the cold; but am glad to state that I continue to enjoy my usual health.

I have reason to calculate upon seeing Major LONG very shortly. In a letter to Mr. SAY, just received, he writes that he shall come on, via Washington. A young Mr. PEALE will accompany Mr. SAY, as an assistant: and Dr. SAMUEL B. SMITH calculates upon being attached to the expedition. He says he is a fighting character. Such may chance to be required, but I ardently hope not,—as I am no ways fond of it. It gives me great pleasure to find that some of the great folks in Congress talk sensibly, and humanely, in relation to the Indians. I hope it will lead to acting humanely towards them. Whatever may have been the guilt of AMBRISTER, and his adjunct, I will venture to say, there would have been no Seminole war, had these deluded people been fairly dealt with.

Wilmington, Del. February 25, 1819.

MY DEAR FRIEND: Yours of the 16th has been received. I have not yet learned the precise time of setting out for the West; but, as I momentarily expect to receive that intelligence, I will begin my letter, and

leave it open until I hear further. LE CONTE informs me, in a letter I received from him yesterday, that Major LONG left Washington for Philadelphia, on the 21st. As he promised to call on me, he can hardly fail to do so,—and ought to be here to-morrow.

Mr. LE CONTE does not accompany the Expedition; but how it happens that he does not, he has not informed me. He has reverted back to his *Synopsis*,—in relation to which he has written me two letters in quick succession. From Mr. ELLIOTT, and his book, I hear nothing. I do not see the danger of losing my Southern Collections, *altogether*;—unless death should prevent the completion of my account of them. They are as interesting to me, (as far as they go,) as any other collections can be. But it is true that delays are always dangerous: and I have now to regret that I did not, several years ago, prepare for publication. You will please to recollect, that it is not long since I have made Botany a *business*: But since that time, I have *labored hard*,—and should it ever eventuate in honor, or profit, I shall owe you *much*, for stimulating me to pursue it.

My stock of flannel, &c. is in readiness. I shall take care to inform you of our route, the moment I am apprised of it myself. I might have known more of it by this time,—but have deferred inquiring until I see Major LONG. * * * * * *

26th. Another (*stormy*) day has past over,—and I hear nothing from the Major.

March 1. I have this moment received a letter from Major LONG, dated in Philadelphia the 26th, (he having gone another route) requesting an interview, for the purpose of making arrangements, &c. I shall therefore go up to the city to-morrow; and probably return the last of the week. Should I remain longer, I will write you from thence,—as I am anxious to see you.

In haste, yours.

Philadelphia (Museum), March 6, 1819.

MY DEAR FRIEND: I return home this day, with only six days grace. On the 12th, I return here, again, and set out immediately for Pittsburg. To see you, therefore, early the ensuing week, will afford me great pleasure. I am, so far, much pleased with my companions in science, and anticipate an agreeable excursion,—should I only be favored with health. But I cannot say I feel greatly elated with the prospect before me. A dread responsibility now rests upon me; and how I shall succeed in gratifying, and satisfying, the public curiosity, cannot yet be determined.

Much to communicate, when I see you. Yours in haste.

P. S. I have this morning (by request) sat for my portrait.*

Philadelphia, March 14, 1819.

MY DEAR FRIEND: I have unexpectedly obtained permission to return to Wilmington, and remain there until the 26th, and shall then go to Pittsburg via Baltimore,—as being much the best route. This happened in consequence of delay in the arrival of the astronomical instruments from New York; which of course detains the baggage wagon. As I should have nothing to do, of importance, in Pittsburg, Major LONG thinks, with me, that I ought to remain where I could be most usefully employed, until the last. I am not certain whether any of the gentlemen will wait for me.

[*This *portrait*, taken by the venerable founder of PFALE'S *Philadelphia Museum*, is now in that institution.—It is a tolerably correct likeness; and from it, the lithographic copy prefixed to this volume has been taken. The *signature*, beneath it, is a *fac simile* from the *last letter* received from Dr. B.]

I can now inform you, authentically, that you were proposed by COLLINS and SAY, on the 23rd December, 1818, and elected a corresponding member of the Academy. The reason why you have not received your certificate, is, that they are waiting for a seal, &c. so as to give it to you in style.

Last night we all met to drink tea, at Dr. PATTERSON'S,—where I had an opportunity of being introduced to a number of *Savans*, members of the Philosophical Society, &c. and among others, I was happy to meet my friend BRACKENRIDGE. To-morrow evening, we assemble at Mr. Secretary VAUGHAN'S. The Philosophical Society have given me their thanks for my donation of *Rhynchosporae*. COLLINS appears pleased with my communication, to them, on *Cyperus* and *Kyllingia*; and Mr. VAUGHAN told me, last evening, it should be published in a half volume which they are preparing for the press. I expect to return to Wilmington the day after to-morrow,—where I shall have a chance of hearing from you, if I should not see you again. Yesterday I called upon S. W. CONRAD,—principally to urge his publishing MUHLENBERG'S Flora.—He says he will issue proposals immediately, for publishing by subscription,—and place my name at the head of the list. But I have (and COLLINS the same,) agreed to take one dozen copies. I must request you to relieve me a little in this business, by persuading some of our friends to take copies: such as JOHN JACKSON, Drs. SEAL, HAYES, &c. The letter of Mr. ELLIOTT has not been found. The singular manner in which this letter disappeared, has almost renewed my belief in witch-craft. I shall look upon all the cats, henceforth, with a suspicious eye. I am busy, even on this day of rest, in packing up, &c. In haste, yours, &c.

Wilmington, Del. March 21, 1819.

MY DEAR FRIEND: Yours of the 27th, has been received: but the "Village newspaper" which was to have accompanied it, has not come to hand. It is taken in this place; and should I have leisure to look for it before I set out for Baltimore, I shall attend to your request.

My meaning in relation to MEHLENBERG'S *Flora*, was, that you and our friends, who may take copies, would take of those for which I have subscribed: but at the same time, rather than the worthy editor should sustain loss in the publication, I would risk paying for the whole.

My portrait is completely finished; and ought to be, —as I have sat little short of 12 hours. The old gentleman [CHARLES WILSON PEALE, Esq.] considered it one of his most finished performances; and spoke of sending it, (on this account—and not, I presume, on account of my beauty—) to the Academy of Fine Arts, as a specimen of his finished workmanship. We have all requested to remain nameless,—and to be deposited in a private apartment, where any of our friends will obtain admittance.

The others, with the exception of Maj. LONG, were not entirely finished when I left the city: and the Major's, I think, is defective,—particularly about the eyes. The old gentleman complained of his never sitting well: and the last time he sat, he was drowsy, from loss of sleep (in consequence of his wife's indisposition). This drowsiness is manifest in the picture.

• • • It gives me great pleasure to inform you, that the views of our friend COLLINS coincide remarkably with our own, in relation to the great interests of Botany, in our Country. In conversing freely, and comparing our views on the subject of forming an *American Genera and Species Plantarum*, he pronounced most decidedly

in favor of restoring the *Bartonia*, of Muhl. and rejecting, of course, the one about which PURSH and NUTTALL have been contending. I was introduced to a German gentleman, in the city, of considerable botanical knowledge, who has been some time in our country, and has made a large collection of specimens to carry home with him. In looking over part of this collection, I found a specimen of the *Balduina uniflora*, given him by NUTTALL. He reprobated, and had changed the orthography to *Baldwinia*. I was glad of this opportunity to inform him that the name would not be adopted in this country; and that it would shortly appear, named and described, from another quarter.*

I shall probably write you many a line; and another letter from you might reach me in Pittsburg,—where I expect to hear from COLLINS. I have this day put up for him, and for the Philosophical society, a considerable number of specimens,—and among others, my best specimens of *Solanum tuberosum* [from S. America, no doubt. One of these is now in the Herbarium of the Chester county Cabinet]. On my return from the city, I found letters from both the Secretary of Navy, and Army; and have therefore, at last, the satisfaction to know how I stand, in the projected expedition.

March 22nd. The village newspaper has come to hand

[*This has reference to a promise, by Mr. ELLIOTT, (who had long known the plant,) to publish an account of it, by another name; as Dr. B. was not pleased with the genus,—and was particularly dissatisfied with the orthography of *Balduina*. The genus, however, seems now to be definitively established; though the orthography may be ultimately changed to *Baldwinia*: and such, I understand, is the intention of Drs. TORREY & GRAY.

Since the foregoing was written, Part 2, of the second volume of the *Flora of North America* has been published; in which the name, *Baldwinia*, is correctly written, and the genus restricted to a single species, viz: *B. uniflora*, Nutt. Torr. & Gray, 2. p. 389.]

via Philadelphia. The plant you have inquired about [noticed in a Virginian newspaper,] I have no doubt is the *Lamium amplexicaule*; and it is the only species I have seen out of the gardens. It flowers throughout the winter, in Georgia; and is a very hardy plant.

March 23rd. I leave here to-morrow at half-past 2, P. M. and must now take my leave of you, for a while.— One word more. I wish you would devote a portion of your time,—and as large a portion as you can spare, the ensuing season,—to the plants of your vicinity;—and particularly to the investigation of *Genera*. I do now look forward with some kind of confidence to the period,—which I hope is not far distant,—when, by an union of labors, we shall form an *American Genera and Species Plantarum*, that will do us honor. A *Genera Plantarum*, we more immediately and especially require; in the construction of which, the greatest labor and ingenuity is requisite. The work of NUTTALL is a convenient manual, and not without its merits: But it is (I will venture to say, and prove,) extremely faulty in numerous instances,—and the earlier it is superseded, the better. The number of NUTTALL's *Genera* requires to be abridged. He has placed too much reliance upon *habit*, in the formation of many of his new *Genera*: and this *method*, pursued, will inevitably end in *chaos*,—as it strikes at the root of everything like system. For example, the dogs of the frozen regions, clothed with a warm mantle of fur, must be made to constitute a distinct genus from those of the Tropics,—which are naked.

Yours.

Pittsburg, April 5, 1819.

MY DEAR FRIEND: I am here along with my companions in snug quarters,—while winter is raging without

in violent squalls of snow. I left Baltimore at 2, A. M. on the 27th ult. and reached this smoky city between 2 and 3 P. M. on the 1st inst. after the severest jolting I ever experienced; but, under the operation of which,—beside being obliged, from bad roads and a crowded stage, to walk a good deal through rain and snow,—I enjoyed comfortable health. It was not until I had remained here near two days, that I felt something of the effect of such a journey, in a slight catarrh, with a determination principally to my head,—but without losing strength, or appetite. My headache has now left me; and I feel but little uneasiness in my breast. All this would probably have been avoided, had the stage kept on with me at the same rate.

We are all here: but unfortunately, with every possible expedition, our Steam Boat will not be in readiness under a week or ten days to come. But we are not idle. Our Geologist, in particular, finds something to interest him, among the rocks, and coal formations, on the high hills in this vicinity: and I have found, beside *Mosses* and *Lichens*, the following *Phanerogamia* in flower—notwithstanding the inclemency of the season;—*Houstonia cærulea*, *Saxifraga Virginiensis*, *Anemone hepatica*, *Dentaria laciniata*, *Draba*—I am not certain whether *verna*, or not, as I cannot yet refer to any book; along with two species of something like *Arabis*. I should be glad to know when corresponding plants flowered on the Brandywine,—where most of them, I believe, are found. I ought to have added *Poa annua*, and *Lamium amplexicaule*; the last, it would appear, is not afraid of a little snow. I have visited the *Glass*, and other manufactories, which do credit to Pittsburg.

I received a copy of my orders, yesterday. These orders are issued through Major LONG, from the Secretary of War; and each man receives a copy of the whole. It is rather long to transcribe; but mine runs

thus: "Dr. BALDWIN will act as Botanist for the expedition. A description of all the products of vegetation, whether common, or peculiar to the countries he may traverse, will be required of him. Also the diseases prevailing among the inhabitants, whether civilized or savage,—and their probable causes,—will be subjects for his investigation. Any varieties in the anatomy of the human frame, or any other phenomena observable in our species, will be particularly noticed by him. Dr. BALDWIN will also officiate as Physician and Surgeon for the expedition."

Next follows Mr. SAY, the Zoologist—JESSUP, the Geologist—and PEALE, as an assistant to us all. Major BIDDLE, of Philadelphia, has volunteered his services as Journalist. He is instructed "not to interfere with the records to be kept by the Naturalists attached to the expedition."

With respect to our route, it is stated to be, "to explore the Mississippi, Missouri, and their navigable tributaries, on board of the U. States Steam Boat, Western Engineer." I ought to have mentioned, that Mr. SEYMOUR, of Philadelphia, has also been added, as Landscape Painter, &c.

Our boat is 63 feet keel, and draws but 19 inches of water. Our accommodations for books, clothes, &c. will be commodious and comfortable. We shall make little or no stop short of St. Louis,—reserving our attention to the Ohio until we return in autumn. Whether a letter from you, directed to St. Louis, would reach me, if written after the receipt of this, I cannot tell; but it would be highly gratifying, if practicable. I there expect to hear from my family—from COLLINS—and Mr. RODNEY said he would send me the news.

It is becoming too dark to write without a candle; and having nothing further to communicate at present, I remain most sincerely and affectionately yours.

*U. S. Steam Boat, Western Engineer,
Pittsburg, May 1, 1819.*

MY DEAR FRIEND: I wrote to you on the 5th ultimo. It was my intention not to have written again to any one (except my wife) from this place; but, as we have been unexpectedly detained, and various incorrect reports having been set afloat in the newspapers respecting us,—I consider it a sort of duty I owe to you, particularly, to report the causes of our detention, and our prospects, &c.

During the absence of Major LONG, in Philadelphia, in February and March, the building of our boat did not progress so rapidly as had been expected,—for want of his own personal attention to the workmen, who were employed by the day. On the 23rd ult. every thing appeared complete; and with high and anxious expectation of success, we attempted to stem the rapid current of the Alleghany river—and failed. It was found, that in consequence of the weight of baggage, stores, &c. sinking the boat much deeper than was expected, our wheel—which is situated aft—was also too deep. Beside this, and the stiffness with which all new machinery must necessarily operate at first,—our fuel was of so bad a quality, that the necessary quantity of steam could not be kept up. It is but fair to mention, that under the above disadvantages, with a power of 70 lbs. to the square inch, we stemmed the current until it suddenly sunk to 30. On the 29th we were ready to give her another trial; which was done accordingly, by ascending the river about a mile,—in which we succeeded beyond our expectations. We now calculated to bid adieu to Pittsburg on the following day (yesterday); and accordingly, with flattering anticipations of the event, we got under way,—but were again disappointed. We had the misfortune, in the first place, to ground on a bar, near the middle of the river, on which a current

set of little less than 5 miles an hour. In our exertions to get free, a defect was found in one of the cylinders—and a leak discovered in one of the boilers. This necessarily produces a few days more of delay: But which may perhaps be fortunate,—as this is the place, not only to prove effectually our boat, but also to remedy her defects with facility. Indeed, when we take into consideration the complicated structure of a steam boat, and that every thing must at first be stiff in its operation,—I do not see that any thing has happened which might not reasonably have been expected; and that we have no just cause to doubt of future success. The delay has been excessively mortifying to us all; and to no one more than myself,—who could have filled up this interval of a month with so much greater advantage at home.

But after all,—as it relates to the excursion of the present season,—it may be of no consequence. Major Long has just stated, that his presence at Yellow Stone will not be necessary, this season—as the troops will not reach there; and therefore we shall ascend the Missouri just as high as the season will admit; and return again to this place.

You may have seen a most erroneous and ridiculous account of us, in a New York paper of the 14th ult. which is most unfortunately ascribed to one of our young officers. It seems that some editors of newspapers are so fond of news, that they will publish extracts from letters, without seeing them. Certain it is, at least, that we have not a young officer on board, ranking above a corporal, that would ever have written the extract, published in the New York papers,—and which is now going the rounds. On the 23rd, the day we made our first effort to leave this place, a pretty well written *puff* appeared in the Pittsburg Gazette,—

stating that we had gone several days before.* I have not found any new plants here; but several which I had not seen before: and among them, the *Delphinium tricornne*, *Dentaria diphylla*, *Vicia Cracca*, *Uvularia grandiflora*, Pursh. &c. The *Veronica peregrina*, and *officinalis*, which Mr. NUTTALL has imported from Europe, are found here in the wildest situations. The latter is not yet in flower. The former is abundantly diffused throughout the Creek territory,—at least between the Ockmulgee and Chatahooche rivers; and I have no doubt of finding it up the Missouri. The *Turritis lacvigata* is very common on the east side of the Alleghany river, two or three miles north of Pittsburg. I found it in one spot on Brandywine, near Wilmington, in 1811. NUTTALL has certainly never seen it. See his book. Whether it be an European genus, or not,—or something distinct from *Turritis*,—it can never be blended with *Arabis*. † * * * *

Mr. SAY has been very successful in finding new fishes, lizards, &c. JESSUP has collected many stones; Mr. SEYMOUR sketched a number of romantic views,—and Mr. PEALE has painted most of SAY'S fishes and amphibia.

But I must not conceal from you, that I have again had a touch of my old complaint: not indeed more alarming than at many former times,—but never with more regret. A pain in my left side, with cough, and a distressing head-ache, came on about a week ago. I lost no time in resorting to remedies which I had found

* We mutually pledged ourselves, before leaving Philadelphia, to caution our correspondents against publishing extracts from our letters. A request has just been made, by a Pittsburg editor, for a list of the names, rank, destination, &c. but refused.

[† Yet DE CANDOLLE, TORREY & GRAY, and others, have since referred it to that genus.]

most successful; and my cough, and pain in the side, have left me. I have not yet ventured to stimulate,—except with opium, Tart. Emetic and Calomel. I shall hold out as long as I can. Whether my remains are deposited on the banks of the Missouri, or among my kindred at home, is now a matter of little consequence. For the sake of my family, and the pursuits I am engaged in, I should wish to live a few years longer.—Although I have considerable materials for doing something, I would almost as soon have the whole of my collections and notes destroyed, as published after my decease:—so little has yet been arranged in a manner that would be intelligible to any one beside myself.—But in case of the worst, I would trust to none but Z. COLLINS and yourself, to finger a paper, or a specimen.

I will keep this open, at least until we make another attempt to move,—when I will again report the state of my health.

May 3, 6 P. M. At 10 this morning, we left our moorings in the Alleghany river, near the Garrison two miles above Pittsburg, and continued to ply up and down the river all the forenoon. Finding every thing correct, we ran down opposite the town, where we have just arrived,—and must of course go down the Ohio tomorrow. My health about the same. In haste, yours.

*U. S. Steam Boat, W. Engineer,
Shawaneetown, May 27, 1819.*

MY DEAR FRIEND: You no doubt think I neglect you, but I have several excuses to offer,—the principal of which, unfortunately, continues to be an extremely feeble state of body. I am merely able to crawl on shore, wherever we stop to take in wood, &c. Generally finding some interesting plants, it takes up much time to examine and arrange them;—and I am obliged

to be careful not to confine myself too long at this business.

My last letter was dated at Pittsburg, May 1, & 3. It was not, at last, until the evening of the 5th, that we left Pittsburg; and reached Cincinnati on the evening of the 9th. Here, some repairs being required, we remained above a week; and I took up my residence on shore, at the house of a respectable trader, or merchant (HUGH GLENN),—whose invitation was too pressing and sincere to be resisted. I afterwards found several acquaintances; but to no one do I feel under greater obligations than to Dr. DRAKE,—whose attention was unremitting,—and with him I rode out daily, when the weather permitted. We met with many interesting plants (several new to me),—and among others, which I select from memory, the *Collinsia*, of Nuttall, *Synandra grandiflora*, Ditto, *Stylophorum diphyllum*, Ditto, *Valeriana pauciflora*, *Hesperis pinnatifida*, Pursh—very distinct from the southern plant, of MICHAUX. But I cannot now say any thing more about plants. I only meant to report myself, and to say that the field for botanizing is now becoming very rich; but I want a little more strength to make the most of it. I have neglected COLLINS, and other valuable correspondents. We stopped a few days at Louisville; and shall not perhaps leave this little town (which we reached yesterday) before the day after to-morrow. To-morrow, should the weather permit, I shall probably take a ride of several miles, with a Dr. CAMPBELL, who has given me an invitation.

In the mean time I remain, with the most sincere affection and regard,
Yours truly.

P. S. I am anxious to reach St. Louis—where I hope to hear from home, and from several of my friends.

St. Louis, June 11, 1819.

MY DEAR FRIEND: We reached this city two days ago,—having had a tedious passage of ten days from the mouth of the Ohio—a distance of only about 178 miles. Although interested in being on shore every where,—we were most of us anxious to reach a place where we calculated upon hearing from our friends: and it did not come within the plan of the expedition to make any unavoidable delay, short of the mouth of the Missouri.

I had the pleasure to find a letter from my wife, dated the 30th of April, with yours of the 18th. Yours, as usual, affords me great pleasure; and I shall ever be proud to receive such letters.

Before I left Pittsburg, I informed you of my being indisposed; and I wrote again from Shawanee town, stating that my indisposition continued. I have now to report, that for a very short time past, I have felt something like returning health; and a hope that I shall not be altogether a burthen to the expedition.

The venerable Mr. BRADBURY called on me yesterday, and spent the day. His company had a most exhilarating effect upon my health and spirits. In looking over my collection, I begged him to claim any thing he found, that might be his own. It turned out that a few, which I had marked for new, were known to him,—but he requested me to describe them: and observed, that since LAMBERT had pirated from him his former collections, it was not his intention to publish independently,—and that he would, with great pleasure, place in my hands all that he possessed, for publication:—and that he should continue to pursue the Science for the intrinsic love he had for it,—and continue to furnish me with descriptions, and specimens, to be published as I might see fit, under his name and authority. As this was the first interview, many inquiries, which I intended to make, were omitted. * * *

In a letter received by Mr. SAY, yesterday, from Prof. SILLIMAN, he sends his compliments to me, for Botanical communications, which he has now in the press (May 14th).

I will now just mention to you, in confidence, that I have too much reason to fear that our steam boat will not answer, agreeably to the sanguine expectations formed of her: and I am not alone in the possession of this opinion. It is doubted, I find, by many, whether *any* steam boat can be constructed so as to navigate with safety and advantage such a river as the Missouri. But this boat,—hastily constructed, and built entirely of unseasoned timber,—is almost daily in want of repairs; and is so leaky and wet, that we have not a dry locker for our clothes. A great part of my stationary has been wet, and a portion of it entirely lost. It will be with the utmost difficulty that I shall save the specimens I may collect.* The Secretary of War was informed, that in ten days from the time of our leaving Pittsburg, we should be in St. Louis! You know when we left Pittsburg. From that day until our arrival here, not a moment was granted to the Scientific Corps, except from accidents,—as in repairing, taking in wood, &c.

We shall hardly see the Missouri under three weeks; which is our place of beginning: and thus, the best part of the season is taken up in reaching the real starting point. Not a keel-boat, nor the heaviest laden steam boat, but what gets along much faster than we do. I hope these fears of mine—with other fears that I could mention—may never be realized. But I shall say nothing more on matters of this kind, now.

I have read to my colleagues that part of your letter, in which you hope they are all sufficiently stimulated to do their duty, &c. &c. I think I can safely vouch for

*Mr. SAY makes the same complaint.

the zeal of all; and I fondly hope that I shall not, myself, lag far behind. But, for this season, at least, high expectations ought not to be formed. Should my health continue to improve, as it has done for a few days past, I may hope soon to recover so as to attend fully and constantly to my pursuits. With best wishes, I remain sincerely yours.

P. S. As we shall remain here a week, or more, I may write again—should any thing particular occur.

St. Charles, June 25, 1819.

MY DEAR FRIEND: I wrote to you from St. Louis on the 11th, and I believe gave you some little account of my Botanical success, as well as the state of my health. Of the latter—to rise so important at this period—I can say that I feel much better than when I wrote last; although I have been confined for about a week (without referring to dates) with an inflammatory swelling about the joint of my left ankle. From the manner in which it made its appearance I was at first much alarmed. A deep-seated pain was felt for several days under the *malleolus internus*, without any appearance of phlegmon, and without my being able to refer it to any cause. The sudden appearance of swelling, with increased pain, indeed alarmed me. The application of a succession of blisters, dressing with nothing but Basilicon, has acted like a charm; and the swelling and pain have so completely subsided, that I hope to walk in a few days. But I am still very feeble; and the want of moderate exercise is not calculated to give me strength.

I think it was since I wrote last, that I found at St. Louis, I think, a new genus. Its habit is *Astragalus*,—but its lomentum remarkably distinct. Indeed, I doubt

whether it can be called a lomentum ;—and it differs, also, most remarkably from the seed-vessel of any papilionaceous plant I ever remember to have seen: and yet its *exterior covering* (which separates by a fissure running from base to apex, on both sides,) enclosing the true seed-vessel, has the peculiar smell of the pea, and other plants of that order. The true seed-vessel is 2-celled and 1-valved; the seeds (which may pass well enough for papilionaceous,) adhering to the surface of the valve by capillary umbilical cords (I at present call them,) of considerable length. The seed-vessel, when the seeds are ripe, is almost globular. Before withering, it has the appearance of the May apple, and is more than half its size. I have made out a description of it, as far as I have seen it,—and Mr. BRADBURY has promised to attend to the flower, and communicate an account of it to me. I have also plenty of ripe seeds. It ought, perhaps, to be called BRADBURYA.

Mr. BRADBURY brought me, a few days after, another *outrè* plant—habit of *Astragalus* exactly,—but with flower and young fruit, both of which seem to differ from *Astragalus*; but the seed-vessel is too young for investigation. It is as hispid as the fruit of the *Geum Virginianum*. This, Mr. B. is to describe and send to me.*

I believe I hinted to you in my last letter, that our boat did not perform as well as we could wish. She has done much better since we left St. Louis; and I hope I shall be able to save all my specimens.

I have always regretted that I did not request you to write to St. Louis frequently. A letter might reach me

[*Compare these brief and hasty descriptions, with those species of *Astragalus* described by TORREY & GRAY, in the section "*Legumes ovate, thick and fleshy*;" in the first volume of the *Flora of North America*, pp. 331—2.]

on our return down, which will be before winter commences. In great haste, I remain &c.

We proceed to-morrow morning from this place.

Franklin, (Missouri Ter.) July 22, 1819.

MY DEAR FRIEND: I have at last the mortification to inform you, without hesitation, that a steam boat is not calculated for exploring. Major LONG has, himself, entirely despaired of success on this river; but persists in thinking that she will succeed in the Mississippi, and all the southern waters. Slow as has been the progress of this boat, since our entrance into this river, little opportunity has been afforded to the Naturalists to do any thing. There has been no stopping, except to take in wood and water, and to repair. In short, not one moment has been granted to the Naturalists, to explore, that could be avoided; and the most productive situations have all been passed by. I am confident I collected more in one week, in E. Florida in 1817, than I have done here in a month;—beside the loss of health, from the heat and confinement on board the boat. This steamboat scheme has been too hastily adopted. No mode of travelling is so poorly calculated for Naturalists: and besides, it is the most expensive to government—the least expeditious, and safe, of any mode of travelling.

This place is about 180 miles above the mouth of the Missouri,—which distance we have been about one month in accomplishing. You may conclude, that travelling thus slow by water, the Naturalists would be enabled to walk on shore, and collect much. This was attempted, at St. Charles. A pack-horse was procured for 50 dollars; and MESSRS. SAY, JESSUP, SEYMOUR, and PEALE, set out by land. No arrangement was made for

joining the boat under a week. They accomplished no more than they would have done on board the boat; and suffered excessively with thirst and heat, in passing burning prairies, where no water was to be found: and to crown their misfortunes, their horse broke away from them,—and having no means to recover him, were obliged to carry their camp equipage upon their backs until they joined the boat. Young PEALE has ever since been confined, with inflammation in his feet.

I was in hopes in this letter to have given you my opinions fully and fairly; but I find I have not strength, nor leisure. The mail closes presently; and I feel myself too much indisposed to write, or to think much.

The steam boat system, I am confident, must be abandoned. Much opposition will be made to it by Maj. BIDDLE, &c. I fear Maj. LONG will persist, as the projector of the system, to his own injury. I should wish him to have the command of the exploring expedition, in any thing but a steam boat. He will attempt to ascend the river, this season, to the *Council Bluffs*, and then return to Washington.

I remain here until I recruit—if to recruit be my lot—where I may do more than by continuing with the boat. I shall return, perhaps, with Maj. LONG in October (according to agreement) home via New Orleans. He will return in a keel boat—leaving the steam boat behind.

I have much more to say;—but must conclude with a hope that I shall be able to write more clearly and fully in a short time. I remain, my dear friend, ever yours,

W. BALDWIN.

This was the *last letter* received from my estimable friend. On the 26th of October, I received the following:

Franklin, Howard County, M. T. Sept. 15, 1819.

SIR: It is my painful duty to inform you of your friend WM. BALDWIN, M. D. who died on the first inst.

at my house. He was not able to proceed on the exploring expedition, and remained here till he died. He requested me to transmit his private papers to Mrs. BALDWIN, and the botanical notes to yourself and Z. COLLINS, Esq., which will be done so soon as practicable.*

[*Those notes never came to my hands. I have always understood that they were delivered, by Major LONG, to the late Mr. COLLINS.

In a letter to me from Mrs. BALDWIN, dated November 18, 1819, she says, "I expected that you had received a letter some time since from Dr. BALDWIN, and that he had mentioned that it was his wish, that yourself and Z. COLLINS should take the superintendence of his Manuscripts and Herbarium. He said to me in his last letter, which was written within five days before his death, that his Botanical notes should be sent to you, and his private ones to me."

I have never ceased to regret that I did not bestir myself more in looking after, and securing, the Doctor's Botanical papers†: but as Mr. COLLINS had been named with myself, as being entitled to take charge of them, I felt a delicacy in interfering.

With respect to his *Herbarium*, I may remark, that although Mrs. BALDWIN repeatedly informed me it was the Doctor's wish I should have such portion of it as I might desire,—I declined taking any part of it. The circumstances of the family required that the best disposition should be made of it, for their benefit: and as I could not afford to pay as much for it as I thought it was worth, I disdained to take advantage of their generosity,—or in any degree to impair its value. Mr. COLLINS afterwards purchased it, with the view, as he told me, of placing it in the Philadelphia Academy of Natural Sciences. If I am not misinformed, however, his representatives sold it to the late Rev. Mr. SCHWEINITZ,—who finally bequeathed it to the Philadelphia Academy.]

[†Those papers (which are now in the possession of my friend Dr. TORREY,) I have since had an opportunity to examine: and, although replete with *materials* which might have been turned to good account by Dr. B. himself—had his life been spared—they are, as he supposed, in too crude and imperfect a state to be used with much advantage, by other hands.]

The Scientific Expedition has proceeded without a Botanist. The field for Botany in the Western region is great. I trust that our Government will supply the place of the Doctor,—so that the Expedition may proceed regularly, the next spring.

N. B. Please transmit to me all the Doctor's Botanical works, which may be published, as soon as they come from the press.

I informed Mrs. BALDWIN of the death of the Doctor, some time previous. Very respectfully, sir,

Your obedient servant,

JOHN J. LOWRY.

Dr. WILLIAM DARLINGTON, }
West Chester, Penna. }

At the ensuing session of Congress, Mrs. BALDWIN petitioned for a pension, to aid in the support of her destitute little family; and, at her request, I addressed the following letter to the Chairman of the Committee to whom the Petition was referred.

TO THE HON. N. SILSBEE, CHAIRMAN OF THE COMMITTEE
ON NAVAL AFFAIRS.

Congress Hall, January 31, 1820.

SIR: Having presented the petition of Mrs. BALDWIN, widow of the late Doctor BALDWIN, of the U. S. Navy, —and having been intimately acquainted with the Doctor, and the nature of his services,—I beg leave to offer a few remarks, relative to the claim of the petitioner, to the Committee of which you are Chairman.

A brief history of the services of Doctor BALDWIN is set forth in the petition,—for the correctness of which, if the Committee have any doubts, they are respectfully referred to the Naval Department.

After his return from South America, he obtained a furlough on account of his health,—as I have understood. I know his health was extremely delicate.—When the exploring party was detached up the Missouri, Dr. B. was selected to accompany that party, on account of his extraordinary qualifications as a Naturalist; and the duties of Surgeon were assigned to him, in addition to those of Botanist. His zeal for the service induced him to engage in the undertaking, although he might have declined with great propriety. His ardor in the discharge of his duties was unwearied; and the exposure to which he was subjected confirmed his disease, and hastened his death, beyond any doubt: which event took place at Franklin, in the Missouri territory, on the first of September, ult.

He has left a widow with four infant daughters, (the youngest about one year old,) who, in my humble opinion, are fit and worthy objects of the care and assistance of the government, for a few years at least.

By the statement of the Secretary of the Navy, in relation to the Navy Pension Fund, laid before Congress on the 7th instant, it appears that a number of widows of Naval Officers, Seamen, Surgeons, &c. enjoy the aid of government: and while I rejoice to see such aid extended to those, I will venture to say that no man who was ever in the service of the country, more richly merited, by his zeal, fidelity, good character and conduct, to have his helpless offspring taken care of by the government, than Doctor BALDWIN.

Other instances might be cited, in which Congress have taken charge of the daughters of worthy servants of the government, and provided for their education and maintenance, during their minority; but I deem it unnecessary to enumerate them here. I could not, however, refrain from calling the attention of the Committee to the condition of the little orphans of my de-

parted friend: and I am sure they will not only excuse my interference, but will take such order thereon as justice and propriety may dictate. I am, sir, with the highest respect, your obedient servant,

WM. DARLINGTON.

The Committee did not deem it expedient to grant the prayer of the petitioner;—although the pension system has been carried, subsequently, to a very considerable extent. Some years afterwards, Mrs. B. somehow got the impression, that the pension laws of the United States embraced the case of herself and daughters; and she wrote to me, requesting a testimonial of the Doctor's character and services,—in order that she might again apply to the government, for the aid that had hitherto been withheld. I sent her the following; and that is the last I have heard on the subject. I apprehend, however, it has all been in vain.

TO MRS. HANNAH M. BALDWIN.

West Chester, December 13, 1836.

DEAR MADAM: Yours of the 8th instant, was duly received: and whilst I am still apprehensive that you have been misinformed, relative to the probability of any pension law meeting the case of your family,—I can truly say, that I should be gratified to find myself mistaken. Few medical men, in our service, have done so much to enhance the scientific reputation of the country, as Doctor BALDWIN; and it would be highly gratifying to see the government manifesting a just sense of his merits, by extending aid to his bereaved family. The professional services of the doctor must be perfectly well known at the Department: and there can be few intelligent persons in the United States who

are not aware of his zealous and unremitting exertions in the cause of Science. If my humble testimony can be of any avail, on this occasion, I may add—and I take pleasure in doing so—that I have never yet had the happiness to be acquainted with any man of a more amiable and upright character,—more faithful in the discharge of his duties,—or more zealously devoted to the interests of Science, and the welfare of his fellow-creatures.

Wishing every success to you, and to the children of my lamented friend, I remain, very respectfully, your most obedient,

WM. DARLINGTON.

NOTICES OF EAST FLORIDA,

And the Sea Coast of the State of Georgia:

IN A SERIES OF LETTERS TO A FRIEND IN PENNSYLVANIA.

BY WILLIAM BALDWIN, M. D.

With an Appendix containing a register of the weather,
and a *Calendarium Florae*, kept at St. Mary's.*

LETTER I.

Riceborough, November 20, 1816.

Having had an attack of pulmonary disease, during my residence in Savannah the last summer, which reduced me to a state of great debility, I have determined to adopt the only plan of treatment which I have found successful: that is, travelling on foot. With the success of a former excursion in restoring me to health, after this formidable disease had shattered my constitution in such a manner as nearly to preclude all expectation of recovery, I believe you are acquainted. Already do I feel an increase of strength and animation, and I begin to look round for objects calculated to interest or amuse me. This is by no means the most interesting season

[*The above is the *Title* which Dr. B. proposed to give to his *Epistolary Sketches*: but which were left unfinished.]

for *botanical travelling*; but no portion of the year is entirely destitute of botanical objects, in this southern country. I rejoice to learn that you have *renewed* your attention to botany. To furnish you with information that may be important, on this delightful subject—or any other subject relating to this country—will give me great pleasure.

We left Savannah yesterday morning, and arrived here this morning. Nothing very important occurred on the way. The *Nyssa candicans*, of WILLDENOW, made a handsome display of its scarlet-colored fruit, on the great *Ogeeche*. I have not seen this ornamental tree, north of this river. Here it was discovered by WILLIAM BARTRAM,—and called, by him, *Nyssa coccinea*, s. *Ogeeche*. No credit has been given to him for the discovery of this plant, by any subsequent Botanist, that I have noticed. The fruit is of an oblong form, nearly as large as the “Butter nut” (*Juglans cinerea*, Willd.); and is sold in the Savannah market, under the name of “*Ogeeche Lime*,” for the purpose of preserving in sugar. It makes one of the most delicate and delicious preserves.

The *Prenanthes virgata*, of MICHAUX,—which is well described by that distinguished Botanist,—is still flowering. It is frequently more than four feet in height, including the raceme; and the raceme is something more than half the length of the stem. The flowers vary, from white to pale purple. Dr. MUHLENBERG, in his *Catalogue*, has confounded it with the *P. rubicunda*,—which is a very distinct plant. All the plants belonging to this family, that I have examined, contain a bitter—perhaps a narcotic—quality. The *root* of the *P. alba* has been reputed valuable in the cure of the bite of venomous serpents: That of the *P. Virgata*—which is fusiform, and of a beautiful yellow color—is intensely bitter, and deserves to be attended to.

Of Savannah, and some of the productions in its vicinity, I may speak in a future letter. We crossed the Great Ogeeche on a good pile bridge, erected by a Mr. HILL, lately deceased,—who for many years kept an excellent house of entertainment on the north bank of the river. It is fourteen and a half miles to the southward of Savannah. By the road side, near this place, I observed the *Leonurus Cardiaca*,—which I found, upon inquiry, had been brought from the North and planted here. Is this plant indigenous in any part of North America? I have seen it on the Brandywine, in the State of Delaware, in situations remote from cultivation: But this does not prove that it was not introduced at some former period,—as other plants are known to have been. Some exotics become naturalized with great facility,—so that it has now become extremely difficult to ascertain the precise number that may have been originally introduced from abroad. We certainly have a few plants which are likewise found in the *old world*; but the number is probably much fewer than was formerly supposed.

On the south side of the river, is an extensive swamp, and cause-way leading across it, upwards of two miles in length. On this cause-way, and in its ditches, are several beautiful plants, which are quite circumscribed in their *habitat*. Among them is the *Iris hexagona*, of WALTER,—and the *Nectris aquatica*. The latter, I have only seen here, and at Augustine creek, on the Augusta road, ten miles to the westward of Savannah.

Riceborough is situated on the south side of North Newport river, at the head of the navigation,—about thirty-five miles south of Savannah, and eleven southwesterly from Sunbury. It is the capital of Liberty county; but remains to be a small unhealthy village.

LETTER II.

Sunbury, November 22, 1816.

We were induced to turn aside, to this place, for the sake of visiting LEWIS LE CONTE, Esq., who occasionally resides here,—and who has paid much attention to the plants of this country. He found the *Kyllingia monocephala* within the limits of the town, in October last. It is still verdant, and agrees very well with the Linnæan description of it. I mention this plant, because its existence, as a native of the North American continent has been doubted by some of our Botanists.* Three other species are described by MICHAUX: viz: *K. pumila*, *K. maculata*, and *K. ovularis*. The last of these, I am satisfied, is the *Scirpus echinatus*, of LINN. (*Mariscus*, of GAERTNER). These plants are all common in Georgia, and have come frequently under my observation. *K. maculata* is, doubtless, the *triceps* of the *Species Plantarum*: and as this is the oldest and most appropriate name, it ought to stand. But Mr. ELLIOTT, in his *Sketch*, has retained the name of MICHAUX. It appears rather singular, and contradictory, to find a plant designated *maculata*, without any spots, but furnished with *three heads*,—when, at the same time, the account of it is closed by giving it the correct trivial name of *Three-headed Kyllingia*. *K. pumila* is generally much taller, but more slender, than the *triceps*,—and would, perhaps, have been better characterised by the name of *gracilis*. But I would hold the names of plants, when correctly imposed, as sacred as those of men: nor would I change any, that did not convey an absolutely incorrect idea of the individuals to which they were applied. It is the duty of American Botanists, who are on the spot, to correct

*It is abundant on the *Alatomaha*, in the immediate vicinity of *Darien*. I found it there, in October, 1812.

their own nomenclature. I humbly conceive, that it would not only be more honorable, but would contribute much more to a correct knowledge of our productions, to sit down, and carefully examine, describe and name them, than to puzzle our brains to ascertain by whom they may have been imperfectly noticed. Let us not, in our zeal to do justice to our trans-atlantic brethren, be guilty of injustice to ourselves. Whenever we can fairly recognize our plants by their descriptions, let us honestly acknowledge it; but we ought, surely, so far to assert our independence, as to rely upon ourselves in all doubtful cases.*

Sunbury is one of the most pleasantly situated towns, on the sea-coast of Georgia. It stands on an elevated plain, commanding a view of St. Katharine's, and other Islands.

I have nothing further to communicate from this place,—and what I have communicated is of little importance: but it has served to amuse me in the intervals of interesting conversation with my ingenious friend, LE CONTE,—and the examination of plants.

LETTER III.

Sand Hills, November 24, 1816.

The country between Riceborough and Fort Barrington, on the Alatomaha, remains to be principally an uncultivated wilderness,—furnishing a wide and varied field for the lovers of Botany. Although in general low, there is considerable inequality of surface,—and a

[*The best mode, unquestionably, of settling all difficulties respecting our *doubtful plants*, is that adopted by Dr. A. GRAY: namely, to examine the *Herbaria* of those Botanists who have published names, or descriptions of them,—and ascertain, from the specimens themselves, what is intended, in each case.]

corresponding diversity of soil, which renders this tract of country peculiarly interesting to the Botanist.

About four miles south of Riceborough, and one mile to the eastward of the road, is *Fromentin*,—the seat of Messrs. JOHN & LEWIS LE CONTE. They possess, here, a large and valuable Rice Plantation, in Bull-town swamp,—on the head waters of South Newport river. From the truly scientific acquirements of these gentlemen, and their zealous attention to every department of Natural History, much may be with confidence expected. I am indebted to them for much valuable information; and hope it will not be long before they will be better known in the literary world.

There is, on this plantation, a new and beautiful species of *Porcelia* (*Anona*, L.). It inhabits the low Pine barrens, in the vicinity of Rice swamp,—and was shewn to me in May, last, by Mr. LEWIS LE CONTE.

*PORCELIA ANGUSTIFOLIA: foliis obovatis, acutis, angustis; petalis exterioribus majoribus, ovalibus, interioribus angustis, brevibus; ramulis alternis, erectis; floribus terminalibus, albisque; tota planta glabra, 2-4 pedali. Floret Maio.** It is at once distinguished from the other species, by its *erect, terminal flowers*,—which are most elegantly disposed on the slender alternate branches. Three other species inhabit the sea coast of Georgia: viz: *P. grandiflora* (*Anona obovata*, Willd.), *P. pygmaea*, and *P. parviflora*. The two former were first introduced to notice by BARTRAM,—who found them on the south side of the Alatamaha. I have seen only a solitary plant of the *pygmaea*, at the Sand Hills, on this

*The genera, *Anona* and *Porcelia*, perhaps approach each other too nearly to be separated, with propriety. I have not seen the fruit of this plant, upon which the essential character of the genus depends; but I shall leave it, for the present, along with its congeners. It is about the height of the *grandiflora*: its leaves come nearer the *pygmaea*,—but are narrower.

side of the river. Both are common in the vicinity of St. Mary's, and occupy the most sterile description of Pine barrens,—where the sand is coarse and deep. The latter, which was first noticed and described by WALTER, is much more generally diffused; and is found in clayey oak land, mostly in the neighborhood of water.

The *Mylocarium ligustrinum*, of WILLDENOW, abounds here. Further north, it is rarely seen; and I suspect its northern boundary is Savannah river. This fine shrub was doubtless first noticed by Mr. BARTRAM,—who found it on his way to Augusta, near the city of Savannah, where it has since been seen.* Seven, eight, or ten feet, is its usual height, here; but I have seen it, at the head of Turtle river, between the Alatahama and Sattilla, thirty feet high, and one foot in diameter near the base.

Some of the swamps bordering upon the Alatahama, are ornamented with the *Pinckneya pubens*, of MICHAUX. In a future letter, I may attempt to prove that this plant is a *Cinchona*. At present, I will only observe that it, also, was discovered by our venerable friend BARTRAM.† He found it near Fort Barrington, on the Darien road, along with the *Gordonia Franklini*.

In a Savanna, bordering upon the Sand Hills, we found a singular *variety* of the “Ogeeche Lime.”—Although scarcely exceeding three feet in height, it was loaded with fruit of as large a size as any I had ever seen. As this variety grows on dry land, it would answer best for cultivation,—and would be at once ornamental and useful.

A chain of Sand Hills runs parallel with the Alatahama, for many miles in extent;—an extensive swamp intervening between them and the river. From the

*Travels, p. 31.

†Travels, p. 16.

abovementioned Savanna, we rise suddenly upon them, and find at once an entire change in the vegetable productions; of which I am too weary to give any account, at present. Here we arrived, this evening, as the sun went down, and took up our lodgings in a small solitary cottage, twenty miles from Riceborough; where, by the glare of light-wood, I am enabled to write this letter.

A direct road in this direction has not yet been opened to St. Mary's; the mail being conveyed viâ Darien,—which is a circuitous route. The day has been unusually sultry, for the season; and the musquitoes occasionally very troublesome. The rain is beginning to descend; and we are thankful that we have found a shelter in the wilderness.

LETTER IV.

Jefferson, November 27, 1816.

The distance from our lodgings on the Sand Hills to Fort Barrington, where we crossed the Alatomaha, is about seven miles; and from thence to this place, forty one. I have frequently mentioned *Fort Barrington*; but it would puzzle a stranger to find any *Fort*, here. The remains are alone visible, in the midst of a luxuriant vegetation, a short way below the Ferry.

Among the more rare productions of the Sand Hills, we find the *Eriogonum tomentosum*, *Polygonum articulatum*, and *Stipulicida setacea*, of MICHAUX;—all of which are found in the middle districts of Georgia, and not on the sea-coast. *Eriogonum* is nearly allied to *Rheum*; and I have been informed by Mr. J. LE CONTE, that the *root* of the former is employed as a mild cathartic, by the people, where it abounds. I suspect, with PURSH, that the *Polygonum articulatum*, and *polygamum*, are merely *varieties*. The one found here, however, has

always *flores albi*,—and is frequently more than two feet in height. That the northern plant should be *annual*, and the southern one *perennial*, is by no means extraordinary. We have many examples of this kind;—some of which I shall point out to you, in the course of this correspondence.

On the south side of the river, the road passes, for about a mile, through a low rich bottom, covered with heavy timber,—consisting of Oak, Ash, Gum, Maple, and a various undergrowth of fine shrubbery. Here, also, is found the *Heliotropium Indicum*,—which has not, hitherto, been noticed in Georgia. We rise from this rich plain into the ordinary Pine barren; but, nevertheless, find some vegetable productions that are not met with, north of the Alatomaha. The only plant I shall mention, here, is a new species of *Hymenopappus*,—which I first discovered in East Florida, near St. Mary's, in 1812.* I have called it H * * *.

The *Erianthus strictus*, which I first discovered at Crooked River Bridge, in Camden county, grows plentifully at the head of Buffalo Creek, about halfway between the two rivers. It delights in a moist, clayey soil; in which situations, only, it is to be found. It varies * * The *nectary*, in this genus, affords a most essential *generic* character, which ought unequivocally to separate it from its congeners, *Saccharum*, and *Andropogon*: with the one, it has been confounded by PERSOON and PURSH; and not clearly distinguished from the other, by the accurate and observing Dr. MUHLENBERG.

We reached a good house of entertainment, kept by Capt. TYSON, near the head of Turtle river, late on the evening of the 25th, nineteen miles from the Alatomaha. To obtain such quarters, it was necessary to use

*It is found about 8 miles from the Ferry, and within one mile of the habitation of a Mr. KNOX, who keeps a house of entertainment.

exertion: no other, of the two or three we passed early in the evening, being known to us. Last evening we crossed the Satilla river, about a mile above this place, and twenty-five from Tyson's,—sufficiently fatigued to enjoy comfortable repose.

On each side of the river, at this place, we find large tracts of fertile soil,—calculated both for the cultivation of rice and cotton; and, on the south side, much is already under cultivation.

Jefferson is the capital of Camden county, and is prettily situated on the south bank of the river, 25 miles from its mouth; but is yet a small, inconsiderable village. The Satilla enters the Atlantic through St. Andrew's Sound, between Cumberland and Jekyl Islands: but the navigation is only calculated for vessels of shallow draft,—which will, of course, operate against the prosperity of the place. The houses are all built of wood; and the Court House, and Jail, are neither of them calculated to add much to the splendor of this capital.

LETTER V.

St. Mary's, November 28, 1816.

Last evening we arrived here. The distance from Jefferson is about 25 miles. The country very similar,—except that, as we approach the sea coast, it becomes rather more flat, sandy and sterile. One of the most remarkable of the new productions we met with, after crossing the Satilla, is the *Befaria racemosa*. This elegant flowering shrub, in many places, constitutes almost the exclusive undergrowth, along with the Saw Palmetto (*Chamaerops serrulata*); and contributes much to cheer the gloom of the solitary Pine barren. Other fine vegetables, which I have not seen further north,

also make their appearance, here: viz. *Petalostemon carneum*, and *candidum*,—with a new species of *Sium*, which I have called *S. trilobum*.* This plant is still flowering: and I have collected seeds of the two *Petalostemons*. Here I also found, three years ago, a new species of *Psoralea*, with simple leaves: *Psoralea simplicifolia* [*P. virgata*, Nutt. Torr. & Gray.]

The *Xyris* family is numerous, here. This genus requires a revision. Among the species that have been long known, two or three appear to have been confounded together. I hope at some future period to arrange them. *Xyris juncea*, and *X. cylindracea*, two species, are found here: the one, remarkable on account of its fistulous, round leaves; the other, from its white flowers.

We are now on the borders of the *Land of Flowers*; but not in the flowering season. Enough, however, may be seen, even now, to interest a Botanist from Pennsylvania. There has not been sufficient frost to destroy vegetation: and here and there, we behold a feeble flower out of season, along with others,—such as *Houstonia rotundifolia*, some species of *Viola*, &c. that may be seen ornamenting the forests and plains in every month of the year.

The city of *St. Mary's* is situated in about the latitude of 30° N. and is about 12 miles west of the Bar, and six from Fernandina. It is regularly laid out, and may contain, at this time, six hundred inhabitants. In the time of its prosperity, at the commencement of the war,

*WALTER, in his *Flora Caroliniana*, has described an *Oenanthe teretifolia*,—[or, *filiformis*? *Tiedemannia teretifolia*, DC. Torr. and Gray,]—which is also found here. It differs a little, in the seed, from the genus *Sium*; but appears to me to be too closely allied, to be separated from it with propriety. My new plant would be an *Oenanthe*, also, according to WALTER: but I have agreed with Mr. ELLIOTT to arrange both under the genus *Sium*.

its population was little less than 800. Unfortunately, the site of this pleasant and healthy town is too low.—During the tremendous gale of the 16th and 17th of September, 1813, it was almost totally inundated,—and must ever be liable to such casualties. It stands on a neck of land, between the water from which it takes its name, and North river. The St. Mary's meanders easterly, in front of the town, and for about one mile below,—when it abruptly bends to the North.* It runs in this direction half a mile, or upwards, when it again turns to the East, and empties into Cumberland Sound, between Point Petre on the north—the southern extremity of Georgia,—and a small Island, on the opposite shore of East Florida. The outlet to the Atlantic ocean, is a little to the southward of East, from Point Petre,—between the Islands of Cumberland and Amelia. It is singular that Mr. BARTRAM, in his Travels (page 26), should inform us that the St. Mary's communicates with the Atlantic “between the points of Amelia and Talbot Islands,”—when we are correctly informed, at page 66, that Amelia Island forms the northern cape of St. Mary's. The error, however, has been copied by MORSE, and other Geographers,—and has thus been perpetuated.

Having resided almost three years in St. Mary's, it appears something like *home*, to revisit it: and the first thing to be done, is to call upon my old friends,—whom it gave me great pleasure to find in health and prosperity, after having experienced the trials and disasters incident to war.

A British naval force, under the command of Admiral COCKBURN, took possession of this town on the 13th of January, 1815, by capitulation,—no resistance being offered; and evacuated it again on the — of February: without leaving the most favorable impressions of *Brit-*

*From this bend of the river, we have a handsome view of the Town,—which is less than one mile distant.

ish honor, and generosity, on the minds of the inhabitants,—who were indiscriminately plundered of private property to a large amount.

But it is time to close this heterogeneous letter.

LETTER VI.

St. Mary's, December 4, 1816.

The exercise of the body and mind, in travelling thus far, has greatly improved my health; and the company of Dr. CUTTER has added not a little to the pleasure and interest of this pedestrian excursion. We are now nearly ready to cross the St. Mary's, to wander we hardly know where, in the dominions of his Catholic Majesty. We have kept ourselves amused, since our arrival here,—not only in visiting our friends in the town, but in taking short excursions into the country. The weather continues delightful,—except that it is sometimes rather oppressively warm. The leaves have not yet universally fallen, from those plants which annually shed them. Of this character, is the *Ilex prinoïdes*,—which is predominant in the sandy, shrubby plains, of this vicinity. Its common height is about 6 or 8 feet; and at this season, with its ripe crimson-colored fruit, makes a fine appearance. The *berry* of this species is considerably larger than that of any other I have seen; and is not unpleasant to the taste,—possessing an agreeable sweet, along with a slight bitter. I have not observed it to be the food of any species of birds,—and hence the common opinion of its being poisonous; but I have eaten freely of it, with entire impunity.

Since I have mentioned this *Ilex*, I will make a few observations on the genus,—as well as on another genus, to which it is closely allied. Mr. ELLIOTT, who has been long an accurate and attentive observer of plants,

first suggested to me the propriety of uniting *Ilex* with *Prinos*;—since which time, I have more particularly directed my views to the subject.*

It is well known that the great *Founder of the Sexual System* adhered most strenuously to the number of the *Stamina*, in the formation of the first half of his classes—while, throughout, he appeared determined to adhere to some circumstance, or other, relating to those important organs, in determining the *essential characters* of each class. Thus it has been supposed, by some of our more modern Botanists, that the classification has been rendered more *artificial* than necessary; and families and species separated, that were otherwise closely allied;—which necessarily produces great embarrassment to the student. It certainly happens, that among the species which have been respectively arranged in each of the above mentioned genera, the number of *Stamina* is very variable. It remains doubtful, with me, whether they ought all to be retained in *Tetrandria*, or *Hexandria*,—or divided between these two classes.

The *Prinos verticillatus*, so common in Pennsylvania, I have not seen in Georgia: But I have a *new species*, which very much resembles it. The flowers of each contain from 4 to 6 *stamina*. This is the case with the *Ilex prinoides*, and the *Prinos ambiguus*; and all of them part with their leaves, in autumn. Some of the species, in this *division* of the genus (as I would call it, on blending them together), possess another remarkable characteristic;—that of being furnished with male and female flowers on distinct plants: Or rather, the flowers of the one are abortive, and those of the other prolific;

[*Although ENDLICHER has kept these two genera *distinct*, the reader cannot fail to remark how nearly *verbatim* the descriptions of them are. One can scarcely be more than a *sub-genus*, or section, of the other. DE CANDOLLE, also, under *Prinos*, asks—“an ab *Ilice* satis differt?”]

for in each, they retain the character of hermaphrodite! The *Ilex prinoides* affords an unvarying example of this remarkable exception to the genus. Although one plant uniformly proves abortive, its flowers are unequivocally hermaphrodite: i. e. we have the rudiments of a germ, and the stamina apparently perfect; but the flowers, nevertheless, prove uniformly abortive. The difference in the size and the appearance of the germ, is what most strikingly distinguishes the two plants, at the time of flowering. This appears to be the case with the new species, above mentioned,—and also with the *Prinos ambiguus*.* But I would wish to examine them further, before I pronounce too positively.

Taking every thing into consideration, I should be disposed to arrange these plants along with *Cassine*, in the class *Pentandria*. (May not some of them be true *Cassinés*, and the residue *Ilex*?). What ought the genus to be—*Ilex*, *Prinos*, or *Cassine*? Further observations may enable us to decide more correctly.

I must not leave St. Mary's without noticing a new species of *Scirpus*, found in 1812. I have called it —.

* * * * *

*Dr. MACBRIDE, of Charleston, S. Carolina, is of opinion that the *Ilex prinoides* and *Prinos ambiguus* run into each other: in short, that they are one plant, varied only by age—the young plant being the *Ilex*, and the old one the *Prinos*. But I will venture to assert that they are distinct species,—each possessing strong and unvarying specific characters. In the form, size, and color of the fruit, they differ strikingly,—as well as in the leaves, manner of growth, and general *facies*, or habit. I think it highly probable that WALTER was the first to confound those two species.

LETTER VII.

Fernandina, December 6, 1816.

We arrived here at 4 o'clock this evening, in a packet from St. Mary's; and lost no time in calling at the office of the Commandant,—to whom we had a letter of introduction from Mr. —, of St. Mary's. As this gentleman was taking his *Siesta*, we left him, and waited upon GEORGE CLARK, Esq., the Surveyor of the Province,—an English gentleman of high respectability, of whom I shall have occasion to speak, hereafter.

Fernandina stands on a high calcareous bluff, on the west side of Amelia Island, and about one mile from its northern extremity. It contains about 500 inhabitants, and has risen into importance, as a mercantile place, from the same causes which have raised St. Mary's: but it is more conveniently situated,—having an excellent harbor, well sheltered from the N. E. winds.—Amelia Island is 18 miles in length, with an average breadth of about three quarters of a mile. There may be, independent of the town of Fernandina, about twenty planters, scattered principally along the western shore. About one third of this Island consists of calcareous Live-oak Hammock, calculated for the cultivation of Cotton. These planters are wealthy and respectable; and are, with few exceptions, Europeans. Except near the northern and southern extremities, the middle and eastern side of the Island is Pine barren,—with an undergrowth of Saw Palmetto (*Chamacrops serrulata*).

The predominant shrubbery consists of *Andromeda ferruginca*, *A. rigida*, Pursh.* *A. coriacea*, Willd. *Besleria racemosa*, *Prinos glaber*, *Ilex prinoides*, *Vaccinium frondosum*, *V. macrophyllum*, Fraser, *Adelia porulosa*, Mx. *Lycium Carolinianum*, and several varieties of dwarf

**A. ferruginca*, WILLFENOW, and others; but I think distinct from *ferruginca*.

Live oak (*Quercus virens*). A few plants of *Ceratiola ericoides* are found towards the southern extremity of the Island.

Since I have mentioned some of the vegetable productions of this Island, and among others, the *Chamaerops serrulata*,—I will make a few observations on this family of plants. Beside the one just mentioned, I am acquainted with three others: viz. *Chamaerops Palmetto*, *C. hystrix*, and *C. acaulis*, Mx. which is the *Sabal minor* of ADANSON. These are all now arranged very correctly in the class *Hexandria*, and order *Trigynia*. I have never been able to discover any thing *polygamous* in any of them: nor do I know of sufficient *characters* in the latter species, to separate it from its congeners. The distinction drawn between a one-seeded berry and a one-seeded drupe, in this instance, is too nice for my comprehension,—particularly as I can see no difference from actual observation. The *Chamaerops Palmetto* is an elegant plant,—attaining, in Georgia, to the height of forty or fifty feet; and all its valuable uses have not been enumerated by Mr. PURSH. The tender shoot, at the extremity of the young plant, affords an article for the table, more sweet and delicious than cabbage;—from which it has derived the name of “*Cabbage tree*.” After stripping off the leaves, a white delicate substance remains, resembling *Asparagus*,—but which may be obtained three or four inches in diameter, and two feet in length. It may be eaten raw; but when boiled, and dressed with butter, affords a nutritious and very agreeable article of diet. It is by no means generally known, that the young shoots of the *Chamaerops serrulata* (“*Saw Palmetto*”) are also eatable,—and are even more sweet and tender than the former. My knowledge of this fact was derived from the late MRS. CATHARINE MILLER,* of Dungeness, on Cumberland Island. This is gener-

* MRS. MILLER was formerly the wife of Gen. NATHANIEL GREENE.

ally a humble plant, with a short, crooked, prostrate stem, from one to three feet in length : but in some situations,—and particularly near the sea shore,—it attains to the height of 8 or 10 feet, and has an ornamental appearance. It is rarely found north of Savannah river. The *Chamaerops acaulis*, of MICHAUX,—which I would call *C. sabaloides*, as it is not the only species,—is found in low, rich, swampy land, suitable for the cultivation of Rice. Mr. PURSH speaks of it as a palm of “little beauty or use :” but why such an exception should be taken to a species of this beautiful genus, I cannot conceive. *Chamaerops hystrix* is found along with the preceding,—which it resembles closely, with the exception of its singular spines. It was discovered by the late Mr. *John Fraser*, about 16 years ago, near the city of Savannah. It is also found in Bull-town swamp, on the plantation of Messrs. LE CONTE.

Although the mere man of business, or of pleasure, may see little to interest or amuse, in the sandy plains, or swampy solitudes, of Georgia and Florida,—with the lover of botany the case is far different. He reflects, that all-bountiful nature has clothed even the most sterile wastes with some of her choicest ornamental, as well as useful, productions. Who can behold the singular and beautiful *Befaria*, or “Fly-catcher,” without being charmed with its splendor and fragrance,—or astonished at the faculty it possesses of decoying Insects? And the Saw Palmetto would prevent the weary, hungry traveller from starving!

To-morrow we again pursue our journey south.

*The *Corolla* of this plant secretes a tenacious substance, which effectually retains flies, and all other insects that alight upon it, until they perish : hence the name of *Fly catcher*.

LETTER VIII.

Amelia Island, December 8, 1816.

We left Fernandina yesterday morning about 11 o'clock; not having been able to obtain our passport from Don FRANCISCO MORALES, the Commandant, at an earlier period, without breaking in upon his sleeping hours!

The weather continuing warm and pleasant, we had a delightful ramble, for eleven miles, to the habitation of Capt. ROBERT HARRISON, a wealthy Cotton Planter, who occupies one of the richest spots on the Island, within six miles of its southern extremity. We took a middle path, through the most barren part of the land,—as the season was not calculated to afford much novelty in the vegetable creation. A little before we reached the above mentioned plantation, we crossed near the head of an extensive swamp,—which bearing northerly, forms a small creek, that empties into Amelia Sound, on the north side of Fernandina (see BARTRAM p. 65). In this swamp, is found an abundance of the *Crinum Floridanum*, of BARTRAM,—the leaves of which are still verdant. I have only once seen this plant in flower. It is a true *Crinum*; and comes pretty near the *C. Americanum*, of AITON; but is probably a distinct species—noticed only by its discoverer. I have long wished for an opportunity to examine it more particularly, at the proper season. Mr. BARTRAM first noticed it on the Island of St. Simon's, near the town of Frederica.—It is still well known by the name of "White Lily:" by which it is distinguished from the *Canna flaccida*,—known by the name of "Yellow Lily." This swamp also abounds with the *Ilex Dahoon*. Its clusters of red berries now make a fine display. This shrub attains to the height of 20 or 30 feet, and may be considered one of the most ornamental of this family of plants.

I have spent most of this day in making collections of *Fungi*,—with some seeds of annual plants: Among others, a species of *Poa*, which seems improperly to have been confounded with the *P. hirsuta*, of MICHAUX.* The *Monotropa uniflora* is still flowering,—and also *Polygonum Hydropiper*: which bears evidence to the mildness of the climate, here.

To-morrow we again pursue our journey South, by special permission of the Captain and his amiable family. But I cannot leave this Island without expressing how much I have been gratified with the unaffected hospitality of its inhabitants, wherever we have been: and by none more than the family we are about to leave. I became acquainted here in 1813; and shall ever remember what I had to experience on the night of the 16th, and morning of the 17th of September, of that year: a *Hurricane*, of the force and character of those which too frequently visit the West India Islands, and other situations in and bordering upon the Tropics. [For an account of this Hurricane, see the letter to Dr. MUHLENBERG, under date of September 15,—24, 1813.]

* * * * *

[* Perhaps the *Poa refracta*, of ELLIOTT.]

[CAETERA DESUNT.]

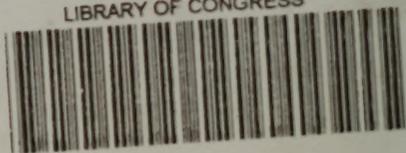
CORRIGENDA.

A few typographical errors occur in the preceding pages,—most of which the intelligent reader will readily comprehend. It may be well, however, to indicate the following:—

Page. Line.

- 16.—7. for "*claviculosa*," read *clavulosa*.
- 107.—19-20 for "*Adiantum-nigrum*," read *Asplenium Adiantum-nigrum*.
- 112.—4. for "39th," read 29th.
- 120.—7. " "1813," " 1814.
- 166.—24. " "*Fumaria*," " *F~~x~~naria*.
- 169.—13. " "Ogochee," " Ogechee.
- 173.—24. " "*spinosissima*," " *spinosissimum*.
- " —26. " "*violacea*," " *violaceo*.
- 177.—6. after "correspondence," insert—of.
- 183.—17. for "May," read June.
- 191.—3. " "*pumili*," " *pumila*.
- 210.—15-16. "*yuccoefolium*," " *yuccaefolium*.
- 123.—last line but one—"Cerati~~ole~~," read *Ceratiola*.
- 216.—Erase the *brackets* from the Note, at the foot of the page.
The Note is Dr. B's.

LIBRARY OF CONGRESS



0 005 345 561 A