



John Bradbury's Explorations in Missouri Territory

Author(s): H. W. Rickett

Source: *Proceedings of the American Philosophical Society*, Vol. 94, No. 1 (Feb. 27, 1950), pp. 59-89

Published by: [American Philosophical Society](#)

Stable URL: <http://www.jstor.org/stable/3143252>

Accessed: 27/09/2011 14:56

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at

<http://www.jstor.org/page/info/about/policies/terms.jsp>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



American Philosophical Society is collaborating with JSTOR to digitize, preserve and extend access to *Proceedings of the American Philosophical Society*.

<http://www.jstor.org>

JOHN BRADBURY'S EXPLORATIONS IN MISSOURI TERRITORY*

H. W. RICKETT

The New York Botanical Garden

JOHN BRADBURY'S claim to botanical fame rests chiefly upon certain entries in the "Supplementum" of Frederick Pursh's *Flora Americae septentrionalis* (London, 1814). These supplementary pages contain a number of new species from that part of western North America which was called Missouri Territory or Upper Louisiana. After the description of each species appears a note on the locality and the specimen seen, e.g.: "On the banks of the Missouri. *Bradbury. v.s. in Herb. Bradbury.*" Pursh, then, had access to plants collected by Bradbury in North America, and used them as the basis of new species. Unfortunately this was done without the consent or even the knowledge of the collector, who always believed that his collections had been "pirated" from him, and that he had thus been deprived of the scientific honor due to his arduous explorations. The exact circumstances surrounding the disposition of the specimens have remained something of a mystery until the present time. The discovery of the letters quoted below has helped to explain what happened; besides illuminating other particulars in the life and character of Bradbury.¹ Examination of the specimens themselves, now scattered in several herbaria, has helped to establish types and type localities of a number of species.

Bradbury was born 20 August 1768 near Stalybridge in Lancashire.² Though even as a boy he

* The work was carried out with the aid of a grant from the Research Funds of the American Philosophical Society.

¹ The existence of the letters was called to my attention by Mr. H. Stansfield, Keeper of Botany in the Public Museums of Liverpool, during correspondence about the Bradbury collections still preserved in that institution. It is a pleasure to acknowledge here Mr. Stansfield's help in this study. At his instance and through the kindness of Mr. J. F. Smith, City Librarian, photostatic copies of the letters were made for me.

² For an account of Bradbury's life see R. H. True, A sketch of the life of John Bradbury including his unpublished correspondence with Thomas Jefferson, *Proc. Amer. Philos. Soc.* 68: 133-150, 1929. Harshberger (*The botanists of Philadelphia*, 153, Philadelphia, 1899) has Bradbury a "Scotch naturalist." Additional particulars may be found in Britten and Boulger's *Biographical index*

had to earn his bread in the cotton mills, he early showed an interest in natural history, in which he attained some reputation. In 1792 or thereabouts, when he was aged twenty-four, he visited Sir Joseph Banks in London and was made a Fellow of the Linnean Society. He contributed many of the Cheshire records to Turner and Dillwyn's *Botanist's guide*, published when he was thirty-seven in 1805.³

I. CORRESPONDENCE

The twenty-three letters which follow were written between 1808 and 1813, the period of the initiation and completion of Bradbury's first journey to North America. Most of the letters were written by Bradbury himself to William Roscoe (1753-1831), one of the founders and the first president of the Liverpool Botanic Garden. A few letters are by his wife, Elizabeth, to the same address; a few by his son, John Leigh Bradbury; and a few by other persons concerned in his affair.

We discover Bradbury at the age of forty, as an amateur naturalist living with his family in Manchester, visiting Liverpool and working for William Bullock, borrowing works on ornithology. He has an established reputation for knowledge of local plants and animals; he has been for sixteen years a Fellow of the Linnean Society; and he already has in mind his great project of a voyage to North America, to collect "subjects in Natural History" in Kentucky and Louisiana. It is clear that he has no private means, that he must make any such venture not only an avocation but a livelihood; his first task, then, is to secure patronage; and this he hopes he has found in the trustees of the Liverpool Botanic Garden. He is thinking also of taking his son with him and setting him up as a gardener, to receive and care for the valuable living specimens to be collected in the wilderness, and to forward them to his patrons in England.

of British and Irish botanists (London, 1893), and in the *Handbook and guide to the herbarium collections in the Public Museums, Liverpool* (1935, p. 42, 43).

³ Turner, Dawson & Dillwyn, Lewis Weston, *The botanist's guide through England and Wales*, London, 1805.

1. JOHN BRADBURY TO WILLIAM ROSCOE⁴

Liverpool, Museum 9 Sep 1808

Sir

Having now finished that part of Mr. Bullocks work which I undertook I have returned Boisson's Ornithologie which I trust you will find in as good order as when you so obligingly spared them.

When I accompanied Mr. Bullock to your house to ask for them he slightly mentioned that I had in contemplation a plan of going to Kentucky & Louisiana for the purpose of collecting subjects in Natural History in which undertaking I was under the necessity of looking for Patronage. I remind you of this Sir in order to introduce the subject again to your consideration that if there is anything therein deserving of your notice as being in trust for the Botanic Garden you may enquire farther into it. My plan is to examine those countries to the most remote settlements perhaps beyond and transmit to New Orleans whatever I may find which I deem not described throughout the whole range of Nat. History—At New Orleans I purpose to establish my Son as a Gardener to receive & send to Europe from time to time whatever is valuable—to propagate the plants and send them in quantities in a Mature State. Finally I wish to find Patrons in the different branches of Nat. History who may conjunctly contribute to the expences of the undertaking in some kind of Ratio to the benefits they may expect to receive—Mr. Leigh Philips has already offered on the part of Entomology and Mr. Bullock encourages me to expect that Lord Stanley and himself will undertake for Mammalia and Birds. If it is not inconsistent with the plan of the establishment of the Botanic Garden I submit it to your judgment if there is anything in this to render it in the least likely that the Botanic part might be taken in its accounts. How far I am qualified for the undertaking is certainly a question of the first importance on that point I shall only say that it was not through any influence that 16 years ago the Linnaean Society did me the honor to elect me a Fellow more immediately Mr. Sheppard & Mr. Bullock can speak to it. but if it is decidedly foreign to the plan of the establishment to employ any of the funds to such a purpose I beg Sir you will have the goodness to inform me.

If I fail in this project (to which I am urged as much by necessity as choice) I beg to ask Sir if there is within your knowledge any situation which I might fill that would enable me to provide in a humble way for a numerous family? In this I do not look up to

⁴The letters are here transcribed with all their idiosyncracies of spelling, punctuation, and capitalization, with only such concessions to modern orthography as the insertion of a few periods, the substitution of "Mr." for "M^r" and the like. A few illegible words, which do not affect the sense of any passage, are indicated by gaps thus: . . .

any acquirements in the Science of Nat. History as a qualification, rather otherwise, but I possess some others that perhaps are. Mathematicians call me a Mathematician and I have more particularly applied to that branch which is subservient to Mechanics—I do not *press* this point upon you Sir knowing well that applications of this nature are a kind of tax upon the benevolent; and to which the world makes you contribute largely—I shall quit Liverpool in three Days if Sir you would condescend to let me have a reply within that time it will relieve me from some anxiety.

I am Sir your most
obedient Servant
John Bradbury

The "numerous family" consisted, as will be seen, of a wife and eight children.

Bradbury had evidently obtained some assurance from the Liverpool Botanic Garden. According to True,⁵ the Lancashire men in charge of the institution were motivated partly by a desire to find new lands for the growing of cotton. Of this no hint appears in the letters; Bradbury certainly had other reasons for proposing the scheme, which was obviously original with him. He then went to Dublin, apparently in search of additional means. He returned to Liverpool in December having received an offer of assistance apparently limited and qualified by conditions that he thought it impossible to accept. He writes to John Shepherd (1764–1836), first Curator of the Botanic Garden.

2. JOHN BRADBURY TO JOHN SHEPPARD

Liverpool 30th. Decr. 1808

Dear Sir

I arrived about an hour ago after a much longer stay in Ireland than I either wished or intended, and proceed immediately to Manchester to my family. I think it right thus hastily to inform you as the present medium of communication with the Committee that, altho' I found the scientific men both belonging to the College and to the Dublin Society extremely favorable to my undertaking, yet nothing has been proposed by way of anticipating funds but what you will see indicated by the inclosed.⁶ This aid I much wish to decline, partly out of respect to myself but much more in regard to your establishment whom I think it would be treating with disrespect to suffer the Dublin Society to rank with as Patrons under such circumstances. And if this sum only was necessary to complete the requisite funds I could raise it amongst the Botanic Societies within the precincts of my own county, chiefly supported by the Weavers from whom

⁵*Proc. Amer. Philos. Soc.* 68: 136, 1929.

⁶No enclosure was found with the letter.

I would rather accept it. The board of Trinity College would certainly have contributed something had the matter been *pressed* upon them by my friends and particularly by Dr. Stokes who is one of the Senior Fellows & possesses much influence, but as they conceived themselves in trust for the Dead to whom they could not explain motives I thought it would be indecorous to commit my friends by urging the business. The Board have resolved to purchase of every thing sent and you are appointed to affix the price.

I have seen my sons who have given me every assurance of assistance and altho' I may be prevented by Death from doing justice to the undertaking *they will not abandon it*. This I trust will be considered as a good collateral security. They are very Healthy and athletic young men and fond of the science.

I beg you make the Committee acquainted with as much of the contents of this as you may deem necessary and inform them that I am ready to attend them at as early a period as they may be pleased to appoint. In the mean time I shall wait on Mr. Leigh Philips and do every other thing in my power to expedite the necessary arrangements. I beg I may hear from you as soon as possible and believe me

Your constant friend
John Bradbury

The following two letters are from William Parr Greswell, who was tutor of Mr. Dobson Lownder. The first is to "Will Roscoe," apparently the son of the William Roscoe to whom Bradbury addressed himself. The letters are concerned partly with this business, partly with literary matters. They are of interest here only as they mention Bradbury, and particularly as they call attention to his extreme indigence. With a characteristic well-to-do suspicion of poverty as a voluntary condition to be explained by drink or the devil, Greswell has inquired into possible causes of this financial deficiency, and can find nothing discreditable to Bradbury—presumably he was neither lazy nor profligate, and no explanation other than "misfortune" could be offered for his lack of means. In the second letter, to William Roscoe, passing reference is made to Bradbury's appointment by the Botanic Garden, which may thus be dated as anterior to 15 March 1809.⁷

3. WILLIAM PARR GRESWELL TO WILL ROSCOE

Denton near Manchr. March 3d. 1809.

My dear Sir

By the candid manner in which Mr. Roscoe was pleased to express himself in his last letter I am led to flatter myself that he will not think I do the Lownders any injustice in averaging my quarter's charge

on Dobson's account in lieu of Notice at the even sum of Ten Pounds. If you will do me the favour to transmit to me a receipt upon a stamp, drawn up in such a form as you think satisfactory I will sign & return it to you; after which the amount of my demand may be inclosed in a post letter at your leisure & forwarded to me.

I shd. not have written on this subject till the gr. day had I not been desirous of mentioning that I have lately been amusing myself by looking a little into the History of early Parisian Printers, and particularly that of the "Stephani." I have collected a few notices respecting them, and am very desirous of consulting H. Stephani "Apologie pour Herodote—the best edition of which is I think, in your Father's possession. If I could make interest to borrow this work it might be sent with an old folio volume of mine "Adami vita" and two Octavo volumes by Bossu—unless Mr. Roscoe is likely to have further occasion for consulting them. The parcel, by Coach, might be addressed to my Brother at the College Manchr.

Do you know a Manchester Man of the name of Bradbury? He appears to be remarkably well informed on subjects of Natural History and Botany. It is said he is going out in a few weeks to America, to make collections & researches connected with these subjects, under the patronage of a society of Gentlemen of which your Father is one. I was sorry to hear to day in Manchr. that his family labours under considerable pecuniary distress—I am the more inclined to credit this report from my having lately seen him. His appearance sufficiently betrayed the "res angusta domi." I think him a very ingenious, and a modest man—and am told he stands uncharged with any imprudent habits—and that his poverty is the result of misfortune only. I should rejoice if anything could be done, in a delicate way to relieve in some small degree his domestic difficulties.

I lately took up Cumberland's new review in a Bookseller's shop—and find some new Critic, *not anonymous*, wishes to acquire fame, by a new attack upon Leo. I am not convinced by his chemical metaphor, the only one that I recollect noticing in this very tame composition, that the mixture of Biography & History must necessarily neutralize both. It is in my judgment a contemptible critic too contemptible to deserve notice. What think you however of his well timed argumentative digression upon the Catholic question. Is the writer one of our order—if so he has as good a claim upon the Duke of Portland, almost as Mr. Bageley himself.

Please to present my respectful compliments to your hospitable fire side—and believe me

My dear Sir

Yours very faithfully

William Parr Greswell

Denton near Manchr.

⁷ A passage in letter 6 suggests February 17 as the date.

A note is added explaining the details of his charges for "board & Instructn."

4. WILLIAM PARR GRESWELL TO WILLIAM ROSCOE

College Manchr. March 15, 1809

My dear Sir

I was last night favoured with the receipt of your letter and a Bank note value Ten Pounds inclosed, on Mr. Dobson Lownder's acct. I return a receipt—upon the stamp sent; and if an acknowledgmt. in any other form be deemed necessary, shall be happy to give it when I next have the pleasure of visiting Liverpool.

I recognize your wonted benevolence in the notice which you are pleased to take of my mention of Mr. Bradbury. My acquaintance with him is but slight. I have seen him once or twice at Denton and occasionally elsewhere—And could not help being struck with the extensive information which he seems to possess on subjects of Nat. History. Of the circumstances of his family I have no personal knowledge. From a friend in Manchr. I accidentally heard that he has a wife & 8 children—and that they have suffered great privations—He has not the least knowledge of my having mentioned such a circumstance to you. I should not wish him to know it. Perhaps his feelings would be wounded by such a discovery. Of a resource so considerable as that which you mention being within his power—if I had had the least Idea, I should have considered my communicatn. respecting his case as altogether premature.

I am glad to hear of the appointment which he has obtained—and hope, that at length, Fortune may begin to smile upon him—and that his talents and exertions will meet with the reward which they seem to merit.

My indignation—or rather my contempt was strongly excited by a hasty perusal of Mr. B's invective. I agree fully with you in lamenting the present degraded state of periodical criticism. The public contempt or neglect will certainly—in a short time put an extinguisher upon Mr. Cumberland's luminous jumble, of church & state politics—hypercriticism &c. In looking so far back into our literary annals—this mushroom Critic seems to have paid you an unwilling compliment. He could find no recent production worthy to be made the subject of his profound censorial examination. He therefore again calls out Leo X.

The books are safely arrived at Manchester—I am much obliged to you for the loan of 1' "Apologie" &c. It shall be taken care of—and safely returned. Bossu is of no importance to me. I do not at all want it and therefore beg you will give yourself no trouble about it.

I remain—my dear Sir

With great respect—

Your obliged & faithful Servt.

William Parr Greswell.

We return to Bradbury with a brief note announcing his readiness to sail, some obstacle about which we are uninformed having been removed. We may assume that he sailed as he planned, probably late in April 1809 (certainly after April 25; see footnote 8 below). We next hear from him in that occidental Mecca of traveling scientists, Monticello. He had landed at Charleston, and had gone from there to Baltimore and Washington, meanwhile starting his baggage westward to Wheeling. At Monticello he stayed over two weeks, meeting Jefferson, to whom he presented a letter of introduction from Roscoe.⁸ A number of excursions into the neighboring country, often in the company of Jefferson's son-in-law, Colonel Randolph, aroused his enthusiasm for the American flora. He discussed with Jefferson his proposed exploration westward, and learned what parts had and had not been visited by botanists. He accordingly abandoned New Orleans and made plans instead for St. Louis, intending for the wilderness beyond; being recommended to Meriwether Lewis, then Governor of Louisiana.

5. JOHN BRADBURY TO ? WILLIAM ROSCOE

April 20 1809

Sir

The obstacle which has for some time prevented my proceeding to America is now compleatly removed and in such a way that it cannot in future be any impediment to the execution of my plan.

I purpose that we shall sail in five or six Days and hope we may in the mean time obtain the Letters which it was proposed we should take with us. If you Sir or any of the Gentlemen belonging to the Garden will assist us in obtaining a passage on reasonable terms it would serve us materially.

I am Sir your most

Obedient Servant

John Bradbury

6. JOHN BRADBURY TO WILLIAM ROSCOE

Monticello 12th Augt. 1809.

Sir

I wrote to Mr. Sheppard from Charles Town by the hands of Monsr. Lherminier⁹ a French naturalist who I hope will have called before the arrival of this and have delivered also a few Seeds I left also with Monr. Noisette¹⁰ of the Botanic Garden there an

⁸ *Proc. Amer. Philos. Soc.* 68: 136, 1929. The letter was dated 25 April 1809 and received in Monticello 6 August 1809.

⁹ Felix Louis L'Herminier, 1779-1833.

¹⁰ Philippe Noisette, Michaux' assistant in the Charleston garden.

Introductory Lr. to promote a correspondence between Mr. Phipps and himself believing that should it take place it would materially benefit the Institutions.

From Charles Town I proceeded to Baltimore by sea from whence I forwarded my trunks &c. &c. to *Wheeling* on the Ohio a distance of 320 Miles and proceeded myself thro' Maryland and the Federal City to this place (about 230) which is the seat of Mr. Jefferson—I have been here about 10 Days which time I have spent in examining the neighborhood assisted often by Colnl. Randolph who is Son in Law to Mr. Jefferson and one of the best if not *the best* Naturalist I have met with. I have made out two new *Cypripedia*, two new *Orchidea* of a Genus established by *Persoon* which he has separated from *Serapias* and calls *Heleborine*, two new *Cacalia* a new and most Odorous *Coreopsis* a new *Talinum* a *beautiful* Rock Plant and many others of which I am doubtful. Some of these are removed into Mr. Jefferson's Garden and others are marked in the Woods & known to Col R who has this morning promised to take care of them for me, or your use should I never return to reclaim them—I learn from Mr. Jefferson that Capn. Lewis who he sent out to explore the Missouri to its source and from thence down the River Columbia to the South Sea is now Governor of Louisiana and lives at Fort St. Louis near the mouth of the Missouri. I learn also that Louisiana has not as yet been explored by any Botanist. I perceive from the Habitats given by Michaux in his *Flora Americana Boreali* that Kentucky, the Tennessee & Illinois have all been in some degree explored by him—from these considerations I have determined to go direct from hence through the Wilderness to Louisville in Kentucky there await my Luggage cross the Ohio and meet the Mississippi about the Mouth of the Missouri at Fort St. Louis and put myself under the direction of Capn. Lewis to whom Mr. Jeffn. and Mr. Randolph will give me Letters ¹¹—As Fort St. Louis is nearly 1000 Miles from hence it is probable you Sir will not hear from me soon as I shall probably see no occasion to write until I arrive there which (calculating on some delay at Louisville) I judge will take 6 weeks. In the present aspect of affairs it is far from being unlikely that a war betwixt this Country and Great Britain may take place and my intercourse with the Garden altho' not interdicted may be much obstructed. Under these circumstances it may happen that the Committee may wish to avail themselves of their power to withhold from me any farther support in which case I think it but just that they should give me timely notice that I may after the 17th of Febr. next either look for some other Patronage or Employ—As I am assured by Mr. Jefferson that even War with Britain should not obstruct my researches I propose to establish a Garden at Ft. St. Louis as a

¹¹ A letter of introduction from Jefferson to Lewis is quoted by True, *Proc. Amer. Philos. Soc.* 68: 137, 1929.

place of immediate deposit and place one of my sons at New Orleans to receive and transmit. If therefore the Committee resolve to discontinue it will be necessary that they appoint some one in New Orleans to whom I may send all the Plants collected before the 17th Feb. If they continue let them send me 50 Pounds to Dr. Dowe that it may arrive soon after Christmas as with having to take so very circuitous a Route & travelling being very expensive here my Funds are much reduced—I trust Sir I may be favored with a Lr. on this head addressed *Fort St. Louis, Louisiana*.

Mr. Jefferson will I suppose write to you he has some intention of sending you seeds of a New Variety of Zea Maize which was brought by Capn. Lewis from a vast distance beyond the mouth of the Missouri he found it with a Tribe of Cultivating Indians in Latitude 49° and a Country so much elevated as to render it almost a Greenland climate. Mr. J thinks it may be an immense acquisition to Britain and it will

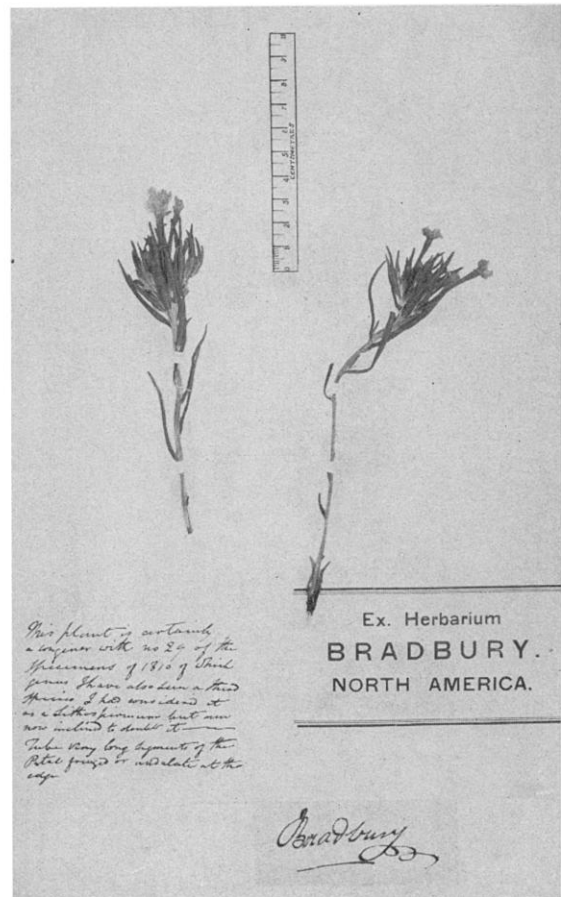


FIG. 1. *Lithospermum incisum* Lehm. [No. 95 (L)]. Isotype of *Batschia longiflora* Pursh. Annotated in Bradbury's hand.

grow even in the Highlands and yields most abundantly: At all events I shall not return to Europe without it—Coll. Randolph has obtained 2 years ago some seeds of *Holcus Sorghum* (*Sorghum vulgare* of Persoon) and of *Sesamum Indicum* both of which he is cultivating the former as an article of food the latter for Oil. The seeds of the *Holcus* are much better than the Maize & it yields in greater abundance I measured some of it feet high. The culture of both will become general and highly beneficial here.

I am Sir your very
obedient Servant
John Bradbury

P.S. Since I finished this Lr. Mr. Jefferson requested me to present his respectful compliments to you and informs me that he will forward all my Let-

ters to Mr. Pinckney¹² which will afford me the opportunity of making inclosures I therefore send you Sir seeds of 5 *Cypripedia* Mr. Sheppard will observe that they are all inhabitants of shady woods.

The interest in the introduction into England of new plants of economic value has the true Jeffersonian ring. Incidentally it is curious to notice that distinguished American conniving at the introduction of a presumably valuable food plant into a potential enemy country on the brink of war; a far cry from "total war." The new variety of "Zea Maize" mentioned above appears later as "Mandan Corn." From the high latitude¹³ and the severe winter Bradbury was led to deduce something like a "Greenland climate" for what is now North Dakota, and supposed that the plant would therefore succeed in England. Of the history of this variety of maize in England I have no information.

The above letter is followed by a long silence, corresponding to (but exceeding) Bradbury's expectation—from August 1809 to May 1810. The gap is easily explained by the long journey from Monticello to St. Louis (his estimated six weeks ran to over four months); by bouts with the "ague"; and by adjustment to travel and life in the backwoods of America. Evidently he tested his endurance to the utmost, and evidently, in spite of much sickness, learned to take care of himself under primitive conditions; this is apparent also from his book, *Travels in the interior of America* (Liverpool, 1817). He had been known in England as an excellent marksman; and in America he prided himself on being able to support himself in the woods.

7. JOHN BRADBURY TO WILLIAM ROSCOE

St. Louis Louisiana May 10 1810

Sir

I remained only 6 days at Monticello after I wrote to you from thence, when I took my leave and travelled over that most Mountainous tract of country that lies betwixt Monticello and the falls of the Kenhawa (Kanawha) River a distance of about 240 Miles during my passage over these Mountains I found the Oil Nut (*Juglans cinerea*) mentioned by *Michaux. Jun.* and also discovered a new species of *Corylus*. I passed down the Kenhawa to its junction with the Ohio at point Pleasant 90 Miles from the falls here

¹² See Jefferson's letter to Pinckney cited by True, *Proc. Amer. Philos. Soc.* 68: 141, 1929.

¹³ Fort Mandan, where Lewis and Clark wintered, was nearer lat. 48°; but of course the corn may have been brought in from farther north.



FIG. 2. *Penstemon bradburii* Pursh [No. 106 (K)].
Isotype.

I bought a skiff which is a small Boat worked by one person in which I rowed myself to the falls of the Ohio (Louisville) 325 Miles where I arrived the 27 Sepr. In a few days afterwards I fell sick of an Ague which was very severe and remained with me untill the 20 of November. On the 23 I quitted Louisville in a Boat down the Ohio in which I sailed to Shawaney Town (Shawneetown) about 10 Miles below the mouth of the *Wabash* and 350 from Louisville. here I quitted the River & got a Horse on which I travelled through an uninhabited country to Kaskaskia 145 Miles sleeping on the ground. At Kaskaskia I crossed the Mississippi into upper Louisiana and arrived here Decr. 31. From the beginning of Decr. to the end of March the Weather is more severe here than usually in that season in England the Mississippi here being often frozen over so that the Illinois farmers cross it with loaded Waggon on the Ice altho it is more than a mile in breadth and extremely deep and rapid. I therefore employed myself during the months of Jany. Feby. & March in collecting Birds & in preparing my Garden when the Weather permitted—I think I have been tolerably successful in Birds having near 60 species 8 or 9 of which I consider non discripts—About a Month ago the first flowers began to appear and now the Priaries¹⁴ are truly beautiful I beg leave to observe that from the Atlantic to a line passing up the Mississippi, 300 Miles up the Ohio and then northward this Country (excepting what is cleared by the hands of man) is one immense forest of Trees: from the line above mentioned to the Pacific Ocean it abounds in Natural Meadows (Priaries) of from one Hundred to many Hundred Thousand Acres in extent. On one of these at a Plantation 3 Miles from St. Louis I have fixed my Garden which is now filling very fast with rare & non discript Plants of the latter discription I already count upon 16 species viz. of *Ribes*, *Viola*, *Phlox*, *Cardamine*, & *Cypripedium* 2 species in each: a *Lithospermum*, a fine *Podalyria* an *Erigeron* and an *Hieracium* I have also what I esteem most two Plants each of which will form a new Family in *Didynamia Angiosperma*. I speak here only of such plants as are actually in my Garden and which I have clearly ascertained as far as I am carried by the last Edition of the *Systema Naturae* and my own knowledge. Having entered into a correspondence with Dr. Dowe of Orleans I purpose to send to him to be forwarded to you Sir specimens from time to time during the ensuing summer which I trust I may have opportunities to do frequently as Boats are often passing from hence to Orleans and altho the distance is 1300 miles the passage is made in 20 Days probably you may receive the first parcel before you receive this Letter. I yesterday Planted the *Mandan Corn* of which I wrote to you by desire of Mr. Jefferson I have no

¹⁴ It will be noticed that Bradbury is quite consistent in this mis-spelling.

doubt of its doing very well in England & it will be an immense National benefit they raise of it two Crops here in the same year the place from which it was brought is 1600 Miles up the Missouri and from the discription given me by the French Traders & the Hunters an excessively cold country: They reckon here and up the Missouri Six Species of Grapes some excellent, one I discovered about 3 weeks ago about 60 Miles up the Missouri the fruit of which the Back Settlers inform me will be ripe this month I purpose to send you roots and cuttings this Autumn I have no doubt but it will ripen its fruit in England—the Summer Grape of this Country if it answers the discription is very fine I cannot yet ascertain which species it is or whether discribed at all the leaves are some simply Heart-shaped, others 3 & again others 5 lobed—I hear also of a Plum which grows in the Priaries about 700 Miles up the Missouri which is about the size of a Hen's Egg and excellent the Shrub that bears it about 4 feet high & not thicker than a man's finger. If I can get it no other way I will go for it. The species of *Lithospermum* [*L. canescens*] mentioned above is a very handsome plant with Orange coloured flowers the Root yields a most beautiful red colour & is doubtless that with which the Indians paint themselves and stain the Hair Feathers etc. etc. which decorate their quivers, Belts, Calumet etc.—I shall send some of the Root with the first specimens—The Roots of both the species of *Cypripedium* of this Country are pleasant & powerful bitters!!! We have here three species of Ash *F. americana* *platycarpa* [*caroliniana*] & *quadrangularis* [*quadrangulata*] of *Juglans* & *Quercus* I have not yet determined but of each we have one species which I judge is not discribed. Of other Trees we have 3 species which at present I cannot tell where to arrange not having the fructification I expect to send to the Garden young plants of them having sowed them & two of the species are up—The common names are the Coffee nut [*Gymnocladus dioica*] and two kinds of Hack berry.

I wait for the determination of the Committee with a considerable degree of anxiety but whatever it may be I rest satisfied with myself conscious of having discharged my duty to the utmost of my power so far even to the endangering my health having provoked another attack of the Ague which however I have overcome after about 12 Days Sickness. If the Committee determine to support the plan I think they ought to appoint some House in Orleans to receive & ship the plants as I purpose to send from 100 to 150 or 200 each of the more beautiful non discript plants and have now actually in my Garden betwixt 6 and 700 of the two Species of *Phlox* and the *Cypripidium*s.

I mistook when I said above I had overcome the Ague, I have been very sick since but trust it is now leaving me. I was yesterday honored with yours of the 9th of December for which I cannot sufficiently

thank you as it conveys to me the approbation of the Committee the recollection of it will often cheer me under hardships & difficulties that none but an *Enthusiast* would or perhaps could undergo—You mention Sir the Variety of Zea Mays known here by the name of Mandan Corn. I think Mr. Jefferson expected it from Governor Lewis it will not therefore be in his power to send it. But you may expect Sir from me some of it say a Bushel or two with the first parcel of Plants. Dr. Dowe also inclosed me a Dft. on Philadelphia for 222 22 Cents which I much wanted.

I am Sir with the greatest
gratitude and respect
your obedient Servant
John Bradbury

P.S. You will now Sir hear from me frequently.

In spite of the statement made in the above postscript, more than two months slip by before the next letter. The reason is not hard to find. Bradbury continued to be troubled by the "ague" (as is even more apparent from his wife's letters). Not having any new plants to communicate, he sends as a sop to his conscience a specimen of buffalo wool, in the hope that some manufacturer of cloth in England can find a use and a market for it.

8. JOHN BRADBURY TO WILLIAM ROSCOE

St. Louis 24th. July 1810

Sir.

Since I had this honor in May I have been so much confined to this neighbourhood by Ill health as not to make any excursions worth communicating to you but having determined to lose no opportunity of being useful to the world in any way however remote from the immediate object of my mission I now write to you Sir principally on the subject of the inclosed. You will perhaps recollect that in my last I mentioned that this country consisted of Wood Land and Priarie; as we proceed westward the proportion of Priarie increases so much that from the Mandan Nation about 1600 Miles up the Missouri to the Rocky Mountains 1400 Miles farther West is all priaries excepting the alluvion of the Rivers. In Missouri the Buffaloe are in such prodigious numbers that various travellers have assured me that they have seen what they have computed to be from 20 to 50,000 in one view. that country is excessive cold in winter and the Buffaloe are not cloathed with hair but a kind of wool, a specimen of which I enclose as shorn off the animal, being confident that it might be brought into use in Manufactures. at present no use is made of it and if I was empowered to buy I could procure Hundreds of Packs in a Year. If you Sir are acquainted with any Clothier in Yorkshire or the West of England they would soon give their opinion.

General Clarke arrived here about three weeks ago from the Federal City since when I have had frequent opportunities of conversing with him and find him more intelligent in Natural History than from his few opportunities of intercourse might be expected. he assures me that up the Missouri the Country affords a most ample field for researches in Natural history the productions continuing to vary as we proceed westward. He showed me a few specimens of Trees collected on the Rocky Mountains at the head of the Missouri & on the River Columbia. Amongst which I was surprised to see the Larch (*Pinus Larix*) and the Norfolk Island Pine (*Cupressus Columnaris*) the latter of which he assures me attains the Height of 340 feet & the Trunk to be 12 feet in Diameter there are Immense Forests of it. He offers me every assistance in his power to facilitate my researches which is to me of immense advantage as his power is extensive being Commander in Chief of this Territory a space of not less than 700,000 Square Miles. Another advantage to me is the vast rapidity with which the population of the Whites is pushing Westwards; there has been for some years numerous Plantations on both sides of the Missouri to 90 Miles from its confluence with the Mississippi. This spring 18 Families proceeded up to Boon's lick 100 miles farther others I hear are preparing to settle still farther up. The Indians are very numerous up the Missouri, but Whiskey, the Small Pox and (probably more than either) the wars amongst themselves occasioned by being now more circumscribed in their Hunting Grounds are depopulating them very fast even now we expect soon to hear of the extermination of a powerful Tribe the Osages who are indeed the Ishmaelites of this Country they are of Gigantic stature mostly from 6 feet to 6 feet 8 inches and muster 1200 brave men or Warriors. Six Tribes are going to carry on a war of extermination against them, viz Shawanese, Delawares, Sioux, Missouris, Kickapoos & Pawnees. It is no uncommon thing in the annals of the Western Country that a Tribe shall be extirpated in a Day as they sometimes carry on war after the Mosaic plan.

I suppose Sir that Mr. Sheppard will inform you as far as he knows of the progress I am making in the fulfillment of my mission. I do not think that my sickness has materially impeded it. For being the more confirmed in my intention of fixing permanently near this place as I become better acquainted with its very advantageous position. It is my best plan to inform myself in the first place of the Plants of this neighbourhood. The most interesting parts of the Country I have not yet entered upon these are the Flint Hills which separate the branches of the Secondary & tertiary Rivers & are here called knobs where they stand single or dividing ridges where they form a chain. these are a different soil from the Priaries and afford a distinct habitat I shall pay them one visit in about a fortnight as I go for a New



FIG. 3. *Rumex venosus* Pursh [No. 29 (L)]. Isotype. The slip at the left is Shepherd's label. Diagnosis in lower left corner in Bradbury's hand.

and Curious Grape that grows on one of the branches of the Merrimac about 110 Miles from hence—Excepting the Mandan Corn no plant here interests me so much as the summer grape which will I am of opinion come to great perfection in England. I will send to Mr. Sheppard plenty of the roots & cuttings to some of which I hope Sir you will give place at Allerton I do not think there is in the World a Country rising faster than this nor one which posses more natural advantages and yet the price of the best land (if not in the vicinity of St. Louis) only 2 Dollars pr. Acre—the price of Wheat 1/2 a Dollar pr. Bushel Pork & Beef 2 Dollars pr. Hundred. The culture of Hemp & Tobacco is only commencing.

I am Sir most respectfully
Your obedient servant
John Bradbury

P.S. Since I began this the news is arrived that the Indians have killed a number of the Back Settlers about 30 miles from hence & I find from Genl. Clarke

that we shall have war with 7 or 8 Tribes the Winnebagoes or Puauts are the greatest aggressors.

Meanwhile Elizabeth Bradbury, at home in Cork, was pining for her absent husband and doubtless having some difficulty in providing for his numerous offspring. In September she wrote to Roscoe, telling what she knew of her husband's travels and plans (which he had already, as we have seen, communicated to Roscoe himself); and expressing herself very touchingly and confidently as ready and willing to go out and join him (with all her brood), to help him in his life work and to care for him in health and sickness. The only thing requisite was an advance of his salary to pay for their transportation. Accordingly she enclosed an order on Lord Stanley for £100, sent by John Bradbury, of which £70 was to come to her, the remainder to be sent out to New Orleans. Even the £70 was quite inadequate to finance a trip to St. Louis for nine persons, and she was hoping for an advance of the next year's salary. A second letter in October was apparently necessary to follow up this request for money, and receipt of the £70 was finally acknowledged in December; all hopes of a more ample subsidy and of joining her husband having evidently faded in the meantime.

If the subservient phrases of Elizabeth's letters seem strange to modern ears, we must recall that it was the custom of the time so to mark the distinction between the classes. At least we can admire the eloquence of these compositions of an unlettered woman, which compare favorably with letters in modern "business English."

9. ELIZABETH BRADBURY TO WILLIAM ROSCOE

Mr. Roscoe.

Sir. I recei'd a Letter yesterday from St. Louis dated May 17: 1810. from my Husband John Bradbury with an order on Lord Stanley for one hundred pounds which is enclosed in this by my Husbands desire, who stated that if I knew of no other mode of procuring payment, that, if I applied to you, you would have the kindness to procure it for me. I am sensible that it is too great a trespass on your time and goodness for which I can return you but barren thanks; if you would not like to interfere in it I shall feel equally grateful for I am satisfied that your refusal will proceed from motives as honorable as all your conduct is, and by returning me the Order I shall be obliged to directly apply for it to Lord Stanley himself which would be perhaps the most eligible mode to adopt now, as it would save you the trouble of an application, but in sending it to you I merely

comply with my Husband's desire. As he informs me that he receiv'd a Letter from you I suppose that he has written to you in answer, it will be therefore almost unnecessary to communicate any part of this Letter which is principally filled with a brief account of his Journeys. He has commenced his Garden within three miles of St. Louis and has already laid out above half an Acre, and sowed about 150 species of American trees, shrubs, and plants; he feels a confidence of being able to introduce a number of plants of "real utility" many are in his possession, and others he has heard of from Hunters who have ascended the Missouri and its tributary Streams 1200, 1600 and 2000 Miles—he has been also successful for Lord Stanley in Birds having collected 60 or 70 species seven of which are new, two of these Ducks very beautiful he has likewise a new Quadruped and a new genus of insects &c. I hear with regret that he was attacked with an Ague and fever last September, which continued six weeks, he says that it was brought on by excessive fatigue and having drunk too much cold water—and in May last he had another fit of sickness occasioned he thinks by over exertion in his new occupation—he wishes much that his Family was with him, which wish is truly reciprocal, as they would tend considerably to ameliorate his Condition, the Lads could assist him in his excursions, and in the Garden, and Superintend and manage it in his absence, while my Daughters and myself could add to his Domestic comforts and administer to his wants if afflicted by Illness; it terrifies me to think of his Situation, liable to Sickness, so far from his relatives whose attention is thus become doubly necessary for I know his anxiety to Serve his family is so great that he will not relax his labours till he may seriously endanger his health. Besides his Sons being under his care may be taught his profession and be enabled to provide suitably for themselves, he says he means to adopt the pursuit he now follows as a Business for life—if you receive the Hundred pounds my Husband would be obliged to you, if you would send him thirty pounds of it, and to send me the remaining Seventy he tells me to direct some cloathes to him at Dr. Doves Orleans, so I suppose the same address will do for the Money, but you are perhaps acquainted already with his address—when I receive the Seventy pounds I could be ready to set off with my Family to America, only that Sum is totally inadequate for that purpose for after purchasing Cloathes for my Husband and family consisting of eight Children and acting in the most economical manner I could not calculate on having more than thirty pounds left which would be insufficient to pay for our passage independent of provisions &c. I must therefore give up all hopes of going unless the Committee of the Botanic Garden would kindly advance the year or even half years Salary that will be due in advance the 1st. January 1811—How to ask them for it I dont know for my Husband does not desire me, nor even hint at it, tho' I am certain that he would be

highly pleased and truly grateful for it, and would of course give the suitable receipts for it, when apprised of it, and if my acknowledgement would be thought of sufficient validity I would instantly give it—If I wait until January next to go, there will be a loss of several months which I would particularly regret as my Husband intends visiting England at the end [?] of his three years which will be on January 1, 1812 he would therefore have but a short time to instruct his Sons in managing the Garden while he is in Europe—I fear Sir I have tired your patience by my reflections which altho' they concern me considerably they do not, nor ought not, to affect you even by recital.

I am Sir your obedient Humble Servant
E. Bradbury
Post Office Cork

Cork Sep 10
1810

The following was presumably enclosed with the above:

St. Louis Louisiana 12 May 1810

My Lord

Please pay to the order of Mrs. Elizabeth Bradbury one Hundred Pounds Sterling on account of

John Bradbury

To the Right Honble.

Lord Stanley

10. ELIZABETH BRADBURY TO WILLIAM ROSCOE

Mr. Roscoe
Sir.

I receiv'd a Letter from my Husband Sept 9th. enclosing an Order on Lord Stanley for one Hundred pounds, which he desired me to transmit to you, saying that you would have the goodness to receive it for me. I wrote to you Sept. 10 and enclosed the Order—As such a considerable time has elapsed without receiving your answer, I am apprehensive that the Letter has miscarried, or as the direction for me was to the post office here, (where almost all my letters are directed) I fear some other person has received it, either in my name or by mistake—with these apprehensions I trust you will pardon me for again troubling you for an answer as soon as you conveniently can—Believe me Sir I am truly ashamed to take up so much of your time, but if you are disposed to censure me, recollect that the cause may be traced to yourself for if *you* were not so Benevolent I should not be so obtrusive.

I am Sir with gratitude and respect your
Obliged Humble Servant
E. Bradbury

Cork
Oct 11
1810 at Mr. Samuels's Moores Street Hammonds
Marsh

11. ELIZABETH BRADBURY TO WILLIAM ROSCOE

Mr. Roscoe
Sir.

Your letter of the 14th Inst. I receiv'd yesterday, and for the agreeable news you communicate and the trouble yourself have taken I return you my most grateful acknowledgments—I would be obliged if you would Send me the Sum originally mentioned £70 for I received two Letters from my Husband since I wrote to you and he desired me to Send him £50, therefore £30 added to your generous gift will make up that Sum—I think the most eligible mode of sending it to me would be by your Bank Bill payable in London, which I could easily get Cash'd; or by an Order on a Bank here for the Amount. My Husband's last Letter was dated the 10th of August he was then in good health, he is much pleased in his choice of situation and his success in plants continues.

I am Sir, with respect and
if possible, with additional gratitude
your Obliged Humble Servant
E. Bradbury

Cork
Nov 20 1810
Direct to me at the Post Office, I have found it always safe.

12. ELIZABETH BRADBURY TO WILLIAM ROSCOE

Mr. Roscoe
Sir.

Your letter of the 24th Ult. I receiv'd on the 30th; inclosing your Draft for £70, which I very easily got cashed—your promptness in Sending it, together with the trouble you take in forwarding the £30 to my Husband demands the sincere thanks of your most Obedient

and Obliged Humble Ser't
E. Bradbury

Cork
Dec 4
1810

In the next letter Bradbury proposes to explore the Arkansas River, and hopes for £100 to make this possible. This must be in addition to the previous hundred mentioned in Elizabeth's last letter, all but £30 of which went to his family. The "Committee" were probably just realizing that an exploring venture can be expensive—perhaps even experiencing some surprise that Bradbury's activities were apparently envisioned as a business for life. Certainly they must have been disappointed that a steady stream of new living plants from Missouri did not at once materialize. The letter from John Leigh Bradbury shows that the



FIG. 4. *Elaeagnus commutata* Bernh. [No. 82 (L)] and *Shepherdia argentea* (Pursh) Nutt. [No. 83 (L)]. Bradbury's diagnosis applies to the latter species.

question of funds was ever pressing, particularly for his own projected part in the enterprise, and that prospective patrons were showing a natural reluctance to invest in a venture which after nearly two years had yielded nothing but a bit of buffalo wool and a few grains of maize. Then follows the first letter from Bradbury which announces a shipment of plants. This was the seven packages mentioned on the first page of his *Travels*, resulting from his excursions within a radius of 100 miles from St. Louis during 1810. In this letter it is plain also that Bradbury's hopes of additional money were not realized, and that he had to abandon his projected journey to the Arkansas. In its place he had the good fortune to become associated with Hunt's expedition up the Missouri, which is described in detail by Irving in his *Astoria* (Philadelphia, 1836).

13. JOHN BRADBURY TO WILLIAM ROSCOE

St. Louis 28 Novr. 1810

Sir.

I send you herewith some varieties of Maize amongst which are two kinds which will I think succeed in England as they will frequently come to maturity here in 10 or 11 weeks whereas the common variety requires the whole summer I think it would perhaps be advisable to plant it in two parts one about the beginning of May the other about the middle.

I shall spend next summer on the Arkansas River which is wholly unexplored by any one whose object was Natural History I trust I may be able to send you a much more valuable collection on my return down the River and perhaps I may accompany it. If Sir either you or the Committee have any particular object to which you would wish me to attend I shall with pleasure obey your instructions.

In the mean time I am under the necessity of mentioning that it will considerably frustrate my plans if I do not receive a farther supply of Money before May at which time I purpose to set out from Ozark a Town on the Mouth of the Arkansas and shall have no intercourse with White People (unless accidental) until October—I shall have occasion for 100 Pounds as my Boat, my outfit, and the pay of an attendant will be something expensive I think Messr. Kenner & Henderson will be more proper than Dr. Dowe to hand the money to as more consistent with their business.

I am Sir your most
obed Servant
John Bradbury

14. JOHN LEIGH BRADBURY TO WILLIAM ROSCOE

Gloucester Feb 18 1811

Wm. Roscoe Esqr.

Sir.

As you kindly condescended to assure me, that writing to you would not be considered an intrusion, I take the liberty of doing so.

On my way to London I called on a friend here, one of the first *Pin makers* in England who pressed me so strongly to spend some time with him, that I sent my letters franked to London, knowing that my presence was not absolutely necessary to forward my father's business. I have since heard from London that application has been made to the Linnean Society for their Patronage, the great, and I believe the only obstacle to which, is the unfortunate circumstance of nothing having been yet received from him. Can any thing be done Sir to satisfy them? Or has any thing yet arrived in Liverpool?

In regard to my-self nothing has yet appeared; the few friends I have are doing all they can; and in the mean time I am striving to effect a revolution in a business that has not received any improvement, I

suppose for 2 Hundred years, and which wants it exceedingly.

You offered me when in Liverpool some of the Wool my Father sent over: I am sorry I did not accept it, and if you would not think it too much trouble I shall be much obliged to you if you would inclose me a little.

Permit me here to acknowledge the favours our family has received at your hands; received more, that your benevolence falls on all that come within its influence, than from any claim it could have on your goodness; favours for which I shall never have abilities to thank you as I would wish or opportunity I am afraid to deserve.

I am Sir your Obt.
Servant
J. L. Bradbury

At Mr. Charles Weavers
Gloucester

15. JOHN BRADBURY TO WILLIAM ROSCOE

St. Louis 25th Feby. 1811.

Sir.

Before you receive this I trust the collection which I made last summer will have arrived safely altho several untoward circumstances have prevented its progress in the early part so speedy as I could have wished—About a month ago news arrived here that the Boat which conveys it to Orleans had through the inexperience of the Patteroon grounded by taking the wrong side of an Island near the Mouth of Kaskaskias River about 80 Miles down the River to which place I rode but found that in about 3 days after the accident happened she got off & proceeded safe on her Voyage. I suffered much during my Journey from the extreme severity of the Weather the Thermometer having been mostly during the time below 0 and for one day 6° below in the Room in which I sleep.

This is probably the last time I shall have this honor untill October as I shall set out in a few Days along with a Hunting party who ascend the Missouri in their route to the Pacific, my present intentions are not to proceed farther than about 1600 Miles at which distance the Volcanic country occurs where I purpose to spend the summer and shall live with the *Sioux* or *Mandan* Indians from whom if no other opportunity occurs I can procure a Canoe or Periogue to descend the River with my collection in Autumn. I did not in the first instance intend to have spent the Summer on the Missouri but to have travelled from its Waters to those of the Arkansas and finally to have descended the latter River but this plan my want of means for the present prevents me from executing which I the more lament as from the report of Hunters the country on the Arkansas and from thence to *Mexico* is extremely interesting: But the expenses

April 20 1809

Sir The obstacle which has for some time prevented my proceeding to America is now compleatly removed and in such a way that it cannot in future be any impediment to the execution of my plan.

I purpose that we shall sail in five or six Days and hope we may in the mean time obtain the Letters which it was proposed we should take with us. If you Sir or any of the Gentlemen belonging to the Garden would assist us in obtaining a passage on reasonable terms it would serve us materially.

I am Sir your most
Obedient Servant

John Bradbury

FIG. 5. Letter No. 5, John Bradbury to William Roscoe.

attendant on the dispatching my collection have so much reduced my Stock that I shall not be able to purchase the necessaries for this Journey, not corn Bread unless I obtain assistance.

Should the plants be delayed at Orleans it is not unlikely that some of the earliest may have been destroyed by germinating in the packages in which case I beg Sir you will speak to the Committee on the necessity of giving me early information of which Plants do not succeed, that on my return in autumn I may again collect them I have so arranged that

any Letters or even remittances that may arrive for me here shall be taken care of.

Not being certain that I shall return to Europe next autumn I shall be happy if you inform me whether the Missouri Corn succeeds and you may rest assured Sir that I shall attend to the introduction of any object which may promise to be useful to Society.

I am Sir your very
humble Servt.
John Bradbury

Mr. Bridger a Gentleman of my acquaintance from Manchester is come to settle in this neighbourhood intending to establish a Sheep and Cheese Farm & has purchased on the Priaries at his request I write to beg you will let Mr. Sheppard have a small cask of hay seeds from Allerton Meadows. . . . Swedish Turnip & Seed wheat which I shall write to desire Mr. S will put on board some Ship for Orleans to the care of Kenner & Henderson for Saml. [?] Bridger of St. Louis—K & H do shipping business for Mr. Bridger.

16. JOHN BRADBURY TO WILLIAM ROSCOE

St. Louis 10 March 1811

Sir

I write to you at the request of my Friend Mr. Charless the Printer of the Louisiana Gazette who has published therein some sketches of this Country, of which the World in general are so ignorant that in my opinion whatever will tend to throw a light upon its History must be desirable. In conformity with this feeling I make known to you his wish to republish the Sketches in England and to put the book under your Patronage so far as the causing it to be shewn to such of the Booksellers as might be likely to purchase the copy Right for the value of which Mr. Charless would willingly be reimbursed in Types I forbear Sir to give any opinion of the work, as to style of which you are infinitely a better judge than I am, but as to fact can say it is correct according to the best information at present to be had here. I am desired by Mr. Charless to say that should the book fail of purchasers it will not create in him the feelings of a disappointed man; and that he only wishes you to do with it what your own Judgment and known Philanthropy may prompt you to think best. If you meet with an *honest* Bookseller who will purchase, he has only to make up the value in Types of any kind from Long Primes to English and ship them in a Box to Kenner & Henderson Orleans address for Mr. Jos Charless and Types part worn will answer for this remote part of the world.

Mr. Charles desires me also to say that this will be accompanied by some few articles of Indian Costume and Nat History which he offers for your acceptance, not as worthy by their intrinsic value but as adding perhaps a mite to the stock of Human Knowledge.

I am Sir your Very
obed Servant
John Bradbury

I go on my Missouri expedition tomorrow and shall meet the Boat then at St. Charles on that river she sailed about an hour ago.¹⁵

¹⁵ In Bradbury's *Travels* this date is given as March 12. Irving in *Astoria* is silent on this point.

17. JOHN LEIGH BRADBURY TO WILLIAM ROSCOE

Birmingham Mar. 18 1811

Wm. Roscoe Esqr.
Sir.

I have heard from London since I had the honour of addressing you and I am much afraid that nothing can be done for my Father and consequently I cannot join him. I took the liberty of enquiring if any thing had been yet received from my Father and of asking a little of the Wool, I am sorry to give you so much trouble. I came to this town to try some experiments relative to the business I took the liberty of mentioning to you and shall return to Gloucester in a few days.

I am Sir with respect
your obliged servant
John Leigh Bradbury

Mr. Charles Weavers
Gloucester.

The two following letters complete the series written by Bradbury. Both deal with the journey up the Missouri, one having been written from points on the way up, the other from St. Louis after Bradbury had returned there.

Bradbury began his first letter at the mouth of the Nodoway (the English version of the word "Naduet"), near where St. Joseph, Missouri, is now situated. At this spot the main body of Hunt's expedition had wintered. He was disappointed in what he saw, the vegetation having changed little from that near St. Louis.

It is interesting that the letters do not mention Nuttall, who was of course in the same party. In the *Travels* (p. 22) we read of a walk with Nuttall on which the latter occasioned Bradbury some inconvenience by not knowing how to swim. The reference to "scrapes" in the letter doubtless originated in such adventures. Later, apparently, the two naturalists went their own ways—one destined for immortality (at least of the botanical kind), the other for comparative obscurity. Bradbury covered long stretches of the country on foot, leaving the boat in the morning and joining it again in the evening.

A later installment of the same letter is dated from the "Mahas village," some eighty miles north of the situation of the present Omaha, Nebraska. By this Bradbury was delighting in an entirely new country and a new flora. His overland journey on foot to the Otto village on the Platte is described in detail in the *Travels* (p. 51-65). A number of his extant specimens are labeled "Otto nation" or "Otto village" or refer to "La Rivière

Platte"; these were evidently among those sent back from the Maha village [this is not mentioned, however, in the *Travels*, where (p. 65) he speaks only of forwarding letters back to the United States by Mr. James Aird, an old trader].

The last letter is concerned partly with Indians and the danger to be apprehended from them. He had himself been in great danger at least once—he tells the story on page 75 of the *Travels*, and Irving retells it on page 136 of *Astoria*. The account of the "medecine" of the unsuccessful war party is also based on a real incident which occurred during Bradbury's absence from the party on his journey to the Ottoes (*Travels*, p. 70).

18. JOHN BRADBURY TO WILLIAM ROSCOE

Mouth of the River Naduet 19 Ap 1811

Sir.

Four Days before I left St. Louis I received your much esteemed favor of the 30th Octr. It was inclosed in one from Dr. Dowe together with one from Mr. Sheppard, the Doctr. also informed me that I was empowered to draw on him for 20 Pounds. . . . I wrote in reply *attempting* to thank you Sir, but having previously given up the expectation of my Post arriving at St. Louis before my departure I had already written to you, and by a mistake unaccountable to me I dispatched the wrong Letter, this I did not discover until we had passed beyond the Settlements. Let this Sir convey my warmest acknowledgments for your bounty to which you will perceive, I shall probably be indebted for the preservation of my existence.

The specimen of wool I sent you is as you Sir suggest undoubtedly from *Bos Moschatus*. I called it the Buffalo as adopting the popular name. I have already seen it or the carcasses altho we are not yet arrived at the Buffalo country. In their migrations they go in herds of 10, 20 or even perhaps 100,000, one of these herds in passing over the Ice of the Missouri above this place about 6 weeks ago broke in and it is supposed as many as 1000 perished, we have met the carcasses floating down every day. I think I mentioned in my former that I go along with a party who are on their way to the *Pacific Ocean*; how far I shall proceed with them I cannot as yet determine, but trust that I shall be governed by a sense of what I conceive to be my duty, unless I find the natural productions in the vicinity of this River change materially from what they are here I purpose when we arrive at the Rikaree Nation to purchase Horses, hire a Hunter to accompany me and cross Southward to the *Arkansas* a distance of about 400 Miles at present the Experience I have had of the Plants since I left St. Louis inclines me to think I must adopt this plan those in the Vicinity of the River are exactly the

same here as they are 500 Miles below. I am told that 5 or 600 Miles farther up the soil and its productions entirely change. Should I find that to be truly the case I shall remain during the summer on this River either with some nation of Indians or alone as may hereafter appear more expedient: Having become tolerably expert with the Rifle I have no doubt of being able to subsist myself in the woods and shall therefore probably adopt the latter plan. For the reason I have mentioned I have little to communicate as yet in respect to plants, but indeed I have not had much opportunity as the weather has been excessively bad, by continued rain: two species of Fern for which I can find no discription and a white Erythronium (which I have before mentioned) are all I have marked out for sending since I commenced my voyage. I have a species of *Talpa* which will probably be new it agrees with the European Mole in having five toes on each Foot but is much smaller and has a beautiful silvery gloss.

It is perhaps right to mention for the satisfaction of the Committee that I remain in perfect health altho the bad weather has been much against me, as also has some Scrapes I have got into in my walks, from which I could only extricate myself by swimming.

I have no opportunity of dispatching this Letter now, but we expect to meet a Fur Boat which will afford one. I shall therefore leave it unclosed that I may have an opportunity of saying more if necessary.

Mahas Village 350 miles above St. Louis 12 May

Not having had an opportunity of sending this I have to add that I have now sanguine hopes of doing enough on this River to satisfy those who patronize me and discharge my duty. from the mouth of the River termed by the French *La Rivière Platte* the soil and its productions have materially changed and I send to St. Louis to be forwarded to you Sir for the Committee specimens of 25 Plants for which I can find no discription three of them may probably be valuable say [?] a Yucca a Cherry and an Anemone. I hope you will receive them before this arrives as they will go by a shorter route.

Many of these have been collected in a Journey by Land which I undertook along with an Indian Trader one of the Partners in this expedition who had formerly traded with the Otto Indians When on the Platte River with them he had business and we quitted the Boats 200 miles below this place by water went to the Ottoes 40 miles & from them to this place 120 across the country.

If possible Sir you shall hear from me again during the summer if not I beg you will believe that nothing shall be wanting on my part to discharge faithfully the trust reposed in me

I am Sir your grateful
Obed Servant
John Bradbury

Since I made up the Packet of specimens I think I have forgot to give the discription of the Shrub in Dioecia octandria.

Male Calyx 4 parted
 Corol none
 Stamens Eight Short anthers simple
Female—Calyx 4 Parted
 Corol none
Pistm. Stigma capitate
 Stile short
 Germ—becoming a one seeded berry

19. JOHN BRADBURY TO WILLIAM ROSCOE

Merion (?) Nr. St. Louis 16 Augt. 1811

Sir.

I arrived here a few Days ago from my excursion up the Missouri which I ascended to the *Gros Ventre* Nation of Indians 1650 Miles from this place. the Sioux Indians assembled as we expected to oppose us but on our going up to them they declined to engage. I wrote to you Sir from the Mahas Nation & sent a small Packet of specimens in which I made some mistakes the common consequence of hasty communications. the Shrub is *Hippophae canadensis* I found none but withered male flowers unexpanded on dissecting them the anthers split in two, the Yucca is probably *Y. Gloriosa* if so the . . . deceived me.

I found the country & its productions gradually to change as we proceeded up the River and anxious to secure in quantities those Plants which besides being as I judged new were beautiful I bought all the empty *cassettes* or trunks belonging to the Canadian Boatmen & an old Barge belonging the Party who left the River to go by Land—I was enabled by this means to bring down from 4 to 5000 Roots planted in 17 Trunks 4/5 of these are now dead as the Situation in which I found myself on my arrival here obliged me to look out for *Immediate* employment of another nature which rendered it impossible for me to take care of them.

I am more than ever confirmed in the opinion that the Western parts of this country are more abundant in unknown Plants than any part of the Globe the country of the Amazons perhaps excepted & I do not despair of being able to visit them in some years by my own means, the most dangerous part being in some measure accomplished: none of the Indians from the South west bank of the Missouri to the Gulf of Mexico being hostile to the Whites and there is little danger in meeting them excepting when they are returning from War unsuccessful When they sometimes throw away their cloaths and make it *their Medicine* (a Vow) to kill all they meet and even then if you have obliged any one of the party formerly they can save you even a Squaw as they hold private friendship sacred. I have availed myself of this trait in the Indian character and made Pres-

ents to some of the chief Warriors in each Nation I have passed through. I had also arranged to accompany the Osages next summer who go annually for Salt to the great Salt lick beyond the Arkansas on the borders of Mexico.

I now find Sir that the wool I sent you was from *Bos Americanus* having had frequent opportunities of examining the Animal. *Bos Moschatus* I do not think is found on the Missouri. I am of opinion that this wool might become an Article in Manufacture and that great quantities might be obtained from the Indians at an easy rate as it requires much less labour to shear a skin than to dress it, and for a dressed Buffaloe Skin the usual price to the Indians is 20 Musquit balls & 20 loads of Powder.

Within is a note to the Committee of the Garden which I inclose as not knowing how else to address them. I fancy Sir to leave it at the Garden will be the least troublesome to you.

I am Sir with the most grateful
 respect your Very obed Servant
 John Bradbury

The nature of the "note to the Committee of the Garden" becomes clear in a letter from Roscoe (no. 20 below); it was a resignation from his appointment, to take effect at once although his stipend had been paid until the following February. On the exact nature of the difference between Bradbury and the authorities at the Botanic Garden I can shed no light. It is evident from several of the letters that Bradbury's plans were constantly thwarted by lack of money; the amount agreed upon was obviously insufficient for his purposes. On the one hand Bradbury doubtless felt that the Committee should be more generous; on the other, the gentlemen in Liverpool must have felt disappointed at the paucity of material return from their outlay. In the *Travels* (p. 191) Bradbury writes of "those who had determined to withhold" his remittance from the Garden; they finally relented, whoever they were, and the remittance was received in St. Louis near the end of November, 1811. At the same time he received a letter from the "person who managed the Botanic Garden at Liverpool" informing him that his former collection had been received, more than one thousand plants had been potted, and many seeds were germinating. The disparaging tone of his reference to Shepherd (the "person" in question) suggests that he was one of those who were bent on impeding Bradbury's work—or perhaps on penalizing him for the lack of what they considered satisfactory results.

Several particulars in the *Travels* do not square very well with the account in this letter. According to the former, Hunt gave Bradbury the barge for his return voyage. Manuel Lisa, representing a rival fur company, purchased the other three boats, and arranged to accompany Bradbury and allow him time to collect, in exchange for his boat (p. 171). Lisa did not live up to his part of the agreement, and the journey down stream was made almost without a stop, to Bradbury's intense disappointment.

About ten days after his return to St. Louis (near the beginning of August), according to the *Travels*, Bradbury was taken ill and confined more or less until December (p. 190); nothing is said of the collections. The account in the letter says nothing of illness but introduces the necessity of seeking other employment as an explanation for the damage to his collections. Since the letter was written at the time and the book five or six years later, the former is intrinsically more credible.

Bradbury's collections from the Missouri seem to have reached Roscoe through his son, who offers them in the third letter following. He also had apparently received a full account of his father's misfortunes.

20. JOHN LEIGH BRADBURY TO WILLIAM ROSCOE

Wm. Roscoe Esqr.

Sir.

In the last letter I had the honour of receiving from you, you had the goodness to promise to communicate any matters that might occur in regard to my Father on learning my adress.

I am anxious to know if the society still patronize him, or if any thing has been received from him. By letters received by a friend of his in London dated May 1811 he was 850 Miles beyond St. Louis, in good health and spirits, & successful. I am much afraid he has not the least chance of support in London.

I am Sir with particular

Respect

John Leigh Bradbury

at Charles Weavers Esqr.

Gloucester.

16 Oct. 1811

21. WILLIAM ROSCOE TO JOHN LEIGH BRADBURY

Allerton 26th decr. 1811

To J.L. Bradbury

Sir.

As you desired to be informed when I heard from your father I take this opportunity of acquainting you that I lately recd. a letter from him dated at Merino

near St. Louis 16 Augt. last when he had just arrived from his Excursion up the Missouri—At the same time he inclosed a note to the Committee of the Botanic Garden, informing them that he had sent to them all the plants which they were under their Agreement entitled to, & that what he was now collecting was for his own use.

I scarcely need to say that this communication has given great dissatisfaction to the Committee, who have regularly remitted to Mr. Bradbury according to his order his annual payment of £100 p. an: for 3 years & which 3 years will not expire till the end of the present; consequently whatever may be collected till that period is under the contract, to be sent to the Liverpool Botanic Garden for the purposes therein specified.

This is the more dissatisfactory to the Committee as the Plants already received are considered by the Committee as by no means adequate to the Payments they have made to Mr. Bradbury, & they cannot therefore but conceive that even if the last £100 had not been remitted they ought to have recd. some considerable addn. as a remuneration for their former Paymts. I state these matters to you that if you have an opportunity, you may acquaint your father with them & I am the more desirous of this as I feel myself anxious that he shd. acquit himself with honor & punctuality of an engagement which I was the chief means of obtaining for him, & which I shall be happy to hear may lead to something to his greater advantage.

Some months since I had a Letter from Mrs. Bradbury complaining of her pecuniary inconvenience, in consequence of which I remitted her a bank note for ten pounds as a present on my own acct. & as a proof of my confidence in Mr. Bradbury's good conduct. Having not heard of its being recd. I fear my letter to Ireland may have miscarried & shd. be glad you wd. ask the question when you write, being Sir

Your very faithful & obt. Sert.

W. Roscoe

To Mr. J.L. Bradbury

at

Chas. Weaver's Esqr.

Gloucester

22. JOHN LEIGH BRADBURY TO WILLIAM ROSCOE

Charles Weavers Esqr. Gloucester

Dec. 29. 1811

W. Roscoe Esqr.

Sir

I had the pleasure of receiving your letter and previously the mortification of one from my Father mentioning having resigned the Patronage of the Liverpool Society. I cannot account for such a step except on the supposition that he thought the term expired; or from a pique he might have felt on my

answering him he had little chance of a continuance of their support when his engagements were out. Whatever may have induced a measure of which none of his friends approve, I venture to pledge myself that he will do any thing further to the satisfaction of the Society which you or they think proper, and if he does not, I will. of this I beg you Sir to assure the Society and request them at all events to suspend their judgment till I again hear from him.

I hope he will never number among his misfortunes, the loss of your good opinion for with it must be lost the good opinion of the world. I should consider the man contemptible who would sacrifice your friendship for any advantage; and I cannot conceive that any man would do it where an advantage appears.

It is possible that you and the Society may suppose from my Fathers letter and knowing the previous situation of his family that he has some better engagement in view. The fact is he has none. He wrote on the Banks of the Missouri without a Shilling in his Pocket, and every thing stolen by the Indians except the cloths on his back & his Plants. In this situation he also wrote to me, inclosing specimens of Plants brought 1650 Miles down the River, and desired me to form a new connexion and shew the plants. I have wrote to Mr. Buchanan but shall not now attempt any thing further: I have not shewn the Plants, and I will send them if you please to you I will write to my Mother on the subject you mention and I cannot express my sorrow that you should have so much Trouble with us. I am Sir with respect and gratitude your obliged ser.

J. L. Bradbury.

.23. WILLIAM BULLOCK TO WILLIAM ROSCOE

London 4 Novr. 1813.

Sir

I laid your Letter before Sir Jh. Banks who requested me to return his warmest thanks for the very liberal manner in which you have permitted him to take a specimen of each of the duplicates of the Plants sent by Bradbury and that he will consider it his duty and have great pleasure in forwarding to the Liverpool Garden whatever is in his power to add to it. Mr. Brown will make the selection tomorrow when they together with Dr. Roxboroughs shall be forwarded as you request.

Mr. Lambert has just called on me to request me to make a similar request to you on his part that I did for Sr. Josh. which I do only because I promised him not having the same reasons that I had in the other Case he says he has 20 new Peruvian Plants living that he will send you in return you will please to determine for yourself in this case.—I would certainly select the duplicates myself were the case mine I am Sir very truly yours

W. Bullock

Here the record ends. Bradbury, cheated of his scientific and horticultural ambitions, was an embittered and disappointed man. We know from other sources¹⁶ that he went from St. Louis to New Orleans and thence to New York, where he was engaged in business for several years, with little pleasure and small financial gain, and still dreaming of his darling object, the exploration of the Arkansas. Finally in 1816 he made his way back to Liverpool, where he published his *Travels*. This is said to have exhausted his slender means; it is a pity he could not have received the sums paid now for single copies. We know also that he gathered up his wife and "numerous family" and with them left England forever in 1817 or 1818; coming first to St. Louis, where he stayed at least until 1821; then moving to Middletown, Kentucky, where he died in 1823.

Bradbury was defeated in the great undertaking of his life chiefly by lack of appreciation (on his part and on that of his sponsors) of the difficulties of the task. To travel the American wilderness and bring back living plants from it required more money than had been foreseen or was forthcoming; though Bradbury himself soon realized this, he was unable to "sell" the idea to his patrons in Liverpool. This was unfortunate; probably a few additional hundreds of pounds would have yielded results gratifying to all concerned. As for Bradbury's scientific endeavor, we can only speculate on what he would have accomplished had not his collection been turned over to Lambert and Pursh. It may be suspected that he lacked the scientific acumen of either Pursh or Nuttall, and that the actual outcome, while distressing to Bradbury, was fortunate for posterity. On the other hand it is evident that he recognized the novelty of many of the species which he collected, and, given more means, could perhaps have described them properly. Whatever be the truth in this, we may share his just resentment at the circumstances which deprived him even of the chance to show what he could do. He seems never to have attempted botanical work again.

II. THE SPECIMENS

During Bradbury's absence Pursh published his *Flora* (1814), and in it the new species based on Bradbury's collections. Bradbury comments on this bitterly in the *Travels*:

¹⁶ *Proc. Amer. Philos. Soc.* 68: 142-149, 1929. Spaulding, Perley, A biographical history of botany at St. Louis, *Pop. Sci. Mo.* 73: 493-495, 1908.

I found that my design [of describing the collections] was frustrated, by my collection having been submitted to the inspection of a person of the name of Pursh, who has published the most interesting of my plants in an appendix to the *Flora Americae septentrionalis*.

And again :

This man has been suffered to examine the collection of specimens which I sent to Liverpool, and to describe almost the whole, thereby depriving me both of the credit and profit of what was justly due to me.¹⁷

Having failed in most of his efforts to transmit living American plants to England, he now saw himself deprived of the opportunity for making a scientific contribution.

The truth about the history of the specimens may be fairly clearly discerned in the letters cited above. It is plain that (except for a few sent from St. Louis and from the Nodoway in January and April, 1811) most of the specimens were sent to John Leigh Bradbury in December, 1811. The latter made little or no attempt to follow his father's instructions to sell them, but sent them to Roscoe in Liverpool. At the Botanic Garden they were presumably sorted over, and duplicates were sent to various persons in exchange for their collections. It must have been in this way that Thomas Taylor obtained those which he later gave to Sir William Jackson Hooker; these are the specimens preserved in the Hooker Herbarium at Kew.¹⁸ Some of the duplicates reached Sir Joseph Banks in London, and at the instance of Bullock a set was sent to Aylmer Bourke Lambert. Lambert annotated them mostly with the phrase "Louisiana. Bradbury." Pursh had access to Lambert's herbarium, and on these specimens founded new species, besides determining such as represented species already known.¹⁹ At the sale of Lambert's herbarium in 1842, most of the North American specimens were purchased apparently by Dr.

¹⁷ *Travels*, vii and 79. This seems to be clear evidence that not only was he not consulted about the disposition or use of his plants, but did not even see a copy of Pursh's work until nearly three years after its publication.

¹⁸ Hooker cited some of them in the *Flora Boreali-Americana* as early as 1829.

¹⁹ In his preface Pursh says "I am also highly indebted to William Roscoe, Esq., who very obligingly communicated to me Mr. Bradbury's Plants collected in Upper Louisiana" (*Flora Americae septentrionalis*, p. xvii). This is in conflict with the story outlined above; but there is no doubt that the specimens annotated by Pursh also carried Lambert's handwriting. Perhaps it was at Pursh's request that Roscoe sent the plants to Lambert.

Thomas B. Wilson and by him presented to the Academy of Natural Sciences of Philadelphia.²⁰ In that institution they are still preserved, with Lambert's and Pursh's annotations to be seen upon them. The types, therefore, of Pursh's species are the duplicates used for exchange by Roscoe.

The specimens which remained in Liverpool—the "originals" as contrasted with the duplicates—were seen in 1839 by Thomas Batt Hall.²¹ The collection of the Botanic Garden was transferred in 1909 to the Liverpool Public Museums. It consisted of 40,000 specimens, unfortunately extensively damaged by insects and fungi. Some 16,000 were retained, presumably including the Bradbury plants.²² When the latter were sought in 1934 they could not be found; but they were discovered subsequently and reinstated in the herbarium. During the summer of 1948 I was privileged, through the courtesy of Mr. Stansfield and the officers of the Herbarium at Kew, to study these specimens. Later I visited the Academy of Natural Sciences of Philadelphia, and with the kind cooperation of Dr. Pennell examined the Bradbury specimens there.

The collection at Liverpool comprises about 115 unmounted specimens which are more or less determinable. Some are in surprisingly good condition, considering that they were carried across the prairies, protected from torrential rains by being lain upon (*Travels*, p. 61), and saved from the depredations of the Indians who got away with most of Bradbury's belongings (letter no. 22, above). Some show the expected wear and tear, and some are mere fragments. Many bear Bradbury's field labels, with his notes and attempts at determination, and the locality. John Shepherd added his own ideas of both on slips of blue paper. Many lack one or both of these labels. (Exact localities are missing from the types at Philadelphia, which can be assigned to more or less definite places of collection only by comparison with the isotypes at Liverpool and Kew.) Some specimens are obviously included by error, being European plants (nos. 13, 14, 17 in the list which follows). It is evident also that not all the plants came from the Missouri (see, for example, nos. 41, 75, 79). Some are not even so labeled by Shepherd, so that the collection is obviously something of a miscellany. The information on

²⁰ For this information I am indebted to Dr. F. W. Pennell.

²¹ *Naturalist* 4: 397, 1839.

²² *Handbook and guide to the herbarium collections in the Public Museums*, 39, Liverpool, 1935.

the labels must therefore be regarded with scepticism. The same is true of the determinations which follow below. Obviously the precise identity of some of these specimens—even were they less fragmentary—is a matter for the specialist. Many, on the other hand, can be named with fair assurance.²³

The specimens at Philadelphia are, as already mentioned, annotated by Lambert and by Pursh; one bears also a note in Bradbury's hand.

The specimens at Kew are enumerated in *Kew Bull.* 1934: 54–61.

The annotated list which follows includes the Bradbury specimens in all three of these collections, in an effort to bring together a complete list of his extant specimens. The place of deposit is indicated by the letter in parenthesis which follows the number: L for Liverpool, K for Kew, P for Philadelphia. The quoted statements are Bradbury's notes on his labels, unless attributed to another.

1. (L) *Cheilanthes feei* Moore, *Ind. Fil.* xxxviii. 1857.
Myriopteris gracilis Fée, *Gen. Fil.* 150. 1857.
Not *Cheilanthes gracilis* Kaulf. 1824.
"Is doubtless an Acrostichum but not apparently described. Rocks Missouri."
In the *Travels*, p. 338, Bradbury mentions "*Cheilanthes Dealbata* and *Vestita*, Manitou rocks on the Missouri." The latter is presumably *Cheilanthes feei*, common along the bluffs in Missouri, and represented in Liverpool by a minute fragment. The former, *Notholaena dealbata* (Pursh) Kunze, is of special interest because of the rarity of this fern in Missouri. It was rediscovered by Francis Potter Daniels near Rocheport, Missouri (*Univ. Mo. Stud. Sci.* 1²: 80, 1907), and more recently in the same place by other students. This is almost certainly the place visited by Bradbury in 1811; Manitou Creek enters the Missouri at Rocheport, at the foot of lofty and picturesque bluffs.
2. (L) *Osmunda regalis* L. *Sp. Pl.* 1065. 1753.
"Is this *Osmunda regalis*? Spikes only decomposed. No. 113."
3. (L) *Cenchrus pauciflorus* Benth. *Bot. Voy. Sulph.* 56. 1844.
"This Grass is most probably *Cenchrus tribuloides* but badly described as the spike is simple and the flowers Polygamous."
4. (K) *Aristida longiseta* Steud. *Syn. Gram.* 420. 1854.
Aristida pallens sensu Pursh, *Fl. Am. Sept.* 728. 1814. Not *Aristida pallens* Cav. 1799.
"Mandan country."
In the *Travels*, p. 335, this is listed from "Hills on the Merrimac" [near St. Louis].
5. (L) *Eleusine indica* (L.) Gaertn. *Fruct.* 1: 8. 1788.
Cynosurus indicus L. *Sp. Pl.* 72. 1753.
"*Cynosurus*. Is most likely discribed but find it difficult to ascertain—Culm compressed procumbent. leaves with a few scattered erect hairs. Calyx 4 or 5 flowered Spikes mostly 4 often with a lateral one."
In the *Travels*, p. 335, *Cynosurus secundus* is listed from "Mississippi bluffs." It seems possible that this specimen is *Cynosurus secundus* Pursh (*Fl. Am. Sept.* 728. 1814); but Hitchcock (*Man. Grasses U. S.* 806) identifies *C. secundus* with *Bouteloua curtipendula* (Michx.) Torrey.
The existence of this introduced weed in Missouri in 1810 is of course questionable.
6. (L) *Panicum capillare* L. *Sp. Pl.* 58. 1753.
"*Panicum*. Does not agree with *diffusum* as that is said to grow tall, this does not exceed 3 feet in height none of the other discriptions will in any way apply—I suspect that the discription of *diffusum* is erroneous in that point—this is a very comm. grass in America. Can it be *Trichodes laxifolium* [*Trichodium laxiflorum*] of Michaux."
7. (K) *Oryzopsis hymenoides* (R. & S.) Ricker: Piper, *Contr. U. S. Nat. Herb.* 11: 109. 1906.
Stipa membranacea Pursh, *Fl. Am. Sept.* 728. 1814. Not *Stipa membranacea* L. 1753.
Stipa hymenoides R. & S. *Syst.* 2: 339. 1817.
"Prairies, Mandan." The locality is given as Fort Mandan [North Dakota] in the *Travels*, p. 335; Bradbury adds: "Probably not a *Stipa*."
8. (L) *Panicum villosissimum* Nash, *Bull. Torrey Club* 23: 149. 1896. "*Panicum* Spec. Nov. No. 128."
9. (L) *Tripsacum dactyloides* L. *Syst. Nat.* ed. 10. 2: 1261. 1759.
Coix dactyloides L. *Sp. Pl.* 972. 1753.
"This grass is of *Monoecia triandria* and differs from any Genus in that order discribed in *Sys. Nat.* (male) Calyx of two glumes, one membranaceous containing two florets—Corol of two membranaceous glumes.
(female) Calyx of one coriaceous glume containing one Floret. Corol. of four membranaceous glumes. Obs. Surely is not a *Tripsacum* (resembling *Triticum*). Spike compound, Hermaphrodite—Female lodged in a cavity."

²³ A number of the more interesting of the specimens deposited at Liverpool have been photographed and prints are available to libraries and herbaria.

10. (L) *Uniola latifolia* Michx. *Fl. Bor.-Am.* 1: 70. 1803.
 "Triandria digynia. This elegant grass is certainly not reducible to any Genus in the *Systema Naturae*, but as I have seen it in different parts West of the Alleghenies probably it did not escape Michaux, to whose Industry and accuracy I shall always bear witness."
11. (L) *Carex ? artitecta*²⁴ Mackenzie, *N. Am. Fl.* 18: 189. 1935.
 "Carex pilulifera Le Haut Missouri."
 According to Mackenzie the northern limit of this species is in Iowa.
12. (L) *Carex canescens* L. *Sp. Pl.* 974. 1753.
Carex buxbaumii Wahl. *Sv. Vet.-Akad. Nya Handl.* 24: 163. 1803.
 "Carex I find no discription of this species. No. 121."
13. (L) *Carex depauperata* Gooden. *Trans. Linn. Soc.* 2: 181. 1794.
Carex ventricosa Curt. *Fl. Lond.* 6: pl. 68. 1790.
 "Carex ventricosa 2 June 1807." Obviously not a part of the American collections.
14. (L) *Carex disticha* Huds. *Fl. Angl.* 347. 1762.
 "Carex distycha? 2 June 1807."
 See the note on the preceding (no. 13).
15. (L) *Carex foenea* Willd. *Enum.* 957.
Carex siccata Dewey, *Amer. Jour. Sci.* 10: 278, 1826. See Svenson, *Rhodora* 40: 325, 1938.
 "C. Arenaria ? near the Otto village. La Rivière Platte [Nebraska]."
16. (L) *Carex meadii* Dewey, *Amer. Jour. Sci.* 43: 90. 1842.
 "C. Panicea Le Haut Missouri."
17. (L) *Carex paniculata* L. *Cent. Pl.* 1: 32, 1755.
 "Carex Paniculata 2 June 1807."
 See the note on no. 13.
18. (L) *Carex sprengelii* Dewey; Spreng. *Syst.* 3: 827. 1826.
 "Has some resemblance to *Carex sylvatica* but is another plant not known to me. Woods Missouri."
19. (L) *Dulichium arundinaceum* (L.) Britton, *Bull. Torrey Club* 21: 29. 1894.
Cyperus arundinacea L. *Sp. Pl.* 44. 1753.
 "Cyperus ? Culm round jointed thick terminal leafy. spikelets frondose—Seeds with 8 awns from the base. No. 95."
20. (L) *Scleria ? triglomerata* Michx. *Fl. Bor. Am.* 2: 168. 1803.
 "This singular species of *Carex* grows in the Priaries & is of a compleatly dry habit. No. 63."
 Probably of the 1810 collection from eastern Missouri.
21. (L) *Heteranthera limosa* (Sw.) Willd. *Ges. Nat. Freunde Berlin Neue Schr.* 3: 439. 1801.
Pontederia limosa Sw. *Prodr.* 57. 1788.
 In unidentified hands: "Leptanthus ovalis LBG 1814." "Missouri Bradbury."
22. (L) *Lilium ? canadense* L. *Sp. Pl.* 303. 1753.
 In an unidentified hand: "Lilium Carolinianum Bradbury L.B.G. Sept. 1814."
23. (L) *Melanthium virginicum* L. *Sp. Pl.* 339. 1753.
 In an unidentified hand: "Melanthium virginicum Bradbury. L.B.G. 1813."
24. (L) *Yucca ? angustifolia* Pursh, *Fl. Am. Sept.* 227. 1814.
 "I suppose a *Yucca*. High bare bluffs near the Mouth of La Rivière Platte."
 This is doubtless the plant referred to in the *Travels*, p. 336: "*Yucca angustifolia*, Missouri Bluffs, opposite the mouth of Papillon Creek." See also letters no. 18 (the part written from the "Mahas vilage") and no. 19. Pursh described the species from a collection by Nuttall, "on the banks of the Missouri," very probably made at the same time as this. The collection is too fragmentary to be determined with certainty.
25. (L) *Cypripedium* sp.
 "Cypripedium. Can this have been mistaken for *C. Calceolus*? Flowers odorous."
 See letter no. 7.
26. (L) *Cypripedium* sp.
 In an unidentified hand: "Cypripedium pubescens. No. 1 LBG. 1820 No. 2 Bradbury 3 Smith." Only two plants found.
27. (L) *Salix nigra* Marsh. *Arbust.* 139. 1785.
 "Salix. Hexandrous Islands of the Platte [Nebraska] Tree."
28. (L) *Quercus marilandica* Muench. *Hausvater* 5: 253. 1770.
 "Quercus nigra does this agree with your *Q. nigra* as the Black Oak is *Q. tinctoria*. This is Black Jack."
29. (P) *Rumex venosus* Pursh, *Fl. Am. Sept.* 733. 1814.
 Annotated by Lambert "Louisiana Bradbury" and by Pursh "*Rumex venosus*." TYPE.

²⁴The species of Cyperaceae were kindly determined by Mr. E. Nelmes.

(L) ISOTYPE.

"Rumex. Flowers monoecious stem procumbent, spikes lateral leaves ovate pointed at both ends glaucous sheaths & seed vessels large. Sides of the Corn du Cerf [Nebraska]." In the *Travels*, p. 336, listed from "Big bend, Missouri." This refers to a well known bend in the river in what is now South Dakota (see also the *Travels*, p. 176).

30. (L) *Chenopodium* sp.

"*Chenopodium* (Bradbury)."

31. (P) *Oxybaphus hirsutus* (Pursh) Choisy; DC. *Prodr.* 13²: 433. 1849.

Allionia hirsuta Pursh. *Fl. Am. Sept.* 728. 1814.

Annotated by Lambert: "Louisiana. Bradbery."

TYPE.

(L) ISOTYPE.

Annotated by Shepherd: "*Allionia hirsuta* Pursh *Flora America Sept. V. 2. P. 728.* Bradbury Habitat in Upper Louisiana. 1810."

(K) ISOTYPE.

"le haut Missouri." According to the *Travels*, p. 335, found on "bluffs near the Aricara village [South Dakota]." Nuttall (*Gen.* 1: 26. 1818) mentions the same place. This is in conflict with the "1810" on Shepherd's label, which would refer to plants gathered near St. Louis.

32. (P) *Oxybaphus linearis* (Pursh) B.L. Robinson, *Rhodora* 10: 31. 1908.

Allionia linearis Pursh, *Fl. Am. Sept.* 728. 1814.

Annotated by Lambert: "Louisiana Bradery" and by Pursh: "*Allionia angustifolia*." TYPE.

(L) ISOTYPE. Annotated by Shepherd: "*Allionia linearis* Pursh *Flora Americ-Sept. V. 2. p. 728.* Bradbury. Habitat in Upper Louisiana, 1810." According to the *Travels*, p. 335, from "bluffs near the Aricara village." Cf. comment on no. 31.

33. (P) *Oxybaphus nyctagineus* (Michx.) Sweet, *Hort. Brit.* 334. 1826.

Allionia nyctaginea Michx. *Fl. Bor.-Am.* 1: 100. 1803.

Allionia ovata Pursh, *Fl. Am. Sept.* 97. 1814.

The specimen is annotated by Lambert: "1. America Sept: Herb: Lewis & Clark. 2. Louisiana. Bradbery." And by Pursh: "*Allionia albida* ? Walt. Open plains. Septbr:1. 1804." No. 1 is the TYPE of *Allionia ovata* Pursh.

(L) Annotated by Shepherd: "*Allionia nyctaginea* Pursh *Flora America. Septents. V. 1. P. 47.* *Calymentia Nyctaginea* Bradbury. Habitat on the banks of the River Tennessee. N. America. 1810." There is no evidence that Bradbury was ever on the Tennessee; certainly not in 1810. The label seems to have originated in a confusion with Michaux' description; his type was collected "ad ripas fluminis

Tennessee." According to the *Travels*, p. 335, Bradbury's specimen came from the "banks of the Missouri, above the Big Bend [South Dakota]."

34. (L) *Anemone canadensis* L. *Syst. Nat.* ed. 12. 3: 231. 1768.

"*Anemone* Banks Mississippi No. 75."

35. (L) *Anemone caroliniana* Walt. *Fl. Car.* 157. 1788.

"This male *Anemone* does not seem to be a described species—near the Otto Village La Rivière Platte [Nebraska]."

36. (L) *Pulsatilla hirsutissima* (Pursh) Britton, *Ann. N. Y. Acad.* 6: 217. 1891.

Clematis hirsutissima Pursh. *Fl. Am. Sept.* 385. 1814.

Anemone ludoviciana Nutt. *Gen.* 2: 20. 1818.

"This fine *Anemone* seems to resemble *A. Pulsatilla* flowers light blue. Abundance on the highest bluffs above the Maha Village [Nebraska]."

Clematis hirsutissima Pursh was described from the "plains of the Columbia River." Nuttall's name was based on his own collections made on the Missouri above the Platte.

37. (P) *Ranunculus flabellaris* Raf. *Am. Mo. Mag.* 2: 344. Mr. 1818.

Ranunculus multifidus Pursh, *Fl. Am. Sept.* 736. 1814. Not *R. multifidus* Forssk. 1775.

Ranunculus delphinifolius Torr.; Eaton, *Man.* ed. 2. 395. My or later 1818.

Annotated by Lambert: "[Louisiana. Bradbury." ²⁵ and by Pursh: "*Ranunculus multifidus*." TYPE of *R. multifidus* Pursh.

(L) ISOTYPE.

"This species of *Ranunculus* differs from any I have ever examined the nectary being inverted from the order in which it is usually placed in the Genus in this it is a hollow cup with the mouth turned from the Petal—Leaves all dissected. Marshes near the Platte."

In the *Travels*, p. 337, listed "in stagnant pools near the Sepulchre bluffs." This landmark is described on pp. 63 and 64; it was a bluff crowned by a large pile of rocks which served as a monument to the famous (or infamous) chief Blackbird of the Ottos. Bradbury passed it on his return from the Otto village on the Platte, on 9 May 1811. Probably all three of the extant specimens were gathered at the same time, so that this can be cited with some assurance as the type locality of *R. multifidus* Pursh.

(K) ISOTYPE.

"Otto Nation."

²⁵ Many of the specimens in the Academy of Natural Sciences of Philadelphia have been remounted, and parts of the old labels have been sometimes cut off in the process.

38. (L) *Viorna fremontii* (S. Wats.) Heller, *Muhlenbergia* 6: 96. 1910.
Clematis fremontii S. Wats. *Proc. Am. Acad.* 10: 339. 1875.
 "This Plant I did not find until the seeds were ripe but no doubt remains with me that it is a *Clematis*—*Erect*, leaves simple, ovate, *smooth* strongly veined entire. Plant rigid and rustling to the touch—Inform me if it is *C. ochroleuca*. Found 5 August 1810. Flint Hills betwixt the Merrimack River & the Mines [eastern Missouri]."
 In Shepherd's hand: "*Clematis ochroleuca* Willd. Sp. Pl. P. 1294. Habitat in America."
 Palmer and Steyermark (*Ann. Mo. Bot. Gard.* 22: 542. 1934) list this species from "Limestone glades . . . Eastern Mo., south of the Missouri River."
39. (K) *Erysimum asperum* (Nutt.) DC. *Syst.* 2: 505. 1821.
Erysimum lanceolatum Pursh, *Fl. Am. Sept.* 436. 1814. Not *Erysimum lanceolatum* R. Br. 1812.
Cheiranthus asper Nutt. *Gen.* 2: 69. 1818.
 "1100 miles up the Missouri [South Dakota]."
 Listed in the *Travels*, p. 337, as "*Erysimum Lanceolatum* or *Cheiranthus Erysimoides*, a connecting link between *Erysimum* and *Cheiranthus*, used as medicine by the Aricaras." The species is mentioned also on p. 116 as forming a large part of the ingredients of an Aricara medicine bag.
40. (L) *Lesquerella ludoviciana* (Nutt.) S. Wats. *Proc. Am. Acad.* 23: 252. 1888.
Myagrimum argenteum Pursh, *Fl. Am. Sept.* 434. 1814. Not *Lesquerella argentea* S. Wats. 1888.
Alyssum ludovicianum Nutt. *Gen.* 2: 63. 1818.
 "Alyssum Spec. Bradbury."
 Pursh does not say whose specimens he saw; they were gathered "on the banks of the Missouri."
 (K) "1100 [miles] up the Missouri." This would be in South Dakota. The *Travels*, p. 337, says simply "on limestone rocks, Missouri."
41. (L) *Sarracenia flava* L. *Sp. Pl.* 510. 1753.
 In an unknown hand: "*Sarracinea flava Pursh*, North America. 19 August 1809."
 Presumably from the southeastern states, and perhaps not even collected by Bradbury, who left Virginia for St. Louis in August, 1809. There is a specimen from Pursh's herbarium, also without locality, in the Academy of Natural Sciences of Philadelphia.
42. (L) *Ribes* ? *aureum* Pursh, *Fl. Am. Sept.* 164. 1814.
 "Ribes. Bradbury."
 Pursh described his species from Lewis' specimens gathered "on the banks of the rivers Missouri and Columbia."
- In the *Travels*, p. 336, from "Little Cedar Island, Missouri [South Dakota; see p. 78]."
43. (L) *Potentilla strigosa* Pall.; Pursh, *Fl. Am. Sept.* 356. 1814.
 In an unidentified hand: "*Potentilla lanata* Mr. Bradbury."
 (P) Annotated by Lambert: "Louisiana. Bradbury" and by Pursh: "*Potentilla pensylvanica* β strigosa." Pursh's species, however, was based on a specimen by Lewis.
44. (P) *Potentilla arguta* Pursh, *Fl. Am. Sept.* 736. 1814.
 Annotated by Lambert: "Louisiana, Bradbury" and by Pursh: "*Potentilla arguta*." TYPE.
 (L) ISOTYPE.
 Annotated by Shepherd: "*Potentilla Pensylvanica* Willd. Sp. Pl. P. 1094. Habitat in Louisiana (Bradbury)."
 In the *Travels*, p. 337, this species is listed from the bluffs above the Aricara village, in South Dakota. This may be taken as the type locality.
45. (L) *Prunus* sp.
 In an unidentified hand: "*Cerasus. Prunus Chicasa?* Mr. Bradbury."
 Perhaps the "cherry" mentioned in letter no. 19.
46. (L) *Sieversia triflora* (Pursh) Richards. in *Frankl. Journey* ed. 2, 749. 1824.
Geum triflorum Pursh, *Fl. Am. Sept.* 736. 1814.
 ISOTYPE? Annotated by Shepherd: "*Geum triflorum Pursh flora Americana* Vol. 2. Habitat in Upper Louisiana (Bradbury)."
 (K) ISOTYPE ? "Prairies"; and in the *Travels*, p. 336, from the "head waters of Blackbird creek."
 (P) TYPE ? The specimen is labeled "*Geum triflorum*" in Pursh's hand, but lacks other data.
 This species seems imperfectly differentiated from *S. ciliata* (Pursh) G. Don. The specimen at Liverpool has the basal leaves hispid-ciliate as in the latter species, but not deeply dissected, merely toothed as in *S. triflora*. The specimen at Kew has no basal leaves.
47. *Amorpha canescens* Pursh, *Fl. Am. Sept.* 467. 1814.
 Annotated in Shepherd's hand: "*Amorpha pubescens Pursh's Flora Americana* P. 466. V. 2. Habitat in Carolina (Bradbury)." A second sheet has: "*Amorpha canescens Pursh's Flora* P. 467 Habitat in Banks of Missouri & Mississippi (Bradbury)." Bradbury lists it in the *Travels*, p. 337, "on the prairie four miles west of St. Louis." Pursh says "on the banks of the Missouri and Mississippi. . . . v. v." Bradbury mentions also *A. fruticosa* and *A. microphylla*, but no specimens of these were found.
48. (P) *Astragalus tenellus* Pursh, *Fl. Am. Sept.* 473. 1814.

Ervum multiflorum Pursh, *Fl. Am. Sept.* 739. 1814.

Astragalus multiflorus A. Gray, *Proc. Am. Acad.* 6: 226. 1864.

Annotated by Lambert: "[L]ouisiana. Bradbury" and by Pursh: "*Ervum multiflorum*"; also by Rydberg: "*Homalobus tenellus* (Pursh) Britton type." This represents the "fine specimens in the collection of Mr. Bradbury" mentioned by Pursh as the basis of *Ervum multiflorum*. The type of *Astragalus tenellus*, however, was a specimen by Lewis, "on the banks of the Missouri." Collected by Bradbury "opposite the Sepulchre bluffs, Missouri [Nebraska]" (*Travels*, p. 337).

(L) "*Astragalus sulcatus* ? Bradbury."

49. (L) *Astragalus missouriensis* Nutt. *Gen.* 2: 99. 1818.

In Shepherd's hand: "*Astragalus*. J. Bradbury."

(P) Annotated in pencil: "Louisiana, Bradbury & Nuttall. Pursh's spec."

50. (P) *Astragalus triphyllus* Pursh, *Fl. Am. Sept.* 740. 1814.

Annotated by Lambert: "[Lou]isiana Bradbury" and by Pursh: "*Astragalus triphyllus*." TYPE.

51. (L) *Astragalus lotiflorus* Hook. *Fl. Bor. Am.* 1: 152. 1831.

"I suppose an *Astragalus* Stem procumbent near the mouth of the Platte [Nebraska] with *Yucca*."

52. (P) *Astragalus racemosus* Pursh, *Fl. Am. Sept.* 740. 1814.

Annotated by Lambert: "Louisiana Bradbury" and by Pursh: "*Astragalus racemosus*." TYPE.

(L) ISOTYPE. This and nos. 50 and 53 are listed in the *Travels*, p. 337, "on the bluffs opposite the mouth of Papillon Creek [Nebraska], and at the Aricara villages [South Dakota]."

53. (P) *Astragalus carnosus* Pursh, *Fl. Am. Sept.* 740. 1814.

Annotated by Lambert: "[Lou]isiana. Bradbury" and by Pursh: "*Astragalus carnosus*." TYPE.

According to de Candolle (*Prodr.* 2: 287), Pursh confused, under this name, a plant of *Sophora* with a fruit of *Astragalus*.

54. (L) *Astragalus* ? *plattensis* Nutt.; T. & G. *Fl. N. Am.* 1: 332. 1838.

55. (L) *Astragalus trichocalyx* Nutt.; T. & G. *Fl. N. Am.* 1: 332. 1838.

"Legume globular, fleshy, many seeded—cannot reduce it to any genus described. No. 103." The specimen, however, lacks the fruit.

56. (P) *Astragalus longifolius* (Pursh) Rydb. *Fl. Nebr.* 21: 47. 1895.

Psoralea longifolia Pursh, *Fl. Am. Sept.* 741. 1814.

Annotated in pencil: "*Psoralea longifolia* Pursh A. pictus. Louisiana, Bradbury. Pursh's specimen." TYPE. Bradbury wrote in the *Travels*, p. 338: "near the Sepulchre bluffs [see no. 37]. Probably not a *Psoralea*."

57. (L) *Astragalus* sp.

"*Astragalus spec.* Bradbury."

58. (P) *Dalea aurea* Nutt. *Fraser's Cat.* (nom. nud.). 1813; Pursh, *Fl. Am. Sept.* 740. 1814.

Annotated by Lambert: "Louisiana. Bradbury" and by Pursh: "*Dalea aurea*." This specimen is the basis of Pursh's description; but, since he ascribed the name to Nuttall ("*Fraser. Catal.* 1813.") the type must have been the plant grown by the Frasers and named by Nuttall. Bradbury found it "on the prairies six miles below the L'eau qui Court [Nebraska]" (*Travels*, p. 337).

59. (P) *Dalea enneandra* Nutt. *Fraser's Cat.* 1813.

Dalea laxiflora Pursh, *Fl. Am. Sept.* 741. 1814.

Annotated by Lambert: "[L]ouisiana. Bradbury" and by Pursh: "*Dalea laxiflora*." TYPE of the latter name. There may be some question whether Nuttall's name is adequately characterized; if not, Pursh's name and type will be correct.

According to the *Travels*, p. 337, the species was collected at the Aricara village (in South Dakota).

60. (L) *Glycyrrhiza lepidota* Nutt. *Gen.* 2: 106. 1818.

Liquiritia lepidota Nutt. *Fraser's Cat.* (nom. nud.). 1813.

"I cannot tell what genus to consider this plant as belonging to as I find [? no] roots. You will determine it.—Leguminosae. (Bradbury). No. 92."

Nuttall (*Gen.* 2: 106) wrote: "Abundant around St. Louis, where it was first detected by Mr. John Bradbury, F. L. S.; it is also common on the alluvial banks of the Missouri to the Mountains . . ."; and in *Fraser's Catalogue*: "Met with from the source to the confluence of the Missouri. . . ."

61. (L) *Medicago hispida* Gaertn. *Fruct.* 2: 349. 1791.

"*Medicago—spec.* Mr. Bradbury."

62. (P) *Oxytropis lambertii* Pursh, *Fl. Am. Sept.* 740. 1814.

Annotated by Lambert: "[Lou]isiana. Bradbury" and by Pursh: "*Oxytropis argentata*. Head of Clark's river [Montana]. July, 1806."

This is a mixture. According to Barneby, the part labeled A is *O. besseyi* Rydb. (*O. argentata* Pursh); B is *O. Lambertii* Pursh. Obviously Pursh's annotation refers to A (*cf. Fl. Am. Sept.*

473), Lambert's to B (*Fl. Am. Sept.* 740). B is therefore the TYPE of *O. lambertii*.

In the *Handbook and guide to the Herbarium Collections in the Public Museums, Liverpool*, p. 43, a specimen of this species is mentioned, collected by Bradbury "on the bluffs from the Maha village to the Poncars [Nebraska]." This was not found among the specimens I studied. The location given in the *Travels*, p. 338, duplicates that on the missing label.

63. (L) *Petalostemum purpureus* (Vent.) Rydb. *Mem. N. Y. Bot. Gard.* 1: 238. 1900.

Dalea purpurea Vent. *Descr. Pl. Cels. pl.* 40. 1801.
Petalostemum violaceum Michx. *Fl. Bor.-Am.* 2: 50. 1803.

64. (P) *Psoralea cuspidata* Pursh, *Fl. Am. Sept.* 741. 1814.

Annotated by Lambert: "Louisiana. Bradbury" and by Pursh: "*Psoralea cuspidata*." TYPE. According to the *Travels*, p. 338, "on the bluffs near Chienne river [South Dakota]."

65. (P) *Psoralea elliptica* Pursh, *Fl. Am. Sept.* 741. 1814.

Annotated by Lambert: "[Lo]uisiana, Bradbury" and by Pursh: "*Psoralea elliptica*." TYPE. According to the *Travels*, p. 338, this species was collected from "sand hills near the Big Bend [South Dakota]."

Bradbury mentions in the *Travels*, in addition to the above species, *Psoralea esculenta* and *P. tenuiflora*.

66. (L) *Strophostyles* ? *missouriensis* (S. Wats.) Small, *Fl. SE. U. S.* 654. 1903.

Strophostyles angulosa var. *missouriensis* S. Wats.; A. Gray *Man.* ed. 6. 145. 1890.

"Phaseolus or is it a Galactia of Mich I can find no discription which will answer for this plant must therefore consider it as a—New Species Bradbury."

67. (P) *Thermopsis rhombifolia* (Pursh) Nutt. *Gen.* 1: 282. 1818.

Cytisus rhombifolius Pursh, *Fl. Am. Sept.* 741. 1814.

Annotated "137. *Thermopsis rhombifolia*." TYPE. And in pencil: "Louisiana. Bradbury. Pursh's spec!"

Two of the plants are in fruit, one in flower; in view of Pursh's remarks quoted below, this indicates that the collection is a mixture, only the fruiting specimen to be referred to the type.

(L) ISOTYPE. "*Cytisus*. Bradbury."

Pursh (*Fl. Am. Sept.* 742) wrote: "The specimen I have seen was in fruit, and Mr. Bradbury has seen only one plant in flower." This specimen is in fruit.

The locality mentioned in the *Travels*, p. 338, is: "at the mouth of the Chienne river, and on arid places near the Aricara village [South Dakota]."

68. (L) ? *Trifolium* sp.

"*Trifolium*. Mr. Bradbury."

69. (L) *Vicia sparsifolia* Nutt.; T. & G. *Fl. N. Am.* 1: 270. 1838.

"Is probably a *Vicia*. Near the Otto Village on the Elk Horn a water of the Platte River [Nebraska]." "Orobus? Bradbury." "Orobus spec. Mr. Bradbury."

70. (P) *Vicia americana* Muhl.; Willd. *Sp. Pl.* 3: 1096. 1803.

Annotated by Lambert: "[L]ouisiana. Bradbury" and by Pursh: "*Vicia americana* Willd. Sp. pl."

71. (P) *Lathyrus stipulaceus* (Pursh) Butters & St. John, *Rhodora* 19: 163. 1917.

Vicia stipulacea Pursh, *Fl. Am. Sept.* 739. 1814.

Annotated by Lambert: "Louisiana. Bradbury" and by Pursh: "*Vicia stipulacea*." TYPE. Mentioned by Bradbury in the *Travels*, p. 337.

72. (L) *Linum* sp.

"*Linum*. Leaflets of the calyx lanceolate nerved one shorter than the next, leaves alternate . . . linear. Flowers yellow. *Linum virginica*. Bradbury. No. 88." Two species of *Linum* are mentioned in the *Travels*, p. 336: *L. lewisii*, "on Cannon Ball river"; and *L. rigidum*, "on the Missouri bluffs, common."

73. (L) *Polygala viridescens* L. *Sp. Pl.* 705. 1753.

"*Polygala sanguinea* ? Mr. Bradbury."

74. (L) *Polygala alba* Nutt. *Gen.* 2: 87. 1818.

"*Polygala*. Mr. Bradbury."

75. (L) *Croton monanthogynus* Michx. *Fl. Bor.-Am.* 2: 215. 1803.

"Plant shrubby semi-herbaceous covered with petate hairs the branches and veins of the leaves with small brown glands—leaves oblong—heart-shaped. Flowers disposed in small terminal spikes—Hab. Land on Sullivans Island near Charles Town South Carolina (*Elaeagnus* ? Is a *Croton*: No. 93. Bradbury."

76. (L) *Rhamnus lanceolata* Pursh, *Fl. Am. Sept.* 166. 1814.

"Probably an *Ilex*. Islands of La R. Platte [Nebraska]. *Prinos*. Bradbury."

77. (L) *Vitis* sp.

In Shepherd's hand: "*Vitis riparia* Michaux, *riparia* Bradbury. Habitat in Louisiana."

78. (L) *Ampelopsis cordata* Michx. *Fl. Bor.-Am.* 1: 159. 1803.

"Leaves slightly pubescent beneath. Racemes dichotomous one of the parts again subdivided. Flowers pentandrous and Polygamous probably an *Am-*

pelopsis but at present I am not in possession of a description of that Genus. *Ampelopsis Cordata* ?”

79. (L) *Hibiscus incanus* Wendl. *Bot. Beob.* 54. 1798.

In Shepherd's hand: “*Hibiscus palustris* ? (Bradbury) Habitat in Upper Louisiana.”

Bradbury's label must have been lost, since this must have come from a locality in the eastern states. Bradbury lists “*Hebiscus Militaris*” and *H. Manihot* from “American Bottom, Illinois” (*Travels*, p. 337).

80. (L) *Sphaeralcea coccinea* (Pursh) Rydb. *Bull. Torrey Club* 40: 43-74. 1913.

Cristaria coccinea Pursh, *Fl. Am. Sept.* 453. 1814.
“*Cristaria coccinea* Bradbury.” In Shepherd's hand: “*Malva coccinea* Habitat in Upper Louisiana, Bradbury.”

(K) “L'eau qui court. Bradbury.”

In the *Travels*, p. 337, this is listed “on the bluffs of the Missouri, above the L'eau qui court [Nebraska].” Pursh's species was founded on a collection by Lewis.

81. (L) *Hypericum* sp.

Annotated by Shepherd: “*Hypericum galeoides* Willd. Sp. Pl. P. 1451. Habitat in Carolina (Bradbury).”

82. (L) *Elaeagnus commutata* Bernh. *Allg. Thür. Gart.* 2: 137. 1843.

Elaeagnus argentea Pursh, *Fl. Am. Sept.* 114. 1814. Not *Elaeagnus argentea* Moench, 1794.

(K) “Missouri.”

In the *Travels*, p. 335, listed from “bluffs near the Mandan nation.” See below under no. 83.

83. (L) *Shepherdia argentea* (Pursh) Nutt. *Gen.* 2: 240. 1818.

Hippophaë argentea Pursh, *Fl. Am. Sept.* 115. 1814.

“This shrub is in Dioecia Octandria in which order I find nothing like it described. It was much past the time of florescence when I first found it and the male flowers were dropt off after some hours search I found a few broken branches with the male flowers unexpanded which enabled me to arrange it. The French who trade up the Missouri call it Grasse du Boeuf and say the berries are superior to cranberries.” See the end of letter no. 18 and the beginning of no. 19. In the *Travels*, p. 335, the locality is stated as “Mahas, Platte, Ottoes, Missouri.”

This and the preceding species were found mixed together; Bradbury's notes evidently apply to *Shepherdia*; there is no label for the *Elaeagnus*. Since Bradbury could distinguish the two (*Travels*, p. 335), and since they were collected hundreds of miles apart, the mixture probably occurred later, after they were received in Liverpool.

Both species were described by Pursh from collections on the Missouri by Nuttall and by Lewis. The type of *Hippophaë argentea* Pursh is in the Academy of Natural Sciences of Philadelphia. Nuttall created the genus *Shepherdia* from his own collections—named, of course, for John Shepherd of Liverpool.

84. (P) *Gaura coccinea* Pursh, *Fl. Am. Sept.* 733. 1814.

Annotated by Lambert: “Louisiana. Bradbury.” TYPE.

As I pointed out in *Kew Bull.* 1934: 57, *G. coccinea* Pursh and *G. coccinea* Nutt. are distinct though closely related taxa. However, the first publication of Nuttall's name was in Fraser's Catalogue of 1813 and is invalidated by the lack of description; *G. coccinea* Pursh (*G. parvifolia* Torr.) therefore takes precedence over *G. coccinea* Nutt. *Gen.* 1: 249 (1818), which should probably be assigned infra-specific status.

The locality given in the *Travels*, p. 336, is “bluffs Aricara village.”

85. (P) *Oenothera albicaulis* Pursh, *Fl. Am. Sept.* 733. 1814.

Annotated in pencil: “Louisiana, Bradbury. Pursh's spec.” Both varieties or species discussed in *Kew Bull.* 1934: 57 under the names *Anogra albicaulis* and *A. confusa* are here represented. The lefthand specimen is presumably the TYPE of *Oenothera albicaulis* Pursh.

(L) ISOTYPE. “*Oenothera*. N. Am.—Bradbury.”

(K) ISOTYPE. “Little Cedar island [South Dakota].” This species is listed with the preceding in the *Travels*, p. 336, from “bluffs Aricara village.”

86. (P) *Erigenia bulbosa* (Michx.) Nutt. *Gen.* 1: 188. 1818.

Sison bulbosum Michx. *Fl. Bor.-Am.* 1: 169. 1803.

Hydrocotyle composita Pursh, *Fl. Am. Sept.* 190. 1814.

Hydrocotyle ambigua Pursh, *Fl. Am. Sept.* 732. 1814.

Nuttall, having this specimen or a duplicate of it before him, identified Pursh's two supposed species, of which Pursh himself identified one with *Sison bulbosum* Michx. There is every likelihood, then, that this specimen, annotated by Lambert: “Louisiana. Bradbury,” is the TYPE of *Hydrocotyle ambigua* Pursh, based on a Bradbury specimen. In the *Travels*, p. 336, this is listed from “rocks on the Mississippi, near Herculanum.”

87. (K) *Cymopterus acaulis* (Pursh) Rydb. *Bot. Surv. Neb.* 3: 38. 1894.

Selinum acaule Pursh, *Fl. Am. Sept.* 733. 1814.

“100 up the Missouri.” In the *Travels*, p. 336, “on the alluvion of the Missouri, from the river Naduet

to the Mahas." In the absence of a specimen annotated by Pursh, this may be designated as LECTOTYPE.

88. (L) *Lomatium* sp. near *L. foeniculaceum* (Nutt.) Coult. & Rose, *Contr. U. S. Nat. Herb.* 7: 222. 1900.

"Altho this plant has a partial involucre I think from that being one leaved & the Petals inflected it will come under the Genus *Apium*. I have only met with these two specimens on the Hills near Naduet [Kansas or Nebraska]."

"Gen. involucre none. Partial, one leaf to each umbellet. Root bulbous. Genus uncertain. Woody bottoms Missouri."

This differs from *Lomatium foeniculaceum* Coult. & Rose in that the inflorescence is not villous.

89. (K) *Musineon divaricatum* (Pursh) Coult. & Rose, *Bot. Gaz.* 20: 259. 1895.

Seseli divaricatum Pursh, *Fl. Am. Sept.* 732. 1814.

"Bluffs of the Missouri." In the *Travels*, p. 336, "Missouri Bluffs, at the mouth of the L'eau qui court [Nebraska]." In the absence of a specimen annotated by Pursh, this may be designated LECTOTYPE.

90. (L) *Gentiana* sp.

According to Shepherd's label, which however is unreliable, this was from Pennsylvania. He identified it as *Gentiana quinqueflora* Willd.

91. (L) *Phacelia purshii* Buckl. *Am. Jour. Sci.* 45: 171. 1843.

"*Phacelia fimbriata* ? but the style is long & bifid as in *Hydrophyllum* flower dilute blue. No. 110." Shepherd's label reads: "*Phacelia fimbriata* Persoon's Synopsis p. 168, *fimbriata* Bradbury. Habitat in America."

According to the *Travels*, p. 336: "at Point L'Abadie, on the Missouri, with white flowers."

92. (L) *Phlox pilosa* L. *Sp. Pl.* 152. 1753.

"*Phlox.* leaves lance linear edges revolute. Plant hairy. Species nov?"

93. (P) *Cryptantha bradburiana* Payson, *Ann. Mo. Bot. Gard.* 14: 307. 1927.

Cynoglossum glomeratum Pursh, *Fl. Am. Sept.* 729. 1814. Not *Cryptantha glomerata* Lehm. 1836.

Annotated by Lambert: "[Lou]isiana. Bradbury" and by Pursh: "*Cynoglossum glomeratum*."

There are two specimens on the sheet, the right-hand one labeled in pencil: "Nuttall's specimen." If this is correct, the left-hand specimen is presumably the TYPE.

(L) ISOTYPE. "*Anchusa* ? *Echium* ? Bradbury."

(K) ISOTYPE.

In the *Travels*, p. 336, listed from the "Big Bend, Missouri [South Dakota]."

94. (L) *Lithospermum canescens* (Michx.) Lehm. *Pl. Asperif.* 305. 1818.

Batschia canescens Michx. *Fl. Bor.-Am.* 1: 130. 1803.

"This seems most allied to *Lithospermum* but from the form of the Corol will probably form a new Genus—Root producing a most beautiful colour."

Bradbury was much impressed by the yellow puccoon. It is mentioned in letter no. 7, and in the *Travels*, p. 336 ("prairie about St. Louis"). The specimen very likely came from eastern Missouri.

95. (L) *Lithospermum incisum* Lehm. *Pl. Asperif.* 303. 1818.

Batschia longiflora Pursh, *Fl. Am. Sept.* 132. 1814. Not *Lithospermum longiflorum* Salisb. *Prodr.* 113. 1796.

"This plant is certainly a congener with no. 29 of the specimens of 1810 of which genus I have also seen a third species. I had considered it as a *Lithospermum* but am now inclined to doubt it—Tube very long segments of the petal fringed or undulate at the edges. Bradbury."

In the *Travels*, p. 336, "first occurs near the mouth of the Platte, on ascending the Missouri." It is now found throughout the Missouri valley as far east as the Mississippi.

The specimen is illustrated in the Liverpool *Handbook and Guide*, pl. 8. Pursh based his species on Nuttall's collection "on the banks of the Missouri," very likely gathered in Bradbury's company and possibly at the same time as this specimen.

The "third species" mentioned by Bradbury must be the *Lithospermum gmelini* (Michx.) Hitchc. listed in the *Travels*, p. 336, but not represented by specimens.

(K) "le haut Missouri."

96. (P) *Mertensia lanceolata* (Pursh) DC. *Prodr.* 10: 88. 1846.

Pulmonaria lanceolata Pursh, *Fl. Am. Sept.* 729. 1814.

Annotated by Lambert: "Louisiana Bradbury" and by Pursh: "*Pulmonaria lanceolata*." TYPE.

Listed in the *Travels*, p. 335, as "opposite the Aricara village [South Dakota]."

97. (L) *Verbena hastata* L. *Sp. Pl.* 20. 1753.

"*Verbena.* Stamina 4. Leaves lanceolate acute Serrate opposite, petioled rough Stem square sides fluted spikes slender terminal. Is it *hastata* of Michaux? if so badly named. I would call it *Prealta*. No. 101."

98. (L) *Physalis* ? *heterophylla* Nees, *Linnaea* 6: 463. 1831.

In an unidentified hand: "*Physalis Pensylvanica* LEG Augt. 15 1815 *Bradbury plant*."

99. (L) *Dasystemon* sp.

"Gerardia. Bradbury."

100. (L) *Castilleia* sp.

"It agrees with the description of *Bartsia Pallida* but is either that or a non dis."

In the *Travels*, p. 337, Bradbury lists *Castilleia sessiliflora* from "Upper Louisiana."

101. (L) *Castilleia coccinea* (L.) Spreng. *Syst.* 2: 775. 1825.

Bartsia coccinea L. *Sp. Pl.* 602. 1753.

102. (L) *Pedicularis canadensis* L. *Mant.* 86. 1767.

"*Pedicularis canadensis* ? Flowers *always* yellow Walter in Flor. Carol. says of this plant flor. purpur.—add to the discription *Flowers turning from right to left.* No. 86."

Shepherd's label reads: "*Pedicularis canadensis* Willd. *Sp. Pl.* P. 211. Habitat in South America (Bradbury)."

103. (P) *Penstemon eriantherus* Pursh, *Fl. Am. Sept.* 737. 1814.

In Lambert's hand: "1. Louisiana. Bradbury. 2. Hort. Boynton Mr. Nuttall." "Mr. Nuttall informs me this is Pen: cristatum Fraser's Catal: of Nuttalls plants not erianthera of the . . . specimens. *Penstemon erianthera* Fl. Amer. Pursh." TYPE.

(K) "Sepulchre Bluffs [Nebraska]."

This specimen was identified as var. *saliens* (Rydb.) Pennell, *Contr. U. S. Nat. Herb.* 20: 342 (1920) (see *Kew Bull.* 1934: 60).

(L) This specimen conforms with the type, and may be listed as an ISOTYPE.

In Shepherd's hand: "*Penstemon erianthera* Pursh Flora N. America 737. Habitat in Upper Louisiana. Bradbury."

The statement in the *Travels*, p. 337, makes it impossible to fix the type locality: "common on the bluffs from the Big Bend to the Aricara village [South Dakota]."

104. (P) *Penstemon glaber* Pursh, *Fl. Am. Sept.* 738. 1814.

Penstemon eriantherus Nutt. *Fraser's Cat.* (nom. nud.). 1813. Not *Penstemon eriantherus* Pursh, 1814.

Annotated by Lambert: "Louisiana. Bradbury" and by Pursh: "*Penstemon glaber.*" TYPE.

(K) "Between Aricara and Mandan nation [North Dakota]." ISOTYPE.

In the *Travels*, p. 337, listed from "alluvion of the Missouri, above the Big Bend [South Dakota]."

105. (P) *Penstemon angustifolius* Pursh, *Fl. Am. Sept.* 738. 1814.

Annotated by Lambert: "Louisiana. Bradbury" and by Pursh: "*Penstemon angustifolium.*" In

Bradbury's hand: "*Penstemon celestinum.* high [?] hills. Mandans." TYPE.

In the *Travels*, p. 337, "near the Minetaree village [North Dakota]."

106. (P) *Penstemon bradburii* Pursh, *Fl. Am. Sept.* 738. 1814.

Penstemon grandiflorum Nutt. *Fraser's Cat.* (nom. nud.). 1813; *Gen.* 2: 53. 1818.

Annotated by Lambert: "*Penstemon Bradburii* Fl: Am: Sep:." TYPE.

(K) "Chienne rivière [South Dakota]." ISOTYPE.

Opinion may perhaps differ on whether the brief statement in Fraser's *Catalogue* constitutes a sufficient description to make publication of Nuttall's name valid in 1813. Here it is: "Flower about the size and form of *Digitalis purpurea*, and spontaneously subject to great variation in color." If this be considered plain enough, then of course Nuttall's name will take precedence over Pursh's, and these specimens will not be type material of the name.

107. (P) *Penstemon gracilis* Nutt. *Gen.* 2: 52. 1818.

The specimen is labeled by Lambert: "Louisiana, Nuttall"; and by Pennell: "collected by Bradbury." If the latter statement is correct, this is the TYPE.

(K) ? ISOTYPE. "Prairies." The locality mentioned by Nuttall ("From the Arikarees to Fort Mandan . . .") makes it probable that the specimen was collected on Bradbury's overland journey from the Aricara village to Fort Mandan.

(L) ? ISOTYPE. Annotated by Shepherd: "*Penstemon* (Bradbury) Habitat in Upper Louisiana."

108. (L) *Ruellia strepens* L. *Sp. Pd.* 634. 1753.

"*Didynamia* Angios.—Probably a *Ruellia* but I cannot reconcile it to any discribed species *affine* or *Strepens.*"

109. (L) *Specularia perfoliata* (L.) A.DC. *Monog. Camp.* 351. 1830.

Campanula perfoliata L. *Sp. Pl.* 169. 1753.

"*Campanula* seems to agree with *Campanula perfoliata* excepting that *Walter* says of *C. P. floribus sessilibus aggregatis*—In the Priaries about St. Louis. May [1810]. No. 111." "Amplexicaulis of Michaux."

110. (P) *Plantago elongata* Pursh, *Fl. Am. Sept.* 729. 1814.

Annotated by Lambert: "Louisiana. Bradbury" and by Pursh: "*Plantago elongata.*" TYPE.

Also "Type of *Plantago elongata* Pursh Fide E. L. M. [Edward Lyman Morris] Feb. 13, '09."

According to the *Travels*, p. 335, from "near the Maha village [Nebraska]."

(K) "Sepulchre Bluffs [Nebraska]." ISOTYPE.

111. (P) *Plantago purshii* R. & S. *Syst. Veg.* 3: 120. 1818.
Plantago lagopus Pursh, *Fl. Am. Sept.* 99. 1814.
 Not *Plantago lagopus* L. 1753.
 Annotated by Lambert: "Louisiana. Bradbury" and by Pursh: "Plantago Lagopus." The species was based on Nuttall's collection on the Missouri.
 (L) Annotated by Shepherd: "Plantago albicans Willd. Sp. Plant. P. 645. Bradbury Upper Louisiana." In the *Travels*, p. 335, listed on the "Alluvion of the Missouri, common."
112. (L) *Artemisia* sp.
 "Artemisia. Bradbury."
113. (L) *Artemisia* sp.
 "This species of *Artemisia* I have only seen in its present state it is the fifth american species I have seen—Rivière Platte. Bradbury."
 Four species of *Artemisia* are listed in the *Travels*, p. 338, as "common on the Missouri." One of these, *A. dracunculoides*, was described by Pursh (*Fl. Am. Sept.* 742) from a specimen by Bradbury. Unfortunately these specimens have not been preserved. The above is a mere fragment.
114. (L) *Aster sericeus* Vent. *Descr. Pl. Cels.* pl. 33. 1801.
 Annotated by Shepherd: "Aster argentea (Bradbury) Habitat in North America."
 The collector of the specimens in Lambert's herbarium seen by Pursh was not named by him. They were found "on the banks of rivers, among rocks, in the Illinois country, and on the Mississippi and Missouri" (*Fl. Am. Sept.* 548). Bradbury collected it on a "prairie behind St. Louis, abundant" (*Travels*, p. 338).
 (P) Annotated by Lambert: "Upper Louisiana Nuttall" and by Pursh: "Aster argenteus. Pratis St. Louis. Rapids of Fox River."
115. (L) *Bidens* sp.
116. (L) *Bidens* sp.
 These two were grown in the Liverpool Botanic Garden from seed sent by Bradbury in 1811.
117. (L) *Chrysopsis* ? *foliosa* Nutt. *Trans. Amer. Philos. Soc.* II. 7: 316. 1841.
 "Inula (Bradbury)."
118. (L) *Coreopsis* sp.
 "I have no hesitation in thinking this is a *Coreopsis* but there is no discription in *Systema Natura* that will answer for it, but it is so abundant that I am in great doubt when I call it Is it New Species."
119. (L) *Erigeron* ? *pulchellus* Michx. *Fl. Bor.-Am.* 2: 134. 1803.
 "Erigeron bellidifolium (Bradbury) Habitat in North America."
120. (L) ? *Eupatorium* sp.
 "*Eupatorium*. Does not appear to be discribed in *Sys. Nat.* . . . Flowers cream colored odorous calyxes containing from 12 to 16 florets."
121. (L) *Eupatorium altissimum* L. *Sp. Pl.* 837. 1753.
 "*Eupatorium*. Has partly the character of *E. cuneifolium* but does not wholly agree leaves serrate near the point, lance oblong. calyxes with 5 florets. No. 99."
 In the *Travels*, p. 338: "Missouri and Mississippi, common."
122. (P) *Tetraneuris acaulis* (Pursh) Greene, *Pittonia* 3: 265. 1898.
Galardia acaulis Pursh, *Fl. Am. Sept.* 743. 1814.
 Annotated by Lambert: "Louisiana. Bradbury" and by Pursh: "Galardia acaulis." TYPE.
 In the *Travels*, p. 338, "on the Missouri near the Aricara village. Probably a *Chaptalia*."
 (L) A specimen labeled by Bradbury: "Inula. Bradbury" may belong with the above.
123. (L) *Grindelia lanceolata* Nutt. *Jour. Acad. Phila.* 7: 73. 1834.
 "I cannot at present determine this plant it seems to belong *Syngenesia superflua* or *necessaria*. Seeds with 2 or 3 long awns receptacle naked—On the first descent beyond the Sand Stone Rocks 2 miles from Sandy Creek on the Mine Road.
 Palmer and Steyermark (*Ann. Mo. Bot. Gard.* 21: 515. 1934) reported this species from Jefferson County above bluffs of St. Peter Sandstone—probably very near Bradbury's place of collection.
124. (L) *Helianthus* sp.
 "*Helianthus*. Leaves opposite Petioled three nerved acutely lanced lower ones serrate upper entire upper side rough with appressed bristles Stem round smooth scales of the Calyx narrow loose. No. 62. not discribed in *Sys. Nat.*"
125. (L) ? *Helianthus* sp.
 "*Helianthus*. Does not appear to have been discribed—Stalk nearly naked Stem almost always three flowered. No. 81."
126. (P) *Hymenopappus tenuifolius* Pursh, *Fl. Am. Sept.* 742. 1814.
 Annotated by Lambert: "Louisiana. Bradbury." TYPE.
127. (P) *Lepachys columnaris* (Pursh) T. & G. *Fl. N. Am.* 2: 315. 1842.
Rudbeckia columnaris Pursh, *Fl. Am. Sept.* 575. 1814.

Annotated by Lambert: "Louisiana. Bradbury."

Bradbury wrote (*Travels*, p. 338): "bluffs above the Aricara village. *Most probably not a Rudbeckia, and ought to form a new genus.*"

128. (L) *Rudbeckia hirta* L. *Sp. Pl.* 907. 1753.

129. (P) *Senecio plattensis* Nutt. *Trans. Amer. Philos. Soc.* II. 7: 413. 1841.

Two specimens, annotated by Lambert: "Upper Louisiana. Nuttall"; "Louisiana. Bradbury" and by Pursh: "Cineraria heterophylla."

This is perhaps the *Senecio panperculus* of the *Travels*, p. 338, collected on the "prairie below the L'eau qui Court."

130. (L) *Solidago* sp.

"*Solidago*. very like *procera* Bradbury. LBG Nov 2. 1815."

131. (P) *Agoseris glauca* (Pursh) Greene, *Pittonia* 2: 176. 1891.

Troximon glaucum Pursh, *Fl. Am. Sept.* 505, 742. 1814.

132. (L) *Vernonia* ? *missurica* Raf. *Herb. Raf.* 28. 1833.

"*Vernonia* Species nova American Bottom Illinois Territory near the new town of Harrison. August [1810]." The specimen is in fruit, lacks leaves.

The following specimens are fragments not determined by me.

133. (L) "This *Potamogeton* is certainly not described in the *Sys. Nat.* nor indeed any American one—Leaves oval seven nerved opposite."

134. (L) "Pentandria Monogynia. *Calyx*. Five leaved, leaves eggd [?] concave—*Corol.* Small, campanulate, border ten cleft five of the divisions three parted. Middle segment concave inclosing the stamen. lateral segments & the other five divisions of the corol bending over the style. Stamens. Inserted on & shorter than the corol. Pistiln. Stigma simple style short Geny. becoming a one seeded berry. Shrub 20 feet high. Leaves oval entire glabrous. Flowers small in clusters."

135. (L) "*Arethusa pendula* of Michaux. No. 130."

136. (L) "*Cheiranthus* spec. Mr. Bradbury." Not a crucifer; the label evidently misplaced. *cf. Kew Bull.* 1934: 55, *Erysimum asperum*.

137. (L) In Shepherd's hand: "*Lysimachia linearis* Bradbury Habitat in America."

138. (L) "*Amorpha* ? spec. Bradbury." Not an *Amorpha*.

139. (L) A mixture of three woody species. "This will certainly form a new genus. No. 129."

APPENDIX I

The following is a list of the 44 species described by Pursh in his *Supplementum* from specimens collected by Bradbury. Of these 36 are accounted for by specimens enumerated in the foregoing list; they are indicated below by asterisks (*).

- p. 728. **Aristida pallens*.
**Stipa membranacea*.
**Cynosurus secundus*.
**Allionia linearis*.
**Allionia hirsuta*.
p. 729. **Plantago elongata*.
**Pulmonaria lanceolata*.
**Cynoglossum glomeratum*.
p. 732. **Hydrocotyle ambigua*.
**Selinum acaule*.
**Seseli divaricatum*.
p. 733. **Rumex venosus*.
**Gaura coccinea*.
**Oenothera albicaulis*.
p. 735. **Eriogonum pauciflorum*.
p. 736. **Geum triflorum*.
**Potentilla arguta*.
**Ranunculus multifidus*.
p. 737. **Pentstemon erianthera*.
p. 738. **Pentstemon angustifolia*.
**Pentstemon glabra*.
**Castilleja sessiliflora*.
p. 739. **Cleome pinnata*.
**Vicia stipulacea*.
**Ervum multiflorum*.
p. 740. **Astragalus racemosus*.
**Astragalus carnosus*.
**Astragalus triphyllus*.
**Oxytropis lambertii*.
**Dalea aurea*.
p. 741. **Dalea laxiflora*.
**Psoralea elliptica*.
**Psoralea longifolia*.
**Psoralea cuspidata*.
**Cytisus rhombifolius*.
p. 742. **Troximum cuspidatum*.
**Hymenopappus tenuifolius*.
**Artemisia dracunculoides*.
**Erigeron hirsutum*.
p. 743. **Galardia acaulis*.
**Iva axillaris*.

APPENDIX II

The following list contains the names included in Bradbury's "Catalogue of some of the more rare or valuable plants discovered in the neighbourhood of St. Louis and on the Missouri" (pp. 335–338 of *Travels in the interior of America, in the years 1809, 1810, and 1811*). Those that are represented by specimens mentioned in the present paper are marked with asterisks (*).

- p. 335. **Leersia lenticularis*.
**Aristida pallens*.
**Stipa juncea*.
**Stipa membranacea*.

- Aira brevifolia.
 Festuca spicata.
 Cynosurus secundus.
 Hordeum jubatum.
 *Allionia ovata.
 *Allionia linearis.
 *Allionia hirsuta.
 *Plantago lagopus.
 *Plantago elongata.
 *Elaeagnus argentea.
 *Hippophaë argentea.
 Pulmonaria sibirica.
 *Pulmonaria lanceolata.
 p. 336. *Batschia canescens.
 Batschia gmelini.
 *Batschia longiflora.
 Onosmodium molle.
 Dodecatheon meadia.
 *Phacelia fimbriata.
 *Cynoglossum glomeratum.
 Solanum heterandrum.
 *Ribes aureum.
 Salsola depressa.
 *Hydrocotyle ambigua.
 *Selinum acaule.
 *Seseli divaricatum.
 Linum lewisii.
 Linum rigidum.
 *Yucca angustifolia.
 Lilium catesbaei.
 Lilium umbellatum.
 Rumex venosus.
 *Gaura coccinea.
 *Oenothera albicaulis.
 Oenothera macrocarpa.
 Eriogonum pauciflorum.
 Eriogonum sericeum.
 Cactus viviparus.
 Bartonia ornata.
 Bartonia nuda.
 *Geum triflorum.
 p. 337. *Potentilla arguta.
 *Ranunculus multifidus.
 Stachys foeniculum.
 Capraria multifida.
 Martynia proboscidea.
 *Penstemon erianthera.
 *Penstemon angustifolia.
 *Penstemon glabra.
 Castilleja sessiliflora.
 *Myagrurn argenteum.
 *Erysimum lanceolatum or Cheiranthus erysi-
 moides.
 Cleome pinnata.
 *Cristaria coccinea.
 Hebiscus militaris.
 Hebiscus manihot.
 *Ervm multiflorum.
 *Vicia stipulacea.
 Lathyrus decaphyllus.
 Lupinus pusillus.
 Amorpha fruticosa.
 Amorpha microphylla.
 *Amorpha canescens.
 *Astragalus racemosus.
 *Astragalus triphyllus.
 *Astragalus carnosus.
 *Dalea aurea.
 *Dalea laxiflora.
 p. 338. *Psoralea cuspidata.
 *Psoralea longifolia.
 *Psoralea elliptica.
 Psoralea esculenta.
 Psoralea tenuiflora.
 *Cytisus rhombifolius.
 Sonchus pulchellus.
 Troximium cuspidatum.
 *Eupatorium altissimum.
 *Oxytropis lambertii.
 Artemisia dracunculus.
 Artemisia cana.
 Artemisia campestris.
 Artemisia santonica.
 Arnica fulgens.
 Cineraria integrifolia.
 Erigeron hirsutum.
 Erigeron divaricatum.
 *Senecio pauperculus.
 *Aster argenteus.
 Amellus villosus.
 Amellus spinulosus.
 *Galardia acaulis.
 *Rudbeckia columnaris.
 Iva axillaris.
 Cheilanthes dealbata.
 *Cheilanthes vestita.