Charleston 22 Jan 1838

Prof. Asa Gray, Cambridge Mass.

My dear Sir,

Messrs Little, Brown & Co announce that Peirce's Mechanics is ready for delivery, also that Davis' translation of Gauss' Theoria Motus is now ready. I have some $17, I think, in your hands in anticipation of these debts, will you pay $7.50/100 for Peirce, and $4 for Davis, from me, which will leave about $5 in your hands for I will find some use. I am a subscriber to Davis' work, and therefore consider myself bound to pay, but as I have had a copy presented to me, I do not need the work, and would be glad if they will get some one else to take my copy. Have the goodness to try for me.

Your letter of 12 Nov. was received, but had not time to write presuming you would take silence not for consent but repeal. I would desire to give Harvey aid, but cannot purchase a collection of plants neither belonging to our own country, nor to families with which I am not somewhat familiar. The cost would be evidently more than the profit.

Now for a few words on Botany. — All our Pines as far as I have them afford left handed turpentines. I have not yet P. Banksiana, but Lapham hopes to get some for me. I have made a beginning in collecting European turpentines and Pines. Can you give me any names in Europe or in Asia Minor to whom I could apply for specimens, of Pines Coniferæ, fruit & leaves, or who would exchange from our own. I want P. resinosa, fruit especially, to whom shall I write? As far as I can see at present, the turpentines of Abies, Picea & Larix, differ in their action in light from those of Pinus

although I can not affirm it generally, as I have not had specimens enough. I still want turpentine of your northern Larix, do not forget me. — I have got Endlicher Synop. Conif. and am glad you recommended it. What other similar Monographs are there, of other families I mean, do mention them. I see another one on the Coniferæ, 'Carrière, Traité des Conifères, 1855', what is the character of it? I have also Dietrich; I like it as an Index, but there are gaps, Terms for instance are wanting, and in the very range he professes to take, Smilax is wanting! Pursh or Michaux mention P. rigida as covering mountain tops in N Carolina for miles; did it seem to you the same tree as your northern P. rigida?

In looking over genus Panicum in your Botany of N. States, I do not find P. muricatum, Michx; what have you done with it? Is P. nervosum Muhl. different from P. latifolium.

What do you find the best application to protect the plants in the Herbarium from insects? In our climate they are very destructive.

I have recently brought before our Elliott Society of Natural History, the four species (or distinct forms at least) of Cactus or Cactaceæ, that grow within 10 miles of Charleston, all belonging to genus Opuntia; only one is noticed by Elliott and other Botanical writers, O. vulgaris (C. Opuntia Ell. &c); I have called the others O. tunoidea, O. macrarthra, and O. pustulenta. Do you care to have living samples sent to you? The cheapest way probably would be by ships to Boston. I will wait to hear before I inflict them on you. It is possible however that you or Engelmann might like to see them.

Now about Smilaxes I have something to say. I have your Bot. of N. States as the latest available starting point, as far as our species are included. It has been a help as your books always are, but I must add some corrections or remarks at least.

1. You do not distinguish colors exactly enough, or else your northern plants are not the same as ours. You call the berry of S. Walteri red, and the berries of S. lanceolata, and of S. laurifolia red too; well so they are but reds as different as red lead, and red wine. Our S. Walteri has a coral-red berry, as red as a Holly berry or as seeds of Erythrina; S. lanceol. & S. lauriz. berries of a red mixed with brown, and sometimes ripens gradually in streaks, green like certain apples, these streaks gradually coalescing and becoming darker and finally, becoming a purplish or blackish red. The color of berries of S. Walteri is sufficient to distinguish it from every other of our Smilaxes; the berry is sometimes decidedly pointed or 'acuminate' though not always so.

2. You say S. Walteri has "leaves inclining to be evergreen at least southward"; our S. Walteri is the most or earliest deciduous of all our species, it is difficult to get good leaves with the rich red berries, the berries themselves remaining until Spring. Can your species and ours be the same? does S. Walteri grow near you? 3. Neither you nor Pursh nor others notice the fact, that some of our species retain their berries (in some seasons at least) green or yellowish-green all through the winter, and ripen them at the beginning of the following summer. I have specimens of S. lanceolata with flowers or small fruit of 1857 with fruit of 1856 in different stages of ripening, in July or Aug 1857. S. laurifolia does the same, and in this state in the winter or Spring is Pursh's S. alba.!! Is any thing like this observed in your region? 4. Are there not all gradations of length between the moderately long peduncles of S. tamnoides and the very long peduncles of S. Pseudochina? I find it hard to fix the limits, and the forms of the leaves are too various to lend much help, and they appear to be 'coriaceous' in different degrees. If I could fix the character

of these two species I should have my ideas nearly fixed about the whole genus. Can you readily distinguish S. tamnoides from S. Pseudo-china? I want very much specimens of your northern S. hispida. Have you remarked in any our U.S. species any very marked differences in specimens considered by you as belonging to the same species, but some proceeding from your region, and others sent you from the South? 5. Of the Family Smilaceæ you remark that is "a group with no clear marks of distinction from the next;" what do you mean by the next! not Liliaceæ surely?

I propose separating S. pumila of Walter with the two allied foreign species, as a genus, or perhaps better as a distinct subgenus, nearly if not quite as distinct as Coprosmanthus. What do you think of it? They are unlike the rest of the genus in being pubescent and not smooth, and being prostrate, never climbing, and rarely rising more than a foot or two above the soil, aided by surrounding plants on which they rest; moreover the berry of our species is of a yellowish red, or orange, and ovoid in shape.

In your letter of 24 July last, you offered to get me last parts of Memoirs of Amer. Acad. in 4to. I shall be glad to get them, but must inform you that I am not a subscriber nor can I become one. I have Proceed. Amer. Acad. to page 184 of vol III.

What do you make of the enclosed plant. I found it there in the Mts of No. Ca. in the summer (Aug or Sept.) without flowers or fruit. Senecio Millefolium!

Can't you give me something of a letter. I am thankful for your little cut-me-shorts, ~~but~~ but will be pleased with something longer.

I hope Miss Cunningham is improving in her Egyptian tour. Couldn't she bring us home something botanical. I speak for Pines and cones.

Yours truly

Lewis R. Gibbes.