

Letter Unnumbered a Charles Darwin to TH Huxley

Down Beckenham Kent
Oct, 23, 1875

My dear Huxley

Your essay on species seems to me excellent—the whole subject in a nut.—I do not know whether I may keep it—If I may, please tell me title of book in which it in.—But, though I sh^d like to keep it, do not hesitate to have it returned, as it a mere chance whether I shall ever again write on large & general questions. I think it will be wiser to keep to easier & special subjects, such as Insectivorous plants or Climbing Plants.—By the way I hope you got the former book.—I told Murray to send a copy to you to make the series of my books, complete; though I do not suppose you w^d care about it. & so it shall be with my Climbing Plants.

Ever yours| C. Darwin

Letter 8545 Asa Gray to Darwin

6 Oct 1872

Botanic Garden, Cambridge, Mass.
Oct. 6 1872

My Dear Mr. Darwin

Having been at home now 4 weeks, it is full time I write to you,—but we are hardly settled yet, and many arrears of correspondence and affairs are to be brought up

Your kind favor of July 8 (my last from you) reached San Francisco just after we left it, and, being consigned to the care of a friend who was then also away, found its way to me here only 3 weeks ago.

You write most kindly of my little book, so little worthy of your notice. Do not mistake—as I fear you may, my remark about publishing more fully about Plant-movements, etc. I meant only that—when I bring out a new & much needed edition of my “Structural & Physiological Botany”,—(for which I wrote two chapters 2 years ago, & there was stopped) I mean of course to treat of this topic in its place—I hope rather fully. I alluded to it as I did in my little preface as apology or explanation of the absence of all allusion to those whose ideas and discoveries I was making free use of without acknowledgement. But as you are the only person almost to whom I am so indebted, and whose ideas I was appropriating, I might have simply explained to you by letter.

You delight me by your promise to take up *Dionæa* & *Drosera* now, and I imagine you as now about it. Good. And I am so glad you will take that opportunity to collect your botanical & *quasibotanical* papers. These, with the *Dionæa*—will make a nice and most welcome volume.

In answer to your query—I think I can “support the idea”, or the probability of it, “that tendrils become spiral after clasping an object from the stimulus from contact running down them”. For tho’ some “tendrils do become spiral when they have clasped nothing”, others do not. The adjustment of the unstable equilibrium is more delicate in the former, so that it starts under some inappreciable cause or stimulus. That the stimulus may be so propagated downward is clear in the Sensitive Plant, where the closing of the leaflets in succession will follow the closing of the ultimate pair under slight & local irritation.— And in the tendril the coiling below is just a continuation of the same movement or same change as that which incurved the tip in clasping, i.e. a relative shortening of concave or lengthening of the convex side of the tendril. Would you not infer that the action was propagated downward?

I posted to you a copy of my little Dubuque discourse. That in Trumans *Pop. Sci. Rev.* was reprinted from newspaper, & full of slips and blunders. Had I thought he or any one cared to reprint it, I would have revised it for the purpose, as I did for the Amer. Naturalist.

The Braces are returned, I believe, but we have not yet heard from them.

So you were astonished at Mrs. Gray’s audacity, well,—“toujours l’audace”—she is all the better for it. She was miserable enough when we set off for California and she has not for years been so well as now. I did not count upon the rail-road transit being very trying. Perhaps it was as much so as any part of the journey, although she slept well in the car births. Some horse back work in getting to and into the Yosemite Valley was severe, but she bore it so well that I ventured, when we made our detour into the Colorado Rocky Mountains, to take her up to the summit of Gray’s Peak—14300 feet, or thereabouts, where she acquitted herself nobly. The day was perfect, the success complete, and the memory of it one

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of the most delightful of the many pleasant memories of the whole journey. The only drawback to the whole thing was that Hooker was not with us, according to our original programme.

We had a day at Niagara, another in burnt-out Chicago,—then after 3 nights and days of interesting rail-road travel a day and two nights at Salt Lake. Two more such landed us in San Francisco,—whence our great trip was the round from S. F. to Mariposa Grove, Yosemite Valley, entering over Glacier Point, from which (tell your sons) is a new trail down the 4000 feet into the Valley—made excursions from the Valley during several days,—and returned by a long sweep thru. the little Tuolumne grove, round foot-hills to Murphy's and the Calaveras Grove, and so back to San Fr.

Afterwards Mrs. Gray & I went to Santa Cruz & up the San Lorenzo Valley among noble Redwoods, rivalling the Sequoia gigantea. On return we made one stretch to the E. base of the Rocky Mountains, then down to Denver, & up into the Mts. To 8400 feet, where we had a pleasant week or more—just the climate to give strength to an invalid—whence I climbed a high mountain or two, among them Gray's Peak, the highest, as already mentioned. Thence we came down to Dubuque & hot weather on the Mississippi, stayed 8 or 9 days, then took a steamer up the Mississippi to St. Paul & St. Anthony &c—& then home by rail—having been 12 busy weeks away.

Well, we are longing to do it again, and more! But I am settling down to my work as well as I may,—well content with the summer's holiday.

My wife sends kind regards & joins in those to Mrs. Darwin &c from | Yours sincerely | Asa Gray

Letter Unnumbered b Darwin To Alphonse de Candolle

2 November [1872]

Down, | Beckenham, Kent.

My dear Sir

I am much obliged for your great kindness in having sent me your ""Historie des Sciences &c"". From what I see of the contents I look forward with real eagerness to read it; but I shall not be able to begin for a week or two. I have just published a small book on Expression, which I did not suppose you would care to see; but from the nature of your recent studies, parts may possibly interest you, so I have told my Publisher to send you a copy. My health keeps very weak & I dread the exertion of grappling with the fearful subject of variation; so I am now employed in working up some observations in Botanical physiology made twelve years ago, which I intend publishing with some other new matter & some of my old papers on Climbing Plants, Dimorphism &c in a volume. —

With cordial thanks & sincere respect,

Pray | believe me | Yours very faithfully | Charles Darwin

Letter 8656 Asa Gray to Darwin

2 Dec 1872

Cambridge. Mass,
Dec, 2. | 1872

My Dear Darwin

My good wife duly received the new book you so kindly addressed to her, and she is delighted with the compliment.

I have read 20 or 30 pages—I doubt if she has got so far—for we have both been very much occupied, with visits of friends and a good many cares. I know she means to write her thanks, but how soon she may get about it is a question.

I was much interested with the few pages I have read.

I sent forward the copy to Dr. Rothrock, and he has sent thro' me his response.

He is in full medical practice, in the centre of Pennsylvania—in the town which was the original “Wyoming”

Well, it is wonderful—your finding the *nervous system* of *Dionæa*!!! Pray take your time next spring, and do up both *Drosera* and *Dionæa*. I will endeavor next spring to get hold of *Drosera filiformis* & make the observations—

I will, also, do better, by sending your *note* on to Mr. Canby, who lives near its habitat—& has done something already in such observations

As to coiling of tendril.

I think your idea is that in the coiling of a *fixed tendril*, one coil has its concave side the opposite of the part that has coiled the other way.

Now, take a piece of tape say a span long; black one side, let some one hold the two ends while you twist in the middle. The two halves are coiled in opposite directions, just as a tendril which has caught does.—The same color will be on the outside of the coil all the length.

Blacken with a stroke of paint a line along the whole length of a caught tendril. On straightening it out the black will be all on one side.—

I have not had time to follow it up, and need not—since you are sure to do it. But I think it clear that one & the same side is concave—i.e. the relatively shortened side—the whole length of the caught tendril. Do not you?

Mrs. Gray is absent while I write, or she would add her best regards & best wishes to my own for a happy New Year to you all.

Sincerely Yours | A. Gray