

March 17.

17 March 1815  
in upper rt. corner

Few circumstances are most pleasing to the contemplative or uncultivated mind than the regular alterations which we here observe, The changes of the moon, the varied appearances of the "Sidereal Heavens," the succession of day & night, and most of all the enchanting vicissitude of the seasons. At the return of Spring all nature is enlivened. During the winter which has passed, the unusual intensity of cold, the invasion of our country, the blockade of our harbor with fleets, & the distraction of intestine dissensions, with which the wickedness of the people have been punished, had involved the ~~United States~~ in gloom. This season we feel with peculiar force the effects of change. The return of Spring is an assurance of the continuance of the smiles of Providence; and our country rejoices more than ever because the peaceful olive grows and puts forth its leaves. Commerce stretches her white sails to the ocean and Agriculture casts a complacent look upon the fields.

"Yet fostering breezes blow,  
 Ye softening dews, ye tender showers descend  
 And temper all that woe'd enlivening Sun  
 Into the perfect year."

that the earnest expectations of the husbandman, the merchant & the statesman may be realized. — Our hopes swell in

Faint, illegible handwriting on aged, yellowed paper. The text is mirrored across the page, suggesting bleed-through from the reverse side. The script is cursive and difficult to decipher due to fading and the texture of the paper.

bursting bud, expand in the leaves, and may they flourish in the flower and be realized with an exuberance of fruit.

We rejoice with our fellow citizens at the renovation of Nature, and the return of Peace, and the pleasing prospects of plenty and extensive happiness, but we <sup>have</sup> our peculiar joy, that of meeting again those who honored us with their attendance the last season. We again feel a genial influence which awakens our emulation. To be once more surrounded by such an audience assures us that our exertions were well received and encourages us to proceed.

At our last meeting we anticipated what we have often enjoyed, that of being frequently reminded of you in our rambles thro' the wilds of Nature, and our pleasure was heightened when we allowed ourselves to recollect that ~~these~~ we might also be associated by you with those very objects which so often and so agreeably recalled you to our recollection.

Botany, the (branch of) Science which we shall attempt to teach is an extensive branch of Natural History. Nat. History encompasses the description of every thing not effected by the art of man. The art of man operates upon the materials presented by nature, and only changes their external forms. The Sun Stars, planets and moon are strictly objects for the attention of the Naturalist but we must turn from these great great outlines of the visible creation, and retire to this spot of earth where we dwell, and if we consider the great divisions into land and water, rivers and mountains, woods & rocks, fertile spots and barren wastes, we shall soon discover that this earth that this earth is the proper abode of such a being as man (a rational Being), where altho' there be given him much

*[The page contains several paragraphs of extremely faint, illegible handwriting, likely bleed-through from the reverse side of the paper. The text is too light to transcribe accurately.]*

A brief history of Botany was given in the last lecture and many celebrated men were introduced to your notice who have become famous for their zeal in the pursuit of Natl. Sciences were introduced to your notice

A brief history of Botany was given last ~~lecture~~ <sup>lecture</sup> and many ~~distinguished~~ <sup>celebrated</sup> men were introduced, but ~~Botany~~ <sup>Philosophy and Philo-</sup> sophic Botany is <sup>not</sup> confined exclusively to gentlemen. Several Ladies have shown with distinguished lustre in this elegant branch of knowledge. The 1<sup>st</sup> we shall mention is

Anna Sybil Merian, daughter of Matthias Merian of Frankfurt, where this lady was born in 1647. Her father was a celebrated engraver, from him she acquired her taste in drawing. He put her under the instruction of an eminent painter, from whom she learnt great neatness of managing the pencil, & remarkable delicacy of colouring. She was particularly fond of painting objects of Natural History, such as plants, reptiles & insects, wh. she executed with great nature, & at the same time she studied these objects with a curiosity and with the inquisitive spirit of a naturalist; so that her knowledge & her works made her every day more & more celebrated.

*[Faint, illegible handwritten text, likely bleed-through from the reverse side of the page.]*

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X The commonly painted the subjects of Natural History on Vellum & in water colours & she finished an astonishing number, she painted the caterpillar in all the various changes & forms in wh. they successively appear, from their quiescent state till they become butterflies. She painted Frogs & Toads, serpents & Spiders with such truth and exactness, that some Ladies would hardly venture to touch them.

Not contented with painting ~~all~~ the ~~Plants~~ Insects & Reptiles of her own country, this indefatigable Lady crossed the Atlantic & visited Surinam to paint those Insects & Reptiles w.<sup>c</sup> were peculiar to that climate; & at her return to Europe she published two Vol.<sup>s</sup> of Engravings after her paintings, which are some of the first things of the kind extant. Some of her original paintings are preserved in the British Museum and are usually shown to strangers as great curiosities. She died in 1717. She left a daughter, who painted in the same stile, & who had accompanied her mother to Surinam. This young Lady published a 3<sup>d</sup> Vol. collected from designs of her mother, w.<sup>c</sup> complete work has been always admired by the learned, as well as by the professors of Painting. (Encycl.)

*[The page contains several paragraphs of extremely faint, mirrored handwriting, likely bleed-through from the reverse side of the paper. The text is illegible due to its low contrast and orientation.]*

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Her glistening serpents, her eel frogs & her crawling ~~serpents~~ <sup>spiders</sup> were executed with horrible precision.

The next Lady I shall mention who distinguished herself in this line was Miss Ann Lee of London, Daugh: of James Lee, who published an Eng. translation of Linnæus's System of Botany. She also painted in water colours on vellum, & altho' few men in England (I do not excepted) could surpass her in painting insects; yet she did not come up to the high grade of Madame Menier in either reptiles or Insects. As to plants Miss Lee executed her's with more botanical precision than the Lady just mentioned; this may have been owing to the precise knowledge of the parts of plants & to an higher perfection of the Science of Botany than to any defect in the Art of the German Lady.

These two instances are sufficient to show that the Ladies are fully equal to man the other sex in whatever demands ingenuity or calls for the expression of taste.

Hence we cannot but recommend the art of Painting or Designing to both sexes as a part of their education, ~~I think~~ We in this country ought to

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The following is a list of the  
names of the persons who  
were present at the meeting  
held on the 1st of January.

Mr. J. B. Smith  
Mr. W. D. Jones  
Mr. T. C. Brown

Mr. R. E. White  
Mr. S. G. Green  
Mr. L. H. Black

Mr. K. I. Grey  
Mr. M. N. Blue  
Mr. O. P. Red

Mr. Q. R. Purple  
Mr. U. V. Yellow  
Mr. X. Y. Orange

Mr. Z. A. Silver  
Mr. B. C. Gold  
Mr. D. E. Bronze

Mr. F. G. Iron  
Mr. H. I. Steel  
Mr. J. K. Lead

Mr. L. M. Tin  
Mr. N. O. Copper  
Mr. P. Q. Zinc

4

ought to imitate those in Europe, who always enu-  
merate Drawing among the objects of genteel education.  
If the time ~~consecrated~~ to play tolerable ill upon  
the Piano was but devoted to the art of drawing,  
there w<sup>d</sup> they say the least of <sup>be much</sup> more to show for it.  
Drawing is a charming accomplishment. What a de-  
cided superiority has a man who knows how to draw  
accurately over one who does not? In visiting any  
curious machinery he can by sketching it, carry  
away its principles and its structure; and so of a  
view or interesting landscape or any object of Natl<sup>l</sup>  
Hist<sup>y</sup>; & it is full as useful & ornamental to the Ladies  
as to the gentl<sup>men</sup>. if not more so, & they generally sur-  
pass men in this accomplishment, from <sup>possessing</sup> a more  
refined taste.

The Ladies may find the art of Drawing not only  
agreeable & amusing, but they may find it highly  
useful, in a change of fortune, or rather under the pres-  
sure of adverse circumstances, as may appear by the  
History of Elizabeth Blackwell.

We have Colleges for teaching every art & science  
we have minute directions in gardening & in agri-  
culture. We have numberless books of the doctrine

I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the proposed change of location of the office of the Board of Education. I have conferred with the members of the Board and we have decided to remain at the present location. I am sorry that we cannot accede to your request but I trust you will understand our position. I am, Sir, very respectfully,  
Your obedient servant,  
J. H. [Name]

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Your obedient servant,  
J. H. [Name]

business on self policy or the art of rising in life, while that w.<sup>e</sup> is worth them all, the doctrine of domestic happiness, is left comparatively uncut & unvalued, yet it is that philosophy spoken of by Dr Bacon, "which comes home to mens business and bosoms!"

The history of every civilized nation, may every mans own recollection, affords abundant proofs that the female mind is <sup>nearly</sup> equally capable with the male. - Situation and circumstance rouse the latent energies of the female souls.

Whence is it that the children of widows become, generally, better men & better women than children brought up in conjunction with a father.

X It is because afflictive circumstances have called forth the dormant energies of heroic woman; & perfected a virtue peculiar to the sex; a virtue w.<sup>h</sup> originated in conjugal affection.

Can this fleeting world, this anxious scene exhibit a more interesting sight to the Philosopher than a virtuous widow weeping over her "houseless child of evant"? Yes! one picture is still more affecting where the father & husband is worse than dead

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this his folly and his crimes. Then, if conjugal  
 love has not been ripened into maternal affection,  
 and grown up into the highest of the Stoical  
 virtues, nay, more sublimed into religion, the  
 wretched woman sinks into intemperance, or is  
 lost in despair. An overanxious & unrestrained  
 fondness is not true maternal affection. Mater-  
 nal affection is where judgement draws more  
 closely the bonds of nature. The happiness of the  
 conjugal state says Addison appears heightened  
 to the highest degree, when we see two persons  
 of accomplished minds united <sup>in</sup> the same interest  
 and affections and in their state of studies. The  
 reverse of this must occasion enquiries in-  
 expressibly severe. — <sup>however</sup> we leave these gen-  
 eral reflections & hasten to exemplify them in an  
 account of an ingenious, learned & excellent <sup>but unfortunate</sup> woman  
 who enlivened the dungeon of her husband with  
 flowers; & entwined his fetters with the white  
rose & the myrtle

It is a singular fact, says Dr  
 Pultney, that Physic is indebted for the most  
 complete set of figures of the medicinal plants





to the genius and Industry of a Lady, and  
 which were erected, at a time, & on a distressing  
 occasion that redounds to her honor & praise. The  
 name of Mrs. Eliz<sup>th</sup>. Blackwell is well known  
 for her own fate (says he) and for the fate of her  
 unfortunate husband, who suffered death by the  
 hands of the common executioner in 1717. This  
 Lady was the daughter of a merchant of Aberdeen;  
 of which city Dr. Alex<sup>r</sup>. Blackwell, her husband  
 was a native, & where he received an University  
 Education; but took his degree of D. M. D. under  
 Boerhaave at Leyden.

After having failed in his attempt to  
 introduce himself into practice, first in Scotland, &  
 afterwards in London he became a corrector of  
 printing press and soon after commenced  
 printing for himself. Soon he was however  
 thrown into prison. To support him there & to  
 relieve his distresses, his amiable wife, having  
 been instructed in drawing & painting, and all  
 her talents. — understanding that an Herbal or Gal.  
 of Medicinal Plants were a desideratum, much  
 wanted by the faculty, she established to Sir Hans

to the general and historical of a subject and  
 which were omitted, at a time, as a reference  
 superior that contains the same of course, the  
 manner of the late Dr. Robertson is well known  
 for his own part, says he for the first time  
 in particular, however, he is supposed to have  
 heard of the common error in 1717. This  
 date was the first time a number of books  
 printed by J. B. Robertson, but has been  
 ever a matter of course in consequence of  
 Robertson, but not the degree of Robertson's  
 practice at length.

After having finished his paper he  
 introduced himself into the printer's shop  
 the more in doubt, he became a convert to  
 printing paper and soon after commenced  
 printing his business. There is no doubt  
 however, that to suppose him to be  
 a printer in the first place, his ownable  
 has introduced in the printing shop  
 his business. The printer's shop was  
 a business of the printer's shop.

Robertson's printer's shop was a business  
 of the printer's shop.

8.

Hans Sloane Dr Mead & others of the 1<sup>st</sup> rank, some specimens of her art in Painting Plants, who being men of taste, as well as learning, approved them so highly as to encourage her to go on with her work; which she prosecuted with such unwearied diligence, that she was enabled at the end of two years to relieve her husband from his confinement for that time. <sup>A friend triumphs for a woman</sup> Dr Isaac Hand was ~~at that time~~ <sup>then</sup> Demonstrator of Botany to the Company of Apothecaries, in the garden at Chelsea. By his advice Mrs Blackwell took up her residence opposite the Physic Garden, in order to facilitate her design by receiving the plants as fresh as possible from the earth: for it seems she drew them by the eye, and not as some now do in London by the Camera. Hand, not only promoted her work, as it regarded subscriptions with the public, but together with the celebrated John Philip Miller, the Prince of Gardeners, as Linnaeus calls him, afforded her direction and assistance in the choice of plants.

In the course of the 14 years, some  
 specimens of plants and animals were being  
 sent to me, and were being  
 to find out the cause of the  
 disease, and to see if it was  
 the same as the one which was  
 found in the country of the  
 natives. The result of my  
 inquiries was, that the  
 disease was not the same as  
 the one which was found in  
 the country of the natives.  
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 which was found in the  
 country of the natives. The  
 result of my inquiries was,  
 that the disease was not  
 the same as the one which  
 was found in the country  
 of the natives.

Some may say that it is no great affair for a Lady to make a great number of drawings & to sell them for for an handsome sum of money & therewith take from confinement & an unprincipled husband. But she did more ~~than this~~; she turned Engraver; for after completing her paintings she engraved with her own hands 500 plants on copper plate & them coloured <sup>then</sup> agreeably to Nature. Each plate is accompanied with an engraved page, containing the Latin & English (officinal) names, followed by a short description of the plant, & a summary of its qualities & uses. After these occur the name in various other languages. These illustrations were the only share her husband took in the work.

She published her 1<sup>st</sup> vol. in 1737 & was allowed to present it in person to the Royal College of Phys<sup>ns</sup>, who <sup>gave</sup> her a public testimonial of their approbation with leave to prefix it to her book. The 2<sup>d</sup> Vol. was printed in 1739 & the whole published under the following titles: "A Curious Herbal, containing 500 cuts of the most useful Plants w<sup>ch</sup> are used in Med<sup>ic</sup> Physic, engraved on folio copper plates after drawings taken from life by Mr Blackwell."

There may say that it is no great affair for a

leaf to make a great number of specimens & to see

them together in one volume is more than

the former. The latter is more

expensive & the former is more

useful. The latter is more

convenient & the former is more

agreeable. The latter is more

pleasant & the former is more

agreeable. The latter is more

pleasant & the former is more

agreeable. The latter is more

pleasant & the former is more

agreeable. The latter is more

pleasant & the former is more

agreeable. The latter is more

In which is added a short description of the Plants of  
their common use in Physic. "This!"

The illfated man, her husband, after his failure  
 in physic & in printing was an unsuccessful can-  
 didate for the place of secretary to the society for the  
 encouragement of learning. He experienced many dis-  
 appointments incident to speculators. He formed schemes  
 in agriculture & wrote a treatise on that subject  
 wh. was the cause of his going to Sweden. In that  
 Kingdom he drained marshes & practised Physic  
 and was even employed in that capacity by the  
 king. But his evil genius never left him & not-  
 withstanding the exertions and virtues of his wife  
 on his behalf he involved himself in some  
 wicked designs & suffered death on the scaffold.  
 in 1747.

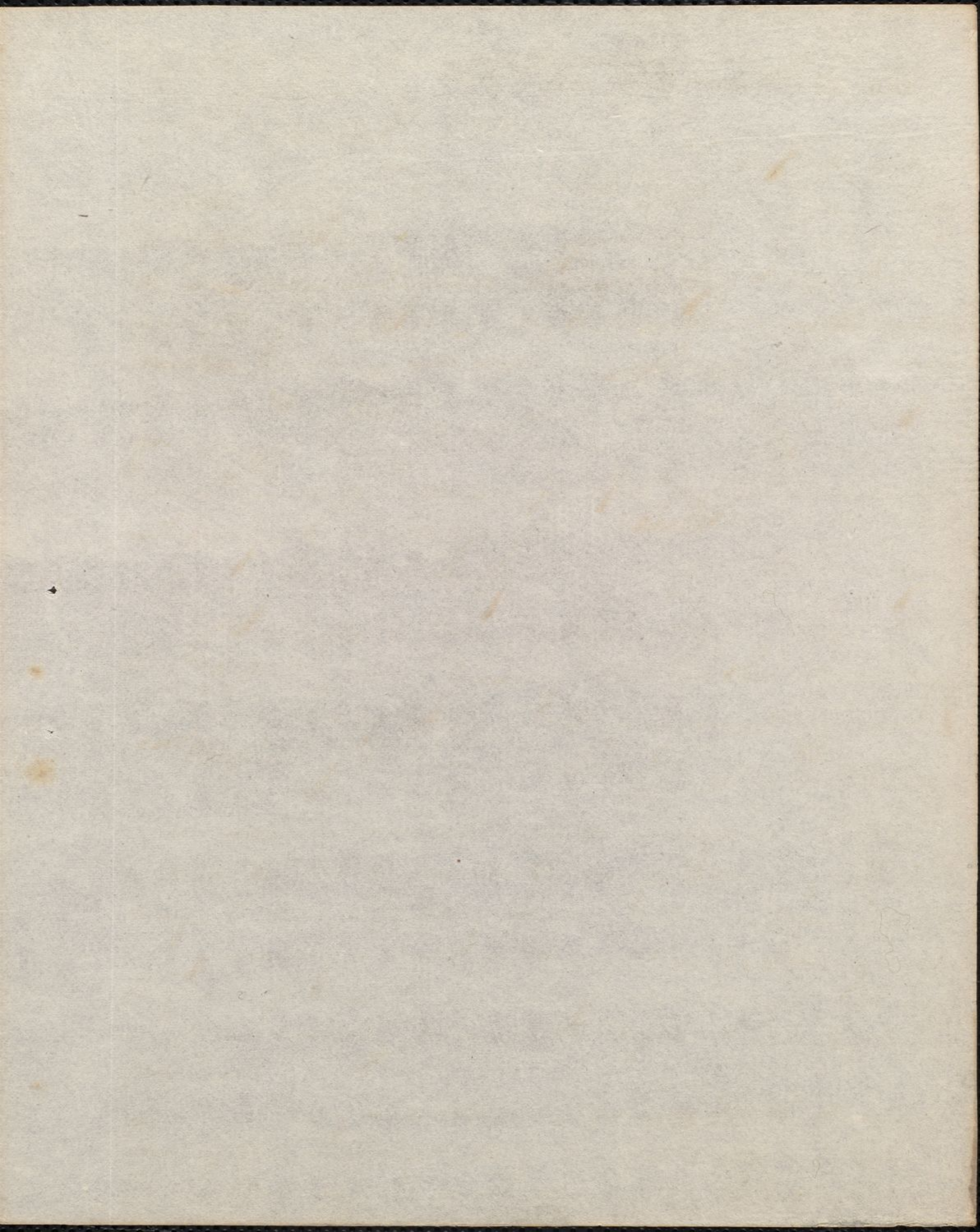
X As for his amiable wife, so respectable a  
 performance as hers, really ~~was~~ attracted the attention  
 of Phys.<sup>ics</sup> of the continent. It was translated into  
 German in 1750. To this edition was prefixed a  
 most elaborate catalogue of botanical authors.  
 In 1773, a supplementary volume, exhibiting plants  
 omitted by Mr Blackwell was published under  
 the direction of Ludwig, Rose and Bochner. In this  
 form the work of this learned & worthy Lady sur-  
 passed all that had been published.

To which is added a short description of the plants  
these countries use in Pharmacy. This  
The effects of them, the diseases, after the  
to which a description was an unsuccessful  
a note for a place of secondary to the necessity for the  
some experiment of chemistry. The experiment  
appointments incident to operations. The  
in a particular case a note on that subject  
and on the course of the organs in disease. In that  
highlights the various numbers of products. These  
and was then employed in that capacity by the  
king. That his great genius was left from a  
withstanding the various and various of his works  
in the belief he intended himself in some  
manner to improve & improve himself on the  
in 1771. He for his services was  
performance as well, really — in the  
of the "the continent". It was translated into  
Paris in 1780. In this edition was proposed a  
most elaborate catalogue of botanical matters.  
In 1773, a supplementary volume, containing plants  
submitted by the French was published, and  
the direction of Linnæus, and Richard in the  
from the work of this learned & worthy help and  
which is the first can be said.



My father owns this work of Mrs Blackwells  
 and it is in two folio volumes as large as the  
 prayer books used in that desk in the Epis-  
 copal churches. The engravings are correct  
 and ~~are~~ frequently referred to by Linnæus in  
his Systema Naturæ, which is alone sufficient to  
 stamp her reputation, altho the engraving  
 are not of that exquisite kind which for which  
 modern engravers, especially the French are now  
 so justly admired. We should take a delight  
 showing <sup>their work</sup> particularly to Bachelors, that they  
 might see to what to what degree of Perfection  
 the other sex may ascend, when their talents are  
 called forth & sublimed by conjugal affection.

The following names were given by the  
committee on the 1st of March 1834  
and it was then resolved to refer  
the same to the committee on the  
subject of the petition. The committee  
on the 1st of April 1834 reported  
that they had examined the petition  
and had found it to be a true  
and correct statement of the  
facts. They also reported that  
they had examined the names of the  
petitioners and had found them to  
be persons of good character and  
of good standing in the community.  
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examined the petition and had found  
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the names of the petitioners and  
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good character and of good  
standing in the community.





5

The Vegetable which covers the face of it and the Animal,  
which animates the whole.

The Science which we shall attempt to explain  
is called Botany, which does not consist in arrangement, ~~only~~  
for system is only the means of facilitating a knowledge of  
the distinctive characters, virtues, ~~economy~~ & ~~internal~~  
structure of all Plants. In the whole circle of the Sciences  
~~there is~~ no study ~~which~~ excites, a more continued progression  
of pleasure ~~than this~~; and it has this peculiarity that no  
frequency of contemplation, closeness of investigation ever  
brings weariness, or <sup>satiety</sup> disgust for here gratification & appetite  
are perpetually interchanging

"There's not a tree,  
" A plant. — a leaf. — a blossom, but contains  
" A folio volume. We may read & read,  
" And read again, and still find something new,  
" Something to please & something to instruct. (Vit. Puritate)

We will not however hold it up merely as a Science merely  
to divert the mind, amuse the imagination or gratify the  
fancy; for it is a pleasing exercise for the improvement &  
enlargement of a rational mind. Besides Botany is of  
the first importance to a country circumstanced like ours,  
which is a country, commercial agricultural and manuf-  
acturing.

Botany is an extensive science; it is the study of an  
ordinary life; and a man only becomes a proficient in it when  
his eyes fail him to convey the beauty, & his senses of

The English edition was first published in 1850  
and is now in the public domain.

The present edition is a revised and enlarged one, and is published by the same publishers as the former editions. It contains all the additions and alterations made since the last edition, and is bound in the same elegant and durable style as the former editions. The price of the book is the same as the former editions, and is very reasonable.

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6

The vegetable which adorns its face, and the animal which is sustained by the vegetable. But one of these will come under our notice viz the vegetable as forming the science of Botany.

Botany is the Science which teach the uses, structure and physiology of <sup>the</sup> vegetable race. The hard names and harsh terms with which the science is encumbered are merely the hooks and ladders by which we come at knowledge, It is always easy to pluck the fruit when it is within our reach.

Botany is an extensive science. is the study of an ordinary life, and a man only becomes proficient, when his eyes fail him to convey the beauty, his sense of smelling to communicate the odours, with which the objects of it are characterized & his fluttering limbs refuse to support him to the spot where they grow. What then can be expected from us, who have only just entered the garden of Flora, & have scarcely learned to examine with attention. Linnæus divides the vegetable kingdom into 24 classes. These into about 120 orders and these orders into <sup>2000 genera & these genera into 25,000</sup> about 20,000 species. Of this <sup>number</sup> 2500. We have only seen a few. You will not then expect that we should answer every question which may be asked or be enabled to call every plant vegetable family by their right names. We might with as much propriety be expected to call every man in this extensive City by his name. You may understand the organization of a seed the various kinds of fruits - the stems leaves & of an individual Plant, together with its Physiology and

We do not say this to discourage questions <sup>lest</sup> to  
excuse ourselves to you should we answer wrong or  
confess our ignorance. We shall never blush to be  
wrong for it is no disgrace but shall strive to be  
right as much as possible. We would wish to be  
questioned that our attention may be always  
awake



17

and structure without knowing that the Peat was said  
to be proemorse, repent, horizontal or its leafovate oblong  
rotund, peltate, centropeltate, decurrent, amplexicaule de-  
compound &c. &c.

We have always been sorry that Botanists have  
been obliged to use a peculiar language that should render  
a beautiful Science tedious, that the stalk of writing  
flowers should be beset with so many ugly thorns!

A language is absolutely necessary or botanists  
of different nations could not understand what plant was  
described. The first writers upon botany from not having  
words which expressed slight differences are entirely  
unintelligible. But the language of botany derived  
from the Latin & Greek which are concise language, is now  
so perfect that all nations can read it and such is the  
degree of its perfection the English language derives from  
many of its most expressive terms. When you become a  
little familiarized to it you will admire its beauty  
(Describe a plant from Justice!)

*[Faint, illegible handwriting in cursive script, likely bleed-through from the reverse side of the page. The text is mirrored and difficult to decipher.]*

8  
that constitute that code of knowledge, so useful to every man in his passage through ~~the~~ life, and so needed in such a country as this, where knowledge is power.

Instead therefore of trammeling the mind & cramping enquiry by attaching ourselves exclusively to artificial systems, and systems, let us rather study the accordance, the relationship, the conformity & utility which the different objects of nature bear to one another, and to ourselves, which, altogether constitute that harmony in Nature, and which prove it to be the work of one Almighty & beneficent Architect.

Notwithstanding what we have said against ~~we should have your candid paying ~~attention~~~~ paying too much attention to mere system or arrangement, we can not too earnestly impress their importance upon those who have ~~them~~ ideas yet to attain upon the subject. The Objects of Natural History and particularly Botany are so multitudinous that it would be impossible to study & recollect our researches without something <sup>by which we</sup> to reduce our ideas to order ~~by~~. Were we unable to generalize we should receive but little pleasure, for nothing gives us such satisfaction as to be able to trace the similarities which every where ~~exist~~ appear in the works of the Supreme. We ought to guard against making arrangement the chief object and when we have a knowledge of that suppose we are naturalist or Botanists. A man may study

It is evident that each of these things is useful to man  
in his way of life, and to be considered  
as a source of pleasure.

It is therefore of consequence to the mind of  
man to be supplied with objects of pleasure  
and to be furnished with the means of  
obtaining them. It is in this view that  
the government of the world is  
conducted, and the objects of pleasure  
are distributed among the nations  
of the world.

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obtaining them. It is in this view that the government  
of the world is conducted, and the objects of pleasure  
are distributed among the nations of the world.

Sumner and committ his Systema Naturae to mem-  
 ory, but who ~~would~~ call him a Naturalist if he  
 could not tell you ~~what~~ where to find the place  
 and description of the horse or the sheep, &c! and  
 he ought not to be so denominated until he had  
 examined animals & <sup>in</sup>vegetables & ~~now~~ have been  
 able to discover the names & places of what were  
 before unknown: You certainly would not con-  
 sider her a proficient in cooking who could repeat  
 a receipt Book by heart, but had never attempted  
 to reduce her knowledge to practice. So in the  
 science of Botany, the way to learn is to examine  
 and make system ~~subsequently to your~~ ~~degrees~~  
~~in the pursuit of~~ assist your researches. Nothing  
 has been so injurious to the progress of Botany and  
 prevented it from being considered an indispensable  
 branch of that general knowledge, which every  
~~gentleman~~ Lady & gentleman should possess, but  
 the unbecoming attire which which it is clad.  
 However to be regretted it is absolutely nec-  
 essary. The harmless defenceless caterpillar  
 is beset with what appears most formidable  
 spines, which deter rather than invite the hungry  
 birds.

We shall endeavour to reconect you to the  
 system & the hard names / which are in such utter



disgrace among the ladies, by <sup>explaining the terms</sup> tracing the  
process of vegetation as it germinates in the seed  
subject with accuracy, and progresses to the perfect plant, bearing seed  
again, and we shall pursue the same course  
in our preceding lectures. The last season  
we commenced with the delineation <sup>in</sup> Plant  
commencing with the root, and described the  
stem - leaves stipules &c - and finally we  
came to the seed. But the season we shall  
first shall examine the curious structure of  
the seed; <sup>shall see</sup> plants & watch its <sup>evolution</sup> growth into  
the perfect flowering plant. Then we shall  
commence the Delineation of the Plant (Del: Plant) <sup>beginning</sup>  
beginning with the root its varieties and uses -  
the Stem or trunk, its peculiarities and ana-  
tomical structure, - shall mention all the  
appendages which belong to the herb together  
with the organization & uses of the leaf accor-  
ding to the opinion of Botanists of the Present age  
shall attempt to explain their functions as analogous  
to the lungs of animals. When then shall ~~have~~  
~~arrived~~ <sup>describe</sup> the flower ~~to describe~~, not the beauty  
of the tints which vary infinitely upon the petals,  
but the important uses in the vegetable economy  
which they serve, in maturing the seed, then  
then shall notice the buds & the bulbs or the

10  
The first of these is the fact that the  
organism is not a simple mass of protoplasm  
but is organized into a definite structure  
and that this structure is the result of  
a process of differentiation which begins  
at the moment of fertilization and  
continues throughout the life of the  
organism. The first step in this process  
is the division of the fertilized egg  
into two cells, the larger of which  
becomes the embryo and the smaller  
the yolk. The embryo then divides  
into four cells, and these into eight,  
and so on, until a mass of cells is  
formed which is the beginning of the  
embryo. These cells are arranged in  
layers, and each layer has a different  
function. The outermost layer, the  
ectoderm, gives rise to the skin, the  
nervous system, and the sense organs.  
The middle layer, the mesoderm, gives  
rise to the muscles, the bones, and the  
internal organs. The innermost layer,  
the endoderm, gives rise to the  
digestive tract, the respiratory tract,  
and the excretory organs. The process  
of differentiation is a continuous one,  
and the cells of the embryo are  
constantly dividing and differentiating  
into the various tissues and organs of  
the body. The result of this process is  
the formation of a complex organism  
which is capable of performing a wide  
range of functions. The process of  
differentiation is a fundamental one,  
and it is the basis of all life.



or winter quarter into which the vegetable being  
retreats in ~~the~~ winter intending to show <sup>thru out our</sup> ~~as~~  
<sup>course</sup> much to the eye as may be practicable. But it

will be interesting and instructive to present you  
a concise history of Botany and this is best done  
by noticing briefly the distinguished Botanists &  
their improvements. for a fuller account of which we  
would refer you to Pulteney's biography of Botanists

We shall then commence the system of Linnæus,  
the ~~Class~~ <sup>or primary division</sup> which is founded upon the number & proportion &

situation of the essential parts of a flower called  
the stamens & pistils. The 1<sup>st</sup> & 13<sup>th</sup> <sup>order</sup> ~~Classes~~ <sup>Classes</sup> are named  
from the number of stamens in which exist in the  
same flower with pistils. The 14<sup>th</sup> & 15<sup>th</sup> are estab-  
lished upon the relative proportion. The four next upon  
the connection with each other: The two next upon their  
being upon the same plant in different plants or  
grow upon entirely separate roots. The last Class is  
characterized by the obscurity of the flowers

or similar question into which the subject of  
the present paper is intended to be brought  
and the eye is very much interested. But it  
will be interesting and instructive to present you  
a concise history of Botany and this is best done  
by entering briefly the distinguished botanists &  
their improvements. For a fuller account of their  
works refer you to Voltaire's history of Botany  
the three, then commence the system of Linnaeus,  
the class which is founded upon the number of parts of  
the structure of the stamens parts of the flower called  
the stamens & pistils. The 17<sup>th</sup> & 18<sup>th</sup> centuries  
from the discovery of the microscope in which exist in the  
stamens fibres with fine fillets. The 18<sup>th</sup> & 19<sup>th</sup> centuries  
testify upon the structure of pistils. The four orders  
the connection with each other: the two next upon this  
depend upon the same point in different forms  
given upon entirely separate parts. The last class is  
characterized by the structure of the flower.

Previous to commencing our subject we would  
recommend, to those who have not attended to ~~Botany~~ <sup>to the subject</sup>,  
the perusal of Wakefield's Botany, & the article Botany  
in the Encyclopaedia. Next you will be interested in  
the Letter of Rousseau to a Lady, who was learning  
this Science for the purpose of instructing a promising  
daughter. You may enquire for it under the title  
of Montanus Botany; for it was translated by him from  
the French. The Elementary works of Dr. Barton &  
Smith cannot be too highly recommended and one  
or the other should be in the possession of all who  
mean to make any progress in Botany. Lee's  
Botany should lay ~~and~~ table as a dictionary.

The Botanist of my father is merely a collection of  
a few numbers which were published under that  
title in the Boston Anthology, and which were  
intended as amusing papers without any of the  
parade of Science about them. It is by no means  
a scientific work nor was it intended to be such,  
but we flatter ourselves that you will find it  
amusing & instructive. As for other books, you must  
as usual, get what you can, as we do.

I have a communication from you which  
I have not yet had a chance to  
reply to. The enclosed contains  
the names of the authors of the  
articles in the *Journal*. It is  
the object of the *Journal* to  
be a medium for the publication  
of papers of interest to the  
scientific community. It is  
not intended to be a mere  
collection of facts, but to  
contain original researches  
and discussions of scientific  
problems. It is hoped that  
you will find it interesting  
and useful.

We have recommended the art of Drawing, but there is perhaps an easier mode of preserving the plants in order to refresh our memory, and that is by forming an *Hortus Siccus*, or dried garden of Herbariums. Take your plants which have been collected without bruising them and lay them carefully between sheets of blotting or the common blue rapping paper, and place a moderate weight over them. If it be a specimen of a tree preserve the flowers & one or two of the perfect leaves, and in all other be careful to preserve so much of the plant & display it in such a way as to give an perfect idea of it when <sup>it</sup> ~~is~~ <sup>living</sup>. Open the flowers & spread the leaves so that every part may be seen. If any part be too thick cut away the under side, and if the branch be too large split up the bark & take out the wood entirely. Often it is difficult to keep down the leaves while ~~the~~ you spread the others. Place weights upon them. Cents are the most convenient. They should be often examined lest they mould & rot. Many should not therefore be laid together. When wet they should be placed in dry paper &

the same circumstances the act of drawing but there  
is paper on, and a mass of parchment the opposite  
in order to represent your recovery and that is important  
and that is the subject of the parchment.  
Take your hands, what have been collected within  
knowing them and say them carefully between  
steps of sitting or the room, the copying  
paper, and there a moment might see them.  
Get in a specimen for the parchment the paper  
and on the top of the paper parchment, and in all the  
in compare to parchment as much of the parchment  
highly it is in such a way as to give an  
perfect even of the parchment, and the parchment.  
A specimen the parchment so that every part may  
be seen. Every part be too that cut away  
the water side, and of the parchment be too large  
split up the back & take out the wood entirely.  
Often it is difficult to keep down the parchment.  
What the parchment is the other. The parchment  
upon them. But one the best measurement. The  
should be often examined till they are  
no. They should not be taken in any together. The  
but they should be taken in any paper &

and laid in small a few only laid together with  
small weights. If they lay any time without  
weights they will curl and dry ~~irregularly~~  
roughly. After they are perfectly dry they may be  
quipped on paper or fast to it.

Several Ladies who honored us the  
last season have preserved plants with great  
nicety and we publicly make of acknowledg-  
ments to those who have enriched our Herbarium  
by their presents, which have in some instances  
been very large. We have two collections made  
in Jersey each of which contain upwards of 800  
specimens, not however all of different species  
but of the different stages of the Plant.

Visiting Gardens and collecting plants  
in the fields is of great advantage to those who  
pursue Botany, for nothing is so instructive of exam-  
inations for ones self. You can see of service to you  
in this or in any <sup>other</sup> way command our services freely.

I have been thinking of you very much lately  
 and wondering how you are getting on  
 I hope you are well and happy  
 I have not much news to write at present  
 but I thought I would write a few lines  
 to let you hear from me  
 I am well and hope these few lines  
 will find you the same  
 I have not much news to write at present  
 but I thought I would write a few lines  
 to let you hear from me  
 I am well and hope these few lines  
 will find you the same



*[Faint, illegible handwritten text]*

*[Faint, illegible handwritten text]*

*[Faint, illegible handwritten text]*

*[Faint, illegible handwriting, likely bleed-through from the reverse side of the page.]*

At our next lecture I shall commence the demonstration of the <sup>seeds</sup> seeds, after that we shall show the ~~head~~ head of the Radix or Root then of the Herb or all that part which is above the Root exclusive of the flower, & comprehending <sup>trunk & trunk</sup> the folium or L. The Fulera or P. - & the Hybernacula or W. G. - Then follows the Fructification of that which is concerned in the production of seed usually called the flower &c. &c. and so on.

As Mr Correa will ~~soon~~ <sup>next</sup> commence his course of Bot. Lec<sup>s</sup> on Friday we shall conform ourselves to him & Lectures on Tuesdays Thursdays and Saturdays, in the afternoon at 5 o'clock precisely.

We are sorrow that any Lady should be prevented hearing the lectures from want of company. We intend could wish that every one would feel the same freedom in coming into this room as into church.

