

The History of the Royal Botanic Garden, Edinburgh—The Prestons.

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During the first century in the history of the Royal Botanic Garden, Edinburgh, there were two outstanding men responsible for its welfare, James Sutherland, the first Keeper of the Garden, and Charles Alston, who followed and held office for fifty-five years.

The history of the Garden from its inception in 1670 until the end of Sutherland's tenancy formed the subject of the preceding number of these Notes; and now, before passing to Alston, we have to take further notice of three men already mentioned, William Arthur, and the two Prestons.

Regarding Arthur, who succeeded Sutherland as King's Botanist in 1715, we need say little, for his connection with the Garden was a brief one, and an account of his life has already been published. (2) We would refer the reader to that account, and would merely remark that being an extreme Jacobite he fled from the country after the 1715 rebellion and died in Rome in 1716—"from eating figs."

The Prestons occupy a unique position in our narrative, since neither of them at any time held charge of the Royal Garden. It will be remembered that Sutherland, who had created three gardens within the city, on retirement from his Professorship in the Town's College in 1706, handed over charge of the Physick Garden at Trinity Hospital to Charles Preston, but meanwhile he continued to be King's Botanist and Regius Professor. There were thus two contemporary professors of botany in Edinburgh, each with charge of a separate physic garden. This state of affairs lasted for over thirty years, until George Preston, who had succeeded his brother Charles in 1712, resigned in 1738, when the gardens came again under the control of one person, Charles Alston.

It has been necessary very briefly to recapitulate these facts because the sequence of the early Keepers of the Garden has hitherto been misunderstood and erroneous statements have been made by various writers concerning them. It is now apparent that the Prestons, having held charge of the Town's Garden only, have merely an indirect claim to consideration in connection with the Royal Botanic Garden, but

NOTE :—The numbers in round brackets relate to the bibliographical references. Interpolated remarks are enclosed in square brackets. Except where there is an obvious error, the spelling of the original text is retained.

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none the less they played an important part in the development of the present Garden, so that our story would be incomplete without some reference to them. Accordingly, a chapter is devoted to their activities and, as before, use is made of original documents and literature applicable to the purpose.

Excerpts from some of Charles Preston's letters, which will be of special interest to botanists, are also included.

Charles Preston.

1660-1711.

From the Parish Register of Lasswade in Midlothian we learn that Charles, son of Robert and Margaret Preston, was born on the 12th July, 1660, and moreover that Lord Cardross and Charles Monteath of Randefurd signed the register as witnesses. (45) The Record of Testaments (28-33) enables us to trace his family, showing that Charles was the grandson of John Preston, Kt., 4th of Valleyfield, who had two sons. The elder, George, inherited the title and became 5th of Valleyfield in 1637. The younger, Robert, who was the father of Charles, in 1663 obtained a charter of the lands of Preston, an estate afterwards known as Gorton, delightfully situated on the banks of the North Esk not far from Hawthornden in Midlothian. In 1672 Robert Preston became a senator of the Royal College of Justice and was knighted. Sir Robert was twice married. His first wife bore him two sons, Robert and Arthur. He was married again in 1657 to Margaret Bothwell, and Charles was the second child of this union.

We know nothing of the early life of Charles Preston, but there is little doubt that he was brought up in comfortable surroundings amid a wide circle of family friends.

Our first definite information is of Preston as a young man in his early twenties, when mention is made of his name in Erskine of Carnock's Journal, a work which is a stirring commentary upon life in those troublous times. (16) Erskine of Carnock was the third son of the Lord Cardross to whom we have referred, and he was two years younger than his friend Charles Preston. Destined for the Bar, he studied in Edinburgh—"but laureation was denied him as he refused to take the oath affirming the King's supremacy in ecclesiastical as well as civil matters." Charles' name appears but seldom in the Journal, yet the two men seem to have been close friends, companions on their walks near Edinburgh, and each visiting the other's home. We learn with interest that at the age of twenty-four Charles had already acquired a keenness for the study of plants and that he was at least a casual visitor to the Physic Garden. Several of the entries in the Journal which mention Charles Preston are worth quoting.

"May 8th [1684].—Forenoon, I was in the Physick Garden with Alexander and Charles Preston."

" May 10th.—I went to the Park this morning with Alexander and Charles Preston and Mr. John Magie, that I might learn to know the field herbs. I was with my brother."

" May 15th.—This morning I went to the Park with Charles Preston and John Magie, that I might learn the herbs, and stayed with them till about twelve."

" 12th June.—I dined with my brother. My mother, and my sister Magdalen took horse about 8 at night. Cha. Preston went with her."

" July 30th.—I came from Boquhan to Torrie where was Charles Preston, Miss Mag. Lumsden, and Miss Preston, Valleyfield's daughter."

" August 6th.—I went to the Valleyfield, and from that to Overtoun with Charles Preston, where I saw the men, who were indeed very ill wounded, and very innocently, having only come to the door with their cloaths scarce on, and making no resistance, two of them not being together at that time."

" August 11th.—I took boat this forenoon at Cromy with Charles Preston and my brother William, and came to Blackness, where, in the castle, we did visit Mr. William Erskine, a presbyterian minister who had been a prisoner there a long time, and also the Lady Caldwell, who was prisoner there.

" In the afternoon Charles Preston and I came to Cramond Bridge on foot, where we stayed all night in a smith's house, there being a great rain when we came there."

" Augt. 15th.—I was in company at night with James and Walter Stewarts, Mr. James Stevenson, Robert Park, Mr. Patrick Shiels. I dined in an inn with Mr. Gray, a west country curate, he being with Charles Preston, yet not very willingly, tho' he was very discreet to me and moderate in his discourse in respect of others; but it troubled me when I remembered that David did not so much as (sit) with dissemblers, which I took the most part of them to be."

" Sept. 17th.—The Chancellour went for Drummond early this morning. I was with Alexander and Charles Preston and with Lathallan."

" January 2nd, 1685.—I met with James Lumsden, my cousin, who was lately come from Holland. I was at night with Preston of that ilk, and Alexander and Charles his brothers."

" Jan. 9th.—I was a while with Charles Preston in his mother's."

" Aug. 24th. 1685.—I read upon Durham on the Revelation, wherein I delighted much. My sister Veronica came to see me but stayed not, Charles Preston and his sister Mary, who knew nothing of my being here, waiting for her return. This night my Lady Kincardine came home to the Abbey, having been at the Court at London with her daughter Ochiltree's Lady."

" Sept. 29th.—Mrs. Margaret Ker came from Blackness with her, and Ch. Preston was with her."

" February 15th, 1684.—I was in company with Alexander Preston,

Alexander Colvill, Alexander Stevenson, and Robert Wardlaw, in the gardner's of the herb garden, and drunk some herb ale."

Preston was apparently a student at the University of Edinburgh, and no doubt attended Sutherland's demonstrations at the Physic Garden, but he appears never to have been "laureated," although after returning from abroad he eventually graduated at Aberdeen on the 21st June, 1699. (56)

Since there was no medical school at Edinburgh in Preston's student days, following a common custom, he went to various European centres to pursue his studies. He visited France, Holland and Flanders, and took his doctorate of Medicine at Rheims on the 14th July, 1696. (56) It was in the course of these travels that he came in contact with many of the leading men of science of his day—men like Herman of Leyden and Tournefort in Paris—and then on his way home to Scotland he spent some time in London making the acquaintance of various Fellows of the Royal Society, including Sir Hans Sloane, then its President. His meeting with Sloane led to a long correspondence, so that as many as forty of Preston's letters are preserved in the Sloane manuscripts. Besides those to Sloane himself there are ten others—nine to Petiver and one to Ray; a full list is included among the references. Preston's letters are the chief source of our knowledge of his personality and they cover the period from September, 1697, to January, 1711, that is to say, practically the whole of his professional life. But although the correspondence is of special interest to us, we must admit that it was somewhat one-sided—"I wrote frequently to you sometimes by common post at other times by the Secretary's office, but have never received answer. . . . I am mightily concerned that I cannot hear from you" (77), he writes to Sir Hans Sloane; and to Petiver, "I have wrote very frequently to you but have received no return." (113) Yet Preston, nevertheless, went on writing undaunted, and the "philosophic news" which he sent to Sir Hans Sloane from time to time embraces every aspect of natural history.

Even although his letters say little of his work as superintendent of the Physic Garden (so that from the point of view of the history of the Garden they are of less importance than those of Sutherland), yet they are of value not merely as a personal record but also as an illuminating commentary upon the work and opinions of contemporary botanists.

They present to us a picture of Preston himself as a cultured and scholarly man, an assiduous reader with wide interests devoted first to plants and to medicine, but leaving aside nothing that was new to science or pertained to literature. Besides discussing books, medical topics and plants, he tells us (among other things) of a whale cast up upon the Forth, a rare waterfowl, a swordfish, shells, millepedes from Orkney, fossils, curious stones, Roman medals and other antiquities. "I am mightily pleased with the rare and curious things you give me

account of" (110), he writes to Petiver. And special attention may be drawn to his interesting account of a journey in Italy by Dr. Hay, and to his comments upon Cunningham's description of the Tea plant which he had discovered during his travels in China. (91) Modest in his estimate of himself, Preston as a young man in 1696 writes to Sloane, saying, "Do me that kindness to correct it where it is faulty [his MSS.] and to scrape out what ye think not proper for I am not so much maister of the English language as to do a thing with that exactness that is requisite. Pardon the trouble" (65); and again at later dates, "I wish I may be capable any way to requite your civility and kindness" (71) and "fearing I have too much wearied your patience." (82)

As a botanist Preston was held in high regard by his contemporaries; and the genus *Prestonia* commemorates his name. (7) His conception of a species was obviously a broad one, and it is interesting, because unexpected, to discover that even at this early date he wrote: "I could wish that some of our bottonists had not so great an itch of multiplying severall species that perhaps are not extant in nature: it occasions a great deal of confusion and needless debate which it were easy to evite only by giving in descriptions where they are taken from live plants or from full and compleat specimens." (82)

Ray in his *Methodus Plantarum* refers to him as "eruditissimus vir et curiosissimus stirpium observator." (23, p. 89) He frequently acknowledges his indebtedness to Preston. In his account of *Hermiaria*, a genus about which there had been considerable discussion, after giving the views of other writers, Ray states: "Ex accuratis et saepius iteratis observationibus D. Caroli Preston M.D. Edinburgensis, florem habet quadrifolium, herbaceum, cujus pistillum (ita enim cum D. Tournefort loquitur) in capsulam rotundam, membranaceam striatam abit, fructui lini cathartici similem in 8 loculamenta divisam, in quorum unoquoque continetur unicum parvum ovato-acuminatum semen. Hujus observationibus acquiesco, proinde & plantam ad sequens Genus transferendum censeo." (23, p. 24)

Under *Helleborus* he writes: "Verum eam *Multisiliquam* esse post D. Tournefort à D. Carolo Preston M.D. certior factus sum, qui & fructum ipsum ad me misit, nè ullus superesset dubitandi locus, Utcunque sit, an rectè eam huc retulerim haereo, cum flos stamineus potius esse videatur." (23, p. 77)

Elsewhere he inserts, "(observante D. Carolo Preston)." (23, pp. 20, 84)

Leonard Plukenet, M.D., in his *Opera Omnia Botanica*, under *Ammioides*, writes: "Hujus exemplar optimè exsiccatum acceptum habui à Clariss. viro & in hujusmodi rarioribus indagandis Sagacissimo Exploratore D. D. Carolo Preston. M.D. eruditissimo Scoto." (19) Blair refers to him as "that ingenious and expert Botanist Dr Charles Preston" (3), and later defends his reputation in the following terms:

"Dr Prestone at Edinbrugh, that accurate Botanist, trusting too

much to Tournefort's Account of it [*Herniaria*], (as himself afterwards acknowledges) says [describing *Radiola millegrana* L., which he takes to be Tournefort's plant], 'it has a Quadriphyllous Flower, whole Pistillum, (in Tournefort's Language) becomes a membranous striated Capsula, divided into eight Pouches, like to the *Linum Catharticum*, each containing a small Semen Ovato-acuminatum': For which Dillenius takes him smartly up, charging him with no less than Unskilfulness or Ignorance in Botany¹; which is too severe, considering the small Acquaintance he had of Dr. Prestone's Knowledge that way; and if he had read a Letter writ by the Doctor to Mr. Ray since that time, he would have retracted his former harsh Sentence, and would have found it is the same with his *Radiolus*, as he suspects; for Dr. Prestone's Account of the *Herniaria*, [not *Herniaria*; Preston was here describing *Radiola millegrana* L.] in the forementioned Letter, published by Mr. Derham, among Mr. Rays Posthumous Letters, is thus. . . ." etc. He quotes the appropriate page of the letter printed here in full (p. 86) (3).

Preston, especially interested in books and in manuscripts, in almost every letter mentioned some newly published work. "The *Memoria Balfouriana* will be published this week" (77), he writes on the 23rd May, 1699. Elsewhere he mentions Sutherland's Catalogue and Sir James Balfour's Library. (72) Beyond his letters he wrote little and, as far as I am aware, the only publications he has left are three short medical papers in the *Memoirs of the Royal Society*. (20)

As to physique, Preston in his youth appears to have been energetic and active, and in the period immediately after his return from abroad he made long visits to the country. Writing from Edinburgh, in March, 1698, he says, "I have been in the West country since last January" (73), and again in 1701, "I have been much in the country this last summer." (84) But he lived in times when travelling was difficult, and I suspect that later in life he did not enjoy very robust health and there is no mention of further travels. Certainly after the early years spent abroad and in London he did not leave Scotland again. "I have been somewhat valetudinary for a year past but thank God I am well established in health again," he writes in 1709 (101), two years before his death at the early age of fifty-one.

Preston's position as a rival to Sutherland, and the fact that some time after his return from abroad he was arraigned before the Royal College of Physicians for practising medicine in the city without a licence must to some extent have made his position difficult. That he felt the strain of local disputes and was not altogether happy is evident from a letter to Sir Hans Sloane in which he makes enquiries about

¹ Caeterum videtur nobis Prestonum loco allegato *Radiolae* Nostrae Characterem attribuisse & confudisse cum *Herniaria*, planta vulgaris notitiae; quod de peritia ejus Botanica magnum Testimonium dare non protest. Dillen. Cat. Plant. Sponte circa Gissam nascent, p. 88. [See also (12).]

possible openings in London. "The number of physicians are so multiplied here and their divisions so great that I have but little encouragement to stay among them. . . . I am truly weary of this country there is so much jangling among the physicians qch renders the employment the more contemptible." (90) But this was in 1702 before he was licensed and appointed to the Professorship and we hear no more of this idea. Yet, in spite of these difficulties he apparently contrived successfully to be on friendly terms with his colleagues. Both Sir Robert Sibbald and Sir Alex. Pitcairne were his friends notwithstanding their bitter enmity to each other. Preston had a high opinion of Sibbald while recognising his weaknesses, and Pitcairne he mentions occasionally, in one letter giving a long account of a lecture which he describes as "a very pretty anatomical discourse." (88) Again, from the information that is left to us we can read between the lines that Preston, though an able man, was no great man of business. By failing to obtain a licence to practise medicine in the city he exposed himself to heavy penalties. He was probably not a very busy man. "I have little or nothing at present to acquaint you of from this place." (102) "There is little or nothing of moment passing here at present" (83) he often writes. Unlike Sutherland he had, we gather, little aptitude for the practical side of gardening and, as perhaps was natural, he seems never to have shown the same enthusiasm for the Garden.

At the same time we must not overlook the fact that before he was in any way connected with the Physic Garden, Preston had started a small Botanic Garden of his own. It was in all probability situated at Gorton, near Lasswade. Writing from there to Petiver in September, 1701, he remarks, "I have begun a collection not only of our plantes indigenes but of all others in a little garden I have about 5 miles from Edr. where the plants thrive better and preserve longer then in the physical garden. I have made a pretty good advance allready and shall need your assistance in procuring for me either seeds or plants or both from our good friends and acquaintances. . . ." (108) Ill-health in later life may have dulled his interest in the actual growing of plants, or it may be that he became discouraged by the unhappy situation of the Physic Garden lying in a damp hollow at the eastern end of the Nor' Loch below the towering cliffs of Calton Hill.

To continue the story of Preston's career we must revert now to the summer of 1697, when on his return from abroad he began to practise medicine in the city. It is probable that his practice was merely incidental to other pursuits, but, as we have noted, by practising before he had submitted to their examination he incurred the displeasure of the Royal College of Physicians, who inflicted a heavy fine. The minutes of the meetings contain the following account of the proceedings:

"Edg. Sederunt, 19th June, 1699.—The Qlk day Dr fforrest treasurer haveing made report to the colledge that according to thir order he

had mett with dor. prestonne who givinge noe satisfactorie Ansr as to his subjecting himself to ane examinatne in order to his entrie, The colledge ordaines him to be cited at two a'clock in the afternoon to the 27 instant with continuatne of days." (48)

"Edgr., 27th June, 1699.—The Qlk day Dor. Preston compeared and acknowledged that it is about two years since he came to this towne and that he has severall times practised physick since within the towne of Edgr and liberties therof granted to the Colledge, Therefore ye colledge ordaine him to compear before them upon thursday next at two a'clock in the afternoon and ordained the officer to ceite him for that effect." (49)

"Edgr., 30th June, 1699.—The Qlk day Mr Charles Prestone indweller in Edgr a pretended practitioner of physick ther, was decerned at the instance of Alexr Ross pror ffiscall to pay to Dr James florrest treasurer of the colledge fyve pounds Sterling for his first moneths unwarrantable practising of physick within the ceitie of Edgr and liberties therof wtout license of the colledge in respect he Compeared formerly befor the Colledge and refused to depone upon the lybell, and was thereafter ceited to this day and place and also formerly ceited personally apprehended by the Colledge officer to have compeared and deponed upon the lybell and he not compearing was holden as confest yrupon and decreit pronounced and ordained to be extracted and put in executione against him." (50)

There is a later extract in the minutes which again may refer to this same incident. George Preston had by this time been appointed his brother's executor, and from what follows we may perhaps assume that the fine, although inflicted, was never paid, or at least that Charles had taken other means to adjust the account.

"4th Nov. 1712.—The said day the Colledge haveing Considered that The bond owing to the Colledge by the Deceast Doctor Charles Prestoune cannot be made effectuall, Doe appoynt Dor Smellum and Doctor Drumond to give up to George Prestoune bottenist Intendent of the Physick Garden brother german to the said Doctor Prestoune the forsaid regrat bond with the horning and arrestment yrupon in ye Toun Thessrer of Edgr his hand, Gratis with a Discharge yrof by the present Thessrer in favors of the said George Prestoune and ordain their Clerk to give ane Extract of this act." (55)

It was not until December, 1704, that Preston was duly elected a socius of the College.

"Edgr first December 1704.—The said day Doctor Prestoune, Doctor Pringle and Doctor McKenzie being severally called in were declared Candidats of the Colledge.

"The same day the said Doctor Prestoune, Doctor Pringle and McKenzie being called in seperatly a second tyme were admitted Socii of the Colledge with all the priviledges belonging to the members therof,

and they having subscribed the Promissory Engadgement were ordered to satisfie the Thessrer for their dues as being made Socii of the Colledge.

(signed) HALKET, P.C.R.M.E." (51)

As a Fellow of the Royal College of Physicians Preston's chief activities, as far as we are aware, were in connection with the College Library. Except in the three following excerpts, his name is never mentioned in the Society's minutes again.

"Edgr. 4th of October 1705.—The same day The Colledge ordered Sir Robert Sibbald, Doctor Prestoune Dor Drummond, Doctor Riddell with Doctor Smelholme Thessrer. to revise the books and Rarities of the Colledge, and put them in order, and to make Inventaries of them and by whom they have been gifted with such oyr Regulationes yranent as they shall find expedient.

HALKET, P.C.R.M.E." (52)

"Edgr. 6th December being the first Thursday after St. Andrews' day.—This being the day of the Electione and the Colledge haveing chosen for Counsellors Sir Archibald Stevensone, Sir Robert Sibbald, Doctor Halket, Doctor Eccles, Doctor Dickson, Doctor Olyphant, and Doctor Smelholme The Council reteired to another rounge and Chose Doctor Halket President, Doctor Dickson and Doctor Olyphant Censors Doctor Smelholme Thessrer, Doctor Prestoune Secretary and Library Kepper and continued William Riddell Clerk and Archibald Adamson officer for the ensewing year." (53)

"Edgr. 13th December 1705.—The said day Sir Robert Sibbald, Doc Smelholme, Doctor Riddell and Doctor Lutefoot with the President Censors and Librarie Kepper were appointed Curators and oversiers of the Colledge Librarie ffour with the Librarie Keeper to be a Quorum." (54)

In 1705 Preston proposed Sir Hans Sloane for election as a socius of the College of Physicians and wrote to him: "I had also occasion to meet with some of your well wishers at Edinburgh where we had a kind of remembrance of you and resolved our token into liquor."

Preston's reputation as a botanist was already established when Sutherland resigned from the College professorship in 1706, "resolved to live more retiredly," and it was natural that the Town Council should choose Preston to succeed him. The minute of the appointment has already been quoted. (8, p. 55)

Preston seems to have taken it much as a matter of course, and, writing to Sir Hans Sloane on the 19th January, 1706, he says, "There is little yt occurs here att present," and then in a later paragraph, "Mr James Sutherland being a little superannuat the Surgeon Apothecaries have been pleased to appoint me in his place." (94) Then again on 25th September of the same year he remarks, "I have been very faulty in not writing to you.....The true reason was that I

was a little taken up in ordering the Physick Garden and besides I had a little touch of fever." (95) We may note in passing that Preston actually took over charge of the Garden at the end of 1705 or very early in 1706 (see his letter to Sir Hans Sloane, 86), although his appointment was definitely minuted on 8th May, 1706. (8)

Charles Preston was never a Fellow of the Royal College of Surgeons, but after he had been appointed to the charge of the Town's Physic Garden, following an established precedent, the Deacons sent their apprentices to him. The relative minute of the Society, as far as it can be deciphered, is as follows :

" 8 day of November, 1705.

" Eodem die. The Deacons being [convened] anent the petition [given] in be Charles Preston doctor of Medicine Making mention that for many years past he had applyed himself to the study of Botany both at home and abroad and while he was in [foreign] England and Holland was at great pains and charge in procureing of [seeds] plants and goods from the said Countryes and Sending them to Scotland for purposes . . . of the phisicall garden at Edinburgh. . . . And now Mr James Sutherland professor of Botany [being] not able to attend the Garden and Scholle as formerly And that the said Doctor Charles Preston being willing . . . to prescribe and promote in his power the said Science of Botany and to [teach] ye apprentices and Servants etc yrin after a new and . . . method never taught in Brittain before And yrfore craved the Calling would be pleased. . . . Therefore the Deacon Masters and Brethren of the said [Incorporation] have GRANTED and by their presents GRANTS . . . of the Said petition Nemine Contradicente And have Recalled and hereby recalls the former Act made in favour of the said Mr James Sutherland and ordaines that all ye apprentices and Servants and others who shall be taught and instructed by the said Doctor Charles Prestone in the Said Science of Botany shall at the subject . . . pay a guinea or twenty three shillings and eight pence Sterling to the Thessaur of the Said Incorporation who shall . . . ffor the which cause the Said Doctor Charles Prestone shall be obleidged and by these presents bind and obleige him to own and acknowledge all masters and Brethern of the Said [Incorporation] . . . as his patrons and to attend them on any afternoon in the Garden when they [think fit] and to wait on them at a Solemn publick Herbalizing . . . in the Country . . . " [The rest is illegible.] (57)

About a year after his appointment to the charge of the Town Garden, on 16th May, 1707, the following notice appeared in the Edinburgh Courant: " Doctor Preston teaches his lessons of botany in the Physic Garden at Edinburgh, the months of May, June, July and August 1707. Therefore, all gentlemen and others, who are desirous to learn the said science of botany, may repair to the said garden, where attendance will be given." (14)

From the wording of the above notice it might appear that Preston did not deliver formal lectures as Bower in his History of the University suggests. The manuscript of a course of lectures on botany dated 1736, presumably by George Preston, preserved in the University Library, Edinburgh, shows, however, that by that time formal lectures were actually delivered during the winter, and the custom may well have started even during Sutherland's regime. In the summer, however, "the Garden was kept open for such visitors as were disposed to be instructed, and either the Doctor or his assistants were in attendance to communicate such information as might be required." (5) Bower, whose words have just been quoted, had probably not read the following extracts which record the appointment of the Deacon Masters of the Royal College of Surgeons to attend in the Garden each morning by four of the clock to hand the apprentices back to their work when the morning discourse closed at seven.

"1710, May 18th.—THE WHICH DAY the Deacon Masters and Brethren Being conveyed and takeing to their consideratione ane Petition presented to them by Doctor Charles Prestone MAKEING MENTION that by their act in his favour dated the eight day of November 1705 [57] it was thereby stated and ordained that all prentices and servants or others who should be taught and instructed in the Science of Botany to pay to the petitioner a guinea of gold at subscribeing of their Indentures or booking to the Thesaur. for the said Doctore behoove as also by their other act of the date the 24 of October 1706 [58] It was thereby ordered that after two months from the date of the Indentures every prentice or servant should pay to the said Doctor the above compliment with Certificatione that no masters should be allowed to book any prentice or servant till the said Compliment was payed And subsumeing that the petitioner was sometimes frustrate of his Compliment through the parents of prentices and servants not being in town at their bookings and partly through the fault of the prentices and servants themselves And the time of signing the Indentures betwixt Master and Servant being the only proper and fitt time of their being put in mind of all the dues THEREFORE desireing that the Calling would ordain that in all time Comeing their Clerk to receive the petitioners ordinary dues for prentices and servants or others their entry to the physick Garden at the time of signing of the Indentures be being comptable to the petitioner for the same as the said petition more fully bears. WHICH petition being read heard and considered by the Deacon Masters and brethren forsaide and finding that the knowledge of Botany will tend very much not only to the advantage of the Masters but also to the benefite of all those under their Charge THEREFORE they unanimously granted the desire of the bill Nemine Contradicente And for the said petitioner his farther and better encouragement in the right advising and attending the said Garden they ordain all prentices and servants and all others as have the liberty and priveledge of insight

in their Chopes to pay to the said petitioner at their entry to their service one guinea of gold which is to be payed in to their Clerk at the time of subscribeing of the Indentures betwixt Master and Servant and the Clerk to be comptable therefore to the petitioner And it is hereby recommended to all the Masters to see the said Compliment payed at signing of their Indentures as above that none may pretend Ignorance AND IT is hereby declaired that in case the said Compliment be not payed in to the Clerk at signing of the Indentures as above the Clerk is hereby ordered to keep up the Indentures untill payment be made and this shall be his warrand WHEREUPON this act is made and Subscr." (59)

" 1711, May 17th.—THE WHICH DAY the Deacon Masters &c being conveyed in their Hall and considering that their prentices and Servants when they go to the Phisick Garden to attend Doctor Preston there frequently make long stays from their Masters Chops for remeid whereof the Calling ordained five of the youngest of their brethren To witt Mr John McGill, Robert Geddes, John Lander, Adam Drummond, James Nesbit, with the Deacon to go to the Garden by Turns every morning by four of the clock and dismiss their Servants and prentices att seven and recommend that they go to their Masters Severall Chops and this act to endure all this Season WHEREUPON this act is made and Subscribyed bye." (60)

We have it on record that as early as 1698 Preston was exchanging dried specimens of plants and asking his correspondents for seed for the Physic Garden (75). After he became "Intendant" he seems only occasionally to have made the same request. Many of his later letters, like those of Sutherland, are to friends in London introducing some young apprentice anxious to find work there. One of these (in 1702) he sends by his brother George introducing him to Sir Hans Sloane. (87) Throughout the correspondence Preston has little to say regarding the development of the Garden during his term of office, in this respect differing from Sutherland, who had a good deal to tell us.

Charles Preston was unmarried. He probably lived near the Physic Garden, frugally, alone, and in a very unpretentious style. He died, it would appear, rather suddenly in December 1711, at the age of fifty-one. His whole estate, detailed in the Records of Testaments, comprised only a half-year's salary, £90 Scots, "his whole books and pamphlets valued by Alex. Henderson bookseller in Edinburgh to the sum of £90, 11s. Scots money. Item a press and two trunks very old worth £3 Scots, Item of money that was lying beside the defunct at his death £48 money forsaied," in all £19, 5s. 11d. sterling. (29)

Excerpts from the correspondence of Charles Preston.

CHARLES PRESTON TO SIR HANS SLOANE.

Sir,

Receive enclosed an account of that extraordinary birth mentioned in the progress de la Medicine which ye may peruse at your leisure and if you think it worth while of communicating I give you liberty, but I desire you may do me that kindness to correct it, where it is faulty, and to scrape out what ye think not proper for I am not so much maister of the English language as to do a thing with that exactness that is requisite. Pardon the trouble.

I am, Sir,

Your most humble servant,

CHARLES PRESTON.

Excuse my not attendance upon you this evening. (65)

London, Mar

28, 1696/7.

CHARLES PRESTON TO SIR HANS SLOANE.

[Without date. 1697.]

Sir

Being to send my goods shortly for Scotland, you'll please to send me by the penny post the letter of Osteology by Dr. Verny, the Receipts of poysons with the paper about the use of the ipecacuanha. I do not mind if there be any other thing. I hope you'll excuse this freedom and assure you that if I can serve you in any thing in ye place where I am going you shall find me both willing and ready. I have been extraordinarily obleided to you for your kindness to me in this place, and shall not forget it. I intend to wait upon you att your lodging before I go for I shall not pairt so suddainly myself. I beg pardon for this trouble and rest

Sir

Your most humble
servant

CHARLES PRESTON (106)

The first letter written from Edinburgh is dated 11th September, 1697; an extract from it has been given in our account of Sutherland. (8)

[Undated, but read Oct. 27, 1697.]

Dear Sr.

I received your most Acceptable Letter of the 27 of Sept: with the transaction enclosed, for which I return you my hearty thanks, and am glad this way of transmitting things has proven so effectual, for by this means we can entertain a correspondence the better and transmitt papers or any other occurrences with little or no charge. I was

suspicious the hortus amstelodamensis would not be exact because of the authors, for if I am not mistaken neither [Commelin]¹ nor his son are great witches in bottany. . . . Last week Mr. Sutherland received a stone found on a hill, of the north country called Catterstane Hill shapped as in the fig : A.—form of a little pole axe. It is a thing of antiquity supposed to be one of the sacrificing knyves used of old. I am told they are frequently found in those pairs if you want one for the R. Society, be pleased to let me know and I shall endeavour to procure one.

I have met frequently with Dr. Sibbald and Mr. Martin who informs me he has lately travelled thorough some of the western Isles, as Scay, Lewis, Harys, Hirta and St. Kilda and has made severall curious observations of the natural products of those Isles, but more particularly of St. Kilda which Island it seems is undescribed by Buchanan or any other author it is in the latitude of 58.d & some minutes they have no trade nor communication with any other people save those that come with the Steward once a year. to exact the masters dues. there are about 200 soules upon it : they live upon the product of the Isle. Sea fowl is a great pairt of their dyet and their manner of catching them is pretty odd. Salan geese are there very plantifull. they live regularly without clergy, courts of justice knowled use or desire of money. he is about to give a description of these Isles their manner of government : customs, and what curious observations he has made there wch he is to transmitt to London to have it printed there, & told me a copy should be communicate to you before it were published.²

the auctarium Museii balfouriani, being an account of severall natural curiosities gifted to the biblioteque of Edr by Sr Robert Sibbald will be published shortly, in it there is an account of severall things not described before, and some Ancient Incrptions when the Romans were in this pairt of the Island.

there are two gentlemen here who I think would be good correspondents for you in this place that is Dr Pitcairn a man universally learned, & one Mr John Adair who is general surveyor or geographer here. he has been employed by the publick these 10 or 12 years past for drawing mapps of the severall Shires of this kingdom with ye sea coasts &c : and what is done is very exact, by this he has had the opportunity of travelling allmost all the kingdom over making particular observations of what is remarkable in each shire, and of collecting all natural curiosities, such as fowles, fishes, metalls, minerals, shells, curious stones &c : if you please to write a line to each of them inviting them to a correspondence, enclosed in a letter to me, the same way you sent the transaction, I shall take care to deliver them and endeavour to persuade them, for they want to be spurred up

¹ The relationship between Jan and Caspar Commelin is usually given as uncle and nephew.

² A late voyage to St. Kilda by Martin Martin, London, 1698.

there are a few of us here resolved to meet once a week, to communicate any thing that is curious or remarkable, to keep a correspondence abroad and at home. we have already met, and as any thing occurs that is extraordinary we shall take care to give you an Account.

be pleased to let me know what the Royall Society are doing or any thing that occurs in the state of learning abroad or at home.

my humble service to all the worthy gentlem of the Clubb.

I give you the trouble of the enclosed, when any letters come to your hands directed for me transmitt them the same way you did the transaction enclosed in one letter.

I am

Sir

Your very much obliged

and most humble servant

CHARLES PRESTON : (67)

CHARLES PRESTON TO SIR HANS SLOANE.

Dear Sir,

I wrote to you the beginning of this month or the end of last in ansr. to yours by post but as yet no return. I have sent you a box with such natural curiosities as I have collected since my arrival in this Kingdom, by Mr. Wm. Clerk Chirurgion whom you see last summer att London they set out from the harbour of Leith on Tuesday. He is instant in the evening, and I hope by this time they may be arrived. Amongst the curiosities there is a bottle of the Oyl found in the bottom of St. Katherins well about 3 miles from this place, it is reckoned a great curer of wounds, old aches or pains, itch, and inwardly it is given in colicke by the country people. I referr you to Boetius, Dr. Sibbald and [other] Scots writers for a further account of it : there is also some pitch extracted from Limestone of qch I gave a little account in a former letter. There is also a collection of Mosses that I brought from Holland. I have sent them just as they were collected. I know not if your curiosity ly so much that way therefore you may make Mr. Doddy a sharer with you. this will let you see I have not layd aside my curiosity, but as things fall in my way I shall from time to time transmitt them. Mr. Adair sets out for the western Islands next month, where I doubt not he will make severall new discoveries. I shall take it as a singular favor to let me know what you have been doing this winter, & what late discoveries or new books are come out, or what else is curious. We have been very much obleidged to you for sending the transaction and your other philosophick news and am sorry it should be interrupted, it is the fault of the post masters, if you will give your self the trouble to call for Mr. Hepburn, the gentleman who came up to be cured of his blindness, you'l get notice of him att Watsons coffehous, or Secretary Ogilvies lodging. I know he will prevail with Mr. Baird to take in your letters : and I shall write to Mr. Hepburn anent it. I am sorry to hear of the death of Dr. Bernard

and am told his curious Library are to be sold by auction when the catalogues are printed be pleased to send one. I shall be impatient of a return, you'll be pleased to mind Dr. Sherard, Mr. Doody & any other your correspondents to send a few seeds for our garden at Edr. My hearty service to all the gentlemen of your Clubb.

I am

Sir

Edin. Mar.

17, 1698.

Your most obliged

and humble servant

CHARLES PRESTON. (75)

CHARLES PRESTON TO SIR HANS SLOANE at his lodgings in
Bloomsbury Square, London.

Edinburgh octr. 13

1698.

honrd Sir

I am extreemly to blame for not returning you Ansr to your last before this time but the true reason has been that for most part, I have been in the country, and also delayed untill I should some way or other prevail to get the way of correspondence opened by the secretaries packet which I think is now settled and shall Acquaint you by next how to address. I return you my hearty thanks for the Sax transactions with Turnforts ansr to Mr Ray you were pleased to send by Mr Martin but for the transactions since I have received none the last you sent me being for the month of April, so that I want all come out since. I am hugly in debt to you for them, and shall beg the continuance of the same favor, you are pleased to mention [there] being sent by one hand or other even to this time, pray let me know by whom, that I may call for them, Dr pitcairn did also receive Cesalpini questiones peripalelius for which he intends to thank you by a letter. As for Mr Adair he is not yet returned from his voyage to the western isles, but he is expected here by the end of this month, Mr Martin went in company, so that I doubt not they will return fraughted with a large cargoe of natural curiosities.

As for the memoirs of Sir Andrew Balfour mentioned in Dr Sibbalds auctarium, it is an account of his education and life done by Sir Robert Sibbald. . . .

there has little occurred here of moment since my last, only there happened a caice some time agoe of a boy that after a long voyage att sea was troubled with rheumatick pains, for which he was let blood by a Chirurgeon in toun, about an hour thereafter his blood was found full of Maggots crawling up and down, to confirm the Matter he was blooded a second time, the same animals found, but not in so great a number, that animals have been found in the blood, is not so very common but we have some observations of the like nature.

I hear Madam herman has printed the Doctors paradisus Battavus att Lyden that it consists of 111 new copper plates, & is sold att 6 gilders unbound

I had a letter lately from paris giving me Account that Dr Turnfort was advised his materia medica was printed in Scotland but thereafter he was convinced of the mistake being only Dr Sibbalds auctarium

I have collected some plants for you most pairt native of this country. which I intend to send you by the first occasion.

I have also had occasion to make some few observations on the method of plants which I shall take occasion to acquaint you off afterward. I am in debt to Mr Ray for a letter, pray give him my hearty service & let me know what he is doing and when we may expect his methodus emendata and supplement to his history. I sent him a parcell of ivy specimens att my pairting from England which I intend to bestow upon you or him as you shall have most occasion for them. if you have any spare copys of Dr Turnforts Catalogue of plants aux environs de paris, be pleased to send me a copy for which I shall remain your debtor. I expect to hear from you more frequently.

I am

Sir

my hearty service
to all your clubs

Your most obleided
& obedient servant

CHARLES PRESTON

there is printed here a Catalogue of curious manuscripts belonging to the deceased Sir James Balfour of Kinnaird I shall send you the Catalogue by the next we are att a loss by the want of a Catalogue of Bernards curious library (74)

CHARLES PRESTON TO SIR HANS SLOANE.

Edr. April 29, '99.

Honr'd Sir,

I wrote to you by the common post on the 13 instant in which I told you that I had sent a few specimens of plants with an catalogue of Balfours Library by Dr. Wallace. I have this day received your compliment of Dr. Turnforts histoire des plantes qui naissent aux environs de Paris, for which I return you my hearty thanks and shall remain you debtor. I have here enclosed an account of [a]n old manuscript sent me by the possessor of the Book.willing to sell it. It appears to be curious enough the [gent]leman has a mind to make a tour to Paris shortly and [I be]lieve may pass by London so that he may carry the book [alon]g with him, but in caice he do not pass that way I shall [end]eavour to secure it for you other people here are offering for . . . but they do not come any length. I send also the printed advertisement of Mr. James Sutherland, professor of Bottanie.who designs to publish an account of severall curious

.....ons not yet published. There is a curious inscription in old [ch]aracters upon a gold ring very flexible & something broad. You'll see in the figure, he has several doubles of our Scots coyns if you know any persons that are curious he [is] willing either to exchange them for others or to sell them. [I] have had no transactions since December last. Therefore . . . please to send what is come abroad.

I am

(76)

[The rest is missing and part of the words on the left edge of the sheet are torn off.]

Edin. feb: 15t-1700

honrd Sir

I received yours and am glad the box with the books and other things enclosed are come safe to hand, for I was in some pain about them, as for the price of the books you may easily judge they can amount to no great value and if you please to accept of so small a compliment I shall think them very well bestowed. . . .

Monsr Turnfort goes next Spring to the Levant he is busy about publishing the Latin edition of his *Elemens de bottanique*. Baglivi who dissected Malpighis body has wrote de re Anatomica & of some disease, it is a book in much esteem att paris by the first sure hand I intend to send you a few naturall curiosities.

I am

hon'rd Sir

Your most obleidged

& most humble servant

CHARLES PRESTON (81)

CHARLES PRESTON TO SIR HANS SLOANE.

Edr. Jul: 22, 1701.

Sir,

..... I cannot but return my hearty thanks as well for the transactions as for your other philosophick news they are allwayes most acceptable and refreshing to me. I am sorry to understand Mr. Ray is so much indisposed and afraid it [will] retard his supplement as well as his other works which will be a great loss to the publick, the communication you mention will indeed make his supplement valuable but I could wish that some of our bottonists had not so great an itch of multiplying severall species that perhaps are not extant in nature: it occasions a great deal of confusion and needless debate which it were easy to evite only by giving in descriptions where they are taken from live plants or from full and compleat specimens. Mr. Ray tells me your booksellers scruple to print his *Methodus emendata* fearing it will not turn to account but

in my opinion they may very well venture for such a book will pass everywhere being but of a small volume.

Your discovery of the Cassumuniar [*Zingiber Cassumunar* Roxb.] in the preface to Mr. Browns collection of curios plants is certainly of very great use to the publick good of mankind for by it many poor people may be relieved of severall diseases att cheaper rates than formerly the publishing of such things ought to be encouraged for by so doing the Materia Medica may come to be augmented by a number of more usefull remedies than those we have allready for instance there is lately brought to Lyden in Holland a plant under the name of Armella [*Spilanthes Acmella* L.] from Cylon in the E. Indies which it is said to be a great dissolver of the stone in kidneys and bladder and is approven by Dr. Dakkers and other physicians there. I have seen some accounts of it as also a thesis set out by Braynium Jacobi filium sub praesidio D. Dekkers printed att Leyden anno 1700 De Chrysanthemo bidente Zeylanico Armella dicto [*Spilanthes Acmella* L.] et de radice ginsen sinensium sen nisi Japponensium [*Panax Ginseng* L.] and becaus the subject is new and perhaps the dissertation not come to your hands I have ventured to send you a short abstract of it with Dr. Hiltons account of it qch I gott from a gentleman lately come from Holland.

I am

honored Sir

Your most obleidged and
most humble servant

CHARLES PRESTON (82)

As for the specimens that I left with Mr Ray I freely gift them to you. I give you the trouble of the enclosed to Mr. Ray qch you may please to forward. I send it open that you may have the benefite of perusall.

CHARLES PRESTON TO SIR HANS SLOANE.

Edr. Jan. 13, 1701.

Honrd. Sir,

I long very much to hear from you not having had any letters since the 4th. of Jan. 1700. You have indeed been pleased to favor me with the transactions qch I mentioned to want in qch you have highly obleidged me but there was no letter accompanying any of the packets and the last having come to my brothers hands while I was in the country he broke open the same and lent the transactions to Dr. Sibbald, Pitcairn and some others, so that I can get no perfect account either of the number or for what months were sent qch you'l please to let me know per first. I think I have all those for the year 1699 compleat and the last that I have received is that for the month of January 1700; if there were any letter sent I do not know: by this you may see how farr behind we are as to the matter of philosophick news when

you send are pleased to send me what is wanting of the year 1700 let me know by a line both as to the number and for what months and send the packet so as it may not be opened. I have been much in the country this last summer so not having the opportunity of conveying letters any sure way made me forbear writing. By the enclosed you'll find how I have been employed. Amongst other things in my travels I found frequently all along the moor grounds a sort of excrescence growing upon the leaves of the *Salix humilis repens* [galls produced by some dipterous insect, possibly *Cecidomyia* sp.]. This excrescence is in form round like a berry of a reddish colour without, hollow within, and in each of the cavities there is contained an insect like a worm. Now whether to think the excrescence is produced by an insect having layed its eggs on the leaves of this plant and being there hatched doth convert the nurishment of the plant into that kind substance whereof it frames to it self a domicil as the grana kermes on the flox aculeata cocciglandifera or to think that it is produced from a disease of the plant viz. from an obstruction of some of the vessells that carry the succus nutritius for nurishment of the plant or from its being depraved or vitial or both a farder time and repeated observations must discover.

I met also with the fungi caliciformes seminiferi monti: pug: Ray. Sern: fungoides fundib . . . semine fert. Turnef. inst. Rei he . . . pag. 560 [probably *Cyathus vernicosus* DC.]. This . . . cupps are of a thinn membranaceous substance of a brunish colour in form of little cupps somewhat bigger than those of ruscus pexidacius [*Cladonia pyxidata* Hoffm.] containing within them several flat hard and round seeds lying close upon one another [probably *Nidularia*]. I am told also they have an kind of operculum (qch I did not see) that soon falls off, they have no pedicule but a little round root they are orderly found amongst the corns and sometimes in gardens they pass amongst the country people under the name of Dearth-cupps and the common tradition is that they are only found in years of scarcity or dearth and for every seed that is found within one of the cups the corns shall be sold att so many pounds Scots per boll that year. this I take for a meer fable.

In the month of October last I had occasion to see a collection of dried plants in the hands of one Mr. Martin living at St. Andrews: they are a collection consisting of five or six books or quires of large paper of plants collected in the garden of Padua and feilds thereabout in the year 1668 by one Dr. Borwick: they are not neatly enough pasted on the leaves of the paper most of them without names but there is a written catalogue along with them of the garden so that they may be easily found out: the gentleman has no knowled . . . of plants but they fell accidently in his hands with the doctor's books & other curiosities: if you are curious of them be pleased to let me know and I shall write him word to know what value he puts upon them.

I observed also the same kind of excrescence as above mentioned even upon the leaves of the common *Salix* but more whitish and hoary whereas the oyr. is smooth is each of ye cavities there was an insect as in the former [possibly *Cecidomyia* sp.].

I give you the trouble of the enclosed qch after perusal you'll please to forward not knowing if Mr. Ray be still att the same place. I have ordered him to deliver you the specimens of dried plants I left with him at my departing from England qch I freely leave to your disposal. I have enclosed the list that you may know what they are. Let me have a line from you per first with an account of your philosophick news, books & what else is curious.

I am,

hon'ed Sir

Your most obleidged

very humble servant

CHARLES PRESTON. (84)

Direct for me at George Preston Apothecary in Edinr.

DR. PRESTON TO MR. RAY.

Edinburgh.

1701, Jan. 13.

Sir,

Since my Arrival in Scotland I have been so much diverted by Business, that I have got but little spare Time to mind any thing of Curiosity, (save this last Summer that I made some few Observations on Plants) which has been the Occasion of my long Silence. Besides, I cou'd not perform my Promise in giving you the Synonyme of such Plants as were enter'd in the *Elementa Bot.* under a new Name, and as Nondescripts, and yet were old Plants; for I wanted the *Elementa Bot.* And having Advice from Paris of his [Tournefort's] publishing the Latin Edition with all Expedition, made me something remiss; for I knew he would save us that Trouble: Therefore I hope you will excuse my Silence, and I shall recompense it by transmitting to you from time to time such Observations as I had Occasion to make. I do not propose any Order or Method in doing it, but give them you, such as they are, as they come to hand. I confess Tournefort in his *Elem. Bot.* hath treated both you and my Countreyman Morison very indiscreetly,¹ for which I did reprove him while at Paris, and desired

¹ The passage to which Preston particularly refers is the following:

"On ne sauroit assez louer cet auteur; mais il semble qu'il se loue lui-même un peu trop: car bien loin de se contenter de la gloire d'avoir executé une partie du plus beau projet que l'on ait jamais fait en Botanique, il ose comparer ses découvertes à celles de Cristosle Colomb, & sans parler de Gesner, de Cesalpin, ni de Columna, il assure en plusieurs endroits de ses ouvrages, qu'il n'a rien appris que de la nature même. On l'auroit peut-être crû sur sa parole, s'il n'avoit pris la peine de transcrire des pages entières de ces deux derniers auteurs; ce qui

him to correct that, as well as other things, in the Latin Edition, which he promis'd to do ; and accordingly I find all along in his Characters he has omitted what he said in the other Edition against you. In this Latin Edition he gives a very good Account of the Rise and Progress of Botany, and of the several Writers thereof, from Hippocrates's Time to our Days ; among whom Gesner, Caesalpinus, and Fabius Columna, were the first who layed down any solid and rational Principles of Method, and for constituting the Genders of Plants ; and as Turnefort says very well, Instit. Rei Herbariae. Ea; ; in tenebris adhuc jaceret nisi Robertus Morisonus Scotus cam quasi ab herbariis abalienatum renovasset instaurasset & primus ad usus quotidianos adjunxisset. After him you have been the great Restorer of Method, and Ornament of Botany by your several learned Writings. Dr. Herman, whose Memory is to be lamented, was a great Promoter and Follower of the same Method, and designed to publish a short Compend of it for the Use of his Scholars, if an untimely Death had not prevented him, as may be seen in the Flora Batava non edita. Rivinus has a singular Method, and establishes the Character from the Number of Petala in a Flower. Last of all is Tournefort, who finding so many learned Men had writ before him, and that he could not propose to make great Advances in following the same Method ; therefore, to gain a Name to himself, he thought on this new Method, of classing the Plants by their Similitude in Flowers, and distinguishing them into several Genus's by their Seeds and Seed-Vessels, not knowing whether the Method would take or not : But it is no more than the other Method inverted ; and since he has once published it, he is obliged to maintain and defend it whatever Inconsistencies there may be in it. Tournefort indeed is a most indefatigable and nice Observer of Nature ; but I do not think that either his Method is to be accounted the best, or only infallible : For it may be made appear, that his Method is as liable to Objections, and he as subject to Mistakes, as others. We are certainly obliged to the Writings of those learned Men, and every one of them deserveth just Praises ; but I think it may be done without detracting from the Merit of others. I confess I judge it a very difficult Matter to lay down such Principles of Method as will comprehend even the

fait voir que leurs ouvrages lui étoient assez familiers. Monsieur Rai sans faire tant de bruit a beaucoup mieux réussi que Morison. . . ." (26)

But there are other passages also in Tournefort's introduction which cast aspersion on the writings both of Ray and of Morison, while throughout the book his descriptions of genera are very frequently annotated with observations on the work of his English and Scottish contemporaries. His remarks have the semblance of having been cast in sarcastic vein. The following, selected at random, concerning the genus *Ruta* is typical of many others.

"Morison veut qu'il soit essentiel aux plantes de ce genre de sentir mauvais, & d'avoir les feuilles rangées par paires sur une côte terminée par une feuille en trois ou a plusieurs pieces. Mr. Rai ajoute à ces marques les feuilles de couleur de vert de mer, mais il semble que la structure de la fleur, & du fruit de la Rue distingue suffisamment ce genre de tout autre." (26). J. M. C.

Species of Plants already known, and far less those that are yet undiscovered, or that will not be subject to change, or admit of Alteration ; for I find by the few Observations that I made this Year, that a Plant must be viewed in all the Seasons of it before one can venture to give a true and exact Character of it : And it is not one single Observation that is sufficient to constitute the Character of a Plant, for that may escape our Sight or Memory at one time, which we may discover at another. Besides a Plant appears under several Disguises or Shapes before its Fruit come to Maturity ; therefore it must be from repeated Observations in all the Seasons of it, for I have found, that after having viewed a Plant with all the Niceness and Exactness imaginable at one Season, yet on a second Review I have been oblig'd to alter my Thoughts ; for instance, in the *Herniaria*. Neither is it to be thought that Botany alone is come to that height of Perfection, as to need no Help or Correction, or that it is less capable of Improvement than other Sciences are ; for how many new Species have been discover'd of late Years both in East and West-Indies never known in the World before, and how many lie hid to this Day. Has not Botany made more Advances, and is more improved in our Days by the several learned Men and Writers thereof, than for some Ages past ; and I think we owe no less Obligation to the Revivers and Restorers of Method, than to the first Inventor. Anatomy is a Science which it's thought might have come to its height of Perfection long ago, by the many and frequent Dissections on human Bodies of learned and curious Men ; and yet we find several Things have escaped even the Knife of the most curious Dissectors for some Ages past, and are only discover'd in our Days. So it is as to Botany.

Now, Sir, I shall subjoin a few of these Observations that I have had Occasion to make : And first I begin with some of those in the former Queries, where Answers were not so distinct or positive, or where I have since found my self to have been in an Error.

Alsine Scandens Baccifera C. B. P. [*Cucubalus baccifer* L.]¹ *Cucubalum* Plin. Lugd. Turnef. has a Pentapetalous Flower, flore caryophyllo petalis bifidis calice pelviformi vel instar *Lychnidis* cujus pistillus mutatur in baccam vel capsulam ovalem femina plurima Reniformia Placentae adherentia continentem. The Reason it appears to be capsular, because it is not juicy. Turnf. Inst. R. H. places it inter Herbas flore Caryophyllio cujus pistillum abit in fructum after *Lychnidis* Species, and nearest to the *Lini* Species : By reason of the Flower and Calix, it is well enough placed, but by the Fruit it ought rather to be placed amongst the Bacciferous Plants.

Pimpinella Sanguisorba minor laevis C. B. P. [*Poterium Sanguisorba* Linn.] has a Monopetalous Flower, divided into four Segments ad Centrum usq ; whose Calix becomes a Quadrangular Capsule, in which

¹ Preston's description is accurate. The plant figured by Tournefort may be something different.

are ordinarily contained two oval Seeds, or Kernels, sharp at one End. Turnef. in his Elem. Bot. gave them Flores Pelviformes; but in his Inst. R. H. places them inter Herbas flore monopetalo rosato cujus calix abit in fructum after Moschatellina, [*Adoxa moschatellina* L.] and I think very improperly; for the Fruit of Moschatellina is reckon'd Bacciferous: But I could never as yet find the Fruit come to any Perfection. There are several of the Pimpinellae Species that seldom come to Maturity; therefore it is difficult to make Observations on them to purpose.

Ageratum vulg. foliis serratis [*Achillea Ageratum* Linn.] I find constantly, with a radiat Flower, and is so placed by Turnef. Inst. R. Herb. so that he has corrected himself in this Particular.

I have been mistaken in my former Account I gave you of *Herniaria*, following too much the Faith of Dr. Turnefort, not having examined it nicely enough my self: Therefore what I have discov'd since is as follows. *Herniaria*¹ Ger. J. B. has a tetrapetalous and herbaceous Flower, whose Pistill becomes a round membranoidous carinulate, or striat Capsule, like the Fruit of the *Linum Catharticum*, divided into eight Loculaments, in each of which is contained one small Seed Ovato-acuminatum. Besides the four herbaceous Petala, that are green without and white within: It has also several Stamina; but those Petala never become the Involucra Seminis. This is what I have found on repeated Observations. Turnef. Inst. R. H. places it [*Herniaria*] inter herbas flore stamineo cujus pistillum abit in semen calice obvolutum; and in the particular Note says, Quoad pistillum deinde abit in semen in capsula oblonga & striata, quae calix floris fuit, reconditum. But this Plant [*Radiola*] cannot properly be called Stamineous; for the Petala, or Calix, never become the Capsule, or Involucra Seminis; but they have a distinct thin membranaceous Capsule, as above described. You have also given it a Stamineous Flower, [Ray's plant is *Herniaria ciliata* Bab. (teste Druce)] consisting of four Herbaceous Petala, and placed it amongst the Polygonums; but whether it can be properly called Stamineous for the Reasons above, I leave it for you to determine.²

Quaere if *Herniaria* Ger. J. B. [*Herniaria glabra* Gerrard] (Pag. 69 Synopseos) be a distinct Genus from *Millegrana minima* Ger. [*Radiola millegrana* L.]. (Syn. pag. 207.) The last is placed amongst the Vascuiferous Plants, with a Pentapetalous Flower; but more particularly amongst the Alsines Species Anomalaе flore tetrapetalo. This Note seems to agree even to the *Herniaria* Ger. J. B. in that it is vascuiferous, and has a Tetrapetalous Flower; the other placed amongst the Poly-

¹ See note on pages 67 and 68.

² Tournefort's plant was *Herniaria ciliata* Gerrard. *Herniaria* never occurs in Scotland except as an alien. Preston saw and described *Radiola millegrana*, which can be found near Edinburgh and was probably more common in his day. Ray's plant [teste Druce] is *Herniaria ciliata* Bab. It is not surprising, therefore, that there should be disagreement.

gonums, and you have given it a Stamineous, but Tetrapetalous Flower : So that they seem not much to differ in Flower. The Reason of my Query is, because in all those I had occasion to meet with, both in Ericetis, on Lee-grounds, and in Corn-fields, I could never observe any Difference in the Characteristick, but only as to the Growth. I shall not question but there may be two distinct Genus's under that Name, but I should be glad to know if it is of your own Observation.

Eruca maritima Anglica siliqua fungosa Morisoni [*Cakile maritima* Scop.], plantae genus flore & calice tetrapetalo, cujus pistillus mutatur in fructum oblongum fungosum geniculatum & in duas capsulas divisum in quibus singulis unicum continetur semen oblongum. Turnef. Inst. R. H. pag. 212. makes this Plant a Species Crambes, under the Name of *Crambe maritima* foliis *Eruc.* Latoribus fructu hastiformi; but it does not agree to the Character of *Crambe*; ¹ and therefore I think Dr. Herman was rather in the right, who says it has capsulam Dyspermam.

Anthyllis maritima lentifolia [*Arenaria peploides* Linn.] C. B. P. is placed in your Syn. amongst the Pentapetalous and Vasculiferous Plants, next to the Alsines Species, and I think with very good Reason; ² for by observing the Plant, I find it to have a Pentapetalous Flower, and Calix petalis ut plurimum bifidis cujus pistillus mutatur in capsulam subrotundam & acuminatam in cujus cavitate semina plurima rotunda & alba continentur, so that it may very well enter that Tribe. I cannot find where Turnef. has placed it, except it be under the Name of *Alsine maritima* supina villosa foliis lanceolatis in appendic. Inst. R. H. pag. 665.³

Equisetum foetidum sub aquis repens [*Chara vulgaris* Linn.]. As for the Flowers of this Plant, I could never observe it with any, sed semina profert rotunda, ad singulos nodos foliolis adherentia, foliis rigidis & asperioribus & brevioribus, odor gravis.

Equisetum non foetens sub aquis repens. [Probably *Nitella* sp.] Caules emittit graciles glabros, intus cavos & fucco viridi repletos, ad singulos nodos etiam semina profert minuta rotunda foliolis adhaerentia, eodem modo ut in altera specie quae foetida est.

Equiseti foetidi sub aquis repens secunda Species. [Probably another variety of *Chara vulgaris* L.] This Plant has Longer, more slender, and smaller Leaves than the former, ad Spithamae unius longitudinem crescentia, more greenish, & non tam rigida ut in altera specie, sed semina profert minuta rotunda rubescentia ad singulos nodos foliolis adhaerentia ut in priori specie, odor gravissimum. I know not if these two last Species be described.

Kali spinosum cochleatum [*Salsola Kali* Linn.], plantae genus flore stamineo vel apetalo, cujus calix e 5 foliis acuminatis componitur, quae simul juncta capsulam constituunt quasi echinatum, in qua

¹ Preston is right.

² Yes.

³ It cannot have been placed here. *Arenaria peploides* L. is quite glabrous.

unicum continetur semen subrotundum spirae in modum convolutum vel cochleae ad instar. Turnef. Inst. R. H. pag. 247. places this Plant inter herbas flore rosaceo cujus pistillum aut calix abit in fructum unicuscularem : After the Junci Species, and next the Telephii Species, in the particular Note he says, Quod pistillum deinde abit in fructum fere globosum membranaceum singulari semine foetum, cochleae ad instar intorto & plerumque petalis florum obvolutum. On very strict Observation in all the Seasons of it, I could never discover any Petala, but only Stamina ; so that I see no Reason for your giving it a rosaceous Flower, except one would take those Echinac Leaves of the Calix for the Petala of the Flower, which I think scarce any Botanist would do ; and if it were so, it would be still a Stamineous Flower, even according to his own Sense of Stamineous, if the Petala become the Involucra Seminis, as he says they do for the most part in this. [Preston's contention is valid as far as it goes.] In his Elem Bot. he has given it also a rosaceous Flower, but wanting a Calix, whose Pistill becomes a round and membranaceous Fruit, in which one Seed is contained Spirae in modum convolutum ; but neither of these Characters agrees to this Plant : For I found it constantly as above described. So that Tournefort must either be very far mistaken, or the Plant must vary in different Places.

Kali minus album semine splendente C. B. P. [*Suaeda maritima* Dum.] has a Stamineous Flower, whose Calix consists of five Leaves and together compose a round Capsule, in which one round and shining Seed is contained. You have placed it amongst the Blita, but it does not agree to Turnefort's Character of the Blita. [? A plant with three stamens.] He has excluded it from the Kali Specie, but where he has reduc'd it I cannot find.

Lichen vulg. [*Cladonia* sp.] I could never observe it to have any Flower, but there arises from the middle of the Leaves a long, slender, and white Pedicule, aliquando ad digiti unius longitudinem assurgens. It is hollow and pellucid ; on the top of which there is a round black Head, or Capsule, fitted with a farinaceous and greenish Substance, quod revera locum seminis supplet ; or the Seed it self, as observ'd by Turnefort with the help of a Microscope, and is subrotunda. This Capsule being so very slender, soon opens, or breaks, by the Heat of the Sun, and then it appears of the Figure as in Turnefort's Character, but is constantly round, (ante rupturam) so that it would appear Turnefort has not observed them [probably *Cladonia* sp.] in all Seasons : For early in the Spring it is easy to observe them as above described, but they are not able to endure Heat, and so quickly vanish.

Alsine rotundifol. seu Portulaca aq. minima Serpyllifol. [Probably *Montia fontana* L.] This Plant was past the Flower : The Pistill of it becomes a round Capsule opening into two Parts, horizontaliter, & pyxidis in modum, in whose Cavity are contained many round and small Seeds. Calix tetrapetalus. It riseth about an Inch high ; the

Leaves resemble those of *Serpyllum* vulg. [*Thymus serpyllum* L.] and the Capsules those of *Anagallis* fl. Phoeniceo [*Anagallis arvensis* L.], but differs in this from *Anagallis*, quod capsulae in alis foliorum propositae sunt & pediculis carent.

Asphodelus palustris Scoticus minimus [*Narthecium ossifragum* Huds.], plantae genus flore hexapetalo rosaceo, calice carente, cujus pistillum mutatur in capsulam oblongam acuminatam & in 3 loculamenta divisam, in quibus singulis semina plurima continentur aristata. You have placed in inter bulbosis affines, without any particular Note of Flower or Seed-Vessel. Where Turnefort has classed it I cannot find, for his Book is deficient in a good Index.

This Letter being sufficiently charged I shall reserve what other Observations I have made till another occasion. I doubt not but your Supplement to your History will be near compleated by this time; and as for your Methodus Emendata it is what I shall expect with impatience. (11)

CHARLES PRESTON TO JAMES PETIVER.

Gortown, Sept. 8, 1701.

Recd. Sept. 15.

Sir,

I have read over your century with very great pleasure and satisfaction especially to find such a curious collection of new and uncommon plants Insects &c. collected from so many different countries, which truly convince me, that there is no end of Knowledge, and that we know but the scurf or outside of things. As for no. 742 [*Asplenium septentrionale* Hoffm.] I have found it not only on the rocks of Edinburgh park, but in severall other places, as some years ago on a rock near to Neidpathcastle on the water of Linn in tweeddale shire, as also this same year on Braidscraiggs within two miles of Edinburgh in great plenty from whence I have collected a number of fair specimens for you, and to the best of my memory I have also observed it somewhere in France, whether on the rocks at Fountain-Bleau, I cannot be positive until I look over my notes.

I find also you have taken the same freedom of Dr. Turnefort in baptizing your plants after the names of your friends and benefactors (which is not amiss) but with this difference that where Turnefort baptizes a new genus after his he orderly gives the character whereby to distinguish it from other genus's but you are pleased only to give us the bare names and leave us to seek for the character some where else. As for instance how is it possible for me or any man else, who has not seen these plants or specimens to distinguish *Lewisanus capensis* foliis capillareis [*Leucadendron levisanum* Berg. ?] from other capillareous plants that grow in that same country, or even in other

places without some particular character. You have also given the name of *Lewisanus* to another plant of that same country with juniper leaves. Now Sir since there is such a disagreement in the . . . of these two plants it must certainly be some other pairt of the plant that must entitle them to the name of *Lewisanus* viz: the flower or fruit or both and yet there is no mention of either, The same thing is to be said about *Randalia* [*Eriocaulon* sp.] no. 796. You have been a little more particular in *Uvedalia spinosa* [*Osteospermum spinosum* L. ?] in calling it a bacciferous *Chrysanthemum*, qch I understand better but is not fully satisfying and appears to be inconsistent with the character of a *chrysanthemum* for a *chrysanthemum* has a compound radiat flower, *cujus discus e pluribus flosculis, corona vero e semiflosculis componitur, post singulos tamen aequuntur semina solida angulosa et striata calix inbricatus*, your plant being bacciferous has a quite different character therefore I would without any scruple reduce it to the bacciferous tribe and make a new genus of it under what name you please.

I have also read over Mr. Browne collection of curious plants published by you in the transactions of the Royall Society and find that his descriptions are but lame and imperfect for most of what he sayes is upon their virtues therefore I judge it very different on such lame descriptions to reduce them to any certain tribe. Your remarks indeed are curious, and you have been att great pains to give them truer names and more exact descriptions and in severall places to correct Doctor Plucknet, but I must beg leave to say you are a little too hard upon the Doctor, for how easy is it even for the best bottanist to be mistaken or fall into an error, in the description of a plant from a dry and imperfect specimen, considering the difficulty in giving exact descriptions even from live plants and farr more from dryed specimens, for it is well enough known to any bottanist that a plant appears under severall disguises or shapes before its fruit come to maturity and according to the season that a plant is collected in, so the specimen will appear, and a dryed specimen even of the leaves flowers and fruit of the same plant has a very different aspect from what it had while growing and we cannot but acknowledge that our modern bottanists and amongst them some of the nicest observers of nature have even fallen into several errors and mistakes as well as the Ancients which no doubt they will acknowledge and correct on more strict and after observations as we find by daily experience, so that if it happens the Dr. committ a little escape now and then, it is no great marvail since he took the figures from such specimens as he received, and no doubt you must do the same; and perhaps if both of you were on the place where these plants grow would alter your minds. I confess there is more to be said for the descriptions of those whereof you raised plants in England, but even in that same caice it must be acknowledged that the difference of climate makes a great alteration and besides it is not

one single observation that is sufficient to constitute the character of a plant but it must be from repeated observations in all the seasons of it. Dr. Plucknet I think deserves very well of the publick for what improvements he has made in bottany, and I beleive he has been very luckky in lighting upon right names and for his figures I take them to be pretty exact conform to his specimens which I had opportunity sometimes with the Dr. to compare with the originals while att London. I shall not say but he be guilty of many mistakes and therefore I think the better way were to assist him with more full and compleat specimens which he and enabled to correct himself.

You see Sir I use a great deal of freedom with you which I do in the first place for my instruction, and in the next place for promoting a good correspondence amongst the lovers of Bottany therefore I hope you'll excuse me and assure you that I will take it very kindly you use the same freedom with me whenever occasion offers.

I find by the postscript (sic) of your century that you continue still to encrease your Museyum by vast acquisitions of all natural curiosities from his severall pairts of the world and amongst others I intend to contribute my mites sending you a few specimens of plants that I have collected for you from our physical garden and the feilds qch I shall take care to trans[mit] to you by some convenient hand.

I have begun a collection not only of our plantes indigenes but of all others in a little garden I have about 5 miles from Edr. where the plants thrive better and preserve longer then in the physical garden. I have made a pretty good advance already and shall need your assistance in procuring for me either seeds or plants or both from our good friends and acquaintances in England and particularly Dr. U Veedale Mr. Doody and Mr. Ad..... to whom give my them in particular so soon as I can get a few seeds collected for them. I hear that Dr. Sherard is settled at Badmington with the Dutchess of Beaufort where there is a fine garden and a good collection of plants. I shou'd be glad of his correspondence which you can easily bring about.

I wrote to Dr. Holton of Leyden about the beginning of last month with a freeind of mine whose return I daily expect with a parcell of seeds and some specimens of the Armella [*Spilanthes acmella* L.], whenever they come to my hands you may be assured I will make my freinds in England sharers. I cannot tell what to say of Mr. Doody for let me write never so many letters to him I can never get a return. Pray let me know whether he is dead or alive & if alive if he is going on with his history of mosses. I remember to have lent him a Catalo[gue of] the mosses that grow in Holland which I got from Dr. Herman pray be so kind as to get me either my own Catalogue or a double of it qch you may send by your first conveniency. Just as I was writing this I received one from Dr. Sloane who gives me a little account of Dampier's voyage and of Turnforts intending a long voyage. Pray

give my humble service to the Doctor and tell him I shall write to him so soon as I receive the packet of transactions mentioned in his letter but you may please to acquaint him that I am still wanting two of the year 1700 viz: february and march qch he may please to send along with this years.

I am your assured freind and most humble servant

CHARLES PRESTON. (108)

My humble service to all our bottanick freinds.

I am just now collecting some specimens for you in the country.

Direct for me at Mr. Prestons an Apothecary in Edinburgh.

Please to give all your bottanick news and let me know what is become of Mr. Captain Halton and Mr. Dubois to whom to give my service in particular, Mr. Clerk was here with me t'other day and told me he had sent you a of butterflies and was preparing another.

CHARLES PRESTON TO J. PETIVER.

Sir,

Yr not returning an Ansr. to my last makes me conjecture you are angry with me for my freedom qch I hope you'll excuse. . . .

Sir your most obleidged

humble servant

CHARLES PRESTON (109)

Edr. March 3d

1702.

CHARLES PRESTON TO SIR HANS SLOANE.

Edn. May 2d. 1702.

Honr'd Sir,

..... I have obeyed your commands in presenting your service to Mr. Sutherland who thinks himself thereby very much obleidged to you and gives his humble service to you and desired me to acquaint you that Charleton and he have corresponded of a long time about ancient coyns and collected for each other such duplicates as they could procure, and if your curiosity ly that way he will be most ready to obey your commands of qch you may acquaint me per next.

I shipped aboard the John of Leith John Spence master an box directed for you whereof a bill of loading is here enclosed.

I have also sent a few specimens of dried plants for you and Mr. Pettiver and . . . amongst them are about 70 different sorts of mosses some qereof I have ventured to adject names to only att random having collected them in the country where I had not the assistance of any book but Turneforts Catalogue des plantes & therefore you'll please to communicat them to Mr. Ray that we may get their proper names and what I light upon afterwards shall also be sent.

I had a letter the beginning of this month from Dr. Holton of Leyden with a small packet of seeds so small that they will not divide. He tells me he had letters from Versailles dated 15 of February last giving account of Monsr. Turnefort that he had wrote from Erzeron on the Euphrates the 11 of Sepr. 1701 when he had collected the seeds of 300 plants not described amongst them are 30 kinds of Astragalus and 10 of Tragacantha, that they had viewed all the coasts of the black sea as far as Trebisonda, that they had been at Tefflis Eriban and upon the Mountains of Ararat in Persia, that they had then a design to pass att Tarat from that to Angora and Brouse to visit the Mount of Olympus and from thence to Constantinople from whence to Beleitses, he is on his journey homeward, he gives me also an account that Mr. Rayes Methodus emendata is in the press

I am

honrd. Sir

Your most obleidged

most humble servant

CHARLES PRESTON. (85)

CHARLES PRESTON TO SIR HANS SLOANE.

Honr'd Sir,

I have sent you by the bearer a little box with some of the powder gathered from the *Musculus clavatus* [*Lycopodium clavatum* L.] qch I take to be the seed it is something of the colour of sulphur and when held to a burning candle it sparkles as gunpowder & is very inflammable there is great quantities of it gathered in the hillands where they make use of it to kindle their tobacco when we can get any quantity together we intend to make an chymicall Analysis of it, it seems to partake both of sulphur & nitre.

The bearer hereof being my brother you'l please to give him your advice in what he shall propose anent the buying of ye Casumuniar & some other drugs &c.

I long much to hear from you qch is all in haist from

honr'd Sir

Yr. most obleidged

& humble Servant

CHARLES PRESTON. (88)

Edr. Decr. 22

1702.

CHARLES PRESTON TO SIR HANS SLOANE.

Honr'd Sir,

Sir you have done me so many favors for qch I am singularly obleided to you att present I must use a little freedom with you on an affair I have wrote of to Dr. Hulton his maties. physician the number of physicians are so multiplid here and their divisions so great and mind nothing but self-interest so that I have but little encouragement to stay amongst them therefore if you can propose anything for me I should be extremely obleided to you. I have wrote to Dr. Hulton to get me into the establishment as one of the physicians in the K's hospitalls abroad therefore you'll de me the kindness to meet with the Doctor and to concurr with him in yt. or any thing else you can project for me for I am truly weary of this country there is so much jangling amongst the physicians qch renders the employment the more contemptible, a word from the D: of Ormond might do me a great kindness. However I leave all to yr. own conduct expecting to hear from you I am in all sincerity

honr'd Sir

yr. most obleided &

most humble servant

CHARLES PRESTON. (90)

Edr. March 10,

1702.

You'll please to favor me with yr. philosophick news.

CHARLES PRESTON TO SIR HANS SLOANE.

Honr'd Sir,

..... I am extreemly obleided for the favor of the transactions as also for Mr. Ray's book the transactions contain a great many very usefull & curious observations amongst them Sir John Floyers on the different tasts of plants is very usefull and ought to be improven as well as the chymical analysis for the more perfect and exact discovery of the vertues of simples and this same year in the month of March I had occasion to make a few observations of ye like nature in taking up the roots of some plants, e.g. *Imperatoria* [*Peucedenum Ostruthium* Koch] yielded a yellowish juice something oily and of a very bitter and hot taste. *Asarum* [*Asarum europaeum* L.] a bitter and nauseous taste, but a fragrant smell. *Draco herba* [*Calamus Draco* L.] a hot aromattick taste as also an aromattick smell something like that of gum storax [from *Liquidamber orientalis* Mill.] *Angelica saliva* [*Archangelica officinalis* Hoffm.] a milky juice but the old roots a somewhat yellowish, hot and bitter but more aromattick then that of *Imperatoria* [*Peucedenum Ostruthium* Koch] *Rhubarbarum*

anglicum [*Rheum Raphonticum* L.] a clear sort of gum without taste : *Rhodia radix* [*Sedum Rhodiola* DC.] little or no taste but smelled sweetly of a rose and that qch. is something remarkable in the root after it had leyn a month or six weeks on my chamber floor and (as I thought) was sufficiently dried so as to make powder of begun to put forth leaves about the latter end of April & so continued all summer over altho lying on my chamver window. Mr. James Cuningham has given a very good account of his voyage to China and of the Island of Chusan where it seems he is now settled and I am glad that one so well known in natural history is settled in that pairt of ye world. His account of the Tea is something agreeable to Dr. Hermans for Herman in his *Materia Medica* sayes that Tea is a shrub like a rose but the leaves shorter growing in China and Japan the Flowers of a snow-white colour like those of the *Cistus* with yellow stamina the fruit tricapsular each capsule containing one seed or kernel. The leaves are gathered before they put forth flower the greenest are allwayes the best, they are first dried in ye shade and then in earthen pots over the fire continually stirring; the leaves differ according to the different seasons they are collected in, or the different branches they are collected from, for those of the top branches are the most gratefull, but those below have neither the same smel figure nor last so long, hence it is there in so great variety in their leaves, they have also smel according to the degree of toasting for otherwise they could not be preserved and sometimes they add a little Jasmin, musk, or camphore that they may smel the better. Mr. Cuningham has omitted to give account either of ye shape or colour of ye flower the number of petals and calix, but I remember to have seen in Dr. Hermans curious collection of Indian plants several large specimens of ye tree with flowers & fruit on them the flower is a snow-white rosaceous flower and I think they were flore pleno. Mr. Cuningham can easily decide the matter.

You have obleided me extreemly by sending me Rays *Methodus Emendata* qch. I thought had been printed in Holland. It is an excellent book and extraordinary good for reducing plants to a certain method. I have had the satisfaction since receiving of it to compare it in many plants with Turneforts together with ye plants themselves and I find him pretty exact and that he has corrected him-self in a great many particulars, but I could have wisht it had not been so hastily published whereby it might have been the more compleat and have taken in all those new plants of Turneforts *Corrollarium* for in some the characters are too short in others a little defective e.g. *viola aquatica* [*Holtonia palustris* L.] alsines flore Europea [*Trientalis europaea* L.] to name no others in both qch I cou'd have assisted him for the first I had occasion to observe both in flower & fruit in Holland & Flanders and the 2d. grows plentifully here, it were improper to trouble you with ye characters of them but shall take an opportunity of writing

to Mr. Ray and give him an account of them with some other observations that may not be unwellcome to him. Indeed I look upon a book of that nature not to be the work of one man but of many nor of one age but of several, for it is not to be supposed that one man can have under his view all the plants yt are extant in our bottanick writers and farr less is he capable of making any compleat number of observations for compleating such a work but he must either collect from others or take things on trust and therefore it were to be wisht that the learned bottanists of each country would first restrict themselves to ye plants of their own country and after to make their observations on foreign plants according as they had occasion to travel or to visit them in gardens or elsewhere by this means a compleat method might in process of time be compiled out of their several observations compared together & reduced into a certain method qch wou'd render the study of bottany a great deal more easy and certain than it is at present and free us of all ye long conjuring names that bottanists are pleased to impose on plants and prevent the many mistakes daily committed by several bottanists in multiplying of many species from scraps of dried specimens it were easy to instance but the matter is so plain and obvious to any bottanists that there's no need of any instance for we have but too many; how is it possible for any bottanist alive from these lame accounts and imperfect descriptions to reduce plants into any tollerable method I think it were a difficult task except he were on the place where it grew, therefore so long as we are ignorant of what grows at home, I think ther's no need for us to go so farr of as the Indies or to break our brains by making commentars or criticisms on Indian plants qch we can scarce in our whole lifetime expect to see growing and therefore it cannot be expected that from dried specimens we shou'd be in any measure capable either of contradicting or correcting the errors or mistakes of Indian writers but shou'd leave it entirely to those who either have been, travel to, or reside in those pairts, who are certainly more competent judges then we can be even from the best of specimens, and altho' it cannot but be acknowledged that bottany has come to a greater height of perfection in this age, then in most of the foregoing yet it is to be regreted that our learned bottanists do not agree in the common definitions and principles of method qch is a down right confounding of all methods for every one of them takes the freedom to class them and coyn different names according to their different methods so that we shall have so many methods as there are different men's notions. Mr. Ray in his *Methodus Emendata* has been pleased to reckon some plants of ye hortus Malabaricus amongst the herbae flore carentes et anomale and who knows but those plants may have both flower and seed, altho' the author of hortus Malabaricus has not had opportunity to examine them in their proper seasons. You know very well that hitherto the common division of plants has been into perfectus et imperfectus altho strictly speaking

I beleive ther's no plant but what is perfect in suo genere as Mr. Ray sayes very well, and therefore he has altered that division into floriferas et flore destitutus qch may be very well admitted for present, yet I am in doubt whether there be any plant altogether wanting the flower or something analagous to it altho not discovered or discernable by the naked eye. The fuci *Algae marinae musci fungi capillary* tribe and *equisetums* have for a long time been reckoned amongst the Imperfect plants as wanting both flowers and seed and yet late observations has discovered them to have either one or both. The learned Dr. Robinson has discovered several sorts of fuci and *Algae marinae* bearing seed as I myself two or three years ago on the *Muscus coraeloides ramosissimus polyspermes* Ray Syn: [*Corallina officinalis* L.] *fucus sine alga marina foliis membranaceis*, [*Fucus vesiculosus* L.] *coriantis seminiferis*, *fucus flavicaris minor* [*Pelvetia canaliculata* L.] and several others. The fungorum species have had the same fate altho they scarcely deserve the name of plants yet even amongst them, there are found bearing seed as the *fungi calyciformes seminifera* Montz. puc. Ray syn. edit. 2da. [*Cladonia* sp.] and altho in most of their species seeds has not been hitherto discovered by the naked eye or narrowly searched after, yet I am convinced that the Lamellat kind bear their seed in form of a small dust or powder betwixt the Lamellae and for the pulverulentus kind I conceive that dust or powder quod locum supplet seminis as we find in the muscorum and Lichenum species a green farinaceous substance in their capsules qch is truly their seed as discovered by microscopes. The history of mosses is so very difficult and abstruse and has been handled by our bottenick writers to so little purpose that they have rather left us in the mist than given us any clear and distinct account of them, and I'm very much enclined to beleive they have multiplyed a great many species that are not extant in nature as it is easy to fall into that error according as they find them with or wanting seed-vessells. I have indeed had a great deal of satisfaction in viewing their different fructifications these two or three years past both in winter and spring and sometimes all summer over, but winter and spring are the most proper seasons and it is allmost incredible to consider what variety I found in that time in their capsules or seed vessells qch after one had made a competent number of observations were easy to reduce into order according to ye figure and disposition of their capsules: amongst others I found one whose fructification has not (as I think) been taken notice of by any auther and it is the *Muscus Nummulariae fol: ma: Inst: R'h. Muscus trishomanes facie Morison hist: Oxon: par: 3.* near the top of the leaves ariseth a short white and slender pedicule about half an inch in length on the top of qch is a black round capsule containing a dark coloured farinaceous substance by qch. character it resembles the Lichen terresine. I have taken some pains to observe the fructification of the *Lichenes pulmonarii saxatiles et arborei* but could never

observe them to have any other then those cornicule qch they put forth only in winter and spring and I take those cornicule to supply the want of capsules for on the back side thereof is a farinaceous substance qch I take to be ye seed the upper side thereof being smooth like the nails of ones fingers or toes.

There are other different fructifications of the lichen qch were too tedious here to insert I shall only take notice of one whose fructification is more singular and it is the Lichen terestre flore stellata [♀ *Marchantia polymorpha* L.] qch I found in flower the character is thus from the middle of the leaves there arises a long blackish green pedicule firm and strong about four inches in length on ye top of qch are several small branches in form of a starr beneath those branches is a sort of squamous flower of a whitish colour and that qch is something remarkable in this plant that after I had taken up some plants of it rooted with earth & put them into a box some dayes thereafter I found they had put furth several white stamina apicibus Lulei qch I did show to Mr. James Sutherland & some other gentlemen. This happened about the beginning of July 1701, the capillary tribe have also for a long time been reckoned amongst the imperfect plants, and yet late observations has discovered them not only with seed & seed vessells very distinct on the back side of their leaves but some are found with flower as Rivinus and Plumier have observed and Mr. Ray in the poly-pody. *Lunaria minor* [*Botrychium lunaria* (L.) Sw.] is commonly reckoned amongst the capillaries affines flore et fructu in caule uniserculo peculiari. As for its flowers I have not observed them but the seed vessells grow in clusters together by pairs very distinct on ye inner of little small branches proceeding from ye caulis or surculus are of a round figure and orange colour opening into two pairts and containing a white farinaceous substance in powder. This is something agreeable to Turneforts character of *Osmunda* who sayes the capsules are of a spherical figure and by the contraction of their fibres emitt very small seeds as is observed by microscopes, the tribe of *Equisetums* have had the like fate with the rest but late observations has discovered them to have both flowers and seeds but their manner of fructification is very different for in some there is a sort of Juliis or asparagus that comes furth before the leaves. This Julis is composed of several ranges of fungous white stamina surrounding the caulis coronae in medium beneath each of those stamina is a green farinaceous substance qch. I take really for their seed. This I observed in the *Equisetum palustre maximum* [*Equisetum maximum* Lam.]. Others have a different fructification as that mentioned by Mr. Ray pag. 20 of his Method: Emend: others [in the Characeae] bear round seeds and singulos nodes foliolis adhaerentia as in the *equisetum foetidum sub aqua repens* [*Chara vulgaris* L.] and the rest of that species and this season I observed a quite different fructification in the *Equisetum palustre brevioribus setis polyspermon* [Preston no doubt

is referring to *Hippuris vulgaris* L.] viz: above each leaf there is an oblong seed or capsula covered with a thinn membrane within it is contained an officulum and within the officulum a small round seed or rather kernel.

By all qch observations it clearly appears how great a length this age has come in their discoveries of this nature and no doubt future ages will discover more & more and that there is no such thing as an imperfect plant.

Since my writing of this letter I am informed that my brother has gone very unexpectedly to London with the Earl Cromerty one of our present Secretaries of State. I doubt not but he will wait on you if he stay any time therefore I must still intreat you'l continue your favor in sending me all yr. transactions of this year in doing qereof you will singularly oblige

honr'd

sir

Yr. most obliged

humble servant

CHARLES PRESTON. (91)

Edinburgh,
Nov. 1st, 1703.

CHARLES PRESTON TO SIR HANS SLOANE.

Honr'd Sir,

I received yours of the 24 ultimo and must acknowledge I have been very faulty in not writing oftner to you qch I shall strive to mend in time coming. The true reason was that I was a little taken up in ordering the physick garden and besides I had a little touch of a fever.

In answer to your former query anent our firr trees they grow spontaneously on ye mountanous or hilly country in the North of Scotland on sandy dry stonny ground and in marish or mossy ground in ye valleyes and commonly in such ground as produces heath and particularly there are great woods of them to this day six or seven miles in length as along ye river Spey in Rossshire, Rothemurchus, Abernethy Glenmore Stronan Balnagoun Glentalar and severall others, there are also daily made of them deal boards and masts for ships and in many of our mosses there are digged up great firr trees so that Caesar must have been wrong informed of the matter and there is a passage in Athenaei Deipnosophitae lib. 5to. pag: 208, Edit. Cansobonis De navi hieronis regis Syracusarii speaking of the mast of it sayeth ex malis navis 2dus et 3tius facile reperti sunt, primus (ye main mast) difficulter e Britanniae montibus ab homine quodam subulco Phileas Tauromenites Madimarins eum in mare deduxit. He was contemporary with Archimedes & so was in the time of the Consouls long before Caesar's time

qch seems to confute his opinion. There is one objection qch startles me a little & seems to carry more weight. Mr. Ray in his history makes our abies [*Pinus sylvestris* L.] to be ye picaea and Turnefort in his Inst: R.N. gives the same character to the Abies as Mr. Ray viz: folia singularia ex eadem theca radiantia. In answer to qch neither Mr Rays nor Turneforts character agree to our firr three for ours has folia bina ex eadem theca radiantia and so according to Turnefort ours is a sort of pinus or pinaster and their abies mas or picaea of John Boushin and I am much enclined to believe ours is the abies femina of ye same Boushin lib. 9. pag. 231. his description agreeing pretty near speaking of its leaves quaedam etiam bifido mucrone dentita quos differentias non agnoscentes plerique cum picaea confundunt. Mathiolus in dioscoridem theoprastus et badeus a stupes are of the same mind with Boushin but their description not so exact. Allow me to conclude this with a verse from Virgil.

Fraxinus in sylvis pulcherrima pinus in hortis
Populus in fluviis abies in montibus altis.

Now Sir whether the firr trees in Norway & Sweden that afford our deal broads be of the same species with ours is what I want to be informed off. I was told by a merchant that lived some years in those pairts that there are two sorts of firr growing there, the one called ye read firr (firr esteemed the best) ye other ye white he has promised to procure me seeds & cones of both kinds qch will help to clear ye matter.

I am

honr'd Sir

Your most obleidged

& most humble servant

CHARLES PRESTON. (95)

Edr. Sept. 25

1706.

Pray allow me the favor of a line when yor leisure shall permit.

CHARLES PRESTON TO SIR HANS SLOANE.

Edr. April 14, 1709.

Honr'd Sir,

I have longed very much to hear from you not having had any letters of a long time. I have been myself something valetudinary for a year past but thank God I am pretty well established in health again. There is one peice of news qch I have received of late qch is both surprizing to me & att qch I am very much greived viz: ye death of Dr. Turnfort. I intreat you'll let me know ye particulars & certainty

thereof & how the things are disposed off belonging to him & who succeeds in his room.

I am

honr'd Sir

yor most obleidged

& most humble servant

CHARLES PRESTON. (101)

CHARLES PRESTON TO SIR HANS SLOANE.

Honored Sir

I received yours some time ago for qch I am extreemly obleidged. I was troubled with ye jaundice these two years past but thank God att present I am in perfect health & wish to hear the like of you there is little of moment passing here.

I received last year a very kind & obleidging letter from Boerhave present professor of Bottanie at Lyden. I sent him a box of Scots plants in order to keep up correspondence with him. I have within these few days received a small packet of very curious & rare seeds from Nissole professor of Bottanie att Montpellier.

I am

honr'd Sir

Your most obleidged

& most obedient Se....

CHARLES PRESTON. (102)

Edr. May 20, 1710.

Please show this gentleman your closet.

CHARLES PRESTON TO SIR HANS SLOANE.

Honr'd Sir

..... I told you then I had received a small packet of seeds from Montpellier qch I committed to a hot-bed & severall of them begin to appear allready there are several rare plants amongst them pairt of those collected by Turnefort in his late travels if they come to any perfection I shall not fail to communicat them to you. I have here enclosed a paper being an advertisement from Parnassus to one Dr. Mitchell. I beleive it may occasion some laughter it is done by S. R. S. [Sir Robert Sibbald]. By this ye may see what a low Ebb physick is come to in this place. Excuse this freedom & pray lett me know how philosophick matters goes with you. I am with all respect

Sir

your most obleidged &

most humble servant

CHARLES PRESTON. (103)

Edr. Jun : 13,

1710.

CHARLES PRESTON TO SIR HANS SLOANE.

Edr. Jan. 27, 1711.

Honr'd Sir

There is little passing here at present Dr. Pitcairn is printing a new edition of his dissertationes Medicae with severall corrections and additions. there will also be added some new dissertations never before published. S. R. S. [Sir Robert Sibbald] has lately published a book in folio entituled Vindiciae prodromi hist: nat: Scotiae being an ansr. to ye author of de Legibus historiae naturalis. He has him not nominatim but he is easily understood it is a very bitter Book. I know not if S. R. has allowed it to come abroad but I got a sight of a copy.

There is also lately published all ye works of Mr. Wm. Drummond of Hawthornden in one volume folio with some of his papers never before published there is also prefixed an history of his life.

I know not if I told you that about the latter end of summer last I received the seed and leaves of ye ipecacuanha as also ye seed of ye snake root from Virginia. I have also received some very curious seeds this winter being a collection from Montpellier when ye season will permitt I resolve to committ them to a hot bed.

I am honr'd Sir,

your most obleidged & obedient servant

CHARLES PRESTON. (104)

CHARLES PRESTON TO JAMES PETIVER.

Edr. May 22, 1711.

Recd. March X. 1711/12.

Sir

I received yours of the 22 of March with a few seeds as also the scheme of your design of making tables of all the british plants it is what I mightily approve of and assure yourself I shall give you al ye assistance I can.

your most obleidged
servant

CHARLES PRESTON. (115)

George Preston.

1665-1749.

George Preston, who succeeded his brother Charles, was Professor of Botany in the Town's College and "Intendant" of the Physic Garden at Trinity Hospital from 1712 until 1738. No detailed account of his life can be given, nor is it possible to say much about the progress of the garden during his time, because few records relating to this period have been preserved and those that we have are disconnected. But one point of importance has now been settled—the much-debated question of the relationship of the two Prestons. Recently I have been fortunate enough to discover evidence which shows conclusively that they were full brothers: Charles was the elder and George five years his junior. Hitherto various writers have suggested that they were either cousins or half-brothers, or full brothers, George being the elder (6), or even that they were father and son. (17) As the matter is one which has been much discussed, it cannot be passed over without some comment, and mention of the salient facts will avoid further ambiguity.

It is necessary to revert to Sir Robert Preston, of Gorton, Midlothian, who, as we have seen, was twice married. His second marriage to Margaret Bothwell in 1657 is recorded in the Parish Register of Lasswade, followed by the births of nine children: Alexander, on 6th July, 1659; Charles (later of the Physic Garden), on 12th July, 1660; William, on 16th July, 1661; Marie, on 31st October, 1662; Margaret, on 31st March, 1664; James, on 25th September, 1668; David, on 6th September, 1670; Veronica, on 27th October, 1671; and James, on 7th July, 1674. (45) It will be noted that there is no mention of George in the register. Hence it seemed probable that George might have been a son of the first marriage, and, therefore, a half-brother to Charles. Of Sir Robert's first family no complete record exists; we know only of two sons, Robert and Arthur. If George were also a son of this marriage, he would have been well over ninety at the time of his death in 1749, a supposition accepted as not unlikely, but none the less one which would demand some confirmation.

Other writers who have studied the problem came to the conclusion that George Preston was born in 1659 and was thus one year senior to Charles. This view is based upon a definite record of the birth of a George Preston in 1659 (see 44), but involves a double error. In the first place, the birth of Alexander, the eldest son, was wrongly assumed to be a year earlier than the actual date of his birth, 1659, and secondly, as we now know, the George Preston born in 1659 was not the man who became "Intendant" of the Physic Garden, but a cousin. Actu-

ally, this cousin was born on the 25th December, 1659. (44) He was the son of Sir George Preston, 5th of Valleyfield, and he himself became 6th of Valleyfield; an officer in the army, he finished his career as Lieutenant-General, and died on the 7th July, 1748. (44) George Preston, Intendant of the Physic Garden, was also connected with the army, having been Surgeon-Major to the Forces in Scotland; it is thus not surprising that the two cousins—both of the same name, both of military rank, and both close contemporaries—should be confused with each other.

Having established that Alexander was the eldest son of Sir Robert's second family (28), and that he was born in 1659 (45), it became obvious that George could not be placed in this family as senior to Charles. The discovery of the existence of a cousin of the same name explained how mistakes had arisen and how some had supposed the Prestons to be cousins, but it still left the date of the birth of George and his relationship to Charles unsolved. There was good reason for supposing that Charles and George were full brothers, for in several of the documents which are quoted they are referred to as brothers, and in fact the Minutes of the Royal College of Physicians for 4th November, 1712, refer to them as brothers-german or full brothers. (24) (55) Assuming then that this is the true relationship, it would appear from the record of births of the other members of the family (45) that George could only have been born between 1665 and 1667, or in 1672 or 1673. In order to settle the question the most hopeful line of enquiry appeared to be in the scrutiny of various Parish Registers for those years, but a prolonged search failed to produce any further information.

Later my attention was drawn to Mackie's Index in the Edinburgh University Library. (44) Charles Mackie was Professor of Civil History about the middle of the eighteenth century, and it was his hobby to keep a manuscript register of the deaths of well-known men, which he entitled "*Index Funereus 29 Annorum.*" It contains the following entry:

"Preston, George Surgeon died Gorton 16th February 1749 aged 86 years."

This is certainly our man, but (leaving the possibility of illegitimacy aside) the entry is obviously inaccurate. Following up this clue, however, a notice was eventually discovered in the *Caledonian Mercury*, Edinburgh, of 20th February, 1749. It reads as follows:

"Thursday last died suddenly at Gorton, Mr. George Preston, Surgeon-Major of His Majesty's Forces in North Britain, aged 84, a gentleman eminent in his profession, and very useful to all ranks of persons in that country." (13)

The *Scots Magazine* (1749) confirms this:

"Feb. 16, at Gorton, aged 84, George Preston, Surgeon-Major of the Forces in Scotland." (25)

George was thus born between 16th February, 1665, and 15th

February, 1666, and we have at length definite proof that he and Charles were full brothers and that George was five or six years younger. The omission of his name from the Register of the Parish of Lasswade, which contains the names of all the other members of the family, is curious, but may perhaps be explained by the fact that Sir Robert Preston as a prospective Senator of the College of Justice must have been frequently absent from Edinburgh. It is not unlikely that George Preston's name will eventually be found in a Register of some other part of Scotland, although it is not in those of Edinburgh and neighbouring parishes.

We know almost nothing of his early years. It is recorded that he received his early training abroad (61), probably at Leyden, and at the age of eighteen, on 14th May, 1684, he was apprenticed to Mr. Alex. Hay, H.M. Apothecary in the city of Edinburgh. (27) His apprenticeship probably lasted for seven years, and on the 15th June, 1691, he was appointed Surgeon of Cunningham's Dragoons (now 7th Hussars). (9) He married Marion, daughter of John Wauchope, Macer, and by her right was appointed Burgess and Guild Brother Apothecary, his name having been entered in the Burgess Roll of Edinburgh on 4th May, 1698. (47) We know of only one daughter, Isabella, who predeceased him. (30) For many years George Preston appears to have carried on the business of apothecary in addition to other appointments. We learn from the correspondence of his brother Charles that he went to London in 1702 bearing an introduction to Sir Hans Sloane (87), but probably he never saw him for the reason explained in the following letter.

We have only two letters written by George Preston, and one of them relates to this visit. It is not dated.

GEORGE PRESTON TO J. PETIVER.

Sr.

I came to the Temple-Coffee house before 7 a clock last night and there stayed till it was past 9 and then I found out my mistake that it was not the Coffee house within the Temple where it seems you was, but it was not my fault for I thought that there had not been any other. I am heartilie sorrie. I lost so good an opportunity of waiting upon Dr. Sloan and you. By time being so short in this place I am afraid I shall not have time to wait upon you at your house (though I will endeavour it) therefore please make ready any things you are to send for Scotland and send them this night or on Monday and direct to Mr. Prestone att Dr. Dacling's Coffee house near Charing Cross and they shall be carefully delivered as you order them write some memorandums to myself about any things yt you like which is yr product of Scotland and I shall be verry carefull to collect them and send them to you. You may freely comand anything that is

in my brother's power or of him who is and shall be upon all occasions your ready friend. If you have any seeds to spear and humble servant

GEO : PRESTONE. (118)

[Part of the sheet is torn off at the bottom ; no address is given.]

The main object of his visit to London was apparently to obtain supplies for his shop.

The following advertisement was published in the Edinburgh Gazette on the 9th October, 1701, and is illustrative of the manner in which the business of an apothecary was carried on in Edinburgh at that time.

"George Preston, apothecary and druggist, is newly arrived with a large parcel of all sorts of drugs newly come from the Indies ; as also, all sorts of spices, sugars, tea, coffee, chacolet, &c. and are to be sold at his shop, in Smith's New Land, on the north side of the High Street, foregainst the head of Blackfriar's Wynd, Edinburgh. Printed lists, with their prices, are to be seen at his shop." (15)

On 16th February, 1703, he was appointed Surgeon-Major to the Forces in Scotland (43) and he appears to have retained this office until his death. (13) (25) (44) In 1713 he gave this appointment as a reason for paying no taxes for his public shop. (5)

On the death of his brother Charles, in December, 1711, George Preston, who by this time had apparently established a reputation for himself as a botanist (Blair refers to him as "an indefatigable botanist") (3), applied for appointment as his successor. He lost no time in addressing the College of Surgeons, for the following Act bears the date, 31st December, 1711, the same month in which his brother died. He obtained their recognition and approval to his appointment before he was definitely elected by the Town Council. The meeting of the Council at which he was appointed Intendant of the Garden and Professor was held on 2nd January, 1712. Extracts from the minute books may be given in chronological sequence, the Act of the Royal College of Surgeons thus coming first.

The last day of December, 1711.

ACT IN FAVOUR OF GEORGE PRESTONE, BOTANIST.

The WHICH DAY The Deacon Masters etc Being Conveened in their hall and takeing to their Consideration ane petition presented to them by George Preston Apothecary in Edinburgh Makeing Mentione that he had for many years applyed himself to the Study of Botany both at home and abroad, And Having by the death of Doctor Charles Preston the Petitioners brother He thought himself obleidged to make application that this Calling would be pleased to confer upon him the whole priviledges contained in the Act in favoure of the said Deceast

Doctor Charles Preston dated the Eight day of November 1705 years for WHICH the Petitioner obleidges himself to perform the whole obligations yeof on his part And to teach all their prentices And Servants who have already payed their monies to the said deceast Doctor durement the remainder of their apprenticeship gratis and also to subject to the Acts and injunctions of thr Calling as they find cause as the said petition more fully bears WHICH Petition being read in presence of the Calling and by ym seriously Considered and finding the knowledge of Botany absolutely necessary for all their apprentices and Servants and oysr who have the benefite of their Shops, and being fully convinced of the said George Prestone his qualification for that effect Yrfore the Deacon Masters and Brethren of yrsd Incorporation Have GRANTED and by thir presents Grants the desire of the said Petition nemine Contradicente, and ordains that all their prentices, servants and others who shall be taught by the said George Prestone in the sd Science of Botany shall at the subscriyveing of the Indentures pay a guinea to the Clerk of the said Incorporation for which he is to be comptable to the said George Prestone for the which causes the said George Preston shall be obleidged and by those presents bind and oblige him to oun and acknowledge all the Masters and Brethren of the said Incorporation as his Patrons and to attend them or any of ym in the Garden when they incline yrto and to wait on ym at a Solemn publict herbalizing Tyst in the country or where the Calling shall think fitt and that four terms in the year of /of Called yrto/ at such times as shall be appointed and to teach and instruct all their prentices Servants and others who shall pay to him or have already payed a Guinea as above the true, best and most easy methods of knowing, classing and distinguishing the Trees, shrubs and plants as he shall think fitt, and further to cause plant what is wanting in the dispensatory in the Garden as is need full from time to time and declares this present Act to Continue and be valid durement his performance as above and the Callings pleasure whereupon this act is made and Ey.

CHARLES INGLIS. (61)

The minute of the appointment in the Records of the Town Council reads as follows:

"Edinburgh the fourth day of January 1712.—The same day The Councill with the Extraordinar Deacons Considering that the office of professor of Botany of this City and Master of the phisick Garden thereof is now vacant through the Decease of Mr. Charles preston Doctor of Medicine Later Professor of Bottany And Master of the phisick Garden And the Councill being most willing and Desirous That the said Science of Botany be promoted in this City And understanding the Ability and qualifications of George Preston apothecary Burges of this City for teaching the Said Science of Botany Therefore the Council with the Extraordinar Deacons Have Nominate and

Elected the said George preston to be professor of Botany and Master of the phisick Garden of this City in place of the Deceast Charles preston with power to him to cultivate and possess the Said Garden and House at the New North Port ane pertinents belonging thereto In all Respects as freely as the Said Charles preston did cultivate and possess Same And the Council with the Extraordinar Deacons allowed to him the Sum of ten pound Sterline of yearly Sallary for his Encouragement to Carry on the Said Profession of Botany And Cultivate the Said Garden And to keep Correspondents for procureing plants and Seeds from forreign Countries And with the Burden always of the payment of forty pound Scots yearly to the Thesaurer of the trinity Hospital for the Said Garden as formerly and Declared his Entry thereto to have been and begun at Martimas last and appointed William Dundas present town Thesaurer And his successors in office to pay to him the Said Sum of ten pound Sterline money of yearly Sallary at two terms in the Year Whitsunday and Martimas be Equall portions Beginning the first terms payment at Whitsunday next And so forth termly dureing the Councils pleasure whereanent thir presents shall be warrend Sie Subseribitur Rot. Blackwood." (35)

Thus on 2nd January, 1712, George Preston was elected Professor of Botany in the Town's College and Master of the Physic Garden at Trinity Hospital, the Council allowing him a salary of £10 sterling yearly for his encouragement.

Out of this sum he paid a ground rent of £40 Scots to Trinity Hospital for the Garden. "His position then was that he had a free house, a clear salary of £6, 13s. 4d., and leave to make what he could by teaching the Surgeon Apprentices and others, and by the sale of drugs from the Garden." (17)

Here we may quote from Bower.

"The remuneration which Mr Preston received from the patrons must be acknowledged to have been very small. It is to be regretted that not the least vestige remains by which it can be ascertained what numbers attended the Physic Garden. It was (as has been mentioned already) open to the public during the course of the whole day throughout the season, in the time of his predecessor; and it is likely Mr Preston continued this practice. The emoluments he could derive from the medical plants which he reared in the garden must have been very trifling; and, considering his paltry salary, the only inducement he could have to continue giving instructions in botany, could arise from those who attended him. The local situation of the garden at Trinity Hospital was exceedingly unfavourable for the purpose to which it was applied. It had little or no exposure to the rays of the sun; the soil very swampy; and the plants exceedingly liable to be injured, from its not being properly inclosed. When Mr Preston was made

professor, it appears, from the representation which he gave in to the Town-Council, that the walls were in the most ruinous state, so as to afford no protection. He succeeded, however, in getting them repaired ; but the disadvantages of the situation still formed a great objection ; and this was the cause of erecting the green-house in the college garden, possessed by the professors." (5)

George Preston, more business-like than his brother, soon began to make improvements in the Garden. He asked the surgeons to lay down certain rules and regulations regarding the attendance of their apprentices, and he fixed times at which he would attend to give instruction. Now the morning session during the summer term of teaching was postponed till 5 a.m. instead of the earlier hours previously in vogue, and it finished at 7 a.m. In the afternoons Preston agrees to be present on three days each week, whereas formerly it would appear that the apprentices expected to find the Intendant ready to welcome them whenever they cared to visit the Garden. Some of the other regulations, although they have in the course of time been modified, are in essence the same as those in force to-day.

ACT ANENT THE PRENTICES AND SERVANTS THEIR ATTENDANCE
IN THE PHYSICK GARDEN.

The which day the Deacon Masters and Brethren etc Being convened in their hall and takeing to their consideration Some Rules and overtures presented to ym By George Preston Botanist Relative to their prentices and Servants their attendance upon ye said Mr Preston which the Calling approved of and ordain the Same to be insert in their books and are as follows /1^{mo}/ That all their prentices and Servants are obleidg'd to come to the Garden betwixt the hours of five and Seven in the morning dureing the teaching time which is from ye middle of May till the end of September /2^{do}/ That no prentices or Servants shall Come to ye Garden any oyr time than what is above mentioned without acquainting their Master and the Intendant is to attend the Garden for yt purpose three dayes in the week, Monday, Wednesday and Friday betwixt the hours of three and five in ye afternoon /3^{tio}/ All prentices and Servants are hereby dischaired to pluck up any three, Shrub or plant without leave asked and given by the Intendant and as oft as any of the Said prentices or Servants shall be plucking or pulling of the said trees etc They shall be obleidged to pay Six pence to the Gardner every time and lose ye Benefits of being taught in ye afternoon and of Comeing to the Garden at any time except betwixt the hours of five ans Seven in ye morning /4^{to}/ All ye appren-tices and Servants are hereby discharg'd to ask from the Gardner any plant or root without a line from their Masters directed for the In-tendant, And for Encouraging ye observance of this order Mr Preston

the Intendant obleidges himself to give to the Masters a part of such plants roots &c: Growing within the Garden as may be best spared /5th/ for further Encouragement to the Said apprentices and Servants and their giving all due respect and obedience to Mr Preston, He hereby promises after such time as the Garden is in good order to teach the Materia Medica the dyets of which shall afterwards be appointed whereupon this act is made Subscribed by ξ (62)

In 1712, Preston, during the first year he held office as "Intendant," published a Catalogue of Plants in the Physic Garden, under the title "*Catalogus omnium Plantarum quas in Seminario Medicinæ dicato transtulit Georgius Prestonus; Bot. Prof. et Hort. Edinburg. Praefectus et auctoritate ejusdem Civitatis.*" This book is exceedingly rare, and unfortunately I have been unable to trace a copy of the first edition. Probably few copies were printed, for Richard Pulteney states that he had never seen one when writing in 1790 a short note upon Preston in his *Historical and Biographical Sketches of the Progress of Botany in England*. (22) I have been able to find only one, and that of the second edition, published in 1716. This copy is now in the Library of the Royal College of Physicians, Edinburgh. (21)

With the permission of the Librarian I have reprinted the Catalogue as an appendix to this account of George Preston's life. It is one of the earliest lists of plants cultivated in Scotland and in this respect is of particular interest. In the original text the species are numbered and are in columns as in the reproduction. Latin names are on the left-hand page, common names on the right-hand page, on each opening of Preston's book. Here I have annotated the text, as far as possible, adding in a third column the names now generally accepted for the plants to which Preston refers. This, as far as I know, is the only work which George Preston published. But in the Library of the University of Edinburgh there is the manuscript of a series of lectures which may almost certainly be attributed to him. The manuscript is divided into two parts, the first entitled "*An Introduction to Materia Medica,*" the second entitled "*An Introduction to Botany.*" The author's name is missing, but upon the covers there is, in the handwriting of Mr. Webster, formerly Librarian, "*Professor Preston's Notes.*" The book is listed in the Catalogue of the Library under C. Preston. (46) In the first part there is no date, in the second part there is, under the title, the subheading—Lecture I, October 4th, 1736. This date appears to be the only clue to the authorship and is consistent with the superscription which attributes the work to Preston, provided we take George and not Charles as the author. At the same time, with the slender evidence we have, the possibility that Charles Alston was the author must not be overlooked, although the work is not in Alston's handwriting. The first part, "*An Introduction to Materia Medica,*" was probably a single lecture delivered to students at the beginning

of the summer session as a preliminary to practical demonstrations in the Garden. Preston has little to say about individual plants. After defining the scope of his subject, he classifies medicines, discusses the "virtues" of various "simples" and explains their action, and he details different methods of discovering the efficacy of drugs referring to the doctrine of signatures. It is interesting to note that although he did not accept the doctrine of signatures he believed in the "vegetation of minerals," stating that "Tournefort was the first to attribute seed to minerals which could not be demonstrated"; "but why," he asks, "may we not suppose there is some order also in the formation of minerals?" "For vegetation there are 2 pretty good arguments": (1) metallic veins resemble the branches of a tree or the veins of animals; (2) minerals increase in bulk. Reference is made to "dug up substances resembling the bones of elephants." Although Preston distinctly favours the view that "minerals vegetate," he, in fairness, gives two arguments against this theory: (1) their homogeneous appearance, and (2) their hardness. Finally he recommends his students to study the following books:

1. Sam. Dale's *Pharmacologia sive manuductio ad materiam medicam*, London, 1693, supp. 1705.
2. Nicolas Lémery's *Dictionnaire des Drogues*, Amsterdam, 1714.
3. Caspar Hofmann de *Medicamentis Officialibus*, Francf., 1646.
4. Nucleus *Belgicus Mat. Med.*, Brux., 1719. [By Jo. de Kinder and Gul. de Wint] "If the Authors had Performed their Promise the *Mat. Med.* would have been easily Learned at the Expence of 2 or 3 Shillings but they fall into several errors, Some of them through Ignorance of Botany."
5. *Schroderi Pharmacopeia Medic.-Chymic.*, Leyden, 1672.

The remaining lectures, under the title "An Introduction to Botany," deal with "The Rise and Progress of Botany," beginning with sacred writ and mentioning the works of the leading Greek and Roman philosophers. Then follow discussions on the Anatomy and Physiology of Plants, on the Structure and use of Flowers and of Seed, and lastly on Classification, with an outline of the work and methods of leading botanists. In this part also some curious views are expressed, but it would take too long to discuss them, and we must pass now to other documents.

The minute in the Records of the College of Surgeons, which is quoted below, is of particular interest. It refers to Preston's Catalogue. He claims to have introduced 500 plants from abroad, some new to Scotland, mentions that he intends to collect others, and records a proposal to build the first greenhouse which the Garden possessed.

The actual number of plants mentioned by Preston and not recorded by Sutherland is, however, small. It is interesting to note among new records both *Juglans regia* L. and *Laburnum vulgare* Presl.

Preston's Catalogue is possibly the first printed record of their cultivation in Scotland. The Larch, mentioned by Sutherland, figures again in Preston's List. Preston himself was no doubt responsible for the introduction to Scotland of the Cork Oak, *Quercus suber* L., our earliest record for Britain being 1699, when it was growing in the Duchess of Beaufort's garden. (1) The other few plants introduced to Scotland by Preston were mostly medicinal herbs now considered of no garden value.

The minute to which we have referred is as follows :

" The Which Day the Deacon Masters and Brethren being convened in their Hall and takeing to their Consideratione a petition and representation by George Preston Botanist and Intendant of the Physick Garden making mention that he after many years study and industry both abroad and at home had attained the knowledge of Botany and dureing the short time of his being Intendant of the said Garden had shown his care and industry in despoising all the plants shrubs and trees that are used in Medicine in good order and added a good many others qch his printed Catalogue has shown and has procured from abroad many rare plants and the Catalogue whereof amounts to over 500 some of which have never been in this Country and are to be seen growing in the said Garden And the said George Prestone intending to go abroad this year to bring home all sorts of plants shrubs trees and Seeds that are to be had and to plant them in good order in their severall tribes and Classes by qch Botany will be rendered more usefull and also more easie to be learned by and already the said George Prestone not only demonstrates the plants etc as they grow but also gives plain descriptions of them where they grow and time of their flowering with their uses and virtues And that he had raised and drained the ground of the said Garden and also considering that it is most necessary there be a greenhouse built for preserving of all foreign and tender plants and trees etc. qch will very much conduce to the benefitte of the publick and render Botany more pleasant usefull and easie And he haveing been at great Expenses and pains as also that the building of a greenhouse with the buying of all sorts of plants Shrubs trees and Seeds will amount to a good expense as the petition and representation more fully bears The Deacon Masters and brethren forsaid unanimously approved of the said undertaking and for the petitioners funder Encouragement in so good and necessary and publick a work each one of them have contribute a guinea for enabling him to carry on the said work and provide the Garden with all sorts of plants etc. as said And funder recommends to all noblemen gentlemen and others to encourage the said George Prestone in so good and necessary ane undertaking for the improvement of Botany IN TESTIMONY WHEREOF the Deacon and hall Masters have Subscribed their presents." (63)

The next three excerpts are taken from the Records of the Town Council. Preston's salary is increased, a site is fixed for the greenhouse and its dimensions are detailed, and arrangements are made to repair the walls of the Physic Garden. At the same time we hear again of the College Garden which Sutherland had supervised until his resignation in 1706. Cleghorn, the gardener, had probably carried on without supervision until his death in 1712. Now the keys are handed over to Preston.

"1712, September 10..... THE SAME DAY The Council with the Extraordinary Deacons Upon ane petition given in be George Preston Botanist and Intendant of the Phisick Garden shewing that he had been at Considerable Charges in putting the Garden in good order and in Laying two new Syvers for draining of the Ground that was much ruined with under water And in Laying a new ground above these sivers and other parts of the Garden for the better Improving of the plants Besydes Considerable Charges in adding of new plants that were wanting and that he would be at yet more Considerable Charges in bringing of new plants out of forreign Countries and was of Intention to build a green house which was most necessary for preserving of forreign and tender plants and trees and that his present sallary was so very mean that he Could not proceed in so great undertaking unless he were enabled thereto by some allowance from the Honble Magistrates and Councill patrons of the said Garden WHICH being considered be the Councill They Remitted the consideration thereof to ane Committee of their number who Reported that they having Considered the said petition were of opinion that the Councill for Encouragement of so good and usefull ane undertaking should add to the petitioner's former sellary ten pound sterling yearly to be payed by the Colledge Thesaurer upon this Generall Condition that he should build the Green House above mentioned and Likeways keep the Colledge Garden in good Order and to that Effect to Recommend to the Colledge Thesaurer to deliver to the petitioner the keys of the said Garden and put him in possession as the Report under the hands of the Committee more fully bears WHICH being Considered be the Councill They with the Extraordinary Deacons approved of the sd Report and allowed to the petitioner ten pound sterling of additionall sallarie by and attour the present sallary in use to be payed to him And appoynted the present Colledge Thesaurer and his successors in office to pay the same to him Termly Commenceing the sd additionall sellary from Lambas last Beginning the first term's payment at Candlemas next and thencefurth termly in time comeing Dureing the Council's pleasure wheranent thir presents shall be a warrand." (10) (36)

"1713, February 27.—THE SAME DAY the Council upon report of the Committee to whom was Remitted to Consider the most proper place for building of ane Green house in the physick Garden for pre-

serving of foraign and tender trees and plants from the Extremitie of the cold in the winter season Granted jedge and warrand to Mr George Preston professor of bottony to Build the said Green house upon the north Dyke of the Physick Garden and to consist of about threty four feets in LENGTH and sixteen foots in breadth and forme the north side wall thereof nine foots within the Colledge kirk yeard and at eighteen foots distance Eastward from the wall of the said Colledge kirk yeard and that at the sight of the Dean of Gild and his Councell and further the Councell allowed to the sd Mr George Preston the use of the stove or cahall presently standing in the toun Clark's chamber to be put up in the said Green house upon his report and oblesiment to return the same when called for Whereanent thir presents shall be a warrand." (37)

"1713, March 18.—The same day the Councell appointed the thesaurer of the Trinity Hospittle to cause repair that part of the Dyke of the physick Garden which hes Latelie proven ruinous." (38)

As very few documents relating to the next few years have been preserved, our story inevitably becomes somewhat disjointed. Taking them in chronological order, we may first quote a letter from Preston to Petiver. Although Preston must have corresponded freely with contemporary botanists, as his name is mentioned by Sherrard and others, I have been able to discover only two of his letters. The first has already been given, the second is as follows :

GEORGE PRESTON TO J. PETIVER.

Sir,

Having the good fortune once or twice to see you with letters from my brother Dr. Charles Prestone and haveing seen your proposals for publishing your copper plate of the famous Mr. Ray's English Plants which undertakeing is a kindness done to our countrey and ought to meet with sutable encouragement and I tooke the opportunity at a meeting of our Society of the Chirurgion-Apothecarys of this City to lay your proposals before them who were pleased to accept of your dedicatione and has ordered theire Treasurer to pay what is demanded. I am glad of this occasione of haveing your proposals whereby I may show the just esteem I have for your learning and Improvement in Natural philosophy and the ready willingness I have to serve you for I shall make it my business to procure subscriptions to carry on your work And I shall be very proud of a correspondence with you about plants and seeds, and if youle please let me know if you want any of our Scots plants (whereof I am prettie well provyded) and I shall take care to send them to you in their proper seasons and in the mean time if you have any exotick or rare seeds to send me some of them it will be a greate obligation to me for I am more capable to preserve them then my predecessors were by reason I have built a Greenhouse and provyded all other materials for preserving and cultivating plants.

I have taken the freedom to send you a Catalogue of such seeds as I want at present hoping youle be so kynd as to send me small specimens of such of them as you have & can spare and any others that you think are rare for I know you have many more seeds from Forraigne parts. I am very confident in makeing such large demands, but the excuse of my confidence is that I know that you are such a lover of Improvement of Botany you will assist me who am only beginning to collect rare plants and for your encouragement I spare no charge or pains to cultivat & preserve plants . . . any plants that are sent to me will not be lost. very busy in collecting Scots plants. I found a verry rare plant last summer in our woods *Caryophyllata montana flore pleno et prolifero* [a form of *Geum urbanum* L.]. I have a plant of it at your service and when it flowers againe I shall have it drawne & transmitt it to you and I shall give you account of any rare plants I meet with & preserve specimens for you. If you can spare me any of your Aloes, ficoides, or any other Greenhouse plants any small specimens will be acceptable to me. I shall send a Gentleman that was my apprentice to wait upon you and to receive such seeds or plants you can spare and receive your comands to me and if you spare me a specimen of these plants following (if you have not their seeds) viz. *Gentiana major lutea* offic. [*Gentiana lutea* Linn.] *Centaurium Majus* offic. [*Centaurea Centaurium* Linn.] *Scammonea syriaca* [*Convolvulus Scammonia* Linn.] *Serpentaria Virginiana* [*Aristolochia Serpentaria* Linn.] et *Florula Galbanifera* [*Ferula galbaniflua* Boiss. et Buhse] you will do me a singular kyndness but I am afraid I have gone too great a length already so I shall conclude with assuring you that I shall be ready upon all occasions to show how much

I am Sir

your ready humble servant

GEO. PRESTONE.

P. I was well pleased to see my worthy freind Dr. Blair who gave me account of your kyndness to him who is a very deserving man & well known in Botany.

I hope you'le please let me hear from you at your leisure.

Physick Garden at Edinburgh

Octob. 24th 1713.

Direct for me Professor of Botany

and Intendant of the Physick Gardens belonging to the Citty & College.

(119)

Next there are three documents which show the precarious financial position of the Garden, dependent for its development upon the meagre resources of the "Intendant" and students' fees often unpaid. The ground-rent demanded from Preston is increased, and it is a mark of the

personal enthusiasm of the first "Intendants" that the Garden continued to survive at all.

23 May 1716.

The Calling haveing considered ane representation for George Prestone professor of Botany in relation to such masters and given [—?] who now refused to pay in to the Clerk a guinea for each prentice or Servant at signing of their Indentures hereby ordain the sd guinea to be payed at signing of every Indenture to their Clerk otherwise the Clerk is hereby empowered to keep the saids Indentures and not to deliver them to the prentices concerned until payment whereupon this act is made. (64)

" 1719, February 25.—THE SAME DAY the Councill with the Extraordinary Deacons Upon Report of Baillie Archibald Wallace from the Committee anent the affairs of the Trinity Hospitall appointed ane tack of the Phisick Garden and the South and North Gardins belonging to the Trinity Hospitall TO BE GRANTED to Mr George Preston professor of Botanie and Intendant in the Phisick Gardin for the Space of Fifteen years commenceing from Whittsunday next for payment of Five pound Sterling money yearly to the Said Hospitall at Two termes be equal Portions begining the first termes payment at Mertimes next Reserveing Libertie to the members of the Hospitall to walk either in the South or North Gardins at their pleasure and with ane Special Clause obleidgeing the said Mr George Preston upon his own proper Charges and Expences to keep the Walks and Hedgeing in the same Condition they now are in Dureing the years of the tack And appointed the Clerk to Extend ane tack with all Clauses necessar to be laid before the Councill for their approbation. Wm. Neilson Prot." (39)

" 1719, May 6.—THE SAME DAY the Councill Conforme to their Act the Twenty fifth of February last Subscribed ane Tack of the Physick Garden Edinburgh In favours of Mr George Prestoun Professor of Bottomie and Intendant in the said Physick Gardine The tenor whereof follows AT EDINBURGH the sixth day of May 1719 years It is Contracted Agreed &c finally ended betwixt the parties following to witt William Neilson Esquire Lord provest of the Citie of Edinburgh Robert Craig Thomas Dundas Arch Wallace and Andrew Purdie Baillies James Clelland Dean of Gild and George Drummond Treas of the Citie Together with the Remanent Councill and Deacons of Crafts Ordinar and Extraordinar of the said burgh for themselves and as representing the whole body and Community thereof And all Patrons of the Trinity Hospitall founded at the foot of Leith Wynd And James Mcghie merchant and William Wightman Skinner masters or Treasurers of the sd Hospitall On the one part And Mr George Preston professor of Bottanie and Intendant in the Physick Gardine on the oyr part THAT is to Say the said Lord provest Baillies Councill and Deacons of Crafts as Guvernators for the sd Hospitall Conforme to their Act of Councill

Dated the Twenty fifth of February last by past Setts and be thir presents (with ane under the provisions and Conditions after Specified) in Tack and Assedation Lett to the sd Mr George Prestoun All and Haill the Physick Gardine Together with its South and North Gardine all pertaining to the sd Hospitall and presently enclosed with Stone Dyks And possessed by the sd Mr George Prestoun And that for all the Days Space Years and termes of fifteen years from and after the terme of Whittsunday next 1719 years with full Power and liberty to the sd Mr George Prestoun To Digg Delve Manure and Plant the sd Gardine at pleasure dureing the time forsaied Always reserveing Libertie free ish and Entrie to any one of the members of the sd Hospitall for the time being to walk at their pleasure either in the South or North Gardine Dureing the years of this TACK FOR THE WHICH CAUSES the said Mr George Prestoun Binds and obleidges him his heirs and successors whatsomever to content pay and Deliver to the sd Mr James Mcghie and William Wightman present Masters or Treasurers of the said Trinity Hospitall for the Use and behoof of the Samen And their successors Succeeding to them in their sexive offices as Treasrs to the sd Hospitall All and Haill the Sume Five pounds Sterling money of yearly Tack duty at Two termes in the year Whittsunday and Mertimass be equall Portions Beginning the first termes payment thereof at Mertimas next to come in this instant year and Likewise the sd Mr George Prestoun Binds and obleidges him and his forsaied upon his own proper charges and Expences to Mantain Uphold and keep in Good Order and Condition the Flower Plotts Walks and Hedgeings of the said Gardines dureing the years to run of this Tack And leave the same in the Like Good state and Condition (at the expiring of thir presents) as they are at present AND FURDER the Mr George Prestoun Binds and obleidges him and heirs and successors whatsomever to Remove from the possession of the said Gardines at the ish and Expiring of this present Tack without any process of Law or decreet of Removing to that effect And both Parties obleidges them to performe the premisses hine inde to others And the Party faillsier to pay to the party Observer or willing thereto the sum of Twenty Shillings Sterling by and attour fullfilling of the Premisses CONSENTING to the Registration hereof in the books of Councill and Session Toun Court books of Edinburgh or others Competent that Letters of Horning on six days and oyr [legal term] needfull may pass hereon informe and Constitutes James Russell Their procurator In witnes whereof Both Parties have subscribed their presents (written be David Denham ydr Servt to the Principal Clerks of Edinburgh) Place Day Month and Year of God above written Before these witnesses James Nasmyth Toun Clerk de pate of Edinburgh And the sd David Denham writter hereof Sic Subscriptum . . . etc." (40)

It has not been possible to trace the first appointment to the now

existing post of Curator. Robert Wood, who is mentioned in the next excerpt, may have been the first; he lived in the Garden and was then probably the only gardener on the staff. All we know about him is contained in a letter from Philip Miller, gardener to the Company of Apothecaries at Chelsea, who, in writing to Dr. Richardson of Bierley on the 12th September, 1728, remarks: "Mr Wood at Edinburgh I hear is dead: he had quite ruined that Garden before he left it, so that I believe there is little to be had from thence." (18)

"1720, June 17.—The same day the Counsel with the Extraordinary Deacons upon an petition given in be Robert Wood, gardner in the Phisick Gardine belonging to the good toun appointed Mr George Drumond present Thesr to pay to the petitioner Twenty pound six shillings Scots money depursed be him for necessar reparations to the house possessed be the said petitioner and belonging to the said good toun conform to an account and receipt produced whereanent thir pnts with the sd account and receipt and the petitioners discharge yrof shall be a warrand." (41)

In Nichols' Illustration of the Literary History of the Eighteenth Century, Preston's name is found occasionally in correspondence between Dr. William Sherard, who endowed the chair of Botany at Oxford, and Dr. Richardson. "Mr. Preston has promised to send me what additions he can to Mr Ray's 'Synopsis' this autumn, with specimens of such Scotch plants as I have desired," [16th June, 1720] "I will speedily write to Mr Preston, but do not find him so good as he promises, having never received one specimen from him" [24th December, 1720]. "I have wrote to Mr Preston to look after mosses, he has promised me several specimens I desired of plants of Scotland, which I hope he will gather this summer" [28th March, 1721]. (18)

The next minute in the Records of the Town Council which refers to Preston reverts again to the College Garden. It had been neglected by Preston, who no doubt found that the Physic Garden, teaching, and the conduct of his business occupied all his time. It records the transference of the College Garden, in November 1724 to other persons, and henceforth it has no connection with the Botanic Garden.

"1724, November 11.—THE SAME DAY anent a Memoriall given in by Messieurs Rutherford, St Clare, Plummer and Innes shewing that these gentlemen having purchased a house for a chymical Laboratory adjoining to the College Garden formerly let to Mr George Preston and finding that the Garden neglected by Mr Preston had for some years lain in disorder Desired of the Honourable the Toun Council that they might be allowed the use of that ground for the better carrying on their design of furnishing the Apothecary Shops with chymical

medicines and instructing the students of medicine in that part of the Science. They hoped the Council would more readily comply with their request in regard that the ground formerly allotted for the use of medicine would still be employed in nursing and propagating such plants as were necessary for the Improvement of chymistry in this¹ place and further the earth on the South Wall of the Elaboratory rising somewhat above the first floor the workmen judged it necessary for the preservation of the timber that it be removed from the wall some feet downwards which might be done without any inconveniency or deformity of the Garden These gentlemen therefore begged that since the confusion the Garden is now in would cost a considerable sum to rectify that the Council would be pleased to let them have it on the same terms Mr Preston had it before or if that should be thought too great a favour they were willing to be at the charge of dressing keeping and leaving it in order for any gratuity the Council should be pleased to allow provided they might have a grant of the ground for ten years so as not to be in hazard of losing the charges before the ground could make any suitable return as the said Memorial bears. Which being read the Council remitted the consideration thereof to Baillie Alexander Simpson and the Committee anent the College affairs. Accordingly Baillie Alexander Simpson reported from the said Committee that they having considered the said representation or memorial were humbly of opinion that a lease should be granted to Messrs Ruthersford St Clare Plumber and Innes of the Garden above mentioned for a term of ten years after Martinmas 1724 years on their becoming bound to repair dress and plant the same as above proposed during their lease and to leave the same at the issue of their lease in good order as above expressed that for their accommodation they should have jedge and warrant granted to them for making a door or entry from the house which they had purchased from Mr Cave to the foresaid garden on their granting an obligation to condemn and build up the said entry with stone and lime at the issue of their foresaid lease provided always that liberty and access be reserved in favours of the magistrates ministers and masters of the college to resort to and walk in the foresaid Garden at their pleasure during the said lease And further they were of the opinion that the College Thesaurer for their accommodation be authorised to sett to them the leasers the under part of the gardeners house at the usual rent as the report bears. Which being considered by the Council they with the Extraordinary Deacons approved thereof and appointed the lease of the Gardine and laigh dwelling house to be extended in terms of the report to be laid before the Council for their approbation in order to be subscribed." (42)

About this time the Physic Garden too seems to have fallen upon evil days. Preston laid the blame upon the aforementioned Mr. Wood.

¹ This included the furnishing of apothecaries' shops.

This we gather from another letter from Philip Miller to Dr. Richardson, from which the reader may draw his own conclusions. Writing from Chelsea on 19th August, 1727, Miller states: "I have lately received a letter from Mr Preston at Edinburgh with great complaints of their loss in the Physic Garden, and he attributes it to the ill management of Mr Wood, who I hear but a slight character of"; then he continues, "but I am in hopes that Dr Alton [Alston] who is King's Professor of Botany at Edinburgh, will be the best correspondent there; he seems to be a man of learning, and has good skill in distinguishing Plants, and a great share of modesty." (18)

George Preston resigned his appointment in 1738. He lived for eleven years longer, and died at the age of eighty-four at Gorton, in the parish of Lasswade, on 16th February, 1749. (30) (44)

I have again to acknowledge the use of manuscripts collected by the late Sir Isaac Bayley Balfour, particularly copies of many of Charles Preston's letters. To Mr. T. H. Graham, Librarian, Royal College of Physicians, Edinburgh, I am indebted for permission to reprint George Preston's Catalogue; to the late Mr. Stewart Arthur of the Royal College of Surgeons and to Dr. L. W. Sharp of the University Library, Edinburgh, who have searched their archives on my behalf, as well as to those to whom acknowledgment was made in the preceding part. Miss H. T. Maxwell has again assisted in collecting and checking many original manuscripts and has undertaken much of the clerical work involved.

Appendix.

Catalogus Omnium Plantarum, quas in Seminario Medicinae Dicato.

Transtulit Georgius Prestonus Botanicis Professor, Et Hortus Edinburgeni
Praefectus, ex Auctoritate ejusdem Civitatis.

Editio secunda, cum Additione.

Edinburgi: Excudebat Joannes Moncur, M. DCC. XVI.

NOTE.—Columns 1 and 2 represent the original text. Column 3 gives the modern equivalent.

Abrotanum mas p.	Southern Wood	Artemisia Abrotanum Linn.
Abrotanum foemina p.	Lavender Cotton	Santolina Chamaecyparissus Linn.
Absinthium vulgare p.	Common Wormwood	Artemisia Absinthium Linn.
Absinthium Romanum p.	Roman Wormwood	Artemisia pontica Linn.
Absinthium seriphium p.	Sea Wormwood	Artemisia maritima Linn.
Acanthus sativus p.	Bears Breech or Brank Ursine	Acanthus mollis Linn.
Acetosa vulgaris p.	Common Sorrel	Rumex Acetosa Neck. var.
Acetosa Franca p.	French Sorrel	Rumex scutatus Linn.
Acetosella p.	Wood Sorrel	Oxalis Acetosella Linn.
Acorus verus p.	Sweet smelling Flag	Acorus Calamus Linn.
Acorus adulterinus p.	Yellow Water Flag	Iris Pseudacorus Linn.
Adiantum album p.	White Maiden-Hair	Asplenium fontanum Bernh.
Adiantum aureum p.	Golden Maiden-Hair	Polytrichum commune Linn.
Adiantum forcatum p.	Horned Maiden-Hair	Asplenium septentrionale Hoffm.
Adiantum nigrum p.	Black Maiden-Hair	Asplenium Adiantum-nigrum Linn.
Ageratum p.	Sweet Maudlin or Apothecary's Shop	Achillea Ageratum Linn.
Agrimonia p.	Agrimony	Agrimonia Eupatoria Linn.
Alcea b.	Vervain Mallow	Malva Alcea Linn.
Alkakengi p.	Winter Cherry	Physalis Alkekengi Linn.
Alchimilla p.	Lady's Mantle	Alchemilla vulgaris Linn.
Alliaria b.	Jack by the Hedge	Sisymbrium Alliaria Scop.
Allium p.	Garlick	Allium sativum Linn.
Aloe p.	Aloes	Agave americana Linn.
Alsine a.	Chick-Weed	Stellaria media Cyrill.
Althea p.	Marsh Mallows	Althaea officinalis Linn.
Amaranthus a.	Flower gentle	Amaranthus caudatus Linn.
Ammi creticum a.	Bishop's-Weed	Carum copticum Benth. et Hook. f.
Ammi vulgare p.	Common Bishop's-Weed	Ammi majus Linn.
Amoris Poma a.	Apples of Love	Lycopersicum esculentum Mill. var.
Anagallis mas flore phaenico a.	Male Pimpernel	Anagallis arvensis Linn.
Anagallis foemino flore caeruleo a.	Female Pimpernel	Anagallis foemina Mill.
Anagallis aquatica p.	Brook Lime or Water Purslane	Veronica Beccabunga Linn.
Anchusa b.	Alkanet	Anchusa officinalis Linn.
Androsimum p.	Tutsan, or Park Leaves	Hypericum Androsimum Linn.
Anemone sylvestris p.	Wild Anemomy or Wind-Flower	Anemone sylvestris Linn.
Anethum a.	Dill	Peucedanum graveolens Benth. et Hook. f.

Angelica sativa b.	Garden Angelica	Angelica Archangelica Linn.
Angelica sylvestris b.	Wild Angelica	Angelica sylvestris Linn.
Anisum a.	Anise	Pimpinella Anisum Linn.
Anthora p.	Wholsome Helmet Flower	Aconitum Anthora Linn.
Antirrhinum b.	Snap-Dragon	Antirrhinum majus Linn.
Aparine a.	Goose-Grass	Galium Aparine Linn.
Apium b.	Smallage	Apium graveolens Linn.
Aquilegia p.	Columbines	Aquilegia vulgaris Linn. and vars.
Argentina p.	Silver-Weed	Potentilla Anserina Linn.
Aristolachia p.	Birthwort	Aristolochia sp.
Artemisia p.	Mugwort	Artemisia vulgaris Linn.
Arthanita, vel cyclamon p.	Soubread	Cyclamen europaeum Linn.
Arum p.	Cuckow pint, or Wake-Robin	Arum maculatum Linn. var.
Arundo vulgaris p.	Common-Reed	Phragmites communis Trin.
Arundo Indica, vel Cannacorus b.	Indian Reed	Canna indica Linn.
Asarum p.	Asarabacca	Asarum europaeum Linn.
Asparagus p.	Asparagus	Asparagus officinalis Linn.
Asperula p.	Wood-Roof	Asperula odorata Linn.
Asphodelus albus p.	White Asphodil-Lilly	Asphodelus albus Willd.
Asphodelus luteus p.	Yellow Asphodil-Lilly	Asphodelus luteus Linn.
Atractylis b.	Yellow Distaff-Thistle	Carthamus lanatus Linn.
Atriplex sativa a.	Garden Arrach	Atriplex hortensis Linn.
Atriplex foetida a.	Stinking Arrach	Chenopodium Vulvaria Linn.
Avena a.	Oats	Avena sativa Linn.
Auricula muris vel Pilosella p.	Common Mouse-Ear	Hieracium Pilosella Linn.
Auricula ursi p.	Bears-Ear	Primula Auricula Linn.
Balsamina foemina a.	Female Balsam-Apple	Impatiens Balsamina Linn.
Balsamina mas a.	Male Balsam-Apple	Momordica Balsamina Linn.
Balsamita mas p.	Cost-Mary	Chrysanthemum Balsamita Linn.
Bardana major b.	Great Burr-Dock	Arctium majus Bernh.
Bardana minor b.	Lesser Burr-Dock	Arctium minus Bernh.
Battata Canadensis p.	Jerusalem Artichok	Helianthus tuberosus Linn.
Battata Virginiana p.	Potatoes	Solanum tuberosum Linn.
Bellis major b.	Great Field Dasie	Chrysanthemum Leucanthemum Linn.
Bellis minor p.	Lesser Field Dasie	Bellis perennis Linn.
Behen album p.	Spatling Poppy or White Ben	Silene Cucubalus Wibel
Beta alba b.	White Beet	Beta Cicla Linn.
Beta nigra b.	Black Beet	Beta vulgaris forma ?
Beta rubra b.	Red Beet	Beta vulgaris Linn.
Betonica aquatica p.	Water Betony	Scrophularia aquatica Linn.
Betonica vulgaris p.	Common Betony	Stachys Betonica Benth.
Bifolium p.	Twa Blade	Listera ovata Br.
Bistorta p.	Bistort or Snake-Weed	Polygonum Bistorta Linn.
Blattaria alba b.	White Moth-Mullein	Verbascum Lychnitis Linn.
Blitum a.	Blite	Amaranthus Blitum Linn.
Bonus Henricus p.	English Mercury or good Henry	Chenopodium Bonus-Henricus Linn.
Borago a.	Borage	Borago officinalis Linn.
Botrys a.	Oak of Jerusalem	Chenopodium Botrys Linn.
Brassica sativa b.	Common Colewort	Brassica oleracea Linn. var.
Brassica marina sive soldanella p.	Sea Bindweed	Calystegia Soldanella Linn.
Buglossum salivum p.	Garden Bugloss	Anchusa officinalis Linn.
Bugula, vel consolida media	Bugle	Ajuga reptans Linn.
Bulbo-castanum p.	Earth-nut	Conopodium denudatum Koch
Buthalmum a.	Ox-Eye	Anthemis Pyrethrum Linn.
Bursa Pastoris a.	Shepherd's Purse	Capsella Bursa-pastoris Medic.
Caepa vulgaris b.	Common Onion	Allium Cepa Linn.
Caepa ascalonica p.	Eschallots	Allium ascalonicum Linn.
Calamintha aquatica p.	Water Calamint	Mentha arvensis Linn.

Calamintha	Field Calamint	Calamintha Nepeta Savi
pulegii odore p.		
Calamintha vulgaris b.	Common Calamint	Calamintha officinalis Moench
Calendula a.	Marygold	Calendula officinalis Linn.
Camphorata a.	Stinking Ground Pine	Camphorosma monspeliacum Linn. ?
Cannabis a.	Hemp	Cannabis sativa Linn.
Capsicum Indicum a.	Guinea Pepper	Capsicum frutescens Linn.
Cardamine p.	Lady's Smock	Cardamine pratensis Linn.
Cardiaca p.	Motherwort	Leonurus Cardiaca Linn.
Carduus Benedictus a.	Blessed Thistle	Carbenia benedicta Adans.
Carduus Mariae b.	Our Lady's Thistle	Silybum Marianum Gaertn. var.
Carthamus a.	Bastard Saffron	Carthamus tinctorius Linn.
Carum b.	Caraway	Carum Carvi Linn.
Caryophyllata p.	Wood Avens	Geum urbanum Linn.
Caryophyllus	Clove Gilly Flower	Dianthus Caryophyllus Linn. var.
hortensis p.		
Cataputia b.	Garden Spurge	Euphorbia Lathyris Linn.
Cauda equina p.	Horse-Tail	Equisetum arvense Linn.
Centaureum majus p.	Great Century	Centaurea Centaureum Linn.
Centaureum minus a.	Lesser Century	Erythraea Centaureum Pers.
Centenodium a.	Knot-Grass	Polygonum aviculare Linn.
Ceterach p.	Spleen Wort	Asplenium Ceterach Linn.
Cerefolium a.	Chervil	Anthriscus Cerefolium Hoffm.
Chamedrys p.	Germander	Teucrium Chamaedrys Linn.
Chamaemelum p.	Chamomile	Anthemis nobilis Linn.
Chamaepytis a.	Ground Pine	Ajuga Chamaepytis Schreb.
Cheri sive	Yellow Wall Flower	Cheiranthus Cheri Linn.
Leucoium luteum		
Chelidonium majus p.	Greater Celandine	Chelidonium majus Linn.
Chelidonium minus p.	Lesser Celandine	Ranunculus Ficaria Linn.
Cicer album a.	White Cicers or Chick Pease	Cicer arietinum Linn. var.
Cicer nigrum a.	Black Cicers	Cicer arietinum Linn. var.
Cicer rubrum a.	Red Cicers	Cicer arietinum Linn. var.
Cichorium p.	Succory	Cichorium Intybus Linn.
Cicuta b.	Hemlock	Conium maculatum Linn.
Citrullus a.	Citrule or Water Melon	Citrullus vulgaris Schrad.
Cochlearia	Common	Cochlearia anglica Linn.
Britannica b.	Scurvy Grass	
Cochlearia	Round-leav'd	Cochlearia officinalis Linn.
Rotundifolia b.	Sea Scurvy Grass	
Colocynthus a.	Coloquintida	Citrullus Colocynthis Schrad.
Conyza a.	Flea-Bane or Lady's-Glove	Pulicaria vulgaris Gaertn.
Consolida major p.	Great Comfry	Symphytum officinale Linn.
Consolida	Sarasens Consound	Senecio saracenicus Linn.
sarasenica p.		
Convolvulus major p.	Great Bind-Weed	Calystegia sepium R. Br.
Coriandrum a.	Coriander	Coriandrum sativum Linn.
Coronopus b.	Buck-Horn Plantine	Plantago Coronopus Linn.
Cotula faetida a.	Stinking May-Weed	Anthemis Cotula Linn.
Crassula p.	Orpine	Sedum purpureum Link
Crithmum b.	Sampire	Crithmum maritimum Linn.
Crocus, verus,	Saffron	Crocus sativus Linn.
autumnalis p.		
Cruciata p.	Cross Wort	Galium Cruciata Scop.
Cucumis hortensis a.	Garden-Cucumber	Cucumis sativus Linn.
Cucumis sylvestris	Squirting or	Ecballium Elaterium A. Rich.
seu asininus b.	wild Cucumber	
Cucurbita a.	Gourd	Cucurbita Lagenaria Linn.
Cuminum a.	Cumme	Cuminum Cyminum Linn.
Cuscuta a.	Dodder	Cuscuta europaea Linn.
Cyanus major p.	Great blen Bottle	Centaurea montana Linn.
Cyanus minor a.	Lesser blen Bottle	Centaurea Cyanus Linn. var.
Cynaro p.	Artichok	Cynara Cardunculus Linn.
Cynoglossum p.	Hound's-Tongue	Cynoglossum officinale Linn.
Cyperus longus p.	Long rooted Cyperus	Cyperus longus Linn.
Cyperus rotundus p.	Round rooted Cyperus	Cyperus rotundus Linn.

<i>Daucus Creticus</i> p.	Candy Carrot	<i>Athamanta cretensis</i> Linn.
<i>Daucus nostras</i> b.	Wild Carrot	<i>Daucus Carota</i> Linn.
<i>Dens Canis</i> p.	Dog's-Tooth Violet	<i>Erythronium Dens-canis</i> Linn.
<i>Dens Leonis</i> p.	Dandelion	<i>Taraxacum officinale</i> Web.
<i>Delphinium</i> a.	Lark's-Heel	<i>Delphinium Ajacis</i> Linn.
<i>Dentaria</i> p.	Tooth Wort	<i>Cardamine bulbifera</i> Crantz
<i>Digitalis</i> b.	Fox-Glove	<i>Digitalis purpurea</i> Linn.
<i>Dipsacus sativus</i> b.	Garden Teasle, or Venus Bason	<i>Dipsacus fulpurnus</i> Linn.
<i>Dipsacus</i> <i>sylvestris</i> b.	Wild Teasle	<i>Dipsacus sylvestris</i> Mill.
<i>Doronicum</i> p.	Leopard's-Bane	<i>Doronicum Pardalianches</i> Linn.
<i>Draba flore albo</i> p.	Arabian Mustard	<i>Lepidium Draba</i> Linn.
<i>Dracontium</i> p.	Dragons	<i>Dracunculus vulgaris</i> Schoff.
<i>Dracunculus</i> p.	Tarragon	<i>Artemisia Dracunculus</i> Linn.
<i>Echium</i> b.	Viper's Bouglass	<i>Echium vulgare</i> Linn.
<i>Elatine foemina</i> a.	Female Speedwel	<i>Linaria spuria</i> Mill.
<i>Endivia</i> a.	Endive	<i>Cichorium Endivia</i> Linn.
<i>Enula Campana</i> p.	Elecampane	<i>Inula Helenium</i> Linn.
<i>Erigerum</i> , sive <i>senecio</i> a.	Groundsel	<i>Senecio vulgaris</i> Linn.
<i>Eruca latifolia</i>	Garden Rocket	<i>Eruca sativa</i> Mill.
<i>alba sativa</i> a.		
<i>Eryngium</i> <i>maritimum</i> p.	Sea-Holly	<i>Eryngium maritimum</i> Linn.
<i>Erysimum</i> a.	Hedge-Mustard	<i>Sisymbrium officinale</i> Scop.
<i>Esula major</i> p.	Great Spurge	<i>Euphorbia palustris</i> Linn.
<i>Esula minor</i> p.	Lesser Spurge	<i>Euphorbia Esula</i> Linn.
<i>Eupatorium</i> <i>avicenne</i> p.	Hemp like Agrimony	<i>Eupatorium cannabinum</i> Linn.
<i>Euphrasia</i> a.	Eye-Bright	<i>Euphrasia officinalis</i> Linn.
<i>Faba</i> a.	A Bean	<i>Vicia Faba</i> Linn.
<i>Fegopyrum</i> a.	Buck-Wheat	<i>Fagopyrum esculentum</i> Moench
<i>Ferula</i> p.	Fennel Gyant	<i>Ferula</i> sp.
<i>Filipendula</i> p.	Drop Wort	<i>Spiraea Filipendula</i> Linn.
<i>Filix florida</i> seu <i>osmunda Regalis</i> p.	Flowering Fairn	<i>Osmunda regalis</i> Linn.
<i>Filix foemina</i> p.	Female Fairn	<i>Pteris aquilina</i> Linn.
<i>Filix mas</i> p.	Male Fairn	<i>Nephrodium Filix-mas</i> Rich.
<i>Flos Adonis</i> a.	Adonis Flower	<i>Adonis autumnalis</i> Linn.
<i>Flos Solis</i> a.	Sun Flower	<i>Helianthus annuus</i> Linn.
<i>Foeniculum vulgare</i> p.	Common Fennel	<i>Foeniculum vulgare</i> Mill.
<i>Foeniculum dulce</i> b.	Sweet Fennel	<i>Foeniculum dulce</i> DC.
<i>Foenum graecum</i> a.	Foenugreek	<i>Trigonella Foenum-graecum</i> Linn.
<i>Fragaria vulgaris</i> p.	Common Strawberry	<i>Fragaria vesca</i> Linn.
<i>Fragaria virginiana</i> p.	Virginian Strawberry	<i>Fragaria virginiana</i> Duch.
<i>Fraxinella</i> p.	Bastard Dittany, or Fraxinel	<i>Dictamnus Fraxinella</i> Pers.
<i>Fumaria vulgaris</i> a.	Common Fumitory	<i>Fumaria officinalis</i> Linn.
<i>Fumaria Bulbosa</i> p.	Bulbou's Fumitory or Hollow-Root	<i>Corydalis tuberosa</i> DC.
<i>Galega</i> p.	Goat's Rue	<i>Galega officinalis</i> Linn.
<i>Gallium</i> p.	Lady's Bed-Straw	<i>Galium verum</i> Linn.
<i>Gentiana</i> p.	Gentian	<i>Gentiana acaulis</i> Linn.
<i>Gentianella</i> <i>autumnalis</i> a.	Bastard-Gentian	<i>Gentiana Amarella</i> Linn.
<i>Geranium</i> <i>Columbinum</i> b.	Dove's-Foot Cransbill	<i>Geranium molle</i> Linn.
<i>Geranium</i> <i>Moschatum</i> b.	Musked Cransbill	<i>Erodium moschatum</i> L'Hérit.
<i>Geranium</i> <i>Robertianum</i>	Herb-Robert	<i>Geranium Robertianum</i> Linn.
<i>Gladiolus</i> p.	Cornflag or Sword-Lilly	<i>Gladiolus</i> sp.
<i>Glycyrrhiza</i> p.	Liquorice	<i>Glycyrrhiza glabra</i> Linn.
<i>Gnaphalium</i> , <i>Pescati</i> p.	Mountain Cud-Weed or Cat's-Foot	<i>Antennaria dioica</i> Gaertn.

Gramen Caninum p.	Dog's Grass	Agropyron repens Beauv.
Gramen Mannae, vel Dactyloide a.	Manna Grass or Russia Seed	Glyceria fluitans, R. Br.
Gramen Parnassi b.	Grass of Parnassus	Parnassia palustris Linn.
Gratiola p.	Hedge-Hyssop	Gratiola officinalis Linn.
Halimus a.	Sea Purslane	Atriplex portulacoides Linn.
Hedera Terrestris p.	Ground Ivy	Nepeta Glechoma Benth.
Helleborus albus p.	White Hellebor	Veratrum album Linn.
Helleborus niger p.	Black Hellebor	Helleborus niger Linn.
Heliotropium tricrocon a.	The colouring Turnsole	Chrozophora tinctoria A. Juss.
Helxine sive parietaria p.	Pellitory of the Wall	Parietaria officinalis Linn.
Hepatica nobilis p.	Noble Liverwort	Anemone Hepatica Linn.
Hepatica terrestris p.	Ground Liverwort	Peltidea canina Ach.
Herba parlyseos p.	Couslip	Primula veris Linn.
Herba paris p.	Herb True-Love, or one Berry	Paris quadrifolia Linn.
Herba doria p.	Doria's-Woundwort	Senecio Doria Linn.
Hermodactylus p.	Hermodactyls	Iris tuberosa Linn.
Horniaria a.	Rupture-Wort	Herniaria glabra Linn.
Hesperis p.	Dame's-Violet or Queen's Gilly Flower	Hesperis matronalis Linn.
Hieracium b.	Hauk-Weed	Hieracium sp.
Hippolapathum p.	Great Garden Dock	Rumex aquaticus Linn.
Hipposelinum p.	Alexanders	Smyrniolum Olusatrum Linn.
Hordeum a.	Barley	Hordeum vulgare Linn.
Horminum hortense b.	Garden Clary	Salvia Sclarea Linn.
Horminum sylvestre b.	Wild Clary	Salvia sylvestre Linn.
Hyacinthus p.	Hyacinth or Hare-Bills	Scilla nonscripta Hoffm. et Link
Hyocyamus albus a.	White Hen-Bane	Hyoscyamus albus Linn.
Hyocyamus niger b.	Black Hen-Bane	Hyoscyamus niger Linn.
Hypericum p.	St. John's-Wort	Hypericum sp.
Hypoglossum p.	Horse Tongue	Ruscus Hypoglossum Linn.
Hyssopus p.	Hyssop	Hyssopus officinalis Linn.
Iberis Cardamantica a.	Sciatica Cresses	Lepidium Iberis Linn.
Illecebra sive sedum minus	Small House-Leek	Sedum reflexum Linn.
Imperatoria p.	Master-Wort	Peucedanum Ostruthium Koch
Inguinalis seu aster atticus	Golden Star Wort	Aster alpinus Linn.
Iris alba florentina p.	White Florentine Flower-Deluce	Iris florentina Linn.
Iris nostras purpurea p.	Common Flower-Deluce	Iris germanica Linn.
Isatis seu glastum p.	Woad.	Isatis tinctoria Linn.
Jacobaea b.	St. Jame's-Wort or Rag-Wort	Senecio Jacobaea Linn.
Jalapa b.	Jalap	Mirabilis Jalapa Linn.
Juncus vulgaris p.	Common Rush	Juncus sp.
Kali geniculatum a.	Glass-Wort	Salicornia herbacea Linn.
Kali spinosa a.	Prickly Glass-Wort	Salsola Kali Linn.
Lactuca agnina a.	Lamb's Lettuce	Valerianella olitoria Poll.
Lactuca foliis crispis a.	Curled Lettuce	Lactuca sativa Linn. var.
Lactuca selecia a.	Selecian Lettuce	
Lactuca vulgaris a.	Common Lettuce	
Lagopus a.	Hare's Foot	Lactuca sativa Linn.
Lamium album p.	White Archangel	Trifolium arvense Linn.
Lamium luteum p.	Yellow Archangel	Lamium album Linn.
Lamium rubrum a.	Red Archangel	Lamium Galeobdolon Crantz
Lampsana domestica a.	Niple-Wort	Lamium purpureum Linn.
Lapathum aquaticum p.	Great Water-Dock	Lapsana communis Linn.
		Rumex Hydrolapathum Huds.

Lapathum sanguineum b.	Blood-Wort	Rumex sanguineum Linn.
Laserpitium p.	Laser-Wort	Laserpitium sp. or Prangos ferulacea Lindl.
Lavendula p.	Lavender	Lavandula officinalis Linn.
Laurus Alexandrina p.	Bay of Alexander	Ruscus Hypophyllum Linn.
Lens palustris a.	Duck's-Meat	Lemna minor Linn.
Lens vulgaris a.	Lentils	Lens esculenta Moench
Lepidium p.	Dittander or Pepper-Wort	Lepidium latifolium Linn.
Levisticum p.	Lovage	Levisticum officinale Koch
Libanotis p.	Herb Frankincense	Laserpitium latifolium Linn.
Lilium album p.	White Lilly	Lilium candidum Linn.
Lilium Convallium p.	Lilly of the Valley	Convallaria majalis Linn.
Limonium a.	Sea Lavender	Statice Limonium Linn.
Linaria vulgaris	Toad Flax	Linaria vulgaris Mill.
Lingua Cervina p.	Hart's Tongue	Scolopendrium vulgare Sm.
Linum sativum a.	Manured Flax	Linum usitatissimum Linn.
Linum Catharticum a.	Purging Flax	Linum catharticum Linn.
Lythospermum p.	Gromwel	Lithospermum officinale Linn.
Lolium a.	Darnel	Lolium temulentum Linn.
Lotus urbana a.	Sweet Tree-Foil	Trigonella caerulea Ser.
Lunaria p.	Moon-Wort	Botrychium Lunaria Sw.
Lupinus a.	Lupins	Lupinus sp.
Lysimachia p.	Loose-Strife	Lysimachia vulgaris Linn.
Majorana a.	Sweet Marjoram	Origanum Majorana Linn.
Malva vulgaris p.	Common Mallow	Malva sylvestris Linn.
Malva Rosea p.	Holly-Hocks	Althea rosea Cav.
Mandragora p.	Mandrake	Mandragora officinarum Linn.
Marubium album p.	White Hore-Hound	Marrubium vulgare Linn.
Marubium nigrum p.	Black Hore-Hound	Ballota nigra Linn.
Marum Syriacum p.	Syrian Herb-Mastick	Origanum syriacum Linn.
Marum vulgare p.	Common Herb-Mastick	Thymus Mastichina Linn.
Matricaria p.	Fever-Few	Chrysanthemum Parthenium Bernh.
Melilotus p.	Melilote	Melilotus officinalis Linn.
Melissa p.	Baum	Melissa officinalis Linn.
Melo a.	Melon	Cucumis Melo Linn.
Mentha aquatica p.	Water Mint	Mentha aquatica Linn.
Mentha Ocymi	Basil-Mint	Mentha gentilis Linn.
odore p.		
Mentha sativa p.	Garden Mint	Mentha sativa Linn.
Mentha spicata p.	Spear-Mint	Mentha viridis Linn.
Mentha crispa p.	Curl'd-Mint	Mentha spicata Huds.
Menthastrum p.	Horse-Mint	Mentha sylvestris Linn.
Mercurialis sativa a.	Male French Mercury	Mercurialis annua Linn.
Mercurialis	Male Dog's-Mercury	Mercurialis perennis Linn.
montana p.		
Meum p.	Spignel or Baudmony	Meum Athamanticum Jacq.
Milium semine albo a.	White Millet	Panicum miliaceum Linn.
Millefolium p.	Milfoil or Yarrow	Achillea Millefolium Linn.
Morsus Diaboli p.	Devil's-Bite	Scabiosa Succisa Linn.
Myagrum sativum a.	Gold of Pleasure	Camelina sativa Crantz
Myrrhus p.	Myrrhe	Myrrhis odorata Scop.
Myrtillus p.	Whortle Berry or Blea-Berries	Vaccinium Myrtillus Linn.
Napum dulce b.	Sweet Naveu	Brassica Napus Linn.
Narcissus	Common	Narcissus biflorus Curt.
medio luteus	pale Daffodil	
Nasturtium	Water Cresses	Nasturtium officinale R.Br.
aquaticum p.		
Nasturtium	Curl'd Cresses	Lepidium sativum Linn. var.
crispum a.		Lepidium sativum Linn.
Nasturtium	Garden Cresses	
hortense a.		
Nasturtium	Indian Cresses	Tropaeolum majus Linn.
Indicum a.		
Nepeta p.	Cat-Mint	Nepeta Cataria Linn.

Nicotiana	Virginian Tobacco	Nicotiana Tabacum Linn.
Virginiana a.		
Nigella Romana a.	St. Katharine's- Flower	Nigella damascena Linn.
Nummularia p.	Money-Wort	Lysimachia Nummularia Linn.
Nymphaea p.	Water-Lilly	Nymphaea sp.
Ocimum a.	Sweet Basil	Ocimum Basilicum Linn.
Onobrychis p.	Saint Foin or Cock's Head	Onobrychis viciaefolia Scop.
Ononis p.	Rest-Harrow	Ononis arvensis Linn.
Ophioglossum p.	Adder's-Tongue	Ophioglossum vulgatum Linn.
Origanum p.	Bastard or Pot- Marjoram	Origanum vulgare Linn.
Ornithogalum	Common Star of Bethlehem	Ornithogalum umbellatum Linn.
vulgare p.		
Orobus annuus	Bitter Vetch	Vicia Ervilia Willd.
Oriza a.	Ryce	Oryza sativa Linn.
Oxylapathum p.	Sharp-pointed Dock	Rumex conglomeratus Murr.
Paeonia mas p.	Male Peony	Paeonia officinalis Linn.
Paeonia foemina p.	Female Peony	Paeonia officinalis Linn. var.
Panax heracleum p.	Hercules his All-heal	Opopanax Chironium Koch
Panax Coloni p.	Cloun's All Heal	Stachys palustris Linn.
Panicum a.	Panick	Setaria italica Beauv.
Papaver album a.	White Garden-Poppie	Papaver somniferum Linn. var.
Papaver nigrum a.	Black Garden-Poppie	Papaver somniferum Linn. var.
Papaver Rheas a.	Corn Poppie	Papaver Rheas Linn.
Paronychia	Rue-Whitlow-Grass	
rutaceo folio a.		
Pastinaca sativa b.	Garden Parsnep	Peucedanum sativum Benth. et. Hook. f.
Pastinaca sylvestris b.	Wild Parsnep	Daucus Carota Linn.
Pedicularis b.	Cock's Comb or yellow Ratle	Rhinanthus Crista-galli Linn.
Pentaphyllum p.	Cinque-Foil or Five Leav'd Grass	Potentilla reptans Linn.
Pepo a.	Pompion	Cucurbita Pepo Linn.
Percepier Anglorum a.	Parsley Break-Stone	Alchemilla arvensis Scop.
Perfoliata a.	Thorrow-Wax	Bupleurum rotundifolium Linn.
Persicaria mitis a.	Spotted or Dead Arsmart	Polygonum Persicaria Linn.
Persicaria urens a.	Hot Arsmart	Polygonum Hydropiper Linn.
Petasitis p.	Butter Burr	Petasites officinalis Moench
Petroselinum	Macedonian Parsley	Athamanta macedonica Spreng.
Macedonicum		
Petroselinum	Common Parsley	Carum Petroselinum Benth. et Hook. f.
vulgare b.		
Petum a	English Tobacco	Nicotiana rustica Linn.
Peucedanum p.	Hog's-Fennel	Peucedanum officinale Linn.
Phalaris a.	Canary Grass	Phalaris canariensis Linn.
Phaseolus a.	Kidney Beans	Phaseolus sp.
Pimpinella	Small Burnet	Poterium Sanguisorba Linn.
sanguisorba p.		
Pimpinella	Burnet saxifrage	Pimpinella Saxifraga Linn.
saxifraga b.		
Pisum a.	Pease	Pisum sativum Linn.
Pinguicula a.	Butter Wort	Pinguicula vulgaris Linn.
Plantago latifolia b.	Broad Leav'd Plantine	Plantago major Linn.
Plantago	Narrow Leav'd Plantine	Plantago lanceolata Linn.
augustifolia p.		
Plantago aquatica p.	Water Plantine	Alisma Plantago-aquatica Linn.
Polium montanum b.	Poley Mountain	Teucrium Polium Linn.
Polypodium p.	Polypody	Polypodium vulgare Linn.
Polytrichum p.	English Maiden-Hair	Asplenium Trichomanes Linn.
Porrum b.	Leeks	Allium Porrum Linn.
Portulaca a.	Purslane	Portulaca oleracea Linn.
Primula veris p.	Primrose	Primula veris Linn.
Prunella p.	Self-Heal	Prunella vulgaris Linn.

<i>Psyllium a.</i>	Flea-Wort	<i>Plantago Psyllium</i> Linn.
<i>Ptarmica p.</i>	Sneeze-Wort	<i>Achillea Ptarmica</i> Linn.
<i>Pulegium cervinum p.</i>	Hart Penny-Royal	<i>Preslia cervina</i> Fres.
<i>Pulegium regale p.</i>	Common Penny-Royal	<i>Mentha Pulegium</i> Linn.
<i>Pulmonaria</i>	Spotted Lung-Wort	<i>Pulmonaria officinalis</i> Linn.
<i>maculosa p.</i>		
<i>Pulsatilla p.</i>	Pasque Flower	<i>Anemone Pulsatilla</i> Linn.
<i>Pyrranthum p.</i>	Pellitory of Spain	<i>Anacyclus Pyrethrum</i> DC.
<i>Pyrola p.</i>	Wintergreen	<i>Pyrola rotundifolia</i> Linn.
<i>Ranunculus p.</i>	Crow-Foot	<i>Ranunculus acris</i> Linn.
<i>Raphanus hortensis a.</i>	Garden Radish	<i>Raphanus sativus</i> Linn.
<i>Raphanus</i>	Horse Radish	<i>Cochlearia Armoracia</i> Linn.
<i>rusticanus p.</i>		
<i>Rapum b.</i>	Turnep	<i>Brassica Rapa</i> Linn.
<i>Rhabarbarum</i>	English Rewbarb	<i>Rheum Rhaponticum</i> Linn.
<i>nostras p.</i>		
<i>Rhabarbarum</i>	Monk's Rewbarb	<i>Rumex alpinus</i> Linn.
<i>monachorum</i>		
<i>Rhodia radix p.</i>	Rose-Root	<i>Sedum Rhodiola</i> DC.
<i>Ricinus sive</i>	Great Spurge or	<i>Ricinus communis</i> Linn.
<i>palma Christi</i>	Jonah's Gourd	
<i>Ros solis a.</i>	Sun-Dew	<i>Drosera rotundifolia</i> Linn.
<i>Rubia tinctorum p.</i>	Madder	<i>Rubia tinctorum</i> Linn.
<i>Ruta hortensis p.</i>	Garden-Rew	<i>Ruta graveolens</i> Linn.
<i>Ruta sylvestris p.</i>	Wild Rew	<i>Peganum Harmala</i> Linn.
<i>Salvia absinthites p.</i>	Wormwood-Sage	<i>Salvia triloba</i> Linn.
<i>Salvia major hortensis</i>	Great Garden Sage	<i>Salvia officinalis</i> Linn.
<i>Salvia minor</i>	Sage of Vertue	<i>Salvia officinalis</i> Linn. var.
<i>hortensis p.</i>		
<i>Salvia sylvestris</i>	Wild Sage	<i>Teucrium Scorodonia</i> Linn.
<i>sive scoronia</i>		
<i>Sanicula p.</i>	Sanicle	<i>Sanicula europaea</i> Linn.
<i>Saponaria p.</i>	Sope Wort	<i>Saponaria officinalis</i> Linn.
<i>Satureia hortensis p.</i>	Garden Savory	<i>Satureia hortensis</i> Linn.
<i>Satureia Cretica p.</i>	Candy Savory	<i>Satureia Thymbra</i> Linn.
<i>Satyrium mas p.</i>	Male Satyrium	<i>Habenaria conopsea</i> Benth.
<i>Satyricon foemina p.</i>	Female Satyrium	<i>Orchis maculata</i> Linn.
<i>Saxifraga alba p.</i>	White Saxifrage	<i>Saxifraga granulata</i> Linn.
<i>Scabiosa p.</i>	Scabious	<i>Scabiosa arvensis</i> Linn.
<i>Scandix a.</i>	Shepherd's Needle	<i>Scandix Pecten-Veneris</i> Linn.
<i>Scilla p.</i>	Squill or Sea-Onion	<i>Urginea Scilla</i> Steinh.
<i>Scordium p.</i>	Water Germander	<i>Teucrium Scordium</i> Linn.
<i>Scorzonera p.</i>	Viper's Grass	<i>Scorzonera hispanica</i> Linn.
<i>Scrophularia p.</i>	Figg Wort	<i>Scrophularia nodosa</i> Linn.
<i>Secale a.</i>	Rye	<i>Secale cereale</i> Linn.
<i>Securidaca a.</i>	Hatchet Vetch	<i>Securigera Coronilla</i> DC.
<i>Sedum majus p.</i>	Great House-Leek	<i>Sempervivum tectorum</i> Linn.
<i>Sedum minus p.</i>	Lesser House-Leek	<i>Sedum reflexum</i> Linn.
<i>Serpillum p.</i>	Wild Thyme	<i>Thymus Serpyllum</i> Linn.
<i>Serpentaria virginiana</i>	Virginian Snake-Weed	<i>Pycnanthemum sp.</i>
<i>p.</i>		
<i>Sesamum a.</i>	Oylie Pulse	<i>Sesamum indicum</i> Linn.
<i>Seseli masiliense b.</i>	Hart-Wort of Candy	<i>Tordylium officinale</i> Linn.
<i>Seseli vulgare sive</i>	Mountain Siller	<i>Laserpitium Siler</i> Linn.
<i>siler montanum</i>		
<i>Seseli Scoticum p.</i>	Scottish Sea	<i>Ligusticum scoticum</i> Linn.
	Master-Wort	
<i>Sideritis a.</i>	Iron-Wort	<i>Stachys annua</i> Linn.
<i>Sigillum Solomonis p.</i>	Solomon's Seal	<i>Polygonatum multiflorum</i> All.
<i>Sinapi a.</i>	Common Mustard	<i>Brassica nigra</i> Koch
<i>Sisarum p.</i>	Skirret	<i>Sium Sisarum</i> Linn.
<i>Solanum vulgare p.</i>	Common Night-Shade	<i>Solanum nigrum</i> Linn.
<i>Solanum lethale p.</i>	Deadly Night-Shade	<i>Atropa Belladonna</i> Linn.
<i>Sonchus asper a.</i>	Prickly Sow-Thistle	<i>Sonchus asper</i> Hill
<i>Sonchus levis a.</i>	Smooth Sow-Thistle	<i>Lactuca muralis</i> E. Mey.
<i>Sophia Chirurgorum a.</i>	Flix Weed	<i>Sisymbrium Sophia</i> Linn.
<i>Spatula foetida p.</i>	Stinking Gladden	<i>Iris foetidissima</i> Linn.

Spinachia a.	Spinage	Spinacia oleracea Linn.
Staphis agria a.	Staves Acre or Louse Wort	Delphinium Staphisagria Linn.
Stoechas Arabica	French Lavender	Lavandula Stoechas Linn.
Stoechas Citrina	Golden Cassidony	Gnaphalium Stoechas Linn.
Stramonium	Thorny Apple	Datura Stramonium Linn.
Tanacetum p.	Tansie	Tanacetum vulgare Linn.
Tapsus Barbatus b.	Mullen or Shepherd's Club	Verbascum Thapsus Linn.
Thapsia b.	Deadly Carrot	Elaeoselinum foetidum Boiss.
Thiampi a.	Treackle Mustard	Erysimum cheiranthoides Linn.
Thymum p.	Thyme	Thymus vulgaris Linn.
Tithimalus p.	Wood Spurge	Euphorbia amygdaloides Linn.
Tormentilla p.	Tormentile	Potentilla Tormentilla Neck.
Trachelium p.	Throat-Wort	Campanula Trachelium Linn.
Tragopogon b.	Goat's Beard	Tragopogon pratensis Linn.
Trifolium aquaticum p.	Water Tree Foil	Menyanthes trifoliata Linn.
Trifolium aureum p.	Golden Liver-Wort	Agrimonia Eupatoria Linn.
Trifolium vulgare p.	Common Tree-Foil	Trifolium repens Linn.
Triticum Indicum a.	Indian Wheat	Zea Mays Linn.
Triticum vulgare a.	Common Wheat	Triticum vulgare Vill.
Tussilago p.	Colt's-Foot	Tussilago Farfara Linn.
Valeriana	Great Garden-	Valeriana Phu Linn.
major hortensis p.	Valerian	
Valeriana	Great Wild-Valerian	Valeriana officinalis Linn.
major sylvestris p.		
Valeriana	Small Marsh-Valerian	Valeriana dioica Linn.
minor palustris p.		
Verbena p.	Vervain	Verbena officinalis Linn.
Veronica mas p.	Male Speedwell	Veronica officinalis Linn.
Vicia alba sativa a.	White Veitch or Tare	Vicia sativa Linn.
Vinca pervinca p.	Perewinkle	Vinca major Linn.
Vincetoxicum, vel Asclepias p.	Swallow-Wort	Vincetoxicum officinale Moench
Viola martia p.	March Violet	Viola odorata Linn.
Viola Tricolor a.	Heart's-Ease or Pansies	Viola tricolor, Linn. cult. var.
Virga aurea p.	Golden-Rod	Solidago Virgaurea Linn.
Ulmaria p.	Meadow-Sweet or Queen of the Meadow	Spiraea Ulmaria Linn.
Umbilicus veneris	Venus Navel	Cotyledon Umbilicus Linn.
Urtica Romana a.	Roman Nettle	Urtica pilulifera Linn.
Urtica vulgaris p.	Common Nettle	Urtica dioica Linn.

CATALOGUS ARBORUM.

Abies	Firr Tree	Picea excelsa Linn.
Accacia Aegyptica	Aegyptian Thorn	Acacia arabica Willd.
Acer majus falso Platanus	The great Maple, falsly the Plane Tree	Acer Pseudo-platanus Linn.
Agnus Castus	Chast Tree	Vitex Agnus-Castus Linn.
Agrifolium	Holly Tree	Ilex Aquifolium Linn.
Alnus vulgaris	Common Alder or Allar	Alnus glutinosa Medic.
Amygdalus sativa	Sweet Almond	Prunus Amygdalus Stokes
Amygdalus amara	Bitter Almond	Prunus Amygdalus Stokes
Apocynum folio oblongo vel Periploca	Climbing Dog's Bane	Periploca graeca Linn.
Arbor vitae vel Thuya	The Tree of Life	Thuya occidentalis Linn.
Arbutus	Strawberry Tree	Arbutus Unedo Linn.
Berberis	Barberry Bush	Berberis vulgaris Linn.
Betula	The Birch Tree	Betula alba Linn.
Bryonia alba	White Bryonie	Bryonia dioica Jacq.

Bryonia nigra	Black Bryonie	Tamus communis Linn.
Buxus	Box Tree	Buxus sempervirens Linn.
Capparis	Caper Bush	Capparis spinosa Linn.
Caprifolium	Common wild Honey-Suckle	Lonicera Caprifolium Linn.
Castanea	Chestnut Tree	Castanea sativa Mill.
Cerasus aveum	Bird's Cherry	Prunus Padus Linn.
Cerasus nigra	Black Cherry	Prunus Avium Linn. var.
Cerasus rubra	Red Cherry	Prunus Cerasus Linn.
Cistus foemina	Female Holly-Rose	Cistus sp.
Cistus mas	Male Holly-Rose	Cistus sp.
Colutea vesicaria	Bastard Senna	Colutea arborescens Linn.
Cornus foemina	Female Cornel Cherry	Cornus sanguinea Linn.
Cornus mas	Male Cornel Cherry	Cornus Mas Linn.
Corylus sativa	Filbert Nut	Corylus Avellana Linn.
Corylus sylvestris	Common Hazel Nut	Corylus Avellana Linn.
Cupressus	Cypress Tree	Cupressus sempervirens Linn.
Cytisus	Shrup Tree-Foil	Cytisus sessilifolius Linn.
Dulca Mara	Bitter Sweet	Solanum Dulcamara Linn.
Ebulus	Dwarf Elder	Sambucus Ebulus Linn.
Erica	Heath or Heather	Calluna vulgaris Salisb.
Euonimus vulgaris	The Common Spindle Tree	Euonymus europaeus Linn.
Euonimus virginiana	Virginian Spindle Tree	Euonymus americanus Linn.
Fagus	The Beech Tree	Fagus sylvatica Linn.
Ficus	The Figg Tree	Ficus Carica Linn.
Frangula, sive Alnus nigra Bacrifera	Black Berry Bearing Alder	Rhamnus Frangula Linn.
Fraxinus	The Ash Tree	Fraxinus excelsior Linn.
Genista angulosa	Common Broom	Cytisus scoparius Link
Genista spinosa	Common Whins or Furz	Ulex europaeus Linn.
Gossypium	Cotton Bush	Gossypium sp.
Grassularia	The Gooseberry Bush	Ribes Grossularia Linn.
Hedera arborea	Tree Ivy	Hedera Helix Linn.
Ilex	Evergreen-Oak or Scarlet-Oak	Quercus Ilex Linn.
Jasminum	Jasmine	Jasminum officinale Linn.
Juglans	The Walnut Tree	Juglans regia Linn.
Juniperus	Juniper Bush	Juniperus communis Linn.
Laburnum	Bean-Treefoil or Pease Cod-Tree	Laburnum vulgare J. S. Presl
Larix	Larch Tree	Larix europaea DC.
Laureola	Spurge Laurel	Daphne Laureola Linn.
Laurus	Sweet Bay	Laurus nobilis Linn.
Laurocerasus	Cherry Bay	Prunus Laurocerasus Linn.
Lentiscus	Mastick Tree	Pistacia Lentiscus Linn.
Ligustrum	Private Tree	Ligustrum vulgare Linn.
Lupulus sativus	Garden Hopes	Humulus Lupulus Linn.
Malva arborea	Tree Mallow	Lavatera arborea Linn.
Malus vulgaris	The Apple Tree	Pyrus Malus Linn. var.
Malus sylvestris	The Wild or Crab-Apple	Pyrus Malus Linn.
Malus armeniaca	Apricock Tree	Prunus Armeniaca Linn.
Malus orancha	Orange Tree	Citrus Aurantium Linn.
Malus cotonea	Quince Tree	Pyrus Cydonia Linn.
Malus sive cydonia		
Malus citria	Citron Tree	Citrus Medica Linn.
Malus sive medica		

Malus limonia	Lemon Tree	Citrus Medica Linn.
Malus granata	Pomgranate Tree	Punica Granatum Linn.
sive punica		
Malus granata flore pleno sive balaustius	Pomgranate Tree with a double Flower	Punica Granatum Linn.
Mespilus	Medlar Tree	Mespilus germanica Linn.
Mezereon	Mezereon or Spurge-Olive	Daphne Mezereum Linn.
Morus	Mulberry Tree	Morus sp.
Myrtus	Myrtle Tree	Myrtus communis Linn.
Oliva	Olive Tree	Olea europaea Linn.
Oleaster	Wild Olive Tree	Elaeagnus angustifolia Linn.
Paliurus sive Rhamnus jujubine folio	Christ's Throne	Paliurus aculeatus Lamk.
Picea	Pitch Tree	Picea excelsa Link
Pinus	Pine Tree	Pinus sylvestris Linn.
Pistachia virginiana, vel staphylodendron	Virginian Bladder-Nut or Pritach Nut	Staphylea trifolia Linn.
Pistachia sylvestris	Common Bladder-Nut	Staphylea pinnata Linn.
Populus nigra	Black Poplar Tree	Populus nigra Linn.
Prunus sativa	Plum Tree	Prunus domestica Linn.
Prunus sylvestris	Wild Plum or Sloe Tree	Prunus spinosa Linn.
Pyrus	Pear Tree	Pyrus communis Linn.
Quercus	Oak Tree	Quercus sessiliflora Salisb.
Rhamnus Catharticus	Purging Thorn	Rhamnus cathartica Linn.
Rhamnus salicis folio angusto	Sallow Thorn or Sea-Buck Thorn	Hippophae rhamnoides Linn.
Rhus Virginiana	Virginian Sumach or Buck-Horn-Tree	Rhus typhina Linn.
Ribes fructu albo	White Curran Bush	Ribes rubrum Linn. var.
Ribes fructu nigro	Black Curran Bush	Ribes nigrum Linn.
Ribes fructu rubro	Red Currant Bush	Ribes rubrum Linn.
Rosa alba	White Rose	Rosa alba Linn.
Rosa pallida	Pale Rose	Rosa sp.
Rosa rubra	Red Rose	Rosa sp.
Rosa sylvestris	Wild Rose	Rosa canina Linn.
Rosmarinus	Rosemary	Rosmarinus officinalis Linn.
Rubus vulgaris	Common Bramble or Black-Berry-Bush	Rubus fruticosus Linn.
Rubus idaeus	Rasp Berry or Hynd Berry	Rubus Idaeus Linn.
Ruscus sive Bruscus	Butcher's Broom	Ruscus aculeatus Linn.
Sabina	Savine	Juniperus Sabina Linn.
Salix	Common Willow	Salix alba Linn.
Sambucus vulgaris	Common Elder	Sambucus nigra Linn.
Sambucus montana	Red or Mountain Elder	Viburnum Opulus Linn.
Siliqua edulis	Carob Tree	Ceratonia Siliqua Linn.
Sorbus sylvestris	Wild Service Tree or Reddings	Pyrus Aucuparia Ehrh.
Spina alba	Common Hawthorn	Crataegus monogyna Jacq.
Suber	Cork Tree	Quercus Suber Linn.
Tamariscus	Tamarisk Tree	Tamarix gallica Linn.
Terebinthus	Turpentine Tree	Pistacia Terebinthus Linn.
Tilia	Lime Tree	Tilia vulgaris Heyne
Tragacantha	Goat's Thorn	Astragalus Tragacantha Linn.
Viburnum	The Wayfaring Tree	Viburnum Lantana Linn.
Vitis	The Vine	Vitis vinifera Linn.
Ulmus	The Elm Tree	Ulmus montana With.

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31. — Will of Robert Preston, 14th December, 1674.
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35. — vol. 40, f. 325, 4th January, 1712.
36. — vol. 40, f. 511, 10th September, 1712.
37. — vol. 41, f. 32, 27th February, 1713.
38. — vol. 41, f. 41, 18th March, 1713.
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58. — vol. 3, 1695-1708, p. 323, 24th October, 1706. Text is illegible. +
59. — vol. 4, 1708-37, p. 64.
60. — — p. 90.
61. — — p. 112.
62. — — p. 119.
63. — — p. 133.
64. — — p. 193.

LETTERS PRESERVED IN THE BRITISH MUSEUM.

Charles Preston to Sir Hans Sloane.

65. 28th March, 1697, ex Sloane MSS., 4036, f. 292.
66. 11th September, 1697, " " 4036, f. 349 (quoted (8) p. 51).
67. 27th October, 1697.
68. 1st March, 1697-8, " " 4037, f. 33. +
69. 10th April, 1698, " " 4037, f. 52. +
70. 1st November, 1698, " " 4037, f. 149. +
71. No date. " " 4037, f. 162.
72. 10th December, 1698, " " 4037, f. 167.
73. 31st December, 1698, " " 4037, f. 177.
74. 13th October, 1698.
75. 17th March, 1698, " " 4037, f. 232.

76. 29th April, 1699, ex Sloane MSS., 4037, f. 260.
 77. 23rd May, 1699, " " 4037, f. 272.
 78. 13th June, 1699, " " 4037, f. 287. +
 79. 13th June, 1699, " " 4037, f. 289. +
 80. 23rd February, 1699, " " 4037, f. 372 (quoted (8) p. 52).
 81. 25th February, 1700.
 82. 22nd July, 1701, " " 4038, f. 195.
 83. 26th December, 1701, " " 4038, f. 279.
 84. 13th January, 1701, " " 4038, f. 286.
 85. 2nd May, 1702, " " 4038, f. 337.
 86. 3rd November, 1702, " " 4039, f. 39.
 87. 21st December, 1702, " " 4039, f. 52.
 88. 22nd December, 1702, " " 4039, f. 55.
 89. 3rd March, 1702, " " 4039, f. 93. +
 90. 10th March, 1702, " " 4039, f. 96.
 91. 1st November, 1703, " " 4039, f. 206.
 92. 20th September, 1705, " " 4040, f. 62. +
 93. 11th September, 1705, " " 4040, f. 63. +
 94. 19th January, 1706, " " 4040, f. 112.
 95. 25th September, 1706, " " 4040, f. 222.
 96. 16th July, 1707, " " 4040, f. 382. +
 97. 5th August, 1707, " " 4041, f. 8. +
 98. 6th November, 1707, " " 4041, f. 56. +
 99. 24th September, 1703, " " 4041, f. 210. +
 100. No date. " " 4041, f. 212. +
 101. 14th April, 1709, " " 4041, f. 310.
 102. 20th May, 1710, " " 4042, f. 135.
 103. 13th June, 1710, " " 4042, f. 146.
 104. 27th January, 1711, " " 4042, f. 235.
 105. No date. " " 4060, f. 125, apparently written in 1698. +
 106. No date. " " 4060, f. 127, probably written 1697.
 107. No date. " " 4060, f. 128, probably written 1704. +

Charles Preston to J. Petiver.

108. 8th September, 1701, red. 15th September, ex Sloane MSS., 4063, f. 117.
 109. 3rd March, 1702, ex Sloane MSS., 4063, f. 146.
 110. 2nd September, 1705, " " 4064, f. 82.
 111. 5th August, 1707, " " 4064, f. 147. +
 112. 2nd September, 1707, " " 4064, f. 151. +
 113. 24th September, 1708, " " 4064, f. 178.
 114. 22nd October, 1708, " " 4064, f. 182. +
 115. 22nd May, 1711, red. Mch. X, 1711/12, ex Sloane MSS., 4064, f. 263.
 116. 28th September (no year mentioned), 4067, f. 113. +

Anon. to Charles Preston.

117. 15th November, 1699, ex Archives Roy. Soc. Lond. concerning some Trans. in ye Academ des Sciences. +

George Preston to J. Petiver.

118. No date, ex Sloane MSS., 4067, f. 114.
 119. 24th October, 1713. " " 4065, f. 124.

+ No excerpts have been made from documents of little botanical interest marked thus.

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