IV. *A General View of the Writings of Linnæus.*

By Richard Pulteney, M. D. and F. R. S. 8vo,
Payne, London. 1781. 425 pages. 6s. boards.

WE have here a concise and judicious view of the writings of a Professor, whose talents enabled him to reform the whole science of natural history.

The work begins with some biographical anecdotes, which, as the author modestly informs us, have been almost wholly collected from Linnæus's own writings, and other printed works, and are introduced principally to relieve the tediousness of a bare account of books, and to connect in a better manner the series and occasions of his publications, all of which are noticed in this performance; but as most of them were subservient to his great object the *System of Nature*, the outlines of that work bear a principal part in the volume before us.

Charles von Linné, we are told, was the son of a Swedish divine, and born May 24, 1707, at Roeskult in the province of Smaland, in Sweden. His father was soon after preferred to the living of Stenbrihuet, in the same province, where

where dying in 1748, at the age of 70, he was succeeded by another son. The family took their name from a large lime or linden tree, yet standing on the farm where Linnæus was born.

From the straightness of his father's income, our young naturalist was on the point of being destined to a mechanical employment; but fortunately this design was over-ruled. In June, 1717, he was sent to school at Wexfio, from whence he was removed to Lund, and from this last place in 1728 to Upsal, where he soon contracted a close friendship with Artedi, one of his fellow-students, whose name is so famous in Ichthyology.

Olaus Celsius, who was the restorer of natural history in Sweden, being struck with the diligence of Linnæus, admitted him to his house, his table, and his library. In 1708 he was deputed by the Academy of Sciences at Upsal to make the tour of Lapland. This tour had been made for the first time by the elder Rudbeck in 1695, but unfortunately the whole fruit of that expedition, except two or three copies of the *Campi Elysi*, perished in the dreadful fire of Upsal, in 1702. In this journey, the greatest part of which was performed on foot, Linnæus
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though young and robust, was frequently quite exhausted. He was wont to sleep under the boat with which he and his companions (two Laplanders, one his interpreter, the other his guide) forded the rivers. In descending one of these rivers, he narrowly escaped perishing by the oversetting of the boat, and lost many of the natural productions which he had collected.

After his return to Upsal, he presented a *florula Lapponica* to the Academy, in which he arranged the plants according to the sexual system. In 1733 he visited the several mines in Sweden, and the year following was employed to investigate the natural productions of Dalekarlia, where he taught mineralogy and practised physic. Here he contracted an acquaintance with the daughter of a Dr. More, physician of the place, whom he afterwards married.

In 1735 Linnæus travelled over many other parts of Sweden, some parts of Denmark and Germany, and fixed in Holland, where* he took his doctor's degree in physic in the month of June of that year. His thesis on that occasion was entitled *Hypothesis nova de febrium intermittentium*

* At Harderwyck.

mittentium causa. In this year also he published his first sketch of the *Systema Naturæ*, in 12 pages in folio. The year following he came to England, where he was well received by Dillenius, Dr. Martyn, Mr. Rand, Mr. Millar, Mr. Collinson, and particularly by Dr. Isaac Lawson. Boerhaave's letter to Sir Hans Sloane on this occasion is preserved in the British Museum, and runs thus: "*Linnaeus qui has tibi dabit litteras, est unice dignus te videre, unice dignus a te videri; qui vos videbit simul, videbit hominum par, cui simile vix dabit nobis.*" The coolness with which he was received by Sir Hans, was probably (as our author suspects) owing to the attachment of the latter to Ray's method. Linnæus speaking afterwards of London, in a letter to a friend, called it, "*Punctum saliens in vitello orbis.*"

To persons who with great merit possess but little advantages of fortune, it may not be unpleasant or unprofitable, to observe the slender beginning from which Linnæus rose to ease and affluence in life. "*Exivi patria triginti sex nummis aureis dives,*" are his own words. Boerhaave, who knew how to appreciate his talents, recommended him to the patronage of
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Mr. Clifford, with whom he resided for a considerable time near Harlem. The same celebrated Professor afterwards recommended him to be physician at Surinam, but Linnæus declined accepting the offer, on account of his having been educated in so opposite a climate. At his request, however, the appointment was given to a young German physician of great merit, who had the misfortune to fall a sacrifice partly to the climate, and partly perhaps to ill usage from the governor, in half a year after his arrival: a circumstance which Linnæus has very pathetically lamented in the *Flora Suecica*, when treating of a plant to which he has given this gentleman's name.

Early in 1738 he visited Paris, but previous to this journey he had published not only his *Systema Naturæ*, but likewise 1. his *Fundamenta Botanica*, in which the science of Botany is reduced to 365 aphorisms. It passed through several editions, and was published with a comment on each aphorism in 1751, under the title of *Philosophia Botanica*. 2. *Bibliotheca Botanica*, in which botanic writers are distributed into sixteen classes. 3. *Genera Plantarum*, which our author considers as one of the most capital of

Linnaeus's works. We are told that before the publication of the first edition he had examined the characters of 8000 flowers. "Those alone, observes Dr. Pultney, who have been accustomed to examine plants with a scientific view, can judge how arduous this undertaking must have been." The first edition of this book contained 935 genera; the sixth and last in 1764, 1249; and the Mantissæ have since extended the number to 1336. The flowering of the Plantain or Banana, in Mr. Clifford's garden, induced him to give a complete description of that plant, which is a model for monographers in this way. The same year likewise (1737) produced the *Corollarium Generum cui accedit Methodus Sexualis*—the *Flora Lapponica*—and the *Critica Botanica*. Ludwig, when speaking of the latter of these says "*rigorosus quidem, sed sæpissimè felix botanicorum censor est.*"

In 1737 also he published, at the expence of his patron, the *Hortus Cliffortianus*, the most splendid of all his writings. The drawings for it were made by Ehret. Of this work Dr. Pultney observes, that from the copious number of synonyms, it is almost a pinax of every plant therein contained.

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The last performance of his own which Linnæus published in Holland, was his *Classes Plantarum*, which is a very large illustration of the second part of his *Fundamenta*, and contains a compendious view of all the systems of botany.

Linnæus, whilst in Holland, lost his friend Artedi, whose papers he with some difficulty procured and published in 1738, in 8vo. Artedi was unfortunately drowned in one of the canals of Amsterdam on his return from England, where he had been to perfect his system.

Toward the latter end of 1738, Linnæus returned to Sweden, and settled as a physician at Stockholm, where he met with considerable opposition, and was oppressed with many difficulties, all of which at length he overcame, and got into extensive practice. He was appointed physician to the Admiralty, and had a stipend from the citizens for giving lectures in botany. The Royal Academy of Sciences instituted in 1739, chose him their first president, and in 1741, upon the resignation of Roberg, he was appointed joint professor of physic and physician to the King with Rosen, who had been nominated the preceding year on the death of Rudbeck. Rosen undertook to teach anatomy, physiology, pa-

thology, and therapeutics; Linnæus, natural history, botany, materia medica, the dietetic part, and the diagnostics.

During the interval of his removal from Stockholm to Upsal, he was deputed by the states of the kingdom to make a tour to the islands of Oeland and Gothland, in order to make such inquiries as might tend to improve agriculture and the arts. On his return, he entered upon his professorship, and on this occasion pronounced his oration '*de Peregrinationum intra patriam necessitatem*,' Oct. 17, 1741. In 1745, his *Iter Oelandicum et Gothlandicum* was printed at Stockholm, as was also his *Iter Scanicum*. As a proof of the little attention that had been paid to natural history in Sweden, it is observed that in the former of these journies he discovered above 100 plants, which before were not known to be indigenous; many of them such as are used in physic and in dyeing. In the *Iter Oelandicum* there occurs a curious remark on vegetation, confirming the annual increase of wood in an oak tree, in which were perfectly distinguished the hard winters of 1568, 1787, and 1709, by the narrow circles in those years.

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Soon after his establishment at Upsal he laboured to get the botanic garden put on a better footing. At that time it did not contain above fifty exotics, but his correspondence with the first botanists in Europe soon supplied him with great variety. He received Indian plants from Jussieu and Van Royen; European plants from Haller and Ludwig; American ones from Collinson and Catesby: and a variety of annuals from Dillenius, so that from his *Hortus Upsaliensis* published in 1748, it appeared that he had introduced 1100 species, exclusive of Swedish plants and varieties.

In 1745 appeared his *Flora Suecica*, and in 1746 his *Fauna Suecica*. About this period he received an *Herbarium* collected by the famous Dr. Paul Herman. This collection had been lost for upwards of fifty years, until chance threw it into the hands of Mr. Gunther, apothecary to the King of Denmark, who sent it to Linnæus, with a request that he would examine it, which he did, and was thereby enabled to form many new genera, and to settle many doubtful species. He published the result of his laborious researches under the title of *Flora Zeylanica*, illustrated with figures of upwards of 200 of these plants.

plants. Linnæus authenticates this herbarium to have been Herman's, by shewing that the numbers and the plants answer to his *Musæum Zeylanicum*, published in 1717.

In 1749 Linnæus published his *Materia Medica* for the use of his students. The same year too appeared the first volume of *Theses* in 8vo. under the title of *Amœnitates Academicæ*, of which six other volumes have since been published. As these academical dissertations were sustained by Linnæus in his professorial character, and were selected by himself, they have been regarded as of equal authority with his own writings.

In 1751 while Linnæus was meditating one of his principal works, he had a long and painful fit of the gout. Upon the recovery of his health, he published his *Philosophia Botanica*, which may be considered as the institutions of the Linnæan system of botany. In this work, says Dr. Pulteney, it is difficult to determine whether we ought most to admire the genius of the author in his inventive power, or that exquisite arrangement which he has given to the whole.

In 1753 appeared the *Species Plantarum*, which Dr. Pulteney calls '*opus maximum et æternum*'.

nam. To give this work its utmost perfection had been the author's object for many years, and to this all his other productions are in some measure only preparatory. As this work contains all the plants of the known world which had come to Linnæus's knowledge, or rather inspection (as he seldom admits any on the authority of others) and which at the publication of these volumes appear to have amounted to 7,300 species, all varieties excluded, Dr. Pulteney regrets that it could not have been extended by the author himself to a complete pinax and history of every plant therein described.

In this year also Linnæus published his *Museum Tessimianum*, or a description of the cabinet of his first patron and great friend Count Tessin. In 1754 he did the same office for the Royal Museum.

We now begin to see him in a more elevated situation in life. His reputation had already procured him honours from almost all the Royal Societies in Europe, and his own sovereign had created him a Knight of the Polar Star. It was now no longer *laudatur et alget*. His practice in his profession became lucrative, and we find him soon after possessed of his country house and

gardens at Hammarby, five miles from Upsal. He had moreover received a flattering testimony of the extent of his fame. This was an invitation to Madrid from the King of Spain, there to preside as a naturalist, with the offer of an annual pension for life of 2000 pistoles, letters of nobility, and the free exercise of his own religion. To this singular honour, after the most perfect acknowledgements, he returned for answer, "that if he had any merits, they were due to his own country."

In 1755 the Royal Academy at Stockholm honoured him with one of their first premiums. In 1759 he also obtained the prize of 100 ducats from the Academy at St. Petersburg, for the best paper written to establish or disprove, by new arguments, the doctrine of the sexes of plants. This was the more honourable to him, as a Professor of that Academy had a few years before endeavoured to overturn the Linnæan system.

The great character of Linnæus and his colleagues, particularly of Rosen, raised the credit of the university of Upsal so much, that the number of students was nearly double what it is said to have been thirty or forty years before.—

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The travels of many of his pupils afforded him great sources of information, and enabled him to enlarge and improve his System of Nature, which in the 12th and last edition is enlarged from 226 to 1327 pages.

After giving a very full account of this publication, Dr. Pulteney proceeds to consider his *Genera Morborum*. This classification of diseases constitutes but a small part of his works, yet as Linnæus was an early writer on this subject, which has since excited the attention of many physicians, and is at this day not sufficiently discussed, Dr. Pulteney has thought proper to exhibit it more largely than many of his other writings. In this performance Linnæus has nearly retained the arrangement of Sauvages, although he has altered his terms and constituted one more class, the exanthematic or eruptive fever, which in the systems of Sauvages and Cullen, form an order or subdivision of a class.

In 1776 he published a small piece entitled *Clavis Medicinæ duplex, exterior et interior*, which may be considered as a syllabus of his lectures. In 1771 appeared his last work under the title of *Mantissa altera*.

In the preface to his *Flora Lapponica* he had given hopes of a compleat natural history of that country, under the title of *Lachesis Lapponica*. Mr. Pennant once reminded him of it, and received for answer :

Nunc nimis fero inciperem :

Me quoque debilitat series immensa laborum,

Ante meum tempus cogor et esse senex

Firmâ sit illa licet ; solvetur in æquore navis,

Quæ nunquam liquidis sicca carebit aquis.

It appears that Linnæus enjoyed upon the whole a good constitution. At times, however, he was subject to hemicrania and gout. In 1776, his infirmities increased apace. At the latter end of that year he was seized with an apoplexy, which left him paralytic ; and at the beginning of 1777 he suffered another stroke, which very much impaired his mental powers. But the disease, which was the more immediate cause of his death, was an ulceration in his urinary bladder. He died January 11, 1778, aged 70 years and 8 months, leaving a widow, a son, and five daughters.

Elizabeth Christina, one of his daughters, made herself known to the learned world in 1762, by

by a discovery which was published in the Swedish Acts of the same year. It related to a curious, and before quite unobserved appearance in the flowers of the Indian cresses, which she had perceived to emit spontaneously, at certain intervals, sparks like those of electricity. This was only visible in the dusk of the evening, and ceased when total darkness came on. Mr. Wilcke considered it as an electrical phenomenon.

The memoirs of Linnæus and his writings are followed by a brief account of the contents of the *Amœnitates Academicæ*, and a translation of the *Pan Suecus*. This last was presented to the English reader by our author several years ago in the Gentleman's Magazine, but is here reprinted with additional observations, and some improvements in the general arrangement of the tables.

The work closes with a catalogue of the writings of Linnæus.

V. *Atti dell' Accademia delle Scienze di Siena*:
i. e *Transactions of the Academy of Sciences at*
Sienna. Vol. v. 4to. Sienna, 400 pages,
with four copper plates.