

LINNAEAN SOC. OF PARIS

Celebration at Flushing,



New York

1824

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CELEBRATION

AT FLUSHING, OF THE

BIRTH-DAY OF LINNÆUS,

BY

THE NEW-YORK BRANCH

OF THE

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LINNÆAN SOCIETY OF PARIS;

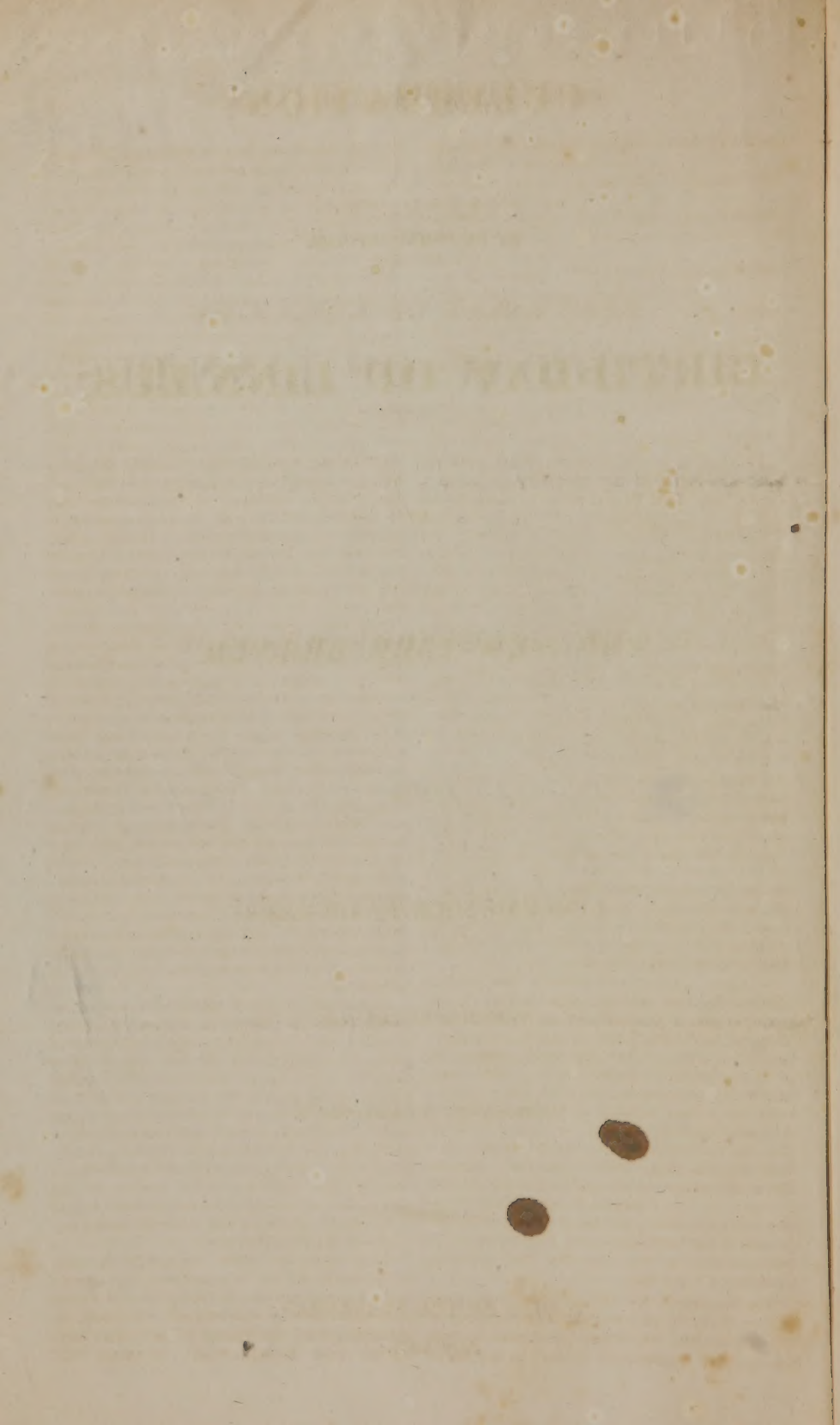
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OFFICE OF THE STATESMAN,

May, 1834.





CELEBRATION

OF THE

BIRTH-DAY OF LINNÆUS

24th MAY, 1824.

Pursuant to previous arrangements, the second celebration of the birth-day of Linnæus, by the New-York Branch of the Linnæan Society of Paris, took place this day at the village of Flushing. At 8 o'clock in the morning, the President and members of the Society, accompanied by a numerous and respectable party of ladies and gentlemen, comprising much of the beauty, taste, and fashion of the city, embarked on board the new and elegant boat Linnæus. Among the distinguished strangers, who joined the party, were Mr. Worthington, late Governor of Ohio, the Swedish Consul, and Le Ray de Chaumont. The Rev. Mr. Penneveyre, Rev. Dr. Wainwright, Rev. C. Jones, Rev. Mr. Brientnall, and several other clergymen of this city, were also present.

The boat left the wharf, with her banners inscribed with the name of Linnæus, waving in the wind, and to the tune of Clinton's Grand Canal March, by a full and excellent band of music, who enlivened the passage up the sound with a number of national airs. We never witnessed a more serene and charming day.—Skies, fields, woods, and waters wore the brilliancy and mildness of May, and were in fine keeping with the smiling countenances and light hearts of the festive throng.

In about an hour and a half, the boat arrived at Flushing, and the party, debarking to the sound of music, proceeded to the spacious and airy hall at Peck's Hotel, which was tastefully decorated with garlands and festoons, composed of the rarest and richest flowers of the season. At the last celebration, this apartment was in a rude condition; but it is now completed, and furnished with all the appurtenances, to render it a neat and commodious assembly-room, which will accommodate several hundred persons. Here, at about ten o'clock, commenced the exercises of the day, which were opened with a concise and appropriate address, explanatory of the objects of the institution, and the nature of its celebrations, by the Hon. De Witt Clinton, President of the day.

The Secretary, Dr. Elijah Mead, then read extracts from the minutes of the last meeting of the association, by which it appeared, that among other transactions it was, on motion of

Mr. Clinton, unanimously resolved, that Mr. Elliott, a distinguished naturalist of South Carolina, Professor Silliman, of Yale College, and Dr. Hosack, of this city, be recommended as honorary members of the Parent Society at Paris; and that Dr. Joseph Bloodgood, of Flushing, and Dr. J. Van Rensselaer, of New-York, be associated with the branch as resident members.

The Secretary also read a note from Mr. Jefferson, dated the 17th instant, addressed to Doctors Mitchill and Pascalis, in his own hand writing, in which, after reciprocating their kind recollections on the approach of the anniversary of the great Father of Natural History, he says in his happiest manner, and with great force and beauty:—"It would certainly be a great enjoyment to be present and to participate with his worthy disciples of the society of New-York, at their celebration of his birth: *as that prospect, however, recedes from my view, another advances with steady and not distant steps, that of meeting the great naturalist himself, and of assuring him in person of the veneration and affection with which his memory is cultivated here*: in the mean time I must be contented with testifying to you my cordial concurrence in these sentiments, and to add those of my great respect and consideration for the society and for yourselves."

An extract of a letter was likewise read from Judge Davis of Boston, an honorary member, in which he regretted his inability to participate in the pleasures of the day, and in those exercises which have a tendency to promote the cultivation of natural science in our country, in its best form, chastened by a regard to the precepts and example of the illustrious sage, whose birth-day was to be commemorated by festive rites. Dr. Pascalis, President of the New-York Branch, then gave a succinct account of the transactions of the parent society, since the last anniversary, adding a few remarks on the importance of natural science.

At the conclusion of the exercises in the hall, the company formed in procession, and moved to the Linnæan Garden, at the entrance of which they were politely received and welcomed, by the proprietors, the Messrs. Princes, who conducted them through walks, bordered with

trees, shrubs, and flowers of every variety, and beneath triumphal arches hung with wreaths, to an arbour in the highest part of these extensive grounds. A temporary rostrum, sufficiently spacious to accommodate the members of the society, was erected expressly for the occasion. Here a variety of interesting exercises took place, interspersed with music from the band, stationed among the shrubbery of the garden. Dr. Akerly pronounced a brief, classical, and appropriate eulogy on Linnæus, a copy of which we shall endeavour to publish hereafter. He was followed by Dr. Mitchell, who gave a botanical disquisition on the plants of the Alps, specimens of which were before him, accompanied with biographical sketches of Haller, and other eminent naturalists. Among the rare plants exhibited, was the Grecian Olive, as also specimens from the tomb of Virgil, and the Coliseum. The association of these plants, with the grandeur of Alpine scenery, and with the classic ruins of Italy, rendered his remarks not only instructive and amusing, but in a high degree poetical. Dr. Akerly presented specimens of a variety of native plants, from this and other states, accompanied by an exposition of their botanical character. I. Clizbe, Esq. read an ode, full of the inspiration of poetry, written for the occasion by Mr. J. R. Sutermeister, of Kingston, Ulster county. A fine bust of Linnæus, copied from a coin, by an artist of this city, was crowned with a splendid chaplet of flowers, by one of the young ladies, and a poetical chant, composed for the ceremony of the coronation, by another young lady of the company, was recited.

After the exercises had closed, the party separated into groups, and amused themselves until the hour for dinner; some in promenading through the alleys and alcoves of the garden, overshadowed by trees, and in one place by a beautiful copse of the magnolia grandiflora, in full bloom; and others in walking about the village, and catching the rural prospects, which at several points it presents. At three o'clock, the company, greatly augmented by the arrival of the second boat from the city, and the whole amounting to the number of about five hundred sat down to a dinner served up in handsome style, by Mr. Peck, in a spacious saloon, constructed purposely for the celebration. The Rev. Mr. Brentnall, of this city, after the guests were seated, invoked "that all-gracious Being, who clothes the lilies of the field, and crowns the earth with his goodness, to give his blessing, with the manifestation of his bounty; and when the flowers of life shall have faded, the day of festivity passed, and the shades of night set in, to grant an admittance to that Eden, with songs of everlasting joy in the heart, where the flowers never wither, and to that table, which shall never be removed." Taste, pleasure, and festivity reigned at the convivial board, enlivened at intervals with favourite airs by the band. After the cloth was removed, the following, among other sentiments were drunk, accompanied by

remarks from some of the gentlemen, which we could not distinctly hear:

By the President of the day. The immortal memory of Linnæus.

By Dr. Mitchell. The Ladies—the patronesses of the arts and sciences, and governesses of the men all the world over.

By Dr. Pascalis. Count De la Cepede, President of the Linnæan Society of Paris.

By Dr. Akerly. Thiebaut de Berneaud, perpetual Secretary of the Parent Society.

By Dr. Mead, Sec'y: Desfontaines—The distinguished Naturalist, and late Vice-President of the Parent Institution; may his fame be as lasting as *Atlas*, on whose summit he delighted to botanise.

By Dr. Torrey. The memory of Muhlenburg, the American Linnæus.

By Mr. Gahn, the Swedish Consul. The American guardians of the memory of Linnæus; equally entitled to the gratitude of his admiring countrymen, and to the grateful estimation of the civilized world.

By the Vice-President of the New-York Horticultural Society. The interesting and beautiful system of vegetable physiology, which owes its origin to the penetration and wisdom of the sage of Upsal, whose birth-day we celebrate.

By Gov. Worthington, of Ohio. The State of New-York.

By Gen. Mapes. Our sister State of Ohio late a forest, now a free and independent commonwealth, represented at this festival by her late Governor, Thomas Worthington.

By Dr. Brown. The New-York Branch of the Linnæan Society of Paris—A scion of a luxuriant plant.—May its growth exhibit to the world, that the soil into which it is transplanted, is not inferior to that which nourishes the parent stock.

By John Low, Esq. The *Quercus* of New-York—The *poisonous ivy* has attempted to wither its leaves, and the insidious *mole* to undermine its roots; but it will flourish, rooted in the affections of all who respect talents and virtue.

By Dr. Ives. The memory of Benj. Barton, the father of American Medical Botany.

After the President of the day had retired his health was drunk with six cheers, and the band struck up the Grand Canal March.

One of the company gave—"Our guest, Thomas Worthington, the late Governor of the state of Ohio;" which was echoed with applause.

The health of the young lady, who crowned the bust of Linnæus, was drunk after she had retired, and a compliment to "mine excellent host," concluded the dinner.

The festivities of the day were closed by a ball, which, we understand, was attended by a numerous and fashionable party, who amused themselves with cotillions during the evening. No accident occurred to diminish the pleasures of the celebration; and every one, who is susceptible of deriving enjoyment from the charms

of nature, from rural scenery, from the treasures of science and literature, from taste and sentiment, from the smiles of beauty, and the innocent recreations of the mind, must have returned highly gratified with this delightful excursion.

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Substance of the remarks of Mr. Clinton, President of the day, at the commencement of the exercises.

It is perhaps proper, and it certainly cannot be deemed exceptionable, to introduce the proceedings of this day by an exposition of the causes of its celebration.

This day is the anniversary of the birth-day of Linnæus, one of those illustrious men who have enlightened the world. Natural Science, which comprises a definition and investigation of all the material substances that exist, whether in an organic or inorganic shape, has, from the earliest periods, engaged the attention and, employed the faculties of philosophers. Some of the most beautiful and sublime images and illustrations in holy writ, are derived from this source: and Solomon, who is pronounced to be wiser than all men, spoke of "trees from the cedar tree that is in Lebanon even unto the hyssop that springeth out of the wall: He spake also of beasts and of fowl and of creeping things and of fishes." This enumeration embraces almost all the principal objects of Natural History. The most eminent Naturalist of Greece was Aristotle, and of Rome, Pliny. The works of the latter particularly are a treasure of useful information, although disfigured by the interpolations of fiction. After a long night of Gothic darkness, the rays of knowledge again gladdened the earth: an inquiring spirit went forth, and vast collections of useful information were made; but they were for a long time in a state of chaos and mingled with fable. The transcendent merits of Linnæus consist not only in enlarging the sphere of Natural Science, but in devising a system by which an object could be recognized from the description, and in arranging all known substances, whether animate or inanimate, in their appropriate classes, orders, genera, and species. From that period, Natural History assumed its due rank in the scale of usefulness and estimation; discovery has been heaped upon discovery; and every region of the globe has been explored to augment the riches of science and to increase the cabinets of naturalists.

The Systema Naturæ of Linnæus, like all other human works, is not without its imperfections; and he has been followed by these different descriptions of scientific men. One class was opposed to the system on the ground that it offered nothing worthy of approbation and was either intrinsically erroneous or greatly inferior to the old arrangements. Another class, allured by the glory which surrounded him and desirous of establishing equal if not superior claims to celebrity, has gone on to multiply theories and systems, to degrade the science by nominal

and spurious discoveries, and to darken it by barbarous nomenclatures. A third class has with a profound reverence for its great master, endeavoured to correct his errors, to supply his deficiencies and to push his discoveries and improvements to the utmost verge of practicability. The result of these various enterprises of genius and science, has, upon the whole, been very propitious, but such great confusion has notwithstanding occurred, that another Linnæus is required to extricate the student and the enquirer from the perplexities which surround their walks, and bewilder their progress.

Some of the most distinguished savans of France, sensible of these embarrassments and difficulties, and desirous of concentrating their powers in a common focus for the promotion of science, have established a Linnæan Society, of which the illustrious La Cèpede is President. The name, which they have adopted, evinces their preference for the system of Linnæus. They have already published interesting works, have sent enlightened apostles into different parts of the globe, to communicate and to acquire information, and they have established scientific colonies in both hemispheres. The society now convened, is a branch of the institution of Paris. Several distinguished devotees of science now present, are members, and Mr. Jefferson is an honorary associate, and has taken a warm interest in its prosperity. In order that due homage might be rendered to the memory of Linnæus; that the most animated incentives might be applied to the advancement of knowledge, and that the road to the temple of natural science, might be adorned with the offerings of genius, brightened by the smiles of beauty, and cheered by the pæan gyrics, the natal day of the Philosopher of Sweden, was selected for a grand celebration, which should unite innocent amusement and solid instruction, and produce impressions propitious to the progress of the natural sciences. With this view we have now assembled; and if any of the ceremonies of the day shall not be strictly in unison with the prevailing taste of this country, let it be understood that the ritual is prescribed by the parent institution. And, as the object is to please all, without offending any, it is hoped that our proceedings will not in any respect be viewed as a frivolous display or as ostentatious pageantry.

The votaries of science in all parts of the civilized world, are now crowning the tomb of Linnæus with the laurels of glory, and offering up thanks to the source of all light, for having devoted such a master spirit to the illumination of a benighted world.

The place, which I now occupy, would be more suitably filled by some who are present, who have made greater advances in science, and who have reflected honour on their country, by their acquisitions and investigations. But I have been induced to appear in it, not from any ambitious aspiration after distinction, or any idle devotion to show, but from the suggestion of my associates, that it might be of

service to the cause of science : and such an intimation from a quarter so respectable, I can never pass over with neglect. Many of the hours which I could spare from the pursuits of an active life, and from the studies immediately connected with my public avocations, have been devoted to natural science ; and the enthusiasm which I cherish on this subject is justified and enhanced by every contemplative view and every elaborate investigation.

What a spacious field of inquiry offers in view ! What a wide unbounded prospect lies before us ! What ever-during honours must the various departments of Zoology prepare for the fortunate investigator ! The boundless regions of Botany will furnish on every exploration chaplets and garlands of glory. Researches into the mineral kingdom, will produce treasures of renown more valuable than the gold of Ophir or the diamonds of Golconda. The genius of philosophy has not yet penetrated the depths of geology—nor proceeded far beyond the alphabet or the horn-book. Theory has followed theory, and speculation has supplanted speculation. The imagination has been consulted more than the judgment and the airy castles of hypothesis have dazzled the fancy without enlightening the understanding. After a vast accumulation of facts, and perhaps a long afflux of time, some Bacon or Linnæus will rise up and change it from romance into science. Chemistry sprang from the crucible of the alchemist, like Pallas, from the head of Jove ; and even the erroneous movements of scientific investigation, will finally contribute, by a heaven-directed impulse, to the cause of useful knowledge.

With these animating prospects, with these exalted inducements, let us proceed to the duties of the day, ever bearing in mind, that science is honour, and that knowledge is power—and that all their ways are ways of pleasantness, and all their paths are peace.

Abstract of the transactions of the Linnæan Society of Paris, with remarks by Dr. Pascalis.

LADIES AND GENTLEMEN :—On a former anniversary of the birth-day of the illustrious Linnæus, the celebration of which was graced by a respectable assemblage of our fellow-citizens, I communicated in the name of the Linnæan Society of Paris, the urgent motives that impelled the learned of Europe to unite themselves, for the purpose of encouraging and promoting the study of the natural sciences. To this intent they have upheld and recommended to the world the system of Linnæus, as a most satisfactory and trustworthy guide, easily susceptible of amendment where defective in particular parts, and in its general outline inimitably perfect, simple, and comprehensive. It was calculated, that to forward the aims of a society, having for its object the acquisition of knowledge and the extension of information, would be a welcome duty to all who were called on to assist. The Linnæan Society, therefore,

enlists into its ranks, from every civilized nation, the observers of nature, whether distinguished as enterprising explorers, or learned collators of her productions, or philanthropic and philosophical inquirers into her arcana. By the combined efforts of such a society, advances will no doubt be made, such as no body of individuals, in any one nation, could hope to accomplish.

It now devolves on me to give you some account of the transactions of the Parent Institution, for the year that has elapsed since I last addressed you ; from which you will perceive what acquisitions have in that time been obtained ; to which valuable stock it would be easy for this country to contribute, with honor and credit.

The first on the list is a full and extensive Flora of the Greek Archipelago, and the shores and islands of the Euxine. Those countries, so long under the semi-barbarian power of the Crescent, have never, until now, been botanically explored since the days of Hippocrates, and of the Grecian botanist Theophrastus, save partially, by that great patriarch of the natural sciences, Tournefort ; he who at the risk of his life, descended into the grotto of Antiparos. The interesting task has now been accomplished by M. Dumont D'Urville, of the French Navy ; in less than two years he has carried his researches through more than thirty-six islands and districts. Fortunately, M. D'Urville was perfectly acquainted with the names and descriptions of the plants recorded in Grecian literature ; and therefore in arranging them under their technical heads, he has affixed to each its own Hellenic denomination, such as it is given in ancient classical writers. M. D'Urville has also discovered in the Bosphorus more than forty species and varieties of hydrophytes, one fourth of which are new.

Another achievement of the Linnæan Society in the first year of its existence, is a complete and clear system of classification for the mosses. However humble that kind of vegetation may be deemed, however superfluous the attention bestowed on it may appear to an idle or superficial spectator, it has nevertheless attracted the patient and sedulous inquiry of Linnæus, Dillenius, Hedwig, Bridel, De Candolle, Schwaegrichen, Micheli, Vaillant, Adamson, Hill, Meese, Schreber, Haller, and many others, who by their investigations gradually rendered it evident that mosses possessed a system of fructification similar to all other plants, as discovered by Linnæus. It was left to Palissot de Beauvais to classify them. In mentioning the name of Beauvais, I cannot help remarking that by a singular coincidence, he like Plumier, Feuille, Magnol, Michaux, &c. all celebrated botanists, tho' natives of Europe, perfected in this country their acquirements in their favourite science. As it is a satisfaction to trace where the footsteps have trod of the man of signal celebrity, I may mention that it was Beauvais who first arranged in scientific order the Museum at Philadelphia in the year 1794. With the help of magnifying glasses, he ascertained in the mos-

ses, their roots, stems, foliage and organs of fructification, of which he has given no less than 700 magnified delineations. The organ of fructification called the *cup*, exists in all mosses, and presents only five variations or characteristic differences; consequently, five classes, which are subdivided into forty-five genera, receive all known mosses. His splendid work on this subject has been published by order of the Linnæan Society of Paris, and, of course, is in our possession.

Another essay of interesting import, occurs in the Linnæan transactions; it is an attempt to ascertain the nature and properties of the *deliquescent* or *melting plant*, *Tremella Nostoc* of Linnæus. It is often found in summer, after rain, on the gravel walks in gardens; it presents a greenish, membranous covering, containing a jelly, in which a number of long, slender, articulated filaments are perceptible. The plant disappears as the weather grows dry, leaving only a thin and apparently inorganic membrane, which, however, on being soaked with water, nearly resumes its former appearance. It was first regularly mentioned in 1672, by the Academy of Sciences in Paris, who then held conferences. I cannot now enter into a minute detail of the numerous authorities that have described it, and commented on its singular properties; suffice it to say, that at least ten writers of eminence since Paracelsus have recognized it. Magnol called it, *Muscus fugax membranaceus pinguis*. The Alchymists and Cabalists defined it a manna from heaven, a secretion of the stars; *Stellarum purgatio*: in fine, the quintessence of the firmament, the flower or the leaf of heaven: *Celstos Celifolium*. Linnæus named it *Tremella nostoc*; but since his time, some have ranked it with the Alga among plants, others with the Polypi among animals, until the following facts have been communicated to the Linnæan Society, concerning this extraordinary production.

According to the situations in which it is placed, whether on the sea-shore, on gravel, stones, mosses, low grounds or walls, &c.; it changes its shape and affects the form of different Lichens; as it metamorphoses itself, it assumes polypous filaments endued with spontaneous and rapid motions in every direction from the right to the spiral line; when macerated for eight days in water, it resolves itself into a mass of globular animalcules; and when submitted to chemical analysis, it gives water, mucus, a gummy substance, a portion of greasy matter, and a small proportion of carbonate and phosphate of lime, and muriate and sulphate of potass. The *Tremella Nostoc*, is accounted the link between the animal and vegetable kingdoms.

I hasten to mention another important essay relating to a new article of fodder for sheep.

Our colleague, the indefatigable Thiebaut de Berneaud, some time since, discovered, through his familiar acquaintance with ancient classical authors, that many of them often adverted to a certain plant as peculiarly the best for the

nourishment of that precious animal, so useful to man. The Hebrews called it, *achva*, the Greeks, *tupha*, and the Latins, *ulva palustris*. Among those three nations, large flocks of sheep were considered an invaluable treasure; and they devoted to them great care, changing their pasturage with the seasons. They managed them attentively not only for their flesh, but for their fleece, which, with the addition of gold and the Tyrian dye, composed even the priestly vestments and the regal mantle. As the *ulva palustris* was so highly esteemed by them, it was a desideratum to ascertain to what known plant its qualities and name might be referred.

There was a serious objection in the way of this investigation, because the *ulva palustris* was designated as a swamp or marsh plant, while it is well-known, that such affect, with violent diseases, the fleecy and tender animal in question, which cannot thrive in low humid meadows, but prefers hills and dry plains. It therefore seemed almost futile to seek a proper fodder among aquatic vegetation; but M. Thiebaut, guiding his research by the general character of the *Gramineæ*, that of being the natural and safe food of the sheep, sought in that genus for a species corresponding in qualities with those ascribed to the *ulva*. From the joint testimony of Cato, Virgil, Pliny, Varro, &c. it appears that the *ulva* was *limosa*, growing in muddy ground; *levis*, of delicate and light foliage; *viridis*, of a bright green colour; *glauca*, garnished with an ear of a whitish green hue; *mollis* and *grata*, soft and pleasant in texture; *fluminea* and *palustris*, growing on the brink of running water or in marshes, where it may be cultivated. These attributes are all peculiar to the *Festuca fluitans seu natans*, which is termed by the English *manna grass*; by the French, *gremil* or *polish manna*; by the Swedes *mannagryn*; a grass not only greedily sought after by all kinds of cattle, but even by ducks and swine. When dried, it is employed for stuffing mattresses, and making sieves and baskets. It was used to sleep upon in the early times of Rome by the hardy and indigent Romans. Its seed, small and millet-like, furnishes an aliment to the poor in Sweden and Poland. It is raised in the north of Europe, to make rich gruel. Besides employing it for fodder, the ancients used it for the same purposes as the moderns. The *ulva palustris* is therefore the *Festuca fluitans*.

The learned dissertation of Mr. Thiebaut, has already excited attention in this part of the world, and measures have been taken to ascertain whether the *Festuca fluitans* is indigenous, or if not, to procure it from Europe for the benefit of American farmers; who, by the aid of this valuable grass, may turn, to the advantage of their flocks, the most unfavourable situations into productive pastures. Several other instructive reports attest the success of the first year's labours of the Parent Society; but, lest I should encroach on the hours you may wish to devote to rural festivities, I shall only enumerate their titles. There is a disquisition on the

nutrition of plants, and the particular functions of the pith and neck of the root, which will be highly acceptable to agriculturists and horticulturists. Another is a dissertation on the absorbents of the roots, and on the elementary substances, to them susceptible of absorption. Another is a handsome exposition of the lectures of Theophrastus, who lived 350 years before the Christian era; it gives his systems and opinions on the physiology of plants, from which it appears that he entertained the belief, that the flower was the seat of fecundation. Another is an account of the cultivation of the grape by the Greeks, and their various processes of making wine. They preceded the Romans in this; but both nations had different modes, which still exist through France, Italy, and the South of Germany.

While the Parent Society have done so much to extend the empire of useful truths in Botany and Husbandry, our fellow-citizens, who have twice attended our invitation to this festival, and kindly encouraged our exercises with their presence, may justly inquire whether we ourselves have contributed in any degree to these advances in knowledge, and the practical application of the natural sciences. They may ask this, more especially, as so many botanists and philosophical observers, whether natives or foreigners, have already given this country a deserved repute by their scientific labours. It is humbly hoped that that portion entrusted to us will not be allowed to degenerate: the honour of membership conferred by the Parent Society, summons us to exertion, and must excite our emulation with those abroad, confraternity with worthy associates at home, and call our attention to what remains to be accomplished on this side the Atlantic. In the mean while we may congratulate ourselves on being able to hold the anniversary of our patron-spirit in so interesting a spot as this, in the midst of so splendid a collection of plants,—an establishment, which is the work of three generations of the same family, and which, by the number and selection of its specimens, surpasses every other in the United States; for the oldest, that of the brothers Bartram, and the garden of William Hamilton, in Philadelphia, were by no means equally select and extensive. Our variable climate, which from season to season, goes through a range of ninety thermometrical degrees, affords this spot incalculable advantages for rearing, seasoning, and naturalizing trees and shrubs from every other clime and zone. Of these advantages, the proprietors have so skilfully availed themselves, that they may be said to have made their garden the standard of the progress among us, of botanical knowledge, and agricultural improvements, both so mutually dependent on each other.

Among our Linnæan members, their fellow-citizens will recognise the author of the excellent *Geology of New-York and the Hudson*; that of the *Flora of this and the adjacent states*; others of the annals of the Lyceum, and him to whom we are indebted for the botanical history

of America, as read before the Historical Society of New-York, in 1813. Our colleague the author of this last performance, which should obtain a place in the library of every American lover of nature, has left no department of its kingdom unexplored or unscrutinized; his unceasing labours and extensive contributions, already compose so large a collection of writings and specimens, that they seem almost beyond the reach of memory. The disciples of natural philosophy and the fine arts, both at home and abroad, are alike tributary to him, whose authority is courted, even by the highest candidates for fame.

Ladies and gentlemen, the zealous efforts of a few in religion, in politics, in philanthropy, or any of the moral virtues, can create a public spirit in a community that will extend to every member; thus, by the frequent contemplation of the works of nature, and by the study of its productions, there arises in the mind another moral excellence, which is most congenial to the duties of man to the Almighty Ruler of the Universe: for a knowledge is attained by which we become possessed of invaluable treasures, of food, clothing, materia medica, and all possible materials that industry can convert to our use and comfort. It is a subject of congratulation to notice, on this occasion, that such a public spirit has happily pervaded a great section of our most respectable citizens.

☐ The rest of this communication, being of a local character, is omitted.

Eulogium on Linnæus, by Dr. Akerly.

Ladies and Gentlemen—You are assembled on the present occasion by invitation of the Linnæan Society, to participate in the felicities of a day, set apart for a rural treat, a fete champetre in which the young and the old, the gay and the serious may unite with pleasure and satisfaction. The time and the place are auspicious for the exercises with which you are about to be entertained. The society hath drawn you from the noise and bustle of our commercial metropolis, (the city of New-York) that you may the better enjoy yourselves with the beauties of the surrounding country, and the delightful village of Flushing. Here you will be refreshed with the vernal gale gently wafted over the flowers of May, which have expanded into fragrance from the warmth of an approaching sun and the genial showers of April. In the language of the Aborigines, this then is the *season of blossoms*. Here you will see trees and shrubs and plants, putting forth flowers and foliage abounding in variety, fragrance and beauty. To the proprietor of this noble establishment, (Mr. Wm. Prince,) we are indebted for the liberty of celebrating the day in his garden, where the beauties of nature are collected and exposed to the admiring gaze of the beholder. Here the young and the gay may rejoice amidst the treasures of Flora, while the aged and the serious will contemplate the benignity of the Creator, in providing so much for the enjoyment of his creatures.

But why, it may be asked, are we assembled on this day, (24th May) in preference to another? Because it is the anniversary of the birth-day of a great man, whose memory is revered, and whose name will not be soon forgotten.

Greatness is a relative term; when applied to inanimate objects, it has reference to magnitude; when to intellect, it relates to the capacity of the mind to conceive, to arrange, and to execute great undertakings. In this sense of the word, Linnæus was a great man. His mind was capable of conceiving, arranging, and executing. He did conceive, arrange, and execute a work of the greatest magnitude; and none have excelled him in the labours he performed. This is the anniversary of his birth-day; and it is one of the agreeable events of my life, that, on this occasion, it hath fallen to my lot to be his eulogist.

There are numerous methods of exercising the understanding, and there are various ways in which the human mind can develop the greatness of its conceptions. The Iliad and the Odyssey of Homer, give evidence of the greatness of their author. The Æneid of Virgil, will convey to future generations the grandeur of his conceptions, and the greatness of his mind: his fame will survive the frail monument which covers his remains; and Virgil will be known long after his tomb shall be overrun with weeds. Demosthenes and Cicero were great in the Forum, while Alexander and Cæsar were great in the field of battle. Greatness of mind hath been displayed in peace and in war, in the cabinet and in the field, by land and by sea, as well as in the arts and sciences. In the latter, our Franklin induced the thunder from the clouds, and turned it away innocuous, (Eripuit celo fulmen.) Our late and lamented fellow-citizen, Robert Fulton, executed the greatness of his conceptions, by applying the power of steam to the propulsion of vessels, and his name will descend to posterity with the great men of the age. Solomon was a great man, not so much from the fact of his being a sovereign, as from his superior wisdom and extensive knowledge.

It is recorded in holy writ, that "He spake of trees, from the cedar tree that is in Lebanon even unto the hyssop that springeth out of the wall: he spake also of beasts, and of fowl, and of creeping things, and of fishes." (1st Kings, ch. 4, v. 33.) From this record, it would appear, that Solomon was extensively acquainted with natural history, but his writings on the subject have been lost in the lapse of ages.

The greatness of Linnæus consisted in his enlarged and comprehensive view of all the objects of creation, generally embraced under the subject of natural-history; and he penetrated into the arcana of nature with such a scrutinizing eye, that no one hath excelled him in these investigations. The application and extent of natural history will be best understood by contrast

Civil history embraces and treats of the go-

vernment of man and his various changes and states of existence: Natural History of all other animals and things which tend to the welfare of mankind. The one relates to man only; the other to every thing which administers to his comfort. Civil history teaches us the character of our own species and the relation we bear to other human beings, while natural history embraces a more extensive field and makes us acquainted with all other objects of creation whether animate or inanimate. To these numerous subjects did Linnæus apply himself, and from his profound view of the works of creation he produced his *Systema Naturæ* (or system of Nature) which collects and disposes in systematic order all that has life and organization. He attempted also to arrange inanimate and inorganic matter by producing a system of mineralogy founded upon the crystalline figures of bodies. In this, however, he failed, and Bergman who was his cotemporary demonstrated that a true knowledge of minerals was only to be obtained by means of chemistry. The multiplicity of the pursuits of Linnæus prevented him from making a thorough investigation of the subject of crystallography, which has since been so ably developed by the Abbe Hany. His attempt however, to found a system upon the crystalline forms of minerals, is a proof that his penetrating mind discovered something peculiar in their crystals, which by the subsequent investigations of another great man, hath since been brought to light.

With the exception of mineralogy, Linnæus investigated all the subjects of natural history more thoroughly, and elucidated them more correctly than any preceding or succeeding author. On some particular subjects, there have been since his decease, additions and improvements; but as a whole, his plan of arrangement, his system, is the most perfect, and he must be considered as the greatest naturalist that the world has ever produced.

Natural history consists of two parts, *arrangement and description*. Arrangement is useful to assist the memory, by grouping together such objects as have natural and resembling features, and thus methodising the whole works of creation. This systematic arrangement introduces light to the subject, and enables the investigator of nature, to see them in their proper places and relations, and thus to form a just idea of the symmetry and harmony which prevail throughout.

Description belongs to individual objects or particular species, and is engaged in the detail of those qualities which belong severally to each, and whereby every one is distinguished from another. Description is therefore the counterpart to arrangement, inasmuch as the latter is engaged in tracing the resemblance between natural objects; and description is employed in pointing out their differences. Arrangement takes a wide and general view of the whole subject, while on the contrary, description limits itself to the narrow confines of a single thing. It is possible for a person to be

acquainted with arrangement, and to be almost wholly unacquainted with description, and such is the kind of knowledge ordinarily possessed by those who only glance over systematic books. It is also possible for a person to be conversant in description, without being acquainted with arrangement, and such is the condition of those untutored observers, who, with much curiosity and good opportunities, observe the productions of nature for themselves, without having looked into books at all. Neither of these characters will form a complete naturalist; the former possesses only general views, the latter is but a man of detail. In order to become great and accomplished in this, as well as in other branches of human knowledge, it is necessary, that correct general views, and an acquaintance with particular subjects should be united in the same person. These qualifications were eminently combined in the subject of our eulogium.

In zoology, or the natural history of animals, and in Botany, or the history of the vegetable creation, we take Linnæus as our guide—not because he is in all respects perfect, but because his system is preferable as a body to that of any other naturalist. Brisson has attempted to improve his ornithology, or history of birds—Count de la Cèpede to new model his arrangement of amphibious animals—Sir Thomas Pennant, to alter, in some respects, his Ichthyology, or history of fishes—and Professor Fabricius, to arrange the insect tribes, in a manner widely different from that of the Swedish naturalist. In botany too, the natural orders of Jussieu, and other innovations, have been made without destroying the merit of the Linnæan system, which, to those who have examined it, gives evidence of the greatness of the mind that conceived it.

Although Linnæus was more of a systematist than a narrator at large, yet he was not deficient in the necessary qualifications to produce correct descriptions. The Count de Buffon, who was his cotemporary, despised system, but is celebrated as the entertaining and elegant model of descriptive writing, a quality which also eminently belonged to Pennant. The latter, however, generally adhered to the Linnæan arrangement, while the former pursued none, though he attempted to establish one upon the sagacity of animals in a descending series from man.

Linnæus divided animals into six classes, and subdivided the classes into orders, genera, and species. He did the same with plants, and his system of botany, particularly distinguished as the sexual system, contains twenty-four classes, and these classes are also subdivided into orders, genera, and species.

By the aid of such a system, the works of creation may be easily examined by the student of nature, who must be led to admire the wisdom and design of the Supreme Being; and instead of uniting with the Epicurians of ancient or modern times, in attributing all things to chance, he must unite with Thompson in strains of devotion, and declare,

“These are thy works, Almighty Father,
Parent of good.”

The great man to whom we are indebted for this system of nature, and many other works on natural history, was a native of Sweden. He was born in 1707, in the village of Rashoolt, in the province of Smoland; and died in 1778, in the 71st year of his age, leaving, in his works, a legacy of inestimable value to succeeding generations.

Such was the illustrious man, whose likeness you see depicted in the bust before you; and the Linnæan Society have here, and thus determined to celebrate his birth-day, and hold him up to the admiration of our countrymen, and the respect of the civilized world.

Dr. Mitchell's Communication to the New-York Branch of the Linnæan Society.

MR. PRESIDENT—The arrival a few days ago of a collection of Helvetic and Italian plants from Berne in Switzerland, through my correspondent the famous Brunner, and my fellow citizen, the enterprising Wagner, enables me to present you some of the vegetable productions of those countries. The whole herbarium amounting to several hundreds of species, is here on the table; but instead of opening and displaying them all to your view, a task of days and a study for months, I shall enumerate a moderate number that are remarkable for their localities, and show a few that are memorable for their association, or some other circumstance.

Berne, you recollect, is the name of a city and a Canton, situated among or near the highest mountains in Europe; and associated with that distinguished region, the *Canton de Vaud*. Within its precincts, the Institute of Pestalozzi at Bucksee, attempted an improved organization of primary schools; and the establishment of Fellenberg at Hofwyl, taught the method of deriving from the soil, the greatest amount of produce with the smallest expense, time and labour.

From the terrace of the Cathedral, the stupendous Alps arrest the eye. On a clear evening, they appear with their utmost magnificence and splendour. The milder scenery consists of romantic mountains, craggy rocks, gloomy forests, verdant meads, and the chequered works of agriculture.

I shall suppose we are making excursions hence to several places; and along the banks of torrents, I pick up the *changeable saxifrage*; from the road side, a *purplish grass*; and from an enclosure, the famous *Bear-grape*; and gather from their respective stations around, the picturesque *anemone*; the *mountain-cress*; and the *deep blue linaria*; while the *Barbisia*, the *Arabis*, and the *Ophrys* invite cropping, that they may be embalmed for this exhibition.

The ravines and glens of the Vallais, as visited, have sent their *Artemisia*, their *Celtis*, and their *Centaury*, to grace the present festival, and as these were not rare, numerous or beautiful enough, the *spartium*, the *ononis*, the *Delphinium*, and the *Veronica* associate themselves into a bouquet for a similar purpose.

Mount Sempronius sends from his frigid sum-

mit, the *hardy Luzula*, and from his shaggy sides, the *yellow Reseda*, the *swarthy cytisus*, the *hairy fern*, and a number of his verdant occupants.

The Col de Balme begs you to look at his *Rumex*; and the heights of Savoy intreat your favourable notice of their *Statice*.

Who has not heard of the elevated and towering ridge of the Great Saint Bernard? But who, until now, ever knew that he furnished liberal and elegant supplies to a "fete champetre et botanique." Two species of *Carex*, two of *Juncus*, and one of *Trichodium*, show that he supports grasses, plants of the utmost importance to man and beast; and a *Senecio*, a *Sisymbrium* and a *Pedicularis*, prove that he sustains other plants remarkable for their foliage and flowers.

Nor are we yet at the end of our trips. Here you see the *Nardus* and the *Gnaphalium* gathered upon the lofty Hahnenmoos, on the 4th day of July, the anniversary of freedomian independence, 1822.—This charming little umbelliferous vegetable, comes skipping to you from the Col des Fours, and the *Pine* and the *Rhododendron* have broken their connections on Mount Jura, to show themselves here to-day.

One expedition more and I shall have done. How can I be silent of Mount Blanc, who elevates his front nearer to the skies than any other European land? His fearful and difficult elevation has been approached by a Macneven and a Van Rensselaer. Beyond the narratives of these and other intrepid and intelligent visitors, something remains to be told. More than a hundred plants from Chevoz and Ferret, two of his most distinguished vallies, are now before you. They may be examined without fatigue or cost, without danger from precipitation into icy chasms, or from interment under snowy avalanches.—Nymphs of Flora! or in other words, lovers of Botany! examine, (as the politicians say) what the budget contains. Take under your observance, the articles or items one by one, and report from a fair sample of a part, the opinion you entertain of the whole. From this ground, the *anthericum*, the *wularia*, the *antirrhinum*, the *ravunculus*, the *anthyllis*, the *osmonda*, the *primula* or *primrose*, and the *astragalus*, appear as a select committee, authorized to represent the rest. Here they all are—I meditate a pause—but the *aphthous liverwort*, and the *pigmy willow*, seize me by the skirt, and command me to listen. Their embodied spirits, though unseen by you, are clothed in human forms. What is your will say I, cryptogamic and phanerogamous creatures, that you thus interrupt me in the face of this respectable and fashionable company? They utter, (or I am so rapt, that as far as I can comprehend their meaning, I seem to hear them utter these words,) "say something, director of the destinies, that becomes the magnitude of Haller's character, or you shall be frowned upon by posterity; inasmuch as you neglect this illustrious man, your successors shall cover you with oblivion." Mercy on me! answer I, as I wish to be remembered, let me remember

others;" and thus I went, like an impromptuary, my recollections and feelings:—

"In speaking of Berne, I should be inexcusable if I omitted the name of Albert Haller, one of its most distinguished citizens, and one of the most illustrious men of his age. The Bernese are proud of the trophies contained in their arsenal, as well as of the imposing number, fine condition, and orderly distribution of the arms and warlike stores. They show with exultation the statue of William Tell, who with an arrow, is reported to have shot from the top of his son's head the apple placed there by Governor Grisler, and by that means saved his life; and by the same act laid the foundation of the Helvetic revolution.

"Haller was born in this city, during the year 1709. The accounts of his display of genius, and aptitude to acquire knowledge, are as remarkable as perhaps any upon record. Before five years of age, he was accustomed to write down all the new words he had heard during the day. Soon after, he formed for his own use, rules in grammar, arithmetic, and other sciences, and at nine had composed for the same purpose a Greek and Hebrew Lexicon, a Chaldean Grammar, and a Historical Dictionary, from Bayle and Moreri, containing more than two thousand lives. At ten he wrote a satire in Latin verse against his tutor, a man of provoking harshness and severity; and he early commenced the practice, which he continued through life, of always reading with a pen in his hand, making extracts of every thing memorable in the work, and adding his own opinion of it. This was the foundation of his immense literary and biblical collections.

"Having after the death of his father decided on the medical profession, the reason he gave for it was, that he thereby might gratify his desire to study the works of nature in creation without restraint. He studied in Tubingen, under Duvernoy and Camerarius; in Leyden under Boerhaave, Albinus and Ruysch; in England he was noticed by Sloane, Douglas, and Cheselden; in France he studied anatomy under Le Dran; and at Basle mathematics under Bernouilli. Here, where the Bauhins, John and Caspar had resided, and where Stahalin lived, he projected the plan of his great work on the Botany of Switzerland. To collect materials for which, he between 1723 and 1731, traversed in various excursions the mountainous tracts of Vallais, Savoy and Berne. These he published at Gottingen, in 1742, under the title of the *Enumeratio methodica Sterpium Helveticarum indigenarum*, in a large folio volume, with a sublime frontispiece, and a dedication to Frederic Prince of Wales. He did not however survey these scenes with the eye of a naturalist only; they roused in him the spirit of poetry. His verses on "the Alps," and several other compositions written in his twenty-first year, exalted his name high in the ranks of German literature. He is considered as one of the first who proved to the Germans the rights

ness, sublimity and harmony of their poetical language. Some of his publications on botany and anatomy, having gained him considerable and merited reputation abroad, King George II. of England, invited him to the Professorship of Botany, Anatomy and Surgery in the University of Göttingen, in his Electorate of Hanover. There his career was marked by industry, ability, usefulness, and renown. After seventeen years service, in that capacity, he returned to Berne, where he became a magistrate, a member of the Council of two hundred, a superintendent of the salt-works; and was employed in various situations, academic, forensic, political and economical. His health and resources held out until the year 1777, when he died at the age of 68, leaving the fame of one of the best informed men in Europe. His acquaintance with books was wonderful; his memory prodigious. The writings and compilations he has left, are rich and honourable monuments of his extraordinary diligence, acquisitions and talents. But I must desist, as I am only mentioning him incidentally, and not writing his life. Yet, if I should make an additional remark, it would be that Haller is more worthy of the imitation of young men, who aspire to literary, professional, and scientific glory, than most of the examples the world affords."

Charming is the prospect of Italy when viewed from the Alps; more interesting is the exhibition it makes from the nearer and humbler Apennines. Piedmont, fertile in plants, offers you as specimens of her ample and diversified herbarium, the saxifrage, and the *Sisymbrium*.—They invite your attention to the south.

Let me beg your indulgence, while I pluck a few flowers, as I travel along. See here the elegant *gnaphalium stachas*, from the mountains; the pretty *dianthus atrorubens*, or purple pink, which grew by its side; and the neat *achillea aegerata*, or single-stemmed milfoil, plucked from the same neighbourhood. Observe, I entreat you, how beautiful they all appear in death!

Tuscany is under an alluring cultivation.—You shall be gratified by a sight of a few of its productions as we go. The Thrasymene lake offers you a tall aquatic grass; and the Alban lake, a specious flower de luce. The garden of the Grand Duke furnishes the wild chervil, or *cherophyllum aromaticum*; from an adjoining field came the variegated thistle, I show you; and from the banks of the Arno is derived the brilliant but dwarfish wheat, of which the beautiful damsels in the contiguous cottages manufacture the far-famed, and highly prized bonnets of straw. I say nothing of the society of Georgophilists, as they are already known by their useful labours, researches and correspondence; nor of the celebrated galleries filled with the rarities and elegancies of art, by the Medicæan family, that gave a Queen to France, and a Pope to the Western Church. Yet I, perhaps, ought to show the fossil tooth of an African elephant, dug up in this region; a relic, as is rationally conjectured, of the troop, with

which the then victorious Hannibal, after crossing the Rhone and the Po, was marching into the heart of Italy.

As we walk along the shore of the sea at Leghorn, let us notice the *bull-rush*, the *daphne*, the *crithmum*, the *spurge*, and *marsh-rosemary*, that decorate our path. These I display to you merely as samples of that vegetable growth, which the learned society for promoting arts and sciences, existing there, has regarded with botanical exactness.

Though travellers, in general, discourse, when at Rome, of its edifices, and ruins; of its antiquities, and the productions of modern art and genius, the naturalist has, nevertheless, many objects to attract him. Behold here the *acelle*, which springs up among the rubbish; the *coronilla*, growing in milder soils; the *germander*, of the dry grounds. The *asyris* and the *nigello*, solicit your observance as natives of the "Eternal City." It is a comfort, that where animals die, and especially, man abandons or perishes, vegetables germinate with wild and native luxuriance. You have before you the *silvery worm-wood*; a bladed grass, and an aspiring lotus: the first from the ruins, the second from uncultivated spots, and the third from the upland woods; and here gaze, while I show the specimen of the *bird-foot*, from the Coliseum itself! which also has furnished the *Hare-tail*, and flax, now offered to your sight.

If this vast ruin was anciently an amphitheatre, where the people assembled to behold the combats of gladiators, wild beasts, and other exhibitions; or, if it was a circus, where plays and other shows were held, for the entertainment of the thronging multitudes; what alteration has taken place, that its frequented and trodden arena should now be a soil for plants!

The *styrax officinalis*, or medicinal storax, before you, grew at Tibur, a beautiful shrub, as you know from its leaves and blossoms, and is indigenous in Palestine; it is one of the most agreeable of the odoriferous resins, fit to be exhibited to the greatest advantage in languors and debilities of the nervous system; and this flowering branch of *minerva's olive*, once flourished at Albano, though the tree was originally imported from Egypt. Its immature fruit, affords us tasteful preserves, and from the ripe, is procured oil, of invaluable use in food and medicine.

Let us take the fashionable excursion to Tiboli, and observe what the fields produce.—The hawk weed, the *gallic filago*, the *Italian mellot*, the *bell-flowered lint*, the *slender conyza*, and the thorny spurge, all join to court your regard; starting, as it were, from their respective situations for the purpose of being associated with the *snow drop*, and the *lucerne*, that in like manner, leap from their stations at Tibur, to assist in forming an elegant portion of the present display.

If such is the treat this excursion affords, may it not be expected, that a ride over the *campagna di Roma*, will afford something besides crops of wheat and herds of swine, within the

région of the Malaria? O yes; if I mistake not, I see there the *thorny paliurus* frequent enough. Is not that the *dotted lavatera*? I cannot be deceived in pronouncing that to be the *towering vetch*. The *cyonosyrus* with an *echinated spike*, now meets my eye; and the *evergreen rose*, a thick occupant of the ground, tempts me to offer rudeness to its delicacy, and to pluck a twig from its stock.

Let us next suppose ourselves at Naples, and that we have surveyed the volcano of Vesuvius, the Isle of Capræa, the ruins of Baia, the Grotto del Cano, and tasted the famous wine called *lachryma christi*; what then? Why, I beseech you to see what the common herd of travellers overlook, the *fumaria* from its castle—and the *golden grass* and *conyza saxatilis* as tenants of its walls. While her sea-coast affords us for this day's entertainment, the *maritime pine*; the *neapolitan onion*, is furnished by the upland; and the *clover*, and the *sage*, and the *scorpiurus*, come jumping from their meadows on our approach.

Permit me to offer you two plants from Monte Nuova, near Puteoli, situated on the side of the bay in a soft air and a delightful location. These are the *Pistachio* and the *Passerina*; the former having much the aspect of our candleberry-myrtle, and the latter wearing the near aspect of the heather—here are fragments of the ruins from these former seats of Roman opulence and luxury—

But we must return, and survey the scenery of Pauslippo, where the tomb of the Poet Virgil is shown. It is better understood to be on the road to Puteoli; near it is the entry into the famous grotto. Of this, Mr. Addison says, that if a man would form to himself a just idea of the place, he must fancy a vast rock undermined from one end to the other, and a highway running through it, about as long and as broad as the mall in St. James' Park. The common people of Naples believe this subterranean passage to have been made by magic, and that Virgil was the magician; who is in greater repute for having made the grotto than the *Æneid*. There is something highly congenial to moral sentiment, in the association produced by beholding the relics or other memorials of distant or departed excellence. Let cold critics say what they please, this piece of rough cement, brings interesting ideas to mind. Who that sees it, is unwilling to remember that he wrote his *Bucolics* in three years, at Mantua or Cremona, by the persuasion of Asinius Pollio; that the *Georgics* cost him seven years of exertion at Naples; and that his great epic poem was completed in eleven years, partly in Sicily, and partly in Campania? who will be loth to recollect the remark of Cicero, on hearing the eclogues recited, that the author might be considered, "*Magnæ Spes altera Romæ*?" or the distich of Propertius, on perusing the *Æneid*,

Cedite Romani scriptores, cedite Graii

Nescio quid majus nascitur Iliade.

or the occurrence that Octavia, the sister of

Augustus, on hearing the recital of the verses in the sixth book, containing the words

Tu Marcellus, eris, &c.

was so deeply touched and affected with their allusion to her beloved, promising and deceased son, nephew to Octavius, and designed by him to be his successor, that she actually fainted away? and on reviving, rewarded him with ten sesterces for every verse of that description? Can it be a matter of indifference, to know that as he was making a journey to Greece and Asia, he met the Emperor at Athens, and was induced to return, with Cæsar, his patron and friend, to Italy? that having been taken sick at Megara, he notwithstanding came by sea to Brundisium, where, in a few days, he breathed his last, in the fifty-second year of his age? and that, pursuant to his own particular request, his bones were conveyed to Naples, where he had lived a long time in the most inviting and desirable manner? I will not suppose, that any person present can be unmoved, while I exhibit this delicate and elegant plant, (the *grammitis leptophylla*) taken from the spot where his mortal remains were deposited.

Be not impatient, good friends, if I devote a breath or two more to classic ground. On landing at Ostia, where the Tiber discharges its floods into the Tyrrhene sea, the *cyperaceous grasses* attract the eye; while along the shores appear the *polygonum*, the *caucalis*, and the cock's foot; and a little further up is the *bull's eye*, and a little further, the *unfading flower*; and yet further up the bank, the *scurvy grass*. You need not be told, that, in ancient days, this was a great port for the accommodation of Roman ships. Though now neglected, a medal is preserved, which shows what it was, when long and stout piers broke the fury of the waves, and a pharos or light-house directed mariners the course they ought to steer. And here, is the place, I mean an island in the Tiber, where, 291 years before the Christian era, when Pos-thumius and Junius were consuls, the God *Æsculapius*, in the form of a serpent, landed in Italy. The senate of Rome, during the prevalence of a plague, after consulting the Sybilline oracles, had despatched ten commissioners to fetch him from Epidaurus. On his arrival, the epidemic distemper instantly ceased; and on the presumption that he had chosen this spot for his abode, a temple was erected to him at the public expense.

TO DR. SAMUEL L. MITCHILL.

Linnæan Garden, May 24.

DEAR SIR—A most curious and singular natural phenomenon having occurred in this garden, I do myself the pleasure of addressing you on the subject; the more particularly, as it is was from you the information was received, which led to the experiment. During a walk with you in my garden, about two years since, you mentioned to me, at the moment we were passing the *dictamnus rubra*, that a German

writer had asserted, that the *dictamnus* or *fracinella*, when in flower, emitted inflammable gas to such a degree, that on a lighted match being applied to it, it would immediately explode. This assertion of the German writer, appeared to me so incredible, that I had not the curiosity, the first season, to test its truth; but the last summer, observing some fine spikes of flowers on the plant, I went, with several of my family, in the evening, to try the experiment. A match was lighted and applied to the top of the flowers, but no effect was produced; the match was then applied to the base of the flowers, and instantly the whole spike was enveloped in a blaze of light, attended with an explosion similar to what would have been produced by a tea-spoon full of gun-powder, thus proving beyond the possibility of doubt, that the assertions of the German writer alluded to, were correct. The next morning, I had the curiosity to examine the flowers, to ascertain if any visible traces remained of the explosion of the gas, but found none, nor could I perceive, that the flowers were in the least injured in beauty or appearance. This plant, well known in medicine, was esteemed by the ancient Greeks a radical cure, and Virgil quotes it in several places as remedial in wounds. As its medicinal properties are fully defined in several of our modern *materia medica*. I deemed it unnecessary to make any experiments on that head; but to you and to any other scientific gentlemen, I will cheerfully impart, any quantity of the plant they may desire, for the purpose of making experiments on its medicinal virtues.

With the highest respect, your's, &c.

WM. PRINCE, Sen.

ODE TO LINNÆUS.

By J. R. SUTERMEISTER, of Rhinebeck.

Hail the bright reign of May!
 There is sweetness in her smile;
 The wild bird's song is gay—
 Its music doth beguile:
 The flowers, which adorn
 The green earth's loveliness,
 Which drink the breath of morn,
 May well the bosom bless.
 Hail the bright reign of May,
 Fair daughter of young spring!
 Hail this auspicious day,
 Which fleets upon time's wing!
 There is glory in its name,
 The birth-morn of the high;
 His am'rauth crown of fame,
 Lives in the vaulted sky!

While in life's youthful dawn,
 He slept on earth's green breast,
 The breeze swept o'er the lawn—
 The flowers in joy were dressed.
 Beneath an elm tree's shade,
 He lay to fame unknown;
 Till genius passed the glade,
 And claimed him for his own.

He walked the earth in pride,
 Like one born in the sky;
 Looked through creation wide,
 With philosophic eye.
 He named each shrub and flower,
 Which drinks the vernal dew;
 Which decks the summer bower
 With bright and varied hue.

Hail this auspicious day!
 Young hearts with glory burn;—
 Lo! science takes his way,
 To greet its bright return:
 And learning's brow is dress'd,
 In smiling cheerfulness;
 How wakes each happy breast
 Where joy looks on to bless.

Hail this auspicious day!
 Bright cheeks are glowing here;
 Sweet beauty's fair array,
 May well this hour endear.
 Oh! woman is life's flower,
 Which doth the heart beguile;
 Who would not die this hour,
 To live in beauty's smile?

Lines composed by a young Lady, for the coronation of the bust of Linnæus.

Thou, the High-Priest of Nature!—for 'twas thine

To stand within her sanctuary's veil;
 To catch revealings from her secret shrine,
 And tell the listening world the mystic tale!
 We come, with grateful bosoms beating high,
 To gaze upon thy features: 'neath that brow,
 Dwelt the vast thought, that grasped infinity,
 And the firm soul that fortune could not bow!
 Bring Glory's wreaths, to crown the immortal sage!

Not gemmed, nor golden be the diadem;—
 But those bright heralds, that from age to age
 Transmit his fame,—Oh! weave the wreath
 of them!

On the uses of Pyroligneous Acid, read at the celebration of the birth day of Linnæus, at Flushing, on 24th May, 1824.

It has been supposed by many, that Pyroligneous Acid, which some call the "Acid of Wood," is a recent discovery. Its uses, perhaps, have not been long known; but in a folio work on experimental philosophy, written by Glauber, the celebrated Dutch chemist, about two hundred years ago, it is not only particularly mentioned by the name of *Vinegar of Wood*, but directions are given how to prepare it, and engravings introduced of the apparatus used in its manufacture.

Glauber was not a professional man; but being in possession of an ample fortune, and extremely fond of chemical studies, he devoted most of his time and means to this pursuit. It does not, however, appear that he carried his experiments farther, as to this discovery, than to ascertain that its qualities resembled those of common vinegar

In the year 1814, Professor Meineke, of Göttingen, seems to have first conceived the idea that the Vinegar of Wood possessed peculiar antiseptic principles, from which he was led to use it in the preservation of meat, and afterwards in the preparation of mummies.

Availing himself of Professor Meineke's studies, Mr. Stotze an apothecary at Halle, made a variety of experiments, by which he so far verified his predecessors' discoveries, and so completely purified the acid as to render it fit for the table, that he obtained a prize on that account from the Royal Society of Göttingen.

From this period down to 1818, the Vinegar of Wood was generally regarded as a distinct acid; but Fourcroy, and other French chemists, having analyzed it, they pronounced it to be the same as the *acetous*, or common vinegar, differing only in the flavor. The name of Pyroigneous Acid has since been given to it from the circumstance of its being obtained by the destructive distillation.

In England and France the manufactory of this acid is carried on to a considerable extent, and is there used in families as a substitute for vinegar. When it first comes from the still, it is of a dark colour, possessing a strong acid, and slightly astringent taste, with an empyreumatic smell—After remaining at rest for some days, the substance which causes the dark appearance, and which is of the qualities of tar, subsides, and the acid then resembles Madeira wine in colour, and is comparatively transparent.

Before Pyroigneous Acid, however, can be used for the table, it must be frequently distilled to free it from the volatile oil which occasions the peculiar flavor attending it in its original state—The most effectual method to render it pure, is to mix it with sulphuric acid, manganese, and common salt, when running it through the still—These frequent distillations increase its strength so much that it cannot be used for domestic purposes, until it is mixed with a large proportion of water. Some of the acid, thus purified, has lately been imported into this country, and is found to answer all the purposes to which vinegar is usually applied.

Pyroigneous Acid is well known in Great Britain of late years, as an article of commerce—It is there distilled for the purpose of obtaining the acid to dye cloth, and the charcoal for manufacturing gunpowder, which is always in request.—The common estimate is that a ton of nut wood yields about 100 gallons of acid, 400 lbs. of charcoal, and 12 gallons of tarry substance.

This acid is also extensively used, in this and other countries, in the preparation of white lead. The powerful manner in which it acts on the metal in its original state, must always induce the manufacturers of this article to prefer it to all other acids.

It is likewise understood, that leather may be tanned by the Pyroigneous acid, in a much shorter period than by the ordinary process, and that the leather thus manufactured, is equal, if not superior to any imported.

But the most valuable use to which this acid may be applied, is that of curing meat of every description, so as to preserve it from flies and from

putrefaction in hot weather. It has been ascertained by innumerable experiments, that it contains the same properties of preserving animal matters as smoking them by wood does; and that the only difference in using it and drying by the present mode, is merely in the application. In the one case, the meat is acted on during the distillation of the acid while the wood is burning in the smoke house; in the other, the acid, already formed, is applied by immersion, or by the brush.

Since the experiments of Mr. Stotze at Halle, several successful applications of the acid, in this way, have been noticed in the English journals. Two specimens of meat were, some months ago, exhibited at a meeting of the Philosophical Society, Whitehaven, which had been prepared with the acid on 7th September 1819. One of the pieces had been taken to the West Indies to try the effect of the climate, and the other was hung up at home. After the lapse of fifteen months, (i. e. January, 1821) they were tasted by all the members of the Society, and found to be perfectly sweet, fresh, and fit for use.

Our journals also have mentioned instances where the acid has been used in the preparation of meat, and the result has been equally satisfactory. But nothing has appeared, of a positive nature, in either country, by which the mode of applying it could be distinctly understood. In one instance, the acid was put into the tub after the meat had been sufficiently saturated with the pickle, and in another it was not applied until after it was removed from the tub, and had hung in the open air for a day or two. The quantity of the acid used has likewise been differently estimated according to the different modes of preparation which have been adopted.

With the view of satisfying myself on the subject, I caused six pieces of beef usually selected for smoking, and weighing about 15 lbs. each, to be cured with salt, saltpetre, and sugar in the ordinary way, and when they had been about four weeks in the pickle, they were taken out, and hung up for 24 hours; after which they were moistened, by a brush, with nearly a quart of the acid. In a few days they had all the appearance of smoked beef, and, when cut in slices, no difference whatever could be discovered between them in flavor or taste. Some hams and tongues, prepared in the same manner, showed a similar result.

In point of economy, the difference in the two modes is very striking. The expence of smoking a hundred weight of meat, is 37 1-2 cents; the cost of the acid for the same quantity, is only 6 cents. But what is of still greater importance is, that when meat returns from the smoke house, it generally weighs about a *third less* than when sent thither. Prepared with the acid, no diminution in the weight takes place; while the juices of the beef and hams, which are dried up by the fire of the smoke house, are entirely preserved in the new process. Add to this, that in using the acid there is no danger of the meat being changed, or of its passing through the hands of persons who may not be altogether attentive to cleanliness—considerations which are of no small importance to those who are careful in regulating their household affairs.

Accompanying this communication is a piece of beef prepared by me about two months ago, and a part of the acid used by me on that occasion. The beef has been fully exposed during the whole of that period, and although the weather has not been so warm as is usual at this season, I have no doubt that it is unassailable by putrefaction or by flies in the hottest part of the year. When sliced and broiled, it relishes as well as the best beef steak.

The acid is in the same state in which it was when it first came from the still. It is divested of its colour by subsequent distillation; but as this deprives it of its essential oil, the cause of the smoky flavor given to the meat, any alteration in its present state must diminish that flavor, and, probably, materially affect its antiseptic qualities; consequently render it unfit for curing meat.

I have been assured, that fish may be preserved for any length of time by the Pyroligneous acid. This appears extremely probable. Salmon, shad, and herrings are cured in smoke houses in the same way that meat is cured, and there seems no reason to doubt that the acid would produce a similar effect. It might also be used to preserve beef and pork for a considerable period, without the trouble and expence of salting. New York, 20th May, 1824. GEO. HOUSTON.

Substance of the remarks of Mr. William Robert Prince, introductory to a toast given at the Linnæan Festival.

Such has been the pressure of numerous avocations, for some time past, that, desirable as it was to me, to tender my offering at the shrine of the immortal father of botany, still I have not been enabled to contribute to the exercises of the day by any scientific communication; and I rise at this moment unprepared to enter into any elaborate remarks, but with a soul filled with the diversified sensations, which such a day, such a celebration, and such an assemblage are calculated to inspire. Sir, I feel an inexpressible pride and pleasure, on seeing here, concentrated, the most splendid talents, not only of our own country, but of regions far remote.

Little did our great patron, whose nativity we this day celebrate, when he was developing the mysteries of nature, and when his efforts were ridiculed by many of his contemporaries, anticipate that his name, by its talismanic influence, would excite the plaudits of every clime, of every country, and of every age. Who could have supposed, at the period in which Linnæus lived, that in less than a century, we should be able to enumerate in the vegetable kingdom, above sixteen thousand species, whose peculiarities are accurately defined and recorded?—And what heartfelt gratification does it not yield to the bosoms of Americans to know, that above four thousand species of those described, are natives of our own country; and that each year affords large accessions to the number? Can that country be said, with truth, to be unfavourable to the expansion of intellect, which can boast its full share of vegetable productions; a country watered by the mightiest rivers, and bearing within its bosom, internal seas of immense extent? Can man degenerate in a clime, the grandeur and majesty of whose scenery, commands the admiration of the world? Does genius fail to expand amid the sublimities of nature? Science banishes from the mind all prejudice, and bids us look upon every country with liberal feelings. Permit me, therefore, to offer, Mr. President, the following sentiment:

Genius and science, the birthright of every country.

The Rose of Sharon and the Lily of the Valley: by a young Lady, and given as a sentiment at the Linnæan festival.

O gracious power, from whom all goodness flows!
Long may thy flame within my heart be known:
Like Sharon's Rose, with ruddy tints that glows,
Like the vale's pride, may it thy lustre own,
And give its fragrance unto thee alone:
And aye thy holy word with love adore;
Then for the future hope, the past atone,
Till when all pain be past and peril o'er,
It bloom with life renew'd, on Eden's promis'd shore.

Errata.—Some few errors have escaped notice, which the reader is desired to correct.—In Mr. Clinton's Address, 4th line of the 2d paragraph, for *definition*, read "description." In the 3d line of the 3d paragraph, for *these*, read "three." In the 25th line of the 4th paragraph, after *panegyrics*, insert "of worth." In the 1st line of the 7th paragraph, for *offers*, substitute "appears."



