

XIV. *Account of the Nardus Indica, or Spikenard.*

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Read March 18, 1790.

IT is much to be regretted, that the records of antiquity afford such imperfect descriptions of natural objects, particularly of those of the vegetable kingdom. Most of the writings of the ancients have come down to us either mutilated by the accidents of time, or distorted and corrupted by unfaithful and ignorant transcribers. There is reason to think, that the learned works upon professional subjects have been more unfortunate in these respects than works of imagination and general science, for the former are in fact more obscure and confused; and as they would be less generally interesting, and less intelligible, to transcribers, they would of course be more liable to neglect and mistake. But supposing the works of THEOPHRASTUS, DIOSCORIDES, and the other ancient physicians and naturalists, to be extant in their utmost completeness and purity; their method of describing plants and other natural bodies was so defective, that very few of them could now be recognized. We have not only to contend with the obscurity belonging to a dead language, in so far as the name merely is concerned; but it would be impossible, even in a living language, to perpetuate the knowledge of any object in nature, such as a plant, without some description to discriminate it from

from all others. For want of such descriptions, the knowledge contained in the writings of the ancient naturalists could be of use only to their contemporaries and countrymen, who were already acquainted with the objects of it, and could afford no certain information to the ignorant in distant countries and future ages. Of all the ancient medicines, there is perhaps none but opium, of which the identity can be unquestionably ascertained. Of most of them little more is said than merely giving their names. But while nature is constant and invariable, language is local and fluctuating, so that some of the most important knowledge, though committed to writing, rests upon little better foundation than if it were vague tradition. In consequence of this ambiguity, the fruits of the ingenuity and labour of one age have, in a great measure, been lost to another; and useful inventions in various arts have become extinct, for want of the means of ascertaining the materials employed in them. Posterity will therefore be greatly indebted to those industrious naturalists of the present times who are carrying the description of nature to an unexampled height of improvement; and our latest descendants will be enabled, without difficulty, to avail themselves of the accumulated experience of preceding ages.

I have been led to these reflexions by an account, sent me some time ago by my brother in India, of the Spikenard, or *Nardus Indica*, a name familiar in the works of the ancient physicians, naturalists, and poets; but the identity of which has not hitherto been satisfactorily ascertained. He says, in a letter dated Lucknow, December 1786, that, “travelling
“with the Nabob Visier, upon one of his hunting excursions
“towards the northern mountains, I was surpris'd one day,
“after crossing the river Rapti, about twenty miles from the
“foot

“ foot of the hills, to perceive the air perfumed with an aromatic
 “ smell; and, upon asking the cause, I was told it proceeded from the roots of the
 “ grass that were bruised or trodden out of the ground by the feet of the
 “ elephants and horses of the Nabob's retinue. The country was wild and
 “ uncultivated, and this was the common grass which covered the surface
 “ of it, growing in large tufts close to each other, very rank, and in general
 “ from three to four feet in length. As it was the winter season, there was
 “ none of it in flower. Indeed, the greatest part of it had been burnt down
 “ on the road we went, in order that it might be no impediment to the
 “ Nabob's encampments.

“ I collected a quantity of the roots to be dried for use, and carefully dug
 “ up some of it, which I sent to be planted in my garden at Lucknow. It there
 “ thrived exceedingly, and in the rainy season it shot up spikes about six feet
 “ high. Accompanying this, I send you a drawing of the plant in flower, and
 “ of the dried roots, in which the natural appearance is tolerably preserved.

“ It is called by the natives *Terankus*, which means literally, in the
 “ Hindoo language, fever-restrainer, from the virtues they attribute to it in
 “ that disease. They infuse about a dram of it in half a pint of hot water,
 “ with a small quantity of black pepper. This infusion serves for one dose,
 “ and is repeated three times a day. It is esteemed a powerful medicine in
 “ all kinds of fevers, whether continued or intermittent. I have not made any
 “ trial of it myself; but shall certainly take the first opportunity of doing so.

“ The whole plant has a strong aromatic odour; but both the smell and the
 “ virtues reside principally in the husky roots, which in chewing have a
 “ bitter, warm, pungent taste,

“ accompanied with some degree of that kind of glow in the
“ mouth which cardamoms occasion.”

Besides the drawing, a dried specimen has been sent, which was in such good preservation as to enable Sir JOSEPH BANKS, P. R. S. to ascertain it by the botanical characters to be a species of *Andropogon*, different from any plant that has usually been imported under the name of Nardus, and different from any of that genus hitherto described in botanical systems.

There is great reason, however, to think, that it is the true *Nardus Indica* of the ancients; for, first, the circumstance, in the account above recited, of its being discovered in an unfrequented country from the odour it exhaled by being trod upon by the elephants and horses, corresponds, in a striking manner, with an occurrence related by ARRIAN, in his History of the Expedition of Alexander the Great into India. It is there mentioned, lib. VI. cap. 22. that, during his march through the desarts of Gadrosia, the air was perfumed by the Spikenard, which was trampled under foot by the army; and that the Phœnicians, who accompanied the expedition, collected large quantities of it, as well as of myrrh, in order to carry them to their own country, as articles of merchandise. This last circumstance seems further to ascertain it to have been the true Nardus; for the Phœnicians, who, even in war, appear to have retained their genius for commerce, could no doubt distinguish the proper quality of this commodity. I am informed by Major RENNELL, F. R. S. whose accurate researches in Indian geography are so well known to the publick, that Gadrosia or Gedrosia answers to the modern Mackran or Kedge-Mackran, a maritime province of Persia, situated between Kerman (the ancient Carmania) and the river Indus, being of course the frontier of Persia towards India; and that

it appears from ARRIAN's account, and from a Turkish map of Persia, that this desert lies in the middle of the tract of country between the river Indus and the Persian Gulph, and within a few days march of the Arabian or Erythraean sea*. It would appear, that the Nard was found towards the eastern part of it; for ALEXANDER was then directing his route to the westward, and the length of march through the desert afterwards was very great, as they were obliged to kill their beasts of burden in consequence of their subsequent distress. Secondly, though the accounts of the ancients concerning this plant are obscure and defective, it is evident, it was a plant of the order of *gramina*; for the term *arista*, so often applied to it, was appropriated by them to the fructification of grains and grasses, and seems to be a word of Greek original to denote the most excellent portion of these plants, which are the most useful in the vegetable creation for the sustenance of animal life, and nature has also kindly made them the most abundant in all parts of the habitable earth. The term *spica* is applied to plants of the natural order *verticillatæ*, in which there are many species of fragrant plants, and the lavender, which being an indigenous one, affording a grateful perfume, was called *Nardus Italica* by the Romans; but we never find the term *arista* applied to these. The poets, as well as the naturalists, constantly apply this latter term to the true Nardus. STATIUS calls the Spikenard *odoratæ aristæ*. OVID, in mentioning it as one of the materials of the Phoenix's nest, calls it *Nardi levis arista*; and a poem, ascribed to LACTANTIUS, on the

* By the Erythraean Sea the ancients meant the northern part of the Æthiopic Ocean, washing the southern coasts of Arabia and Persia, and not, as the name would imply, what is, in modern times, called the Red Sea. The ancient name of the Red Sea was Sinus Arabicus.

same subject, says, *his addit teneras Nardi pubentis aristas*, where the epithet *pubentis* seems even to point out that it belonged to the genus *andropogon*, a name given to it by LINNÆUS from this circumstance. GALEN says, that though there are various sorts of *Nardus*, the term *Ναρδο-σαχυσ*, or Spikenard, should not be applied to any but the *Nardus Indica*. It would appear, that the *Nardus Celtica* was a plant of a quite different habit, and is supposed to be a species of *Valeriana*. The description of the *Nardus Indica* by PLINY does not indeed correspond with the appearance of our specimen; for he says it is *frutex radice pingui et crassa*; whereas ours has small fibrous roots. But as Italy is very remote from the native country of this plant, it is reasonable to suppose, that others, more easily procurable, used to be substituted for it; and the same author says, that there were nine different plants by which it could be imitated and adulterated. There would be strong temptations to do this from the great demand for it, and the expence and difficulty of distant inland carriage; and as it was much used as a perfume, being brought into Greece and Italy in the form of an unguent manufactured in Laodicea, Tarsus, and other towns of Syria and Asia Minor, it is probable, that any grateful aromatic resembling it was allowed to pass for it. It is probable, that the *Nardus* of PLINY, and great part of what is now imported from the Levant, and found under that name in the shops, is a plant growing in the countries on the Euphrates, or in Syria, where the great emporiums of the eastern and western commerce were situated. There is a *Nardus Assyria* mentioned by HORACE; and DIOSCORIDES mentions the *Nardus Syriaca*, as a species different from the *Indica*, which certainly was brought from some of the remote parts of India; for both DIOSCORIDES and GALEN,

by way of fixing more precisely the country from whence it comes, call it also *Nardus Gangites*. Thirdly, GARCÍAS AB HORTO, a Portuguese, who resided many years at Goa in the sixteenth century, has given a figure of the roots, or rather the lower parts of the stalks, which corresponds with our specimen; and he says expressly, that there is but this one species of *Nardus* known in India, either for the consumption of the natives, or for exportation to Persia and Arabia. It is remarkable, that he is perhaps the only author who speaks of it in its recent state from his own observation. It is not to be met with among the many hundreds of plants delineated in the *Hortus Malabaricus*. The *Schoenanthus* of RUMPHIUS does not correspond with it, being only one palm in height; but he mentions having seen a dried specimen of it, of which the leaves were almost five feet high; and that Mackran was one of the countries from whence it was brought. This must be the same as that mentioned by ARRIAN, but differs from that of GARCÍAS in the length of the stalks; but this might be either because the measure was taken at different seasons of the year, for the specimen before us was much shorter in winter than when it shot into spikes, or because that of GARCÍAS being, according to his own account, cultivated, it might not be so luxuriant as that which grew spontaneous in its native soil. Fourthly, the sensible qualities of this are superior to what commonly passes for it in the shops, being possessed both of more fragrancy and pungency, which seems to account for the preference given to it by the ancients.

There is a question concerning which MATHIOLUS, the commentator of DIOSCORIDES, bestows a good deal of argument, *viz.* whether the roots or stalks were the parts esteemed for use, the testimony of the ancients themselves on this point being

being ambiguous. The roots of this specimen are very small, and possess sensible qualities inferior to the rest of the plant; yet it is mentioned in the account above recited, that the virtues reside principally in the *husky roots*. It is evident, that by the husky roots must here be meant the lower parts of the stalks and leaves where they unite to the roots; and it is probably a slight inaccuracy of this kind that has given occasion to the ambiguity that occurs in the ancient accounts.

With regard to the virtues of this plant, it was highly valued anciently as an article of luxury as well as a medicine. The favourite perfume which was used at the ancient baths and feasts was the *unguentum nardinum*; and it appears, from a passage in HORACE, that it was so valuable, that as much of it as could be contained in a small box of precious stone was considered as a sort of equivalent for a large vessel of wine, and a handsome quota for a guest to contribute at an entertainment, according to the custom of antiquity:

— *Nardo vinum merebere*

Nardi parvus onyx eliciet cadum.

It may here be remarked, that as its sensible qualities do not depend on a principle so volatile as essential oil, like most other aromatic vegetables, this would be a great recommendation to the ancients, as its virtues would thereby be more durable, and they were not acquainted with the method of collecting essential oils, being ignorant of the art of distillation. The fragrance and aromatic warmth of the *Nardus* depends on a fixed principle like that of cardamoms, ginger, and some other spices. I tried to extract the virtues of the *Nardus* by boiling water, by maceration in wine and in proof spirits, but it yielded them but sparingly and with difficulty to all these *menstrua*.

It had a high character among the ancients as a remedy both external and internal. It is one in the list of ingredients in all the antidotes, from those of HIPPOCRATES, as given on the authority of MYREPSUS and NICOLAUS ALEXANDRINUS, to the officinals which have kept their ground till modern times under the names of Mithridate and Venice Treacle. It is recommended by GALEN and ALEXANDER TRALLIAN in the dropsy and gravel. CELSUS and GALEN recommend it both externally and internally in pains of the stomach and bowels. The first occasion on which the latter was called to attend MARCUS AURELIUS was when that Emperor was severely afflicted with an acute complaint in the bowels, answering by the description to what we now call *cholera morbus*; and the first remedy he applied was warm *Oleum nardinum* on wool to the stomach. He was so successful in the treatment of this illness, that he ever afterwards enjoyed the highest favour and confidence of the Emperor.

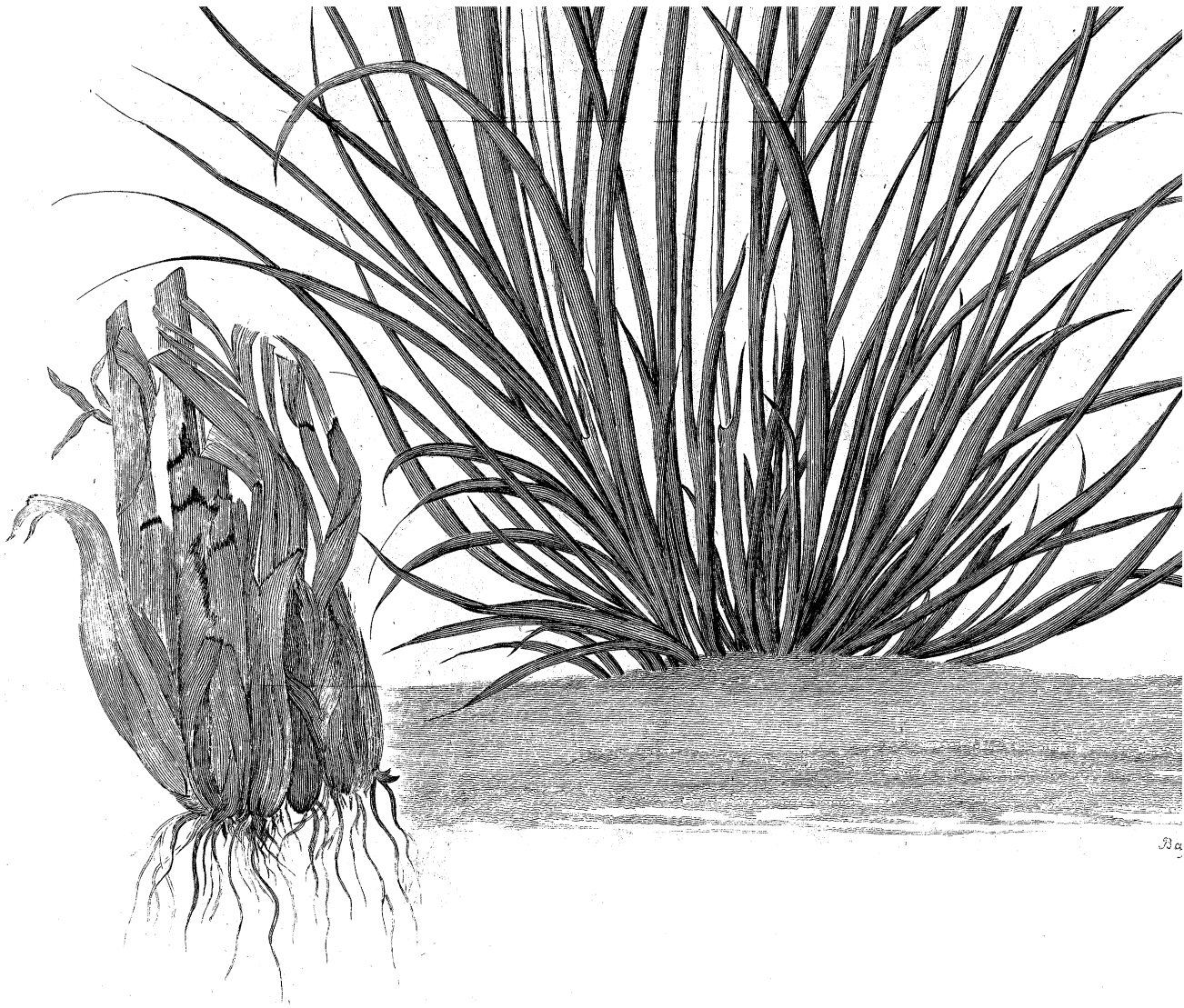
It would appear, that the natives of India consider it as an efficacious remedy in fevers, and its sensible qualities promise virtues similar to those of other simples now in use among us in such cases. Besides a strong aromatic flavour, it possesses a pungency to the taste little inferior to the *serpentaria*, and much more considerable than the *contrayerva*. It is mentioned in a work attributed to GALEN, that a medicine, composed of this and some other aromatics, was found useful in long protracted fevers, which are the cases in which medicines of this class are employed in modern practice.

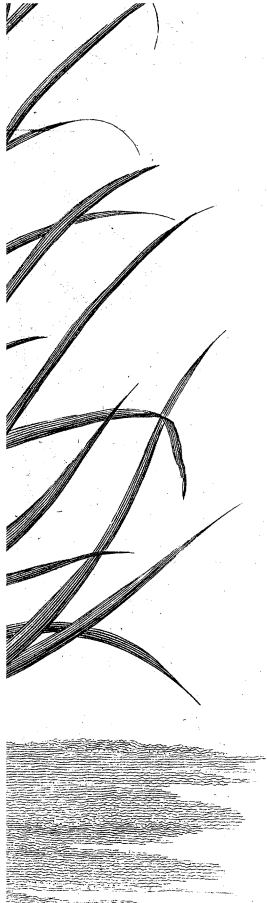
Tab. XVI. is a representation of the Plant.











Refine Co.



W. Jones Sc.