

ASIATIC RESEARCHES;

OR,

TRANSACTIONS

OF THE

SOCIETY INSTITUTED IN BENGAL,

For inquiring into the

History and Antiquities,

THE

ARTS, SCIENCES, AND LITERATURE,

OF

ASIA.

VOLUME THE ELEVENTH.

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III.

A CATALOGUE

OF

Indian Medicinal Plants and Drugs,

WITH

*Their Names in the Hindusta'ni and Sanscrit
Languages.*

BY JOHN FLEMING, Esq M. D.

ADVERTISEMENT.

THE following catalogue is intended chiefly for the use of gentlemen of the medical profession on their first arrival in India, to whom it must be desirable to know what articles of the *Materia Medica* this country affords, and by what names they may find them.

The systematic names of the plants are taken from *Willdenow's* edition of the *Species Plantarum* L. with the exception of some new species not included in that work, which have been arranged in the system, and described by *Dr. Roxburgh*; who, with his usual liberality, permitted me to transcribe their specific characters and trivial names from his manuscript.

In ascertaining and fixing the Hindustáni and Sanscrit names which correspond to the systematic, a point of

considerable difficulty, but essential for the purpose of this catalogue, I have been greatly assisted by *Mr. Colebrooke*, on whose thorough acquaintance with oriental literature as well as his knowledge in botany, I knew that I could confidently rely.

The Hindustáni and Sanscrit words are expressed in Roman characters, conformably to the system of notation recommended by *Sir William Jones*; but as many prefer, for the Hindustáni, the system of *Mr. Gilchrist*, the names in that language are printed according to his orthography at the bottom of the page.

For the virtues and uses of such medicinal plants and drugs as are already well known in Europe, I have judged it sufficient to refer to the two latest and best works on the *Materia Medica*, *Murray's* "Apparatus Medicaminum,"* and *Woodville's* "Medical Botany."† Of the qualities of those articles which are known only in this country, some account is now offered; which, however brief and imperfect, will, it is hoped, have at least the effect of promoting further inquiry.

I. Medicinal Plants.

ABRUS PRECATORIUS. (W.) *Gunchá*⁽¹⁾ H. *Gunjá S.*
The Seed. *Retti*⁽²⁾ H. *Racticá S.*

The root of this plant, when dried, coincides very exactly, in appearance and medicinal qualities, with the liquorice root, and is often sold for it in the bazars.

* Apparatus Medicaminum, &c. Auctore Jo. ANDREA MURRAY. Tom. VI. 8. *Gotting.* 1790.

† Medical Botany, &c. By WILLIAM WOODVILLE, M. D. 4 vols. 4to. *Lond.* 1794.

(1) *Gooncha.*

(2) *Ruttee.*

- ALOE PERFOLIATA.** (W.) *Ghí-Cumâr*⁽¹⁾ H. *Ghrita-Cumári* and *Taruni* S.
The Gum; *Elwa*⁽²⁾ H. *Musebber*⁽³⁾ Arab.
Murray, V. 238.
Woodville, III. 556.
- ALPINIA CARDAMOMUM.** (Roxb.) *Iláchi*⁽⁴⁾ H. *E'lá* S.
Amomum Cardamomum. } Murray, V. 61.
 } Woodville, II. 356.
- AMOMUM ZINGIBER.** (W.) *Adrac*⁽⁵⁾ H. *Ardraca* S.
The dried root, *Sont'h* H. *Sunt'hi* S.
Murray, V. 52.
Woodville, I. 31.
- ANDROPOGON SCHENANTHUS.** (W.) *Gendbél*⁽⁶⁾ H.
B'hústrína S.
Murray, V. 443.

This plant, under the name of *Juncus Odoratus*, had formerly a place in all the European pharmacopœias, but it is now rarely met with in the shops. It continues, however, to be a favorite herb with the Asiatics, both for medicinal and culinary purposes. The Hindu practitioners consider the infusion of the leaves as sudorific, diuretic, and emmenagogue. Whatever title it may have to these virtues, it is at least a very agreeable diluent; and, on account of its fragrant smell, aromatic flavour, and warm, bitterish but not unpleasant taste, is generally found to be a drink very grateful to the stomach in sickness. Many Europeans, with whom tea does not agree, use, instead of it, the infusion of this plant, to which they have given the name of lemon-grass.

ANETHUM SO'WA' (Roxb. MS.) *Sówá*⁽⁷⁾ H. *Mísreyá* S.
Sp. Ch.—Annual. Leaves superdecompound. Umbel of 5—15 equally elevated radii. Fruit oblong, flat. Seeds without a membranaceous margin, and with three ribs on the base.

ANETHUM PANMORIUM (Roxb. MS.) *Mayuri*⁽⁸⁾ H.
Mad'hurica S.
Sp. Ch.—Annual. Erect. Ramous. Leaves superde-

(1) *Gheekoowar.* (2) *Elwa.* (3) *Moosubbur.* (4) *Ilachee*
(5) *Udruk.* (6) *Gund bel.* (7) *Soä.* (8) *Muyooree.*

compound. Umbel of from 10 to 20 unequally elevated radii. Fruit oblong, deeply furrowed, but not winged.

The former of these umbelliferous plants resembles in appearance the *Anethum graveolens* (W.) and the other the *Anethum fœniculum* (W.) Both species are cultivated in Bengal, on account of their seeds, which are used in diet, as well as in medicine. They are warm aromatics, and may supply the places of dill and fennel-seed, as carminatives, in cases of flatulent colic or dyspepsia.

APIUM INVOLUCRATUM (Roxb. MS.) *Ajmod*⁽¹⁾ H.
Ajomóda S.

Sp. Ch.—Annual. Glauous. Villous. Superior leaflets filiform. Both general and partial involucre about six-leaved.

This species of *Apium* is cultivated in Bengal for the seeds only, the natives never using the leaves. The seeds have a very agreeable aromatic flavor, and are therefore much employed in diet as a condiment. They are also used in medicine, in the same cases as the *Sowa* and *Mayuri* seeds above mentioned.

ARISTOLOCHIA INDICA. (W.) *Isármel*,⁽²⁾ H.

The root of this species of birth-wort is intensely bitter, and is supposed by the Hindus to possess the emmenagogue and antiarthritic virtues which were formerly ascribed in Europe to its congeners, the *Aristolochia longa* and *rotunda*. As its bitterness is accompanied with a considerable degree of aromatic warmth, it will probably be found a useful medicine in dyspepsia.

ARTEMISIA VULGARIS. (W.) *Nág-dóna* H. *Nágadamana* S.
Murray, I. 190.
Woodville, II. 331.

ASCLEPIAS ASTHMATICA. (W.) *Automel* H. (1)

Asclepias Vomitoria. Kœnig's Ms.

I have inserted this plant on the authority of the following note, which was found among the late *Dr. Kœnig's* papers, and communicated to me by *Dr. Roxburgh*. "*Dr. Patrick Russell* was informed by the Physician-General at Madras, that he had, many years before, known it (the root of the *Asclepias Vomitoria*) used, both by the European and native troops, with great success, in the dysentery, which happened at that time to be epidemic in camp. The store of *Ipecacuanha* had, it seems, been wholly expended; and *Dr. Anderson*, finding the practice of the black doctors much more successful than his own, was not ashamed to take instruction from them, which he pursued with good success; and collecting a quantity of the plant which they pointed out to him, he sent a large package of the roots to Madras. It is certainly an article of the *Materia Medica* highly deserving attention."

I have not obtained any further account of the medicinal virtues of this species of *Asclepias*, which grows in the Northern Circars, but is not met with in Bengal. It is, however, as *Dr. Kœnig* observes, an article highly deserving attention. The *Ipecacuanha* root is one of the few medicines for which we have not as yet found any adequate substitute in India; and if such a substitute should be found in the root of the *Asclepias Asthmatica*, it would prove a most valuable acquisition to our *Materia Medica*.

BOSWELLIA THURIFERA. (Roxb.) *Salai* H. *Sallaci* S.

Olibanum (The Gum-resin.) { *Cundur*⁽²⁾ and *Gendeh firozeh*,⁽³⁾ H.
Cundura S.

The grateful odour diffused by *Olibanum*, when

1) *Uotomul*. (2) *Coondoor*. (3) *Gundufiroozu*, or *Gundubirozu*.

thrown on the fire, must have early attracted the notice of mankind; as it appears that this fragrant gum-resin was used as incense, in the religious ceremonies of almost all the ancient nations. Of this honour it has kept possession, from the most remote antiquity, until the present time, when it still continues, unless when its place is supplied by Benzoin, to perfume the churches, mosques, and temples, both in Europe and Asia.

That naturalists should have remained in ignorance, or in error, until almost the present day, respecting the tree which yields a substance so long known, and so universally used, must appear not a little surprising. Such, however, is the fact; and the merit of having discovered the true origin of this celebrated incense, is due to *Mr. Colebrooke*, who has ascertained and proved, most satisfactorily, that the olibanum, or frankincense of the ancients, is not the gum-resin of the *Juniperus Lycia*, as was generally supposed, but the produce of our *Boswellia Thurifera*. See his paper on this subject in the *Asiatic Researches*, Vol. IX. p. 377, to which is subjoined a botanical description of the tree by *Dr. Roxburgh*.

Although the Olibanum is still retained in the pharmacopœias of the three British Colleges, it is seldom used as a medicine in modern practice. Formerly, however, it was held in considerable estimation, as a remedy in catarrh and hæmoptysis; and as it is less heating than myrrh, by which it has been superseded in these diseases, it might still, perhaps, be used with advantage, in some cases, in which the myrrh might prove too stimulant.

CÆSALPINIA BONDUCELLA. (W.) *Catevaranja*⁽¹⁾ *Cat-calé-ji*⁽²⁾ *H. Puti-Caranja.* S.

This shrub is a native of both the Indies; but its

(1) *Kut-kurunja.*

(2) *K a-kulejec.*

use in medicine is, I believe, known only in the East. The kernels of the seeds are intensely bitter, and possess the tonic power in a very high degree. They are accordingly employed by the Hindu physicians, in all cases in which that power is more especially required; and particularly in intermittent fevers, for which they are considered as an almost infallible remedy. The mode of using them is as follows. One of the seeds, freed from its hard shell, is beat into a paste, with a few drops of water, and three corus of black pepper. This is formed into three pills, which are taken for a dose, and this dose is repeated three or four times a day, or oftener, if necessary. The decoction of the *Gentiana Cherayita* (*Roxb.*) is generally prescribed to be taken at the same time with the pills. See *Gentiana Cherayita*.

This method of curing intermittents is so generally successful, that it has been adopted by many European practitioners, particularly in those cases which so frequently occur, in which the patients have an aversion to the Peruvian bark, or cannot retain it on the stomach. In all such cases, and also on occasions where the Peruvian bark cannot be procured, I believe that the *Catcaranja* will be found one of the best substitutes to which we can have recourse; particularly if assisted by the decoction of the *Cherayita*, which indeed is so powerful an auxiliary, that it may be doubtful, in the case of success, to which of the two remedies the cure should be chiefly ascribed.

CANNABIS SATIVA. (W.) *B'hang* and *Gánja* H. *Ganjicá* S.
Murray, IV. 608.

Dela March is of opinion, that the Indian *Gánja* is a different species of *Cannabis* from the *Cannabis Sativa*, and names it "*Cannabis Indica foliis alternis.*" (*Encyc. Bot.* I. 695.) But *Willdenow*, after remarking that the European species has also alternate leaves, assures us

that, on comparing it with many specimens of the Indian plant, he could not perceive any difference between them; See Sp. Pl. IV. 763. and *Dr. Roxburgh*, on comparing plants raised from Europe hemp-seed with the Gánja plant, could not discover the slightest difference between them; not even enough on which to found a variety.

CAPSICUM FRUTESCENS. (W.) *Lál Mirch* H.

CAPSICUM ANNUM. { Murray, I. 732.
Woodville, III. 391.

The annual species of Capsicum is not a native of this country, and but rarely found in the gardens. The Capsicum Frutescens, of which there are several varieties, is cultivated in every part of India, on account of its pods; which afford to the inhabitants a condiment, as necessary for their rice and pulse diet as salt itself. In respect to the medical uses of this species, they perfectly correspond with those of the Capsicum Annum, for which see the authors above referred to.

CARICA PAPAYA. (W.) *Papaiya* H.⁽¹⁾ Rumph. *Amb.* I. Tab. 50, 51.

This is not an indigenous tree of India, and consequently has no name in the Sanscrit language. It is a native of South America and the West Indies; whence it was brought, by the Spaniards and Portuguese, to the Philippines and Moluccas; and from these islands, being of very quick growth, it spread rapidly to all the other countries of India. It has long been cultivated in every quarter of Hindustán, and is in flower and fruit during the greatest part of the year. The milky juice that flows from the fruit when an incision is made into it before it is quite ripe, is esteemed, by the inhabitants of the Isle of France and Bourbon, as

1) *Papueya*.

the most powerful vermifuge that has yet been discovered. An account of this remedy was transmitted to the President of the Asiatic Society, by *Mr. Charpentier Cossigni*, in a letter, dated the 3d of November, 1800, of which the following is an extract.

“ Un hazard heureux a fait decouvrir a L’Isle de la
 “ Reunion un remede le plus efficace de tous ceux
 “ connus contre les vers. Il y a plusieurs années qu’on
 “ en fait usage avec le plus grand succès, a L’Isle de
 “ France, ou les maladies vermineuses sont tres com-
 “ munes. C’est du lait de papayes. On incise ce
 “ fruit quand il est verd. Il rend un lait, qu’on re-
 “ cueille, et qu’on fait prendre á jeun au malade.
 “ C’est le plus puissant de tous le vermifuges. On
 “ pretend qu’il tue meme le *Tænia cucurbiteux*, qui
 “ est assez commun dans L’Isle. An reste, les preuves
 “ de la vertu puissante de ce remede sont deja tres
 “ nombreuses, sans qu’il soit resulté d’accidens, quò-
 “ qu’on ait essayé de l’administrer en grande dose.
 “ Ce qui rend ce remede precieux, c’est qu’une seule
 “ dose suffit pour tuer tous les vers, quelle grande
 “ qu’en soit la quantité.”

The vermifuge, thus strongly recommended, and on such respectable authority, has not yet come into use here, either among the native or European practitioners; although an account of it was published at the time in the Calcutta newspapers. A remedy, however, so simple, and so easy at all times to be procured, certainly deserves to have a fair trial. The dose for an infant is one tea-spoonful of the juice, mixed with thrice that quantity of warm water, or cow’s milk; for a child of six or seven years of age, one table spoonful; and for an adult, two table spoonfuls. A few hours after the patient has taken the dose of Papaya milk, a dose of *Oleum Ricini* is given to him, to promote the expulsion of the dead worms.

CASSIA FISTULA. (W.) *Amellás* ⁽¹⁾] H. *Suvernaca* S.
Murray, II. 510.
Woodville, III. 449.

CASSIA ALATA. (W.) *Dád-merden* ⁽²⁾ H. *Dádrughua* S.

This shrub is cultivated in Bengal as an ornament to the flower garden. The expressed juice of the leaves, mixed with common salt, is used externally for curing the ring-worms. From this quality, it has obtained its Hindustáni and Sanscrit names; and for the same reason, it is called by *Rumphius*, *Herpetica*; and by French authors, *Herbe á Dartres*. Notwithstanding this general prepossession in its favour, in the many trials which I have made of it, for curing herpetic eruptions, I have oftener failed than succeeded.

CEDRELA TUNA. (W.) *Tún* ⁽³⁾ H. *Tunna* and *Cuvé-raca* S.

The first botanical description of this tree was given by *Sir William Jones*, in the 4th Vol. of the *As. Res.* p. 273. The wood is esteemed on account of its close grain and beautiful colour, resembling that of mahogany, and is much employed by the cabinet-makers in Calcutta, for the purpose of being made into furniture. No part of the tree is used in medicine by the Hindus; but a very intelligent English surgeon, now deceased, found the powder of the bark, and the extract made from it, very efficacious in the cure of fevers. He also experienced great advantage from the powder, applied externally, in the treatment of different kinds of ulcers. See a letter to *Dr. Duncan*, from *Mr. J. Kennedy*, surgeon at Chunar. (*Annals of Medicine*, I. 387.)

I have not met with any other account of the medicinal qualities of the *Tún* bark; but, on so respectable

(1) *Umultas*.

(2) *Dad murdum*.

(3) *To m*.

authority, I judged it a proper object of further inquiry, and have therefore given the tree a place in the catalogue.

CITRUS AURANTIUM. (W.) *Narenj*⁽¹⁾ and *Narengi*⁽²⁾ H. *Nágaranga*, S.

CITRUS MEDICA. (W.) *Lému*⁽³⁾ H. *Jambíra* S.
Murray, III. 265. 284.
Woodville, III. 496. 500.

CORDIA MYXA. (W.) *Lehsóra*⁽⁴⁾ H. *Bahuváraca* S.
Murray, II. 133.
Woodville, IV. 16.

CORIANDRUM SATIVUM. (W.) *D'hanya*⁽⁵⁾ H. *D'amyáca* S.
Murray, I. 405.
Woodville, III. 492.

CROTON TIGLIUM. (W.) *Jeypál* and *Jemálgóta*⁽⁶⁾ H. *Jayapála* S.
Murray, IV. 149.
Rumph. Amb. IV. Tab. 42.

The seeds of this plant were formerly well in Europe, under the names of Grana Tiglia, and Grana Molucca. They were employed as hydragogue purgatives; but, on account of the violence of their operation, they have been long banished from modern practice. For the same reason, they are seldom used by the Hindu practitioners, though not unfrequently taken, as purgatives, by the poorer classes of the natives. One seed is sufficient for a dose. It is first carefully cleared from the membranaceous parts, the rudiments of the seminal leaves, that adhere to the centre of it; by which precaution, it is found to act less roughly; and then rubbed with a little rice gruel, or taken in a bit of the plantain fruit.

CUCUMIS COLOCYNTHIS (W.) *Indráinj*⁽⁷⁾ H. *Indra*
váruni S.
Murray, I. 583.
Woodville, III. 476.

(1) *Narunj.* (2) *Narungee.* (3) *Lemoo.* (4) *LuhSORa.*
(5) *D'hunya.* (6) *Jumalgota.* (7) *Indrayun.*

CUMINUM CYMINUM. (W.) *Jirá.*⁽¹⁾ H. *Jíraca* S.

Murray, I. 391.

Woodville, III. 521.

CURCUMA LONGA. (W.) *Haldí.*⁽²⁾ H. *Haridrâ* S.

CURCUMA ZEDOARIA. (Roxb. MS.) *Nirbisí.*⁽³⁾ H.

Nirbisí S.

Kæmpferia Rotunda. { Murray, V. 82.

{ Woodville, II. 361.

Sp. Ch.—Spikes lateral. Bulbs, small, with long yellow palmated tubers. Leaves broad, lanceolar, subsessile on their sheath; sericeous underneath: colour, uniform green. (Roxb. MS.)

From the roots of several species of *Curcuma*, that are found in Bengal, the natives prepare a farinaceous powder, which they call *Tikhur.*⁽⁴⁾ It is in every respect similar to the powder prepared from the root of the *Maranta Arundinacea*, or arrow-root; and is often sold for it in the Calcutta shops.

DATURA METEL. (W.) *D'hatúra*⁽⁵⁾ H. *D'hustúra* S.

{ Murray, I. 670.

{ Woodville, II. 338.

The *D. Stramonium*, which is the species used in medicine in Europe, is not found in Hindustan,* but the *D. Metel* grows wild in every part of the country. The soporiferous and intoxicating qualities of the seeds are well known to the inhabitants; and it appears, from the records of the native Courts of Justice. that these seeds are still employed, for the same licentious and wicked purposes, as they were formerly, in the

(1) *Jeera.* (2) *Huldee.* (3) *Nirbissee.* (4) *Teekhoor.* (5) *D'hutooru.*

* In the Asiatic Researches, VI. 351. Colonel HARDWICKE enumerates the *Datura Stramonium* among the plants which he found in the *Sirinagur* country; but he afterwards ascertained, that the plant which he met with was the *Datura Metel*; and has candidly authorized me to notice the mistake.

time of *Acosta* and *Rumphius*, See *Rumph.* Amb. V. 242. I do not know that either the seeds, or the extract prepared from the expressed juice of the plant, are used in medicine here; but those who place any faith in the accounts given by *Baron Stoerck*, and Mr. *Odhelius*,* of the efficacy of the extract of the Stramonium, in the cure of mania, epilepsy, and other convulsive disorders, may reasonably expect the same effects from the extract of the Metel; the narcotic power in the two species being perfectly alike. *Linnaeus*, indeed, has given a place, in his *Materia Medica*, to the Metel, in preference to the Stramonium,

- DAUCUS CAROTA. (W.) *Gajer*⁽¹⁾ H. *Garjara* S.
Murray, I. 316.
Woodville, III. 443.
- DOLICHOS PRURIENS. (W.) *Kiwách* H. *Capicach'hu* S.
Murray, II. 438.
Woodville, III. 468.
- ECHITES ANTEDYSENTERICA. (Roxb. MS.) *Curayia*⁽²⁾ H.
Cutaja S.
The seed, *Inderjao* H. *Indrayava* S.
Murray, I. 828
Woodville, IV. 42.

EUPATORIUM AYAPANA. (W.)

This plant was brought, about ten years ago, from Brazil, of which country it is a native, to the Isle of France; and was, by the islanders, considered for a time, as almost a panacea. It appears, however, that it has entirely lost its credit with them, and that they do not now allow it to possess any medicinal virtue whatsoever. See *Bory de St. Vincent*, Voyage aux principales Isles des Mers d' Afrique. The instances are not unfrequent, of medicines which had been at first too highly extolled, hav-

* Vide MURRAY and WOODVILLE, loc. citat.

(1) *Gajur*.

(2) *Koorayu*.

ing afterwards met with unmerited neglect; and such may, perhaps, be the case in respect to the plant in question; which has been lately introduced into Bengal, and is now cultivated in the gardens about Calcutta. I have therefore inserted the Ayapana in the catalogue, as an object deserving further inquiry. Its congener, the *Eupatorium Cannabinum*, was strongly recommended by *Tournefort* and *Chomel*, as a deobstruent, in visceral obstructions consequent to intermittent fevers; and externally as a discutient, in hydropic swellings of the legs and scrotum. See *Murray*, I. 202.

GENTIANA CHIRAYITA. (Roxb. Ms.) *Chiráyita* H.
Cirátaticta S.

Sp. Ch.—Herbaceous. Leaves, stem-clasping, lanceolate, 3—5 nerved. Corol rotate, four cleft, smooth. Stamens four. Capsule ovate, bifurcate, as long as the calyx. (Roxb. Ms.)

This species of Gentian is indigenous in the mountainous countries to the northward of the Ganges; but does not grow in the lower parts of Bengal. The dried herb, however, is to be met with in every bazar of Hindostan; being a medicine in the highest repute with both the Hindu and European practitioners. It possesses all the stomachic, tonic, febrifuge, and anti-arthritic virtues which are ascribed to the *Gentiana Lutea*, and in a greater degree than they are generally found in that root, in the state in which it comes to us from Europe. It may therefore, on every occasion, be advantageously substituted for it. The efficacy of the *Chirayita*, when combined with the *Caranja* nut, in curing intermittents, has been already mentioned. It is found equally powerful in exciting and strengthening the action of the stomach, and obviating flatulency, acidity and redundancy of phlegm, in dyspepsia and gout. For restoring the tone and activity of the moving fibre, in general debility, and in that kind of cachexy

which is liable to terminate in dropsy, the **Chirayita** will be found one of the most useful and effectual remedies which we can employ.

The parts of the plant that are used in medicine, are the dried stalks, with pieces of the root adhering to them. A decoction of these, or, which is better, an infusion of them in hot water, is the form usually administered. Spirituous tinctures are also prepared from the plant, with the addition of orange-peel and cardamom seeds; and those who consider such tinctures as of any avail, will find these very agreeable bitters. The most useful purpose, however, to which the tincture can be applied, is that of being added to the decoction, or infusion, with the view of rendering them more grateful to the stomach.

- GLYCYRRHIZA GLABRA. (W.) *Jét'hímad'h*⁽¹⁾ H. *Yastímadhuca* S.
 Murray, II. 457.
 Woodville, III. 458.
- HYPERANTHERA MORUNGO. (W.) *Saijana*⁽²⁾ H. *Só-bhanjana* S.

This tree, on account of its beauty, as well as its utility, is a favourite with the natives of Hindustan, who are fond of planting it near their houses, both in the towns and villages. The legumes, blossoms and leaves are all esculent, and are used both as pot-herbs and for pickles. The root of the young tree, when scraped, so exactly resembles horse-radish, as scarcely to be distinguished from it by the nicest palate; and is therefore used, by Europeans, instead of that root, as a condiment with animal food. In medicine, it completely supplies its place, whether employed externally, as a rubefacient, or used internally in cases of palsy, chronic rheumatism, and dropsy, as a stimulant.

(1) *Jét'heemud'h.*

(2) *Suhijna.*

The expressed oil of the seeds is used externally, for relieving the pain of the joints in gout and acute rheumatism. This oil is remarkable for resisting rancidity; and, on that account, has been selected by the perfumers, as the fittest for being impregnated with the odour of jessamines, violets, tuberoses, and other flowers; which yield little or no essential oil, but impart their fragrance to expressed oils.

The seeds of this tree are the Ben nuts of the old writers on pharmacy. Some of these writers supposed their *Lignum Nephriticum* to be the wood of the Morungo; but erroneously; the tree which affords that wood being a native of New Spain.

JATROPHA CURCAS. (W.) *Bágbarindá* H.
Murray, IV. 164.

The seeds of this plant are, like those of the *Croton Tiglium*, (to which plant it is nearly allied,) frequently used as a purgative, by the more indigent natives. Their operation is milder than that of the *Tiglium* seeds, and two or three may be taken for a dose; but the same precaution must be used in freeing them from the membranaceous parts, that was formerly directed to be observed in respect to the *Tiglium* seeds.

JUSTICIA PANICULATA. (W.) *Calapnat'h*⁽¹⁾ and *Crëat* H.
Cuiráta S.

This species of *Justicia* is a native of Bengal, and of many other parts of Hindustan. The whole of the plant is intensely bitter; and it yields this quality equally to aqueous, vinous, and spirituous menstrua. It is much used, by the native practitioners, in fevers and dysenteries. The French and Portuguese inhabitants of India consider it as an excellent stomachic; and it forms the basis of their bitter tincture, so well known on the Malabar coast by the name of *Droque Amere*.

(1) *Kulupnat'h*.

- LAURUS CINNAMOMUM. (W.) *Dárchini*⁽¹⁾ H. *Dárasita* S.
Murray, IV. 417.
Woodville, I. 80.
- LAURUS CASSIA. (W.) *Tejpát* H. *Tamála patra* S.
The Bark *Tej*⁽²⁾ H. *Twacha* S.
Murray, IV. 441.
Woodville, I. 82.
- LIGUSTICUM AJAWAIN. (Roxb. Ms) *Ajawain*⁽³⁾ H.
Yavani S.

Sp. Ch.—Annual. Erect. Leaves superdecompound, with filiform leaflets. Ridges and furrows of the seeds distinct and scabrous.

The seed of this species of lovage is an excellent aromatic. It is much used by the natives as an agreeable condiment in their dishes, and for improving the flavour of the betel leaf and nut in their Páns. In medicine, it is esteemed a powerful remedy in the flatulent colic; and is employed by the veterinary practitioners in analgacous diseases of horses and cows.

This is the seed mentioned and recommended to notice by the late *Dr. Percival*, in his *Essays*, (I. 433.) under the name of Ajava seed.

- LINUM USITATISSIMUM. (W.) *Tísi*⁽⁴⁾ H. *Atasi* S.
Murray, III. 474.
Woodville, II. 303.
- MELIA AZEDARACHTA. (W.) *Nimb*⁽⁵⁾ H. *Nimba* S.
- MELIA SEMPERVIRENS. (W.) *Bacäin*⁽⁶⁾ H. *Mahá-Nimba* S.

These two species of the bead-tree are small elegant trees, cultivated very generally in Hindostan on account of their beautiful blossoms, and the medicinal qualities of the leaves. The leaves have a nauseous, bitter taste, devoid of astringency, which they readily impart to water. The decoction of them is used internally, in cases in which the tonic and stomachic virtues of simple

(1) *Darcheence*. (2) *Tij*. (3) *Ujwayun*. (4) *Teesce*. (5) *Necmb*.
(6) *Bukayun*.

bitters are required. They are also employed, externally, as a discutient and emollient, either in fomentations, or in the form of cataplasm; for which last purpose they are simply heated in an earthen pot, and then bruised and applied to the part affected.

MENISPERMUM CORDIFOLIUM. (W.) *Gurcha*⁽¹⁾ H. *Guduchi* S.

Cit-amerdu. Van Rhede, H. M. VII. 39.

MENISPERMUM VERRUCOSUM. (Roxb. Ms.) *Putra Wali*,
Java.

Funis felleus. Rumph. *Amb.* V. 82.

Sp. Ch.—Perennial. Scandent. Verrucose. Leaves cordate, acuminate, entire, smooth. Male racemes from the naked branches, simple. Nectareal scales inserted in the filaments.

The *Menispermum Cordifolium* is indigenous in most parts of Hindostan. The decoction of the leaves is prescribed, by the Hindu physicians, as a febrifuge, and as a tonic in gout. It is also one of the many remedies which they give for the cure of the jaundice. The very young leaves are employed externally, as an emollient, made into the form of liniment, with milk.

The *Menispermum Verrucosum* was introduced into Bengal, from Malacca, by *Captain Wright*, about ten years ago; and is now cultivated in the gardens about Calcutta. It is readily propagated from cuttings, which are remarkable for the great length of time during which they preserve the power of vegetation. Every part of the plant is exceedingly bitter, particularly the stalk; which, from this quality, has obtained its Javanese name *Putra Wali*; literally translated by *Rumphius*, *funis felleus*. It is the remedy generally employed in the Malay countries, for the cure of intermittent fevers; and from *Captain Wright's* account, is as powerful a febrifuge.

(1) *Goorcha.*

fuge as the Peruvian bark. It has not, however, come into use here; nor, while we have other approved remedies, is there any occasion for having recourse to it; but I have given it a place in the catalogue, for the sake of captains and surgeons of ships trading to the eastward, who, should their stock of bark at any time fail them, may in all the Malay islands find a valuable substitute for it in the Putra Wali.

MENTHA VIRIDIS. (W.) *Podina*⁽¹⁾ H.

Murray, II. 178.

Woodville, III. 463.

MIRABILIS JALAPPA. (W.) *Gúl Abbas* H.

This is not an indigenous plant of Hindostan; but all the beautiful varieties of it are now cultivated as an ornament to the gardens in Bengal.

The officinal jalap was formerly supposed to be the root of this species of *Mirabilis*, and hence it obtained its trivial name; but that valuable drug is now ascertained to be the root of a species of *Convolvulus*. As the *Mirabilis*, however, had so long retained the credit of affording the jalap, and, with authors of the highest authority in botany, from *Plumier* to *Linnaeus*, I was desirous of discovering what degree of purgative quality it really possessed. With that view, having carefully dried and powdered some of the root, I sent it for trial to the European and native hospitals. *Dr. Hunter's* report, from the former of these, is as follows: "We
 " have tried the *Mirabilis* with thirteen patients. They
 " do not complain of its being disagreeable to the taste,
 " nor of its exciting nausea or griping; but its operation as a purge is uncertain, and two drams of
 " it sometimes procure only a single stool. It
 " seemed to answer best with those who had
 " bowel complaints." *Dr. Shoolbred* found the

(1) *Poodeena*.

root equally weak and uncertain in its operation, in the trials which he made of it in the native hospital.

NICOTIANA TABACUM, (W.) *Tambácu*,⁽¹⁾ H. *Támracuta* S. Murray, I. 670.

Woodville, II. 338.

NIGELLA INDICA, (Roxb. MS.) *Cálá Jíra*,⁽²⁾ H. *Musavi*, S.

Sp. Ch.—Annual. Petals entire. Pistils five: length of the stamina. Leaves decomposed. Exterior lip of the nectary ovate, and deeply two cleft. Interior entire, and acute. (Roxb. MS.)

The seed of this plant is used by the natives more in diet than in medicine; and, on account of its agreeable flavour and taste, forms the principal condiment in the Curries. The seed of its congener, the *Nigella Sativa*, is, in like manner, the favourite spice of some nations on the continent of Europe, particularly the Hanoverians, who have given it the name of *Tout Epice*. See Murray, III. 34, and Plenck, *Plant. Med.* V. 49.

OCIMUM PILOSUM, (Roxb. MS.) *Rihán*, II.

The seed. *Tukhmi Rihán*,⁽³⁾ H.

Sp. Ch.—Shrubby. Hairy. Branches four sided. Leaves ovate, oblong, serrated, with margins and petioles hairy. Bracts petioled, ovate, cordate, ciliate. Upper lip of the calyx round, cordate and hairy, with corol twice its length. (Roxb. MS.)

Many species of the *Ocimum* are common in Bengal, and comprehended under the generic name of *Tulasi*. One of them, the *Ocimum Sanctum*, (W.) *Parnasa*, in Sanscrit, is well known to be held in higher veneration by the Hindus, than any other plant. The leaves of most of the species have a slightly aromatic taste, and a strong but not disagreeable smell.

(1) *Tumbakoo*.

(2) *Kalajeera*.

(3) *Tookhmi rihan*.

I have given the Rihán a place in the catalogue on account of the peculiar quality of its seed, which, when infused in cold water, forms a mucilage much used by the natives as a demulcent in catarrhs. From the slight aroma which it possesses, it lies easier on the stomach than most other vegetable mucilages. It is a favourite medicine with the native women, who take it after parturition, and suppose that it relieves the after-pains.

PHYLLANTHUS EMBLICA. (W.) *Aonla*,⁽¹⁾ H. *Amalaci*, S. Murray, IV. 127.

This tree is found, both in a wild and cultivated state, in most parts of Hindostan. Its fruit is one of those which were formerly known in Europe under the name of Myrobalans, but which have been long discarded from the pharmacopœias. It is, however, in general use with the Hindu physicians, as an eccoprotic, and enters into many of their compositions. It is particularly an essential ingredient in the preparation of the Bitlaban, a medicinal salt, which will be afterwards noticed.

PAPAVR SOMNIFERUM. (W.) *Post*, H. *C'hasa*, S. Opium, *Afiun*, H. Murray, II. 254. Woodville, III. 503.

PIPER NIGRUM. (W.) *Mirch*, H. *Maricha*, S. Murray, V. 22. Woodville, III. 513.

PIPER LONGUM. (W.) *Pípel*,⁽²⁾ H. *Pippali*, S.

PLANTAGO ISPAGHUL. (Roxb. MS.) *Ispaghul*,⁽³⁾ H.

Sp. Ch.—Caulescent. Leaves linear, lanceolate, three nerved, slightly woolly. Peduncles axillary. Head cylindric. Capsule two-seeded. (Roxb. MS.)

(1) *Uonla* and *Awula*.

(2) *Peepul*.

(3) *Ispaghool*.

This plant was formerly supposed to be the *Plantago Psyllium* (L.) but is certainly a different species. It is cultivated in Bengal on account of the seeds, which, like those of the *P. Psyllium*, form a rich mucilage with boiling water. For this purpose, a pint of water is poured on about two drams of the seeds. This mucilage is very generally used, as a demulcent, in catarrhs, nephritic pains, heat of urine, and other diseases in which acrimony is to be obviated or palliated.

PLUMBAGO ZEYLANICA. (W.) *Chíta*,⁽¹⁾ H. *Chitraca*, S.
PLUMBAGO ROSEA. (W.) *Lál Chíta*, H. *Racta Chitraca*, S.

Both these shrubs are cultivated in Bengal as flower plants. Every part of them is extremely acrid, particularly the root; which, in its recent state, being bruised, is employed, by the Hindu practitioners, as a vesicatory.

The *Plumbago Europæa* is mentioned by *Murray*, (I. 772.) as having been found efficacious in the cure of cancer, for which purpose the ulcers are dressed, thrice a day, with olive oil, in which the leaves of the plant have been infused. The authorities which he quotes, for the cures effected by this application, are respectable; and, as our species coincide entirely in quality with the *Plumbago Europæa*, it may be worth while to make a trial of their power in a disease so deplorable, for which no adequate remedy has yet been discovered.

PTEROCARPUS SANTALINUS. (W.) *Ract Chandan*,⁽²⁾ H.
Racta Chandana, S.
Murray, VI. 59
Woodville, IV. 109.

PUNICA GRANATUM. (W.) *Anár*, H. *Dadima*, S.
Murray, III. 262.
Woodville, I. 158.

(1) *Cheeta*.

(2) *Rukut Chundun*.

The flowers of this beautiful shrub, which were formerly well known under the name of Balaustines, are now neglected; but the rind of the fruit is still considered as one of the most useful medicinal astringents, in cases wherein that quality simply is required. This shrub affords another valuable remedy, in the fresh bark of its root, for the knowledge of which we are indebted to the Hindu physicians. See "An Account of an Indian Remedy for the Tape-worm," by *Dr. Buchanan*, in the *Edinburgh Medical and Chirurgical Journal*, No. IX. p. 22.

The Tœnia is not a common disorder in Bengal; but since the date of *Dr. Buchanan's* communication, several cases of it have occurred here, to *Dr. Hunter*, and to *Dr. Shoolbred*, in which the bark of the pomegranate root was used with complete success, and without having failed in a single instance. The following is the method in which it is prepared and administered. Eight ounces of the fresh bark of the root are boiled in three pints of water to a quart. Of this decoction, the patient takes a wine-glass full; and repeats that quantity, at longer or shorter intervals, as the sickness and faintness which it generally occasions will allow, until he has taken the whole. The worm is commonly voided in a few hours after the patient has begun to take the medicine, and not unfrequently comes away alive.

RICINUS COMMUNIS. (W.) *Arend*,⁽¹⁾H. *E'randa*, S.

This plant is cultivated, for both œconomical and medicinal purposes, over all Hindostan. The expressed oil of the seeds, so well known in Europe under the name of castor oil, is more generally used as a purgative than any other medicine; and perhaps there is no other on which we

(1) *Urund*.

may with so much confidence rely, as a safe and at the same time an active cathartic. It may be given with propriety, in every case in which that class of remedies is required, (unless when the most drastic are necessary,) and to patients of every age and constitution; for though it seldom fails to produce the effect intended, it operates without heat or irritation.

The oil should be expressed, in the manner directed by the London College, from the decorticated seeds, and without the assistance of heat. That which is obtained by boiling the seeds in water, is injured both in smell and taste, and becomes sooner rancid than the oil procured by expression.

RUBIA MANJIT'H. (Roxb. Ms.) *Manjit'h*⁽¹⁾ H. *Manjish't'ha* S.

Sp. Ch.—Pentandrous. Perennial. Scandent. Branches with four hispid angles. Leaves quatern, long-petioled, cordate, acuminate, 5—7 nerved; hispid. (Roxb. Ms.)

This species of Madder is indigenous in Nepal, and is used by the dyers and calico-printers, in the same manner as the *Rubia Tinctorum* is in Europe. Parcels of it have been frequently sent to England, where it was found equal in quality to the best Dutch madder. I know not that it has ever been tried here in medicine; but, from its sensible qualities being the same with those of the *Rubia Tinctorum*, there is reason to conclude, that it may be found equally efficacious with that drug, as a deobstruent and emmenagogue.

RUTA GRAVROLENS. (W.) *Saturi* H.
Murray, III. 112.
Woodville, I. 108.

(1) *Munjeet'h.*

SIDA CORDIFOLIA. (W.) *Bariála*⁽¹⁾ H. *Bat'yálaca* S.

SIDA RHOMBIFOLIA. (W.) *Lál Bariála* H.

SIDA RHOMBOIDEA. (ROXB. MS.) *Saféd Bariála* H.

Sp. Ch.—Shrubby. Erect. Ramous. Leaves short-petioled, rhomboid, lanceolate, serrate, 3-nerved, villos. Stipules setaceous. Peduncles axillary, solitary, shorter than the leaves, one-flowered. Capsules 10, without beak. (ROXB. MS.)

There are several other species of the Sida in Bengal; but I have selected these three, as being the kinds most generally used in medicine by the Hindus. Like the other columniferous plants, they all abound in mucilage, and are much employed by the natives as demulcents and emollients. They possess these virtues in at least an equal degree with our officinal *Althoea* and *Malva*; and may well supply their place, either for internal use, or, externally, for fomentation, catplasms, and enemata.

STRYCHNOS NUX VOMICA. (W.) *Cuchila*⁽²⁾ H. *Culaca* S.

Murray, I. 703.

Woodville, IV. 29.

STRYCHNOS POTATORUM. (W.) *Nir-malli*⁽³⁾ H. *Cataca* S.

The seeds of the *Strychnos Nux Vomica* are reckoned amongst the most powerful of the narcotic poisons. In Germany, nevertheless, they are considered as medicinal, and have been recommended, by many authors of that nation, as efficacious antispasmodics and tonics; but the British physicians have prudently abstained from the use of so dangerous a remedy; and for the same reason, these seeds are seldom, if ever, employed in medicine by the Hindus. They are sometimes used, however, for a very pernicious purpose, by the distillers, who add a quantity of them in the process of distilling arrack, to render the spirit more intoxicating.

(1) *Buryala.*

(2) *Kouchila.*

(3) *Nirmullee.*

The seeds of the *Strychnos Potatorum*, though never used in medicine, are highly valuable, and serviceable, to both Europeans and natives, from the quality which they possess, of clearing muddy water, and rendering it potable; to which the trivial name of the tree, first given to it by *Kœnig*, alludes. One of the seeds is rubbed very hard, for a minute or two, round the inside of an earthen vessel, into which the water is poured, and left to settle. In a short time, the impurities subside, and leave the water perfectly limpid and tasteless.

SINAPIS DICHOTAMA. (Roxb. Ms.) *Serson*⁽¹⁾ H. *Sarshapa* S.

Sp. Ch.—Dichotomous. Siliques cylindric, smooth, spreading. Beak straight and tapering. Leaves stem-clasping; the lower somewhat lyred; superior ovate, lanceolate, entire: All are smooth, as are also the the stem and branches. (Roxb. MS.)

SINAPIS RAMOSA. (Roxb. Ms.) *Rai*⁽²⁾ H. *Rájicá* S.

Sp. Ch.—Annual. Erect. Ramous. Siliques expanding, linear, vertically compressed smooth. Leaves petioled; lower lyred: superior sublanceolate. (Roxb. Ms.)

Both these species of mustard are extensively cultivated in Bengal, on account of the oil procured from the seeds. In respect to medicinal qualities, these seeds correspond exactly with the seed of the *Sinapis Nigra*, (W.) and may be used, with equal advantage as the latter, either internally, as stimulants in rheumatic and paralytic affections, or externally for sinapisms. See Murray, II. 398. Woodville, III. 409.

SWIETENIA FEBRIFUGA. (W.) *Rahuna* H. *Soymido*
Telinga.

All the four species of the noble genus *Swietenia* are lofty trees, remarkable for the excellent quality of

(1) *Sarson.*

(2) *Raice.*

their wood. The three following are indigenous in Hindostan. 1. *S. Febrifuga*, which we have inserted in the catalogue on account of the medicinal qualities of its bark. 2. *S. Chickrassa*, (Roxb.) which affords the wood of that name, esteemed by the cabinet-makers in Calcutta as little inferior to mahogany. 3. *S. Chloroxylon*, (Roxb.) the wood of which, from the closeness of its grain, and its beautiful bright yellow colour, has obtained from the English in India the name of Satin-wood. The fourth is a native of Jamaica and Spanish America, *S. Mahogani*. (W.) The excellence of the wood of this tree, and its superiority to every other, for all domestic purposes, is universally allowed.

The *Swietenia Febrifuga* is indigenous in the mountainous parts of the Rajahmundry Circar. It is a large tree, rising with a straight stem to a great height. The wood is remarkably durable; and on that account is preferred by the Telingas to any other for the timber-work of their temples. The bark is covered with a rough grey cuticle, and internally is of a light red colour. It has a bitter united with an astringent taste; both in a strong degree, particularly the bitter. We are indebted to *Dr. Roxburgh* for the discovery of its medicinal virtues. Judging from its sensible qualities, that it might possess a considerable tonic power, and prove a useful remedy for the intermittent fever, he made trial of it in several cases of that disease, and found it fully answer his expectation. With the view of further investigation, he afterwards sent a quantity of the bark to England, where it was tried in the hospitals with equal success, and considered as a valuable substitute, in many cases, for the *Cinchona*. On that account it has been received by the Edinburgh College into their pharmacopœia, together with its congener, the *Swietenia Mahogani*, with which in its properties it nearly coincides. See *Dr. Duncan's*

Tentam: Inaug. de Soymida: Edinb. 1794; and the New Edinb. Disp. 1806.

The Swietenia Febrifuga is not a native of Bengal; and therefore is little known either to the Hindu or European practitioners here. I have been informed, however, that it was found, by the late *Dr. Kennedy*, on the hills to the southward of Chunar, where it was called, by the natives, Rohuna; and it is probable that this valuable tree may be discovered in the mountainous districts of some of the other upper provinces.

SYRIUM MYRTIFOLIUM. (Roxb. MS.) *Chandan*,⁽¹⁾ H. *Chandana*, S.

SANTALUM ALBUM. { Murray, II. 14.
Woodville, IV. 136.

TAMARINDUS INDICA. (W.) *Amlī*,⁽²⁾ H. *Amlica*, S.
Murray, II. 552.
Woodville, III. 544.

TERMINALIA BELERICA. (Roxb. MS.) *Bahira*,⁽³⁾ H. *Vibhi-taca*, S.

TERMINALIA CHEBULA. (W.) *Har*⁽⁴⁾ and *Hara*,⁽⁵⁾ H. *Haritaca*, S.

The unripe fruit, *Zengi Har*,⁽⁶⁾ H.

The fruit of the *Phyllanthus Emblica* has been already noticed as one of the kinds of the Myrobalans of the writers on pharmacy. Another kind, the Beleric, is the dried ripe fruit of the first species of *Terminalia* here inserted. It is about the size of an olive, of a yellowish grey colour, obovate shape, and marked with five longitudinal furrows. In sensible and medicinal qualities, it coincides with the other kinds. The second species, the *Terminalia Chebula*, yields several different kinds of Myrobalans; different names having been given to the drupe, according to its degree of maturity when taken from the tree. Those chiefly used in medicine, are the *Har* and the *Zengi Har*. The *Har* is the dried ripe fruit.

(1) *Chundun*. (2) *Imlee*. (3) *Buhera*. (4) *Hur*.
(5) *Huru*. (6) *Zungi Hur*,

It is the largest of the Myrobalans, of an oblong ovate shape, marked with five furrows and five ridges alternately. It is sometimes used medicinally as a gentle purgative, but more frequently employed for domestic purposes, particularly by the dyers, who consume large quantities of it for preparing the cloth to receive the colours. See As. Res. IV. 41.

The Zengi Har is the Indian or Black Myrobalan of the pharmaceutical authors. It differs from the other kinds in having scarcely the rudiments of a nut, being the fruit dried in a half ripe state.* It is of an

* It was not until very lately that I could obtain any information respecting the tree which affords the *Zengi Har*; the Hindu druggists to whom I applied, not having been able to give me any account of it. Dr. ROXBURGH, to whom I mentioned this circumstance, on examining the drug, conjectured it to be the unripe fruit, or the diseased germ of some species of *Terminalia*, caused by some insect, like galls. The justness of his conjecture was soon afterwards confirmed, on inspecting the unripe drupes of a *Terminalia Chebula* in the Botanic Garden; the appearance of which corresponded exactly with that of the *Zengi Har*; and which, on being dried, proved to be that very fruit.

The uncertainty in which the writers on the *Materia Medica* still continue respecting the trees which yield the different kinds of *Myrobalans*, appears from the following remark of Professor MURRAY, (Ap. Med. VI. 235.) “De reliquarum (*Myrobalanorum*) specie Botanica nihil certi pronuntiari potest, quin adhuc disputatur utrum ex diversis arboribus petita sint, an potius ex eadem.” A considerable degree of light will be thrown on the subject by the following extract from a Persian treatise on medicines, the *Mekhzen-ul-Adviyeh* of MUHAMMED HOSEN SHIRA'ZI, communicated to me by the kindness of Mr. COLEBROOKE; and which, had I received it sooner, would have saved me the trouble of my inquiries respecting the *Zengi Har*.

Under the head *Ahlilej*, (the Arabic name answering to the Persian *Halileh*), the author distinguishes the following kinds, as the produce of the same tree (*Terminalia Chebula*) gathered at different degrees of maturity.

1. *Halileh Zira*, gathered when the fruit is just set. Being dried, it is about the size of the *Zira*. (*Cumin seed*.)
2. *H. Jawi*, when more advanced. It is the size of a barley-corn. (*Jaw*.)
3. *H. Zengi*, Hindi or *Asyed*, when the young fruit is still fur-

oblong, pointed shape, about the size of a pistachio nut, of a deep black colour, and a firm, compact substance. Its taste is bitterish, and strongly astringent. The Zengi Har is, as far as I can learn, more frequently used in medicine, by the Hindus, than any of the other Myrobalans, being very generally employed by them as a purgative. It operates briskly, but without occasioning heat or irritation. Persons liable to redundancy of bile, habitual costiveness, or any other complaint which requires the frequent use of gentle laxatives, will find this one of the most convenient which they can use.

TERMINALIA CITRINA. Roxb. (MS.) *Caducay*, Telinga.

This tree is a native of the mountainous parts of the Northern Circars. The fruit is the Myrobalanus Citrina of the shops. It is used in medicine in the southern part of the Peninsula, but is not known to the Hindu practitioners in Bengal. The chief use of it, however, to the southward, is as a mordant for fixing the colours in printing their beautiful chintzes.

TRIGONELLA FÆNUM GRÆCUM. (W.) *Met'hi*,⁽¹⁾ H.
Met'hi, S.
 Murray, II. 447.
 Woodville, III. 487.

VALERIANA JATAMANSI. (Roxb.) *Jatamansi*, H. *Jatamansi*, S.

The vegetable which affords the Indian Nard, so celebrated by the ancients as a perfume, remained altogether unknown to naturalists, until it was

ther advanced. Being dried, it is of the size of a raisin, and is black; whence its name. (*Aswed* black, or *Zengi negro*.)

4. *H. Chini*, gathered when the nut has acquired some degree of hardness. The dried fruit is of a green colour, inclining to yellow.

5. *H. Asfer*, when approaching to maturity. The fruit, when dry, is of a reddish yellow; whence the name. (*Asfer*, yellow.)

6. *H. Cabuli*, when the fruit is come to full maturity.

(1) *Met'hee*.

discovered by the late *Sir William Jones*, who, valuable as his time was, considered the subject as not unworthy of his inquiry; and with his usual accuracy of research, proved beyond all question, that the spikenard of the ancients is the plant called, by the Arabians, Sumbul-ul-Hind; and by the Hindus, Jata-mansi. See As. Res. II. 405, and III. 105, 433. It is a species of Valerian, and a native of Nepal and Butan. The perennial, hairy portion of the stem, immediately above the root, is the part which, when dried, is so highly esteemed as a perfume; and which is also used in medicine. The Hindu physicians prescribe it, chiefly, in diseases of the bowels; but, as it strongly resembles in taste, smell, and flavour, the officinal valerian, there is reason to expect that it will be found equally efficacious with that root, as an anti-spasmodic, in epilepsy, hysteria, and other convulsive disorders.

VITEX NEGUNDO. (W.) *Nisinda* and *Samb'halu*,⁽¹⁾ H. *Sind'huca* and *Sind'havora*, S.

This elegant shrub is very generally cultivated in Hindustan, as well on account of its beauty, as its valuable medicinal qualities. It delights in a watery situation, and is readily propagated by cuttings.*

The leaves of the *Nisinda* have a better claim to the title of discutient, than any other vegetable remedy with which I am acquainted. Their efficacy in dispelling inflammatory swellings of the joints, from acute rheumatism, and of the testicles, from suppressed gonorrhœa, has often

(1) *Sumbhaloo Sumaloo*.

* The following curious remark of ACOSTA, on the facility with which this tree is cultivated, shews the high estimation in which the *Nisinda* was held in his time: "Adeo frequens est hujus arboris usus ad medendum in illis regionibus, ut nisi Deus præcisos ramos multiplici fætura renasci faceret, jam diu fuissent consumptæ arbores, aut certé maximi pretii nunc essent." Aromat. Lib. trans. by CLUSIUS, p. 287.

excited my surprise, The success with which the natives employ them in these complaints, has induced some European practitioners to adopt the practice, and I hope it will come into general use. The mode of employing the leaves is simple. A quantity of them, pulled fresh from the tree, is put into an earthen pot, and heated over the fire, to as great a degree as can be borne without pain. They are then applied to the part affected, in as large a quantity as can be conveniently kept on by a proper bandage, and the application is repeated three or four times a day, until the tumor is dispelled.

II. Medicinal Drugs.

I. VEGETABLE.

THE following vegetable drugs are imported into Hindustan from the neighbouring countries, none of the plants which yield them being either indigenous, or found in a cultivated state in the Peninsula. The drugs themselves, however, are in common use with the native practitioners, and sold in all the principal bazars.

ASA FETIDA. *Hing* ⁽¹⁾ H. *Hinga* S.

Ferula Asa foetida. { Murray, IV, 358.
Woodville, I. 22.

BENZOIN. *Lubán* ⁽²⁾ H. and Arab.

Styrax Benzoin. { Murray, IV. 540 and 659.
Woodville, II. 200.

CAJEPUT OIL. *Cajuputu*, Malay.

Melaleuca Leucodendron. { Murray, III. 313,
Woodville, IV. 44.

(1) *Heeng*.

(2) *Looban*.

CAMPHOR. *Cafur*⁽¹⁾ H. *Curfura* S.

Laurus Camphora. { Murray, IV. 445.
Woodville, IV. 66.

CHINA ROOT, *Chob Chini*⁽²⁾ H.

Smilax China. { Murray, I. 490.
Woodville, IV. 66.

This root was formerly held in high estimation in Europe, as a remedy for the venereal disease; but has long been superseded by its congener, the *Smilax Sarsaparilla*; yet this last has been, by some authors of great authority, considered as a very inert substance, and scarcely possessing any medicinal virtue whatsoever.* Those who judge more favourably of its efficacy, may, in cases where it cannot be procured, have recourse to the China root, as a substitute. *Dr. Woodville*, after observing that, "like the *Sarsaparilla*, the "China root contains a considerable share of bland "nutritive matter," adds, "that it appeared to him "not less adapted to the auxiliary purposes of medi- "cine."† If the sanative virtue of these roots depends on this nutritive matter, which is probably the case, the China root would seem to claim the preference; as it contains it in a much larger proportion, amounting to upwards of half the weight of the root;‡ but there is much difficulty in appreciating the comparative efficacy of medicines of such moderate activity as the two in question. The China root was formerly much used in the hospitals here; and, as far as I could judge from my own experience, its utility, either as an auxiliary to mercury, or for improving the general health after the use of that remedy, is at least equal to that of the *Sarsaparilla*.

(1) *Kafoor*.

(2) *Chob Cheenee*.

* J. HUNTER, *Ven. Dis.* p. 371. CULLEN, *Mat. Med.* p. 200.
DUNCAN, *Edinb. New Disp. Ed.* 1806.

† *Med. Bot.* IV. 67.

‡ AIKIN'S LEWIS, *Mat. Med.* II. p. 331.

CLOVES. *Laung*⁽¹⁾ H. *Lavanga* S.

Caryophyllus Aromaticus. { Murray, III. 333.
Woodville, II. 366.

COLUMBO ROOT. *Kalumb*, Mosambique.

Radix Colombae. { Murray, VI. 153.
Woodville, IV. 164.
Asiat. Res. X. 385.

See the interesting account of this valuable root in the 10th volume of the *As. Res.* It is to be hoped, that by *Dr. Berry's* meritorious exertions, we may soon have the plant cultivated in this country.

CUBEBS. *Cubab Chini*⁽²⁾ H.

Murray, V. 37.

GALLS. (Aleppo.) *Maju P'hal*⁽³⁾ H. *Máju P'hal* S.

Quercus Cerris. Murray, I. 102.

Quercus Robur. Woodville, II. 346.

GAMBIR. *Gambir* H. from the Malay.

Uncaria Gambeer. Roxb. *Pl. Cor.* III.

Fusis Uncatus. Rumph. *Amb.* V. 63.

Nauclea Gambir. Hunter, *Linn. Trans.* IX. 218.

This substance is used, by the inhabitants of the Malay countries, for manducating with the Betel leaf and Areca nut, in the same manner as the Catechu is by the natives of Hindostan. It is prepared from the leaves of the shrub above referred to, (which belongs to a genus nearly allied to the *Nauclea*,) in two different modes. 1, By boiling the leaves, and inspissating the decoction. 2, By infusing the leaves in warm water for some hours, when a *fæcula* subsides, which is inspissated by the heat of the sun, and formed into small cakes. The Gambir prepared in this last mode is by far the best. In appearance and sensible qualities, it resembles the Catechu, as also in its medicinal properties. Its taste is powerfully astringent, and at first bitter, but afterwards sweetish. Tried by the

(1) *Laong*.

(2) *Koo hab Cheencc*.

(3) *Majoo P'hal*.

gelatine test, the Gambir appears to contain more of the Tannin principle than any other vegetable astringent; and, were it not for its high price, would be a most valuable material for the preparation of leather.

GAMBOGE *Gahkatu*. Cingalese.

Stalagmittis Gambogioides. Murray, IV. 106 & 654.

MANNA. *Skirkhishit*⁽¹⁾ H. and P. *Terenjabin*, Arab.

Manna Persticum, Fothergill, Phil. Tr. XLIII. 47.

The manna sold in the bazars here, is imported from Bussorah, and is the same with that described by *Dr. Fothergill* in the paper to which I have referred. The plant which yields it is supposed to be the *Hedysarum Albagi* (L.) It is a very impure kind, and far inferior in quality to the Calabrian manna.

MYRRH. *Murr* and *Ból* H. *Bóla* S.

Myrrha { Murray, VI. 213.
Woodville, IV. 167.

NUTMEGS. *Jáéphal*⁽²⁾ H. *Játiphalo* S.

The Mace. *Jawatri*⁽³⁾ H. *Játipatri* S.

Myristica Aromatica. Murray, VI. 135.

Myristica Moschata, Woodville, II. 363,

RHUBARB. *Rheum Palmatum*. *Révand Chini*⁽⁴⁾ H.

Murray, IV. 362.

Woodville, I. 127.

SAGO. *Sabudana* H.

Sagus, *Rumphii*. Murray, V. 13.

Sago is procured from the trunks of several other palms beside that mentioned by *Murray*. An excellent kind is prepared from the tree called, by *Rumphius*, *Gomutus Gomuto*, (*Amb.* I. 57;) and by *Dr. Roxburgh*, *Saguerus Rumphii*, (MS.) This tree is also valuable on account of the black fibres which surround the trunk at the insertion of the leaves;

(1) *Shcerk'hisht*. (2) *Jaéphul*. (3) *Jawutree*. (4) *Rewund Choenee*.

which afford a stronger and more durable cordage for ships than any other vegetable substance.

SALEP. *SALIB MISRI*,⁽¹⁾ H. and Arab.

Orchis Masculata. { Murray, V. 278.
Woodville, II. 246.

SCAMMONY. *Sakmúnya*⁽²⁾ H. and Arab.

Convolvulus Scammonia. { Murray, VI. 746.
Woodville, I. 13.

SENNA LEAVES. *Sená Mecci*,⁽³⁾ H. *Sená*, Arab.

Cassia Senna. { Murray, II. 505.
Woodville, III. 446.

2. MINERAL.

A. METALLIC.

LEAD. *Sisa*,⁽⁴⁾ H. *Sisaca*, S.

The white oxide, *Safeda*, H.

The red oxide, *Sindur*,⁽⁵⁾ H. *Sindura*, S.

The semivitreous oxide, *Murdar Seng*,⁽⁶⁾ H. & P.

IRON. *Loha*, H. *Loha & Ayas*, S.

The Carbonate, *Kit'h*,⁽⁷⁾ H. *Mandura & Sinhana*, S.

The Sulphate, *Casis*,⁽⁸⁾ H.

COPPER. *Tamba*, H. *Tamra*, S.

The Subacetite, *Zangar & Pitrai*, H. *Pitalata*, S.

The Sulphate, *Tutiya*,⁽⁹⁾ H. *Tutt'ha*, S.

TIN. *Ranga*, H. *Ranga & Trapu*, S.

ANTIMONY.

The Sulphuret, *Surmeh*,⁽¹⁰⁾ H. *Saubira*, S.

The proper grey ore of antimony is imported from Napal, but a galena, or sulphuret of lead, is frequently sold for it in the bazars, under the name of Surmeh.

ARSENIC.

The white oxide, *Samul-k'har*,⁽¹¹⁾ H. *Sanc'hya*, S.

(1) *Salib Misree.* (2) *Sooqmo'niya.* (3) *Suna Mukkes.* (4) *Seesa.*
(5) *Sindoor.* (6) *Moordar-Sung.* (7) *Keet'h.* (8) *Kusees.*
(9) *Tootiyd.* (10) *Sjormu.* (11) *Sum-ool-Khur.*

The yellow Sulphuret, *Hartál*,⁽¹⁾ H. *Haritála*, S.

The red Sulphuret, *Mansil*,⁽²⁾ H. *Manah Silah*, S.

QUICK-SILVER. *Pára*, H. *Páradá*, S.

The red Sulphuret, *Shengerf*,⁽³⁾ H.

A sub-muriate, *Rascapúr*,⁽⁴⁾ H.

Shengerf, or fictitious cinnabar, is prepared by the natives in a very simple mode. The quick-silver and sulphur are first triturated together, until a black sulphuret is formed, which is put into a glazed earthen pot, similar to those commonly used for dressing victuals. Over this, another vessel of the same kind is placed inverted, and luted to it with clay. Fire is then applied to the undermost vessel, and continued until the whole of the contents is sublimed. The apparatus is then suffered to cool; when a cake of cinnabar is found adhering to the inner surface of the uppermost pot.

Shengerf is used, internally, by the native practitioners, as antispasmodic, and for the cure of cutaneous diseases; but it is employed much more efficaciously by them in fumigation, for such cases of the venereal disease as are attended with ulcers in the nose, mouth and throat. The fumigation is conducted in the usual mode, by making the patient, with a blanket thrown over him, inhale the fumes of the *Shengerf* thrown on red hot iron. In this mode, the cure is performed very rapidly, but it frequently causes a violent and dangerous ptyalism; nor is the patient always secured by it against a relapse of the disease.

Rascapúr is another mercurial preparation, in great estimation, and much used by both the Hindu and Muhammedan practitioners. There are various modes of preparing it, but none of them essentially different

(1) *Hurtal*.

(2) *Munsil*.

(3) *Shungurf*.

(4) *Buskupoor*.

from the others. In all of them quick-silver and Muriate of Soda are employed in equal parts, with the addition of either Sulphate of Alumine or Sulphate of Copper. By the kindness of *Dr. Hunter*, I have now lying before me three different processes for making Rascapúr; one taken from a Persian, and the two others from Sanscrit pharmacopœias. The first, which is the simplest, and least uncertain of the three, is literally as follows :

“ Take Quick-silver, Armenian Bole, Allum, (‘some prefer blue vitriol, but allum is better,’) Rock Salt, of each nine parts. Rub the whole in a mortar with water, and let them harden. Then put the mass into a glazed earthen vessel, and place inverted, above it, another similar vessel, plastered with ashes, and the milk of Datura. Lute them together with Philosopher’s clay, and keep them three days and three nights in a fire made with cow dung. Then let the vessels cool, and take out what adheres to the bottom and sides of the upper vessel. This is the Rascapúr.”

The Quick-silver, in this preparation, is combined with a less proportion of the muriatic acid, than in corrosive sublimate, but with a much greater proportion of it than in calomel. It is used by the native practitioners for all the purposes for which the two preparations just mentioned are employed by the European. It requires, however, to be prescribed with great caution; as it is not only one of the most powerful mecurials that can be ventured on for internal use, but uncertain in its strength, on account of the different processes by which it is made. European practitioners need never, I think, have recourse to it; as Quick-silver may always be procured from the bazars, with which safer and equally efficacious remedies may be prepared.

B. SALINE.

- NITRATE OF POTASH. *Shora*, H. *Yavac Shora*, H.
 SULPHURIC ACID. *Gundac-ca Atr*,⁽¹⁾ H.
 SULPHATE OF SODA. *C'hara Nún*,⁽²⁾ H.
 SULPHATE OF ALUMINE. *P'hitcari*,⁽³⁾ H. *Sp'hatica*, S.
 IMPURE CARBONATE OF SODA. *Sejji-mitti*,⁽⁴⁾ H. *Sorjica*, S.
 MURIATE OF AMMONIA. *Nosáder*,⁽⁵⁾ H.
 MURIATE OF SODA. *Nemec*,⁽⁶⁾ H.
 MURIATE OF SODA, fused with the } *Bit-laban*⁽⁷⁾ & *Cála*
 fruit of PHYLLANTHUS EMBLICA. } *Nemec*,⁽⁸⁾ H.

The following process for making this salt, was communicated, by a native druggist, to *Mr. Turnbull*, at Mirzapore, and actually performed in his presence. *Mr. Colebrooke* informs me, that it nearly corresponds with the process which he found described in a Persian treatise on medicines. "Fifty-six pounds of Sammu salt (a fossile muriate of Soda) are mixed with twenty ounces of dried Aonlas, (Emblie Myrobalans.) One fourth of these materials is put into a round earthen pot, with a narrow mouth, which is put on a fire-place made of clay. The fire-place has a hole at the bottom, for introducing the fire-wood. After the fire has been lighted about an hour, and the materials in the pot appear to be melted, the rest of the materials is added by degrees. The whole is then exposed to a strong red heat for about six hours. The fire is then allowed to die away, and the pot to cool; which, upon being broken, is found to contain about forty-eight pounds of Cála Nemec, or Bit-laban."

The Bit-laban, or Bit-noben, as it is sometimes called, is a medicine in great estimation with both the Hindu and Muhammedan physicians; but

(1) *Gunduk-ká-utr*. (2) *K'hara Noon*. (3) *P'hitkaree*. (4) *Sujeemittia*.
 (5) *Nosadur*. (6) *Numuk*. (7) *Bit-luban*. (8) *Kála-númuk*.

particularly with the former. It is very generally used as a tonic in dyspepsia and gout, as a deobstruent in obstructions of the spleen and mesenteric glands, diseases to which children in Hindostan are peculiarly liable; and as a stimulant in chronic rheumatism and palsy. It is also one of the many remedies employed as a vermifuge. For a further account of this salt, see "A Dissertation on the Bit-Noben; by *John Henderson*, of the Bengal Medical Establishment. 8vo. Lond. 1803."

Mr. Henderson, having carried some of the Bit-Noben to England, it was analysed by *Mr. Accum*, and the result was as follows:

Four hundred and eighty grains of the salt yielded

Black oxide of Iron, - - - -	6 Grains.
Sulphur, - - - - -	14
Muriate of Lime, - - - - -	12
Muriate of Soda, - - - - -	444
	476
Loss, - - - - -	4
	480

NICHOLSON'S Journal for August, 1803.

From this analysis we may conclude, that the virtues of Bit-laban, beyond what may be fairly ascribed to the Muriate of Soda, depend on the proportion of iron contained in it. This metal appears to have been obtained, during the process, from the Myrobalans.

IMPURE BORATE OF SODA. *Sohaga, H. Tancána, S.*

C. INFLAMMABLE.

SULPHUR. *Gandhac,*⁽¹⁾ *H. Gandhaca. S.*

(1) *Gund-huk.*

PETROLEUM. *Mitti tel*⁽¹⁾ H. *Neft*, Arab.

This mineral oil is imported from the Burma country. See an account of the Petroleum wells near Rainanghong, by Captain Cox, in the 6th Vol. of the *As. Res.*

The oil is met with in the bazar of very different degrees of purity; sometimes perfectly limpid and thin; at other times of a dark brown colour, and of the consistence of syrup. The first sort only should be used in medicine. It has a strong, penetrating, not disagreeable smell, and a pungent, acrid taste. It is very generally employed by the native practitioners externally, as a stimulant in paralytic complaints, and in chronic rheumatism. In this last disease, I can, from my own experience, recommend it as an efficacious remedy; having found much greater benefit from it, than from the more costly Cajeput oil which I had previously used.

AMBER.* *Cah-ruba*,⁽²⁾ H. and P.

3. ANIMAL.

MUSK. *Meshk*.⁽³⁾ H. and P.

(1) *Mittee tel*.

(2) *Kuhrooba*.

(3) *Musk*.

* A concrete, resinous substance is imported from *Bussora*, which passes, at the *Calcutta* Custom-house, and is also sold in the bazar, under the name of *Caliruba*, or *Amber*; but which I found, on examination, to be real *Copal*, the resin so much used, in *England*, as a varnish. This substance is used for the same purpose by the Coach-makers in *Calcutta*. It resembles so perfectly the finest amber, in colour and texture, that the jewellers make necklaces of it, which pass for those of genuine *Amber*, and from which it is extremely difficult to distinguish them. The *Copal* is, I believe, the produce of the *Vateria Indica*, a tree which grows on the *Malabar Coast*. I was favored by Dr. ROXBURGH with a specimen of the resin of that tree; and found it, both in appearance and chemical qualities, to coincide entirely with genuine *Copal*.

AMBERGRISE. *Amber*,⁽¹⁾ H. *Ambara*; S.

Considerable quantities of this substance are sometimes brought to Calcutta by the Commanders of trading vessels, who find it floating on the Indian Ocean, or adhering to rocks, chiefly among the Moluccas, and other islands to the eastward. It is esteemed, by the natives, as the most agreeable of all perfumes, more especially by the Mahummedans. Their physicians consider it also as an Aphrodisiac, a class of medicines of great importance in their pharmacopœias, but which probably contains not a single article that has any claim to that title.

HONEY. *Medhú*,⁽²⁾ H. *Shehed*,⁽³⁾ P. *Medhú*, S.

WAX. *Mom*, H. and P. *Medhúch-hishta*, S.

LAC. *Lác'h* and *Láh*, H. *Laesha*, S.

HIRUDO MEDICINALIS, (L.) *Jonc*,⁽⁴⁾ H. *Jelauca*, S.

Leeches are found, in stagnant ponds and ditches, in every part of Hindustan. In a country in which general bleeding is so much seldomer required, or admissible, than in cold climates, and where consequently the practitioner must more frequently have recourse to topical bleeding, it is fortunate that this animal, so convenient for the latter purpose, can at all times be procured.

MELÖE CICHOREI. (L.) *Telini*⁽⁵⁾ H.

A very full and accurate description of this species of Melöe, has been given in the 6th Vol. of the Asiatic Researches, by Colonel Hardwicke, to whom we are indebted for this valuable acquisition to our Materia Medica. The insect abounds in every part of Bengal, Bahar and Oude. In the rainy season, during which it is in its most perfect state, it is found feeding on the flowers of the various species of Hibiscus and Sida, and is

(1) *Umbur*. (2) *Mud* or *Mudhoo*. (3) *Shuhud*. (4) *Jonk*. (5) *Telinee*.

readily distinguished, by the three transverse, undulated black bands on its yellow Elytra, which constitute its specific character.

The *Melœ Cichorei*, when applied to the skin, produces effects precisely similar to those caused by the Spanish blistering fly, for which this insect will be found a perfectly adequate substitute, either as an external stimulant, a rubefacient, or for raising a complete blister, according to the mode in which it is applied.

The flies should be gathered in the morning or evening, and immediately killed by exposing them to the steam of boiling vinegar. They should then be thoroughly dried by the heat of the sun, and afterwards put into bottles to preserve them from humidity.