Green Tea.

Painted & Engravd by J. Miller.

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THE

NATURAL HISTORY

OF THE

TEA-TREE,

WITH OBSERVATIONS ON

THE MEDICAL QUALITIES OF TEA,

AND ON THE

EFFECTS OF TEA-DRINKING.

A NEW EDITION.

BY JOHN COAKLEY LETTSOM, M. D.

LONDON:

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FOR CHARLES DILLY.

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ADVERTISEMENT.

IN the year 1769 was printed an inaugural diſſertation, intituled, " Obſervationes ad vires Theæ pertinentes."

In the year 1772 was publiſhed, " The Natural Hiſtory of " the Tea-tree, with Obſervations on the Medical Qualities of " Tea, and Effects of Tea-drinking," which not only contained a tranſlation of the Theſis, but likewiſe the natural hiſtory of this vegetable, and which having been long out of print, it was thought a ſecond edition would be favourably received by the publick.

In Sir George Staunton's Embaſſy to China, lately publiſhed, there are ſome remarks on Tea, which are occaſionally referred to in the preſent edition; and they are referred to with the ſatisfaction of confirming the relation firſt offered to the publick in 1772.

As the Preface inſerted at that time affords ſome hints reſpecting the introduction of the Tea-tree into Europe, it is prefixed to the preſent edition.

PREFACE

PREFACE

TO

THE FIRST EDITION, 1772.

The ſubject of the following Eſſay being now in general uſe among the inhabitants of this kingdom, as well as in many other parts of Europe, and conſtituting a large part of our commerce, it cannot but afford pleaſure to the curious to poſſeſs the hiſtory of a ſhrub, with the leaves of which they are ſo well acquainted.

Many treatiſes have been publiſhed on the uſes and effects of Tea; a few writers have likewiſe given ſome circumſtances relative to its natural hiſtory and preparation, the indefatigable Kæmpfer particularly; but theſe circumſtances lie ſo diſperſed, and the accounts which have been given of the virtues and efficacy of Tea are in general ſo contradictory, and void of true medical obſervation, that it ſtill ſeemed no improper ſubject for a candid diſcuſſion. The reader may at leaſt have the ſatisfaction of ſeeing, in a narrow compaſs, the principal opinions relative to this ſubject.

Within

Within thefe three or four years we have been fuccefsful enough to introduce into this kingdom a few genuine Tea plants. There was formerly, I am told, a very large one in England, the property of an Eaft-India captain, who kept it fome years, and refufed to part with either cuttings or layers. This died, and there was not another left in the kingdom. A large plant was not long fince in the poffeffion of the great Linnæus, but, I am informed, it is now dead. I know feveral gentlemen, who have fpared neither pains nor expence to procure this evergreen from China; but their beft endeavours have, in general, proved unfuccefsful. For, though many ftrong and good plants were fhipped at Canton, and all poffible care taken of them during the voyage, yet they foon grew fickly, and but one, till of late, furvived the paffage to England.

The largeft Tea plant in this kingdom is, I believe, at Kew; it was prefented to that royal feminary by John Ellis, Efq. who raifed it from the feed. But the plant at Sion-houfe, belonging to the Duke of Northumberland, is the firft that ever flowered in Europe; and an elegant drawing has been taken from it in that ftate, with its botanical defcription. The engraver has done juftice to his original drawing, which is now in the poffeffion of that great promoter of natural hiftory, Dr. Fothergill, to whom I have been indebted for many dried fpecimens and flowers of the Tea-tree from China. If the reader

compare

compare this plate with the following deſcription, he will have as clear an idea of this exotic ſhrub, as can at preſent be exhibited.

A few young Tea plants have lately been introduced into ſome of the moſt curious botanic gardens about London; hence it ſeems probable that this very diſtinguiſhed vegetable will become a denizen of England, and ſuch of her colonies as may be deemed moſt favourable to its propagation.

In regard to the effects of Tea on the human conſtitution, one might have imagined that long and general uſe would have furniſhed ſo many indiſputable proofs of its good and bad properties, that nothing could be eaſier than to determine theſe with preciſion: yet ſo difficult a thing is it to eſtabliſh phyſical certainty in regard to the operation of food or medicines on the human body, that our knowledge in general, even with reſpect to this article, is very imperfect. Nevertheleſs, I have endeavoured to avail myſelf of what has been written on this ſubject by my predeceſſors with the appearance of reaſon, as well as of the converſation of learned and ingenious men now living, together with ſuch experiments and obſervations as have occurred to me, ſo as to furniſh the means of a more extenſive knowledge of the ſubject.

With

With reſpect to the preſent edition, ſubſequent information has enabled me to enlarge it with ſome important additions. Since the period of the original publication, the Tea-tree has been introduced into many of our gardens, and afforded the means of aſcertaining its botanical characters. I have, at the ſame time, the pleaſure to obſerve, that the firſt edition has received the approbation of ſome of the moſt diſtinguiſhed botaniſts. Linnæus, as well as Haller, as ſoon as they had peruſed it, conveyed to me their approbation, in the kindeſt manner: Murray and Cullen, and recently Schreber, have made frequent references to its authorities. If theſe diſtinguiſhed characters have approved the former, I am encouraged to hope that the preſent edition will not be leſs favourably received by the publick.

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THE NATURAL HISTORY OF THE TEA-TREE.

PART THE FIRST.

SECTION I.
CLASS XIII. ORDER I.

POLYANDRIA MONOGYNIA.

K. Calyx, Fig. 1, 2, 3. 10.

Perianthium quinquepartitum, *minimum*, *planum*, ſegmentis *rotundis*, *obtuſis*, *perſiſtentibus*. (Fig. 1. K.)

K. The Calyx, Fig. 1, 2, 3. 10.

A Perianthium quinquepartite, very ſmall, flat, the ſegments round, obtuſe, permanent. (Fig. 1. K.)

C. Corolla, F. 1. 3, 4, 5, 6, 7, 8.	Petala *ſex*,	C. The Corolla, F. 1. 3, 4, 5, 6, 7, 8.	The Petals ſix[1],
	ſubrotunda,		ſubrotund, or roundiſh.
	concava :		concave :
	duo exteriora (F. 4. 7. C. C.)		two exterior, (F. 4. 7. C. C.)
	minora,		leſs,
	inæqualia,		unequal,
	Nondum expanſa : (F. 3. C.)		the flower before it is fully blown : (F. 3. C.)
	quatuor interiora, (F. 6. C. C. C. C. & F. 5.)		four interior (F. 6. C. C. C. C. and F. 5.)
	magna,		large,
	æqualia,		equal,
	antequam decidunt, recurvata. (F. 8. C. C.)		before they fall off, recurvate. (F. 8. C. C.)

[1] Among ſeveral hundred ſpecimens of dried Tea-flowers that I have examined, ſcarcely one in twenty was perfect. Some had three petals only, ſome nine, and others the ſeveral intermediate numbers. The greateſt number conſiſted of ſix large petals, and externally three leſſer ones of the ſame form. But the flowers, which bloſſomed on the Tea-plant belonging to the duke of Northumberland, from which this deſcription is taken, conſiſted in general of ſix petals. One of the flowers indeed appeared to have eight petals ; however, the number in the flowers in moſt plants vary conſiderably, which may account for the miſtake of Dr. Hill, and profeſſor Linnæus (who deſcribed this plant on Dr. Hill's authority), who make the green and bohea Tea two diſtinct ſpecies, giving nine petals to the former, and ſix to the latter. See Amœn. Acad. Vol. VII. p. 248. Hill. Exot. t. 22. Kæmpfer. Amœn. Exot. p. 607. Breyn. Exot. Plant. Cent. 1. p. 111. Hiſt. de. l'Acad. des Sciences, 1776, p. 52.

Stamina,

STAMINA, F. 6. 9, 10, 11.	f. FILAMENTA *numerosa*, (ducenta circiter.) (f. a. F. 6. 9.) *filiformia*, *corolla breviora*. a. ANTHERÆ cordatæ, biloculares. (F. 10. 11.* Lente aucta.)	The STAMENS, F. 6. 9, 10, 11.	f. The FILAMENTS numerous[1], (f. a. Fig. 6. 9.) (about 200.) filiform, shorter than the Corolla. a. The ANTHERAS cordate, bilocular[2]. (F. 10. 11.* magnified.)
PISTILLUM, F. 1. 10. 12.* Lente auctum.	g. GERMEN *globoso-trigonum*. (F. 1. 10. 12.) s. STYLUS simplex, ad apicem trifidus, (F. 12.) Petalis Staminibusque delapsis, a se mutuo recedentes, divaricantes, &	The PISTILLUM, F. 1. 10. 12.* magnified.	g. The GERMEN three globular bodies joined (F. 1. 10. 12.) s. The STYLE simple, at the apex trifid, (F. 12.) After the petals and stamens are fallen off, they part from each other, spread o-

[1] In a flower I received from that accurate naturalist, J. Ellis, F. R. S. &c. I counted upwards of 280 filaments; and, in another I had from Dr. Fothergill, there appeared to be nearly the same number.

[2] Kæmpfer describes the Antheræ as being single.

PISTILIUM, F. 1. 10. 12 * Lente auctum.	longitudine aucta, marcescentes. (F. 1. 12.) t. STIGMATA *simplicia*. (F. 1. 9. 10. 12.)	The PISTILLUM, F. 1. 10. 12. * magnified.	pen, increase in length, and wither on the Germen. (F. 1. 12.) t. The STIGMAS simple. (F. 1. 9. 10. 12.)
P. PERICARPIUM, F. 1. 13, 14.	CAPSULA *ex tribus globis coalita*, (F. 13.) trilocularis, (F. 14.) apice trifariam dehiscens. (F. 13.)	P. The PERICARPIUM, F. 1. 13. 14.	A CAPSULE in the form of three globular bodies united, (F. 13.) trilocular, (F. 14.) gaping at the top in three directions. (F. 13.)
S. SEMINA, F. 14.	*solitaria*, *globosa*, *introrsum angulata*.	S. The SEEDS, F. 14.	single, globose, angular on the inward side.
T. TRUNCUS, F. 1.	ramosus, lignosus, teres:	T. The TRUNK[1], F. 1.	ramose, ligneous, round:

ramis

[1] Authors differ widely respecting the size of this tree. Le Compte says, it grows of various sizes from two feet to two hundred, and sometimes so thick, that two men can scarcely grasp the trunk in their arms: though he afterwards observes, that the Tea-trees, he saw in the province of Fokien, did not exceed five or six feet in height.

T. Truncus, F. 1.	ramis alternis,	T. The Trunk, F. 1.	the branches alternate,
	vagis,		vague, *or placed in no regular order*,
	rigidiuſculis,		ſtiffiſh,
	cineraſcentibus,		inclining to an aſh color,
	prope apicem rufeſcentibus.		towards the top reddiſh.
Pedunculi, (F. 1. p.)	axillares, (F. 1. p.)	Peduncles F. 1.	axillary, (F. 1. p.)
	alterni,		alternate,
	ſolitarii,		ſingle,
	curvati,		curved,
	uniflori,		uniflorous,
	incraſſati, (F. 1. 2. 7.)		incraſſate, (F. 1. 2. 7.)[1]
	ſtipulati :		ſtipulate :
	ſtipula ſolitaria,		the ſtipula ſingle,
	ſubulata, (F. 1. 2. 7. 9. d.)		ſubulate, (F. 1. 2. 7. 9. d.)
	erecta.		erect.

height. Journey through the empire of China. London, 1697, 8vo. p. 228. Du Halde quotes a Chineſe author, who deſcribes the height of different Tea-trees, from one to thirty feet. Deſcription génerale hiſtorique, chronologique, politique, et phyſique de la Chine, Paris, 1755. Fol. 4 Tom. Hiſtory of China, London, 1736. 8vo. Vol. IV. page 22. See alſo Guil. Piſo in Itinere Braſilica.

But Kæmpfer, who is chiefly to be depended upon, confines the full growth to about a man's heighth. Amœn. Exot. Lemgov. 1712, 4to. pag. 605. Probably this may be a juſt medium ; for Oſbeck ſays, that he ſaw Tea-ſhrubs in flower-pots, not above an ell high. Voyage to China, Vol. I. p. 247. See alſo Eckeberg's account of the Chineſe huſbandry, Vol. II. p. 303.

[1] When the peduncles increaſe in thickneſs towards their extremities.

alterna,

PEDUNCULI, (F. 1. p.)	alterna, elliptica, obtuſe ſerrata, marginibus inter dentes recurvatis.	PEDUNCLES, F. 1.	alternate, elliptical, obtuſely ſerrate, edges between the teeth recurvate.
F. FOLIA, F. 1. 15, 16, 17.	apice marginata, (F. 15. e.) baſi integerrima, (F. 16. 17.) * Lente aucta. glabra, nitida, bullata, ſubtus venoſa, conſiſtentia, petiolata: Petiolis breviſſimis, (F. 1. 16. 17. b.)	F. The LEAVES, F. 1. 15, 16, 17.	apex emarginate, (F. 15. e.[1]) at the baſe very entire, (F. 16. 17.) * magnified. ſmooth, gloſſy, bullate[2], venoſe on the under ſide, of a firm texture, on foot-ſtalks: The foot-ſtalks very ſhort, (F. 1. 16. 17. b.)

[1] No author has hitherto remarked this obvious circumſtance; even Kæmpfer himſelf ſays, that the leaves terminate in a ſharp point. Amœn. Exot. p. 611.

[2] When the upper ſurface of the leaf riſes in ſeveral places in roundiſh ſwellings, hollow underneath.

ſubtus

F. Folia, F. 1. 15. 16. 17.	ſubtus tereti-bus, gibbis, (F. 16. b. * Lente auctis.)	F. The Leaves, F. 1. 15, 16. 17.	round on the under ſide, gibbous, *or bunching* out, (F. 16. b. * magnified.)
	ſupra plano-canaliculatis. (F. 17. b. * Lente auctis.)		on the upper-ſide, flattiſh, and ſlightly channelled. (F. 17. b. * magnified.)
	Nomina trivialia Thea bohea & viridis.		he common names bohea and green Teas[1].

There is only one ſpecies of this plant; the difference of green and bohea Tea depending upon the nature of the ſoil, the culture, and manner of drying the leaves. It has even been obſerved, that a green Tea-tree, planted in the bohea country, will produce bohea Tea, and ſo the contrary[2].

[1] Whether the word Tea is borrowed from the Japaneſe *Tsjaa*, or the Chineſe *Theh*, is not of much importance. By this name, with very little difference in pronunciation, the plant here treated of is well known in moſt parts of the world.

[2] I have examined ſeveral hundred flowers, both from the bohea and green Tea countries, and their botanical characters have always appeared uniform. See Directions for bringing over ſeeds and plants from diſtant countries, by John Ellis, Eſq. Sir George Staunton's Embaſſy, Vol. II. p. 464, ſays, "Every information received "concerning the Tea plant concurred in affirming that its qualities depended upon "the ſoil in which it grew, and the age at which the leaves were plucked off the "tree, as well as upon the management of them afterwards."

SECTION

SECTION II.

SYNONYMA.

MANY authors have at different times treated upon this ſubject; ſome who never ſaw the Tea-tree, as well as others who have ſeen it[1]. I ſhall enumerate thoſe who are mentioned in the Species plantarum of Linnæus[2].

Thea; Hortus Cliffort. 204. Mat. Med. 264. Hill. Exot. t. 22.

Thee; Kæmpfer. Japan. 605. t. 606.

Thee frutex; Barthol. Act. 4. p. 1. t. 1. Bont. Jav. Amſtel. fol. 87 ad 88.

Thee Sinenſium; Breyn. Cent. 111. t. 112. incon. 17. t. 3. Bocc. Muſ. 114. t. 94.

Chaa; Caſp. Bauhin. Pinax Theatri Botanici. Baſil. 1623. 4to. 147.

Evonymo affinis arbor orientalis nucifera, flore roſeo; Pluk. Alm. Botan. Stirp. nov. tradens. 1200. Lond. 1705. fol. 139. t. 88. fig. 6.

In the Acta Haffnienſia, we meet with the firſt figure of this tree; but, as it was taken from a dried ſpecimen, it does not

[1] See Jac. Breynii Exotic. Cent. I. p. 114, 115.

[2] Vol. I. p. 734.

illuſtrate

illuſtrate the ſubject very well. Bontius publiſhed another, and though drawn in India, where he might have ſeen the plant, it does not much ſurpaſs the preceding. The figure given by Plukenet is better than either of the former; and after his, Breynius publiſhed one ſtill better: but of all the engravings formerly executed, that given by Kæmpfer muſt be allowed to be the moſt accurate [1]; yet even this icon, like all the others publiſhed by this induſtrious naturaliſt, is extremely imperfect; although he certainly ſaw the living plants which he has repreſented, however expert the Chineſe may be in deception [2].

[1] Amœnit. Exotic. p. 618, et ſeq. See alſo his hiſtory of Japan by Scheuchzer. Lond. 2 Vol. Fol. App. p. 3. Geoffr. Mat. Med. Vol. II. p. 276. Other figures of this ſhrub are repreſented in Piſo Itinere Braſilico, Kircher's China Illuſtrata, and Dutch Embaſſy.

[2] Oſbeck, in his voyage to China, ſpeaking of the Camellia, ſays, "I bought one of a blind man in the ſtreet, which had fine double white and red flowers. But, by farther obſerving it in my room, I found that the flowers were taken from another; and one calyx was ſo neatly fixed in the other with nails of bamboo, that I ſhould ſcarce have found it out, if the flowers had not begun to wither. The tree itſelf had only buds, but no open flowers. I learned from this inſtance, that whoever will deal with the Chineſe, muſt make uſe of his utmoſt circumſpection, and even then muſt run the riſk of being cheated." Vol. VII. p. 17. Mocquet in his Travels and Voyages, An. 1606, l. 4. p. 264, relates a curious piece of deception practiſed by a Chineſe of Canton. "A Portugueſe," he ſays, "bought a roaſted duck at a cook's ſhop in Canton. Seeing it look well, and appearing to be very fat, he carried it with him on-board his veſſel, to eat it; but, when he had put his knife within it to cut it up, he found nothing but the ſkin, which was upon ſome paper, ingeniouſly fitted up with little ſticks, which made up the body of the duck; the Chineſe having very dexterouſly plucked away the fleſh, and then ſo well accommodated this ſkin, that it ſeemed to be a true duck."

SECTION III.

AUTHORS UPON TEA.

Besides the Authors already mentioned, ſeveral others have given ſome account of this exotic ever-green, the principal of which are added for the farther information of thoſe who may be deſirous of conſulting theſe writers on the ſubject.

Johann. Petr. Maffeus rerum Indicarum libro VI. pag. 108. & lib. XII. pag. 242. Ludov. Almeyd. in eodem opere lib. IV. ſelect. epiſt.

Petr. Jarric. tom. III. lib. II. cap. XVII.

Matth. Ric. de Chriſtian. exped. apud Sinas, lib. I. cap. VII.

L. Baptiſta Ramuſio, le Navigationi e viaggi nelli quali ſi Contienne la Deſcrittione dell' Africa, del paeſe del prete Joanni del mar Roſſo, Calicut, iſole Moluchefe la Navigazione interno il mondo. Venet. 1550. 1563. 1588. 3 Vol. Fol. Vol. III. p. 15.

Tranſlation in Engliſh of Giovanni Botaro[1], an eminent Italian author. Printed in 1590.

[1] This writer obſerves, that the Chineſe have alſo an herb, out of which they preſs a delicate juice, which ſerves them for a drink inſtead of wine: it alſo preſerves their health, and frees them from all thoſe evils "that the immediate uſe of wine doth breed unto us." By the uſe the modern Chineſe make of Tea (who are a ſober people) it can be nothing elſe. Anderſon's Chronolog. Deduction of Commerce.

Texeira,

Texeira, Relaciones del origen de los Reyes de Perſia y de Hormuz. Amberes, 1610. p. 19.

Fiſcher's Sibiriſche Geſchichte, 1639. Vol. II. p. 694.

Alois Frois, in Relat. Japonicâ.

Nicol. Trigaut. de Regno Chinæ, Cap. III. p. 34.

Linſcot. de Inſulâ Japonicâ, Cap. XXVI. p. 35. Ha. 1599. Fol. et Belgiæ Amſt. 1644. Fol.

Bernhard. Varen. in deſcriptione Regni Japoniæ, Cap. XXIII. p. 161.

Johan. Bauhin. Hiſtor. Univerſ. Plantarum, 1597. Tom. III. lib. XXVII. cap. I. p. 5. b.

Alex. Rhod. Sommaire des divers voyages et miſſions Apoſtoliques du R. P. Alexandre de Rhodes de la compagnie de Jeſus à la Chine, et autres Royaumes de l'orient, avec ſon retour de la Chine, à Rome; depuis l'année, 1618, juſques à l'annee, 1653, p. 25.

Dionyſii Joncquet, Sirpium aliquot paulò obſcurius officinis, Arabibus aliiſque denominatarum, per Caſp. Bauhin. explicat. p. 25. Ed. 1612.

Simon Pauli, Quadripartitum Botanicum, claſſe ſecundâ, pag. 44. Ibidemque claſſe tertiâ, pag. 493.

Simon Pauli, Comment. de abuſu Tobaci et herbæ Theæ, Roſtock. 1635. 4to. Straſburgh. 1665. Argent. 1665. 4to. Francf. 1708. 4to. London, 1746. 8vo.

Wilhelm. Leyl. epiſtol. apud Simon Pauli in Comment. de abuſu Tobaci, &c. p. 15. b.

Jacob. Bontii de Medicina Indorum, lib. IV. Leid. 1642. 12mo. et cum Piſone, Leid. 1658. Fol. Belgiæ, Ooſt en Weſtindiſche waarande, Amſtel. 1694. 8vo. Anglicè. An Account

 of

of the Diſeaſes, Natural Hiſtory, and Medicines, of the Eaſt Indies: London, 1769, 8vo.

Beginne ende voortgang van de Vereenighde Neederlande, 1646, 2 vol. et ſub titulo, Recueil des Voyages faits pour L'Etabliſſement de la Campagnie des Indes Orientales, Amſtel. 1702. 12mo. 10 Vol.

Joann. Nieuzofs, Gezantſchap an den Keizer van China, p. 122. a.

Eraſmi Franciſſ. Oſt-und Weſt-Indiſcher wie auch Sineſiſcher Luſt-und Stats-Garten, p. 291.

Nicol. Tulpii, Obſerv. Medic. lib. IV. cap. LX. p. 380. Leidæ, 1641. 8vo.

Adam. Olearii, Perſioniſche Reiſe-Beſchreibung, 1633. p. 325. lib. V. cap. XVII. p. 599. Fol. 1656. Hamburg. 1698. Amſtel. 1666. 4to.

Johan. Albert. von Mandelſlo, Morgenlandiſche Reiſe-Beſchreibung, lib. I. cap. XI. p. 39. Edit. 1656.

Olai Wormii, Muſ. lib. II. cap. XIV. p. 165. Hafn. 1642. 4to.

Gulielm. Piſo, in Itinere Braſilico, Cliviæ, 1661. 8vo.

Athanaſ. Kircher, Chin. Illuſtrat. Ed. 1658. cum figura Fruct. Theæ.

Simon de Molinariis, Ambroſia Aſiatica, ſive de virtute et uſu Theæ, Genuæ, 1672. 12mo.

De Comiers, le bon uſage du Thee, du Coffee, et du Chocolat, pour la Preſervation et pour la Gueriſon des Malades, Paris, 1687. 12mo.

Marcus Mappus, de Thea, Coffea, et Chocolata. Argent. 1675 et 1695. 4to.

Oliv.

Oliv. Dappers, Beſchryvinge des Keizerryts van Taiſing or Sina, Amſtel. 1680. Fol. p. 226.

Nic. Blegny, du bon uſage du Thé, du Caffé, et du Chocolat. Lyon. 1680. 12mo. Abrégé du traité du Caffé, &c. Lyon. 1687. 12mo.

John Overton, Voyage to Surat, London, 1696. 8vo.

John Overton, Eſſay upon the Nature and Qualities of Tea, London, 1735. 8vo.

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SECTION

SECTION IV.

ORIGIN OF TEA.

As China and Japan [1] are the only countries known to us, where the Tea ſhrub is cultivated for uſe, we may reaſonably conclude, that it is indigenous to one of them, if not to both. What motive firſt led the natives to uſe an infuſion of Tea in the preſent manner is uncertain; but probably in order to correct the water, which is ſaid to be brackiſh and ill-taſted in many parts of thoſe countries [2]. Of the good effects of Tea in ſuch caſes, we have a remarkable proof in Kalm's journey through North America, which his tranſlator gives us in the following words:

"Tea is differently eſteemed by different people, and I think we *would* be as well, and our purſes much better, if we were without tea and coffee. However, I muſt be impartial, and mention in praiſe of Tea, that if it be uſeful, it muſt certainly be ſo in ſummer, on ſuch journies as mine, through a

[1] Some authors add Siam alſo. Vid. Sim. Pauli Comment. et Wilh. Leyl. epiſt. apud Simon. Pauli comment. Nich. Tulpius obſerv. Medicin. lib. IV. cap. lx. Lond. 1641.

[2] Le Compte's Journey through the Empire of China, p. 112. Staunton's Embaſſy, Vol. II. p. 96. and particularly p. 68.

defart country, where one cannot carry wine, or other liquors, and where the water is generally unfit for ufe, as being full of infects. In fuch cafes it is very pleafant when boiled, and Tea is drank with it; and I cannot fufficiently defcribe the fine tafte it has in fuch circumftances. It relieves a weary traveller more than can be imagined, as I have myfelf experienced, together with a great many others, who have travelled through the defart forefts of America: on fuch journies Tea is found to be almoft as neceffary as victuals [1]."

About the year 1600, Texeira, a Spaniard, faw the dried Tea leaves in Malacca, where he was informed that the Chinefe prepared a drink from this vegetable; and, in 1633, Olearius found this practice prevalent among the Perfians, who procured the plant under the name of Cha orchia, from China, by means of the Ufbeck Tartars. In 1639, Starkaw, the Ruffian Ambaffador, at the Court of the Mogul, Chau Altyn, partook of the infufion of Tea; and, at his departure, was offered a quantity of it, as a prefent for the Czar Michael Romanof,

[1] Kalm's Travels into North America, Vol. II. p. 314. The following note is added by the ingenious Englifh tranflator in the 2d edition, Vol. II. p. 141:

"On my travels through the defart plains, beyond the river Volga, I have had feveral opportunities of making the fame obfervations on Tea; and every traveller in the fame circumftances will readily allow them to be very juft." Forfter, ibid.

See Brydone's Tour through Sicily and Malta, Let. 6. In letter 20, he fays, "We have travelled all night on mules; and arrived here about ten o'clock, overcome with fleep and fatigue. We have juft had an excellent difh of tea, which never fails to cure me of both; and I am now as frefh as when we fet out." Captain Forreft, in his Voyage to New Guinea, relates feveral inftances wherein the failors experienced the exhilarating effects of this infufion.

which

which the Ambaſſador refuſed, as being an article for which he had no uſe [1].

This article was firſt introduced into Europe by the Dutch Eaſt India Company, very early in the laſt century; and a quantity of it was brought over from Holland about the year 1666[2], by Lord Arlington and Lord Oſſory. In conſequence of this, Tea ſoon became known amongſt people of faſhion, and its uſe, by degrees, ſince that period, has become general.

It is, however, certain, that before this time, drinking Tea, even in public coffee-houſes, was not uncommon; for, in 1660, a duty of four-pence per gallon was laid on the liquor made and ſold in all coffee-houſes [3].

So

[1] Fiſcher's Libiriſche Geſchichte, Vol. II. p. 694—697. Monthly Magazine, Vol. VI. p. 60.

[2] Hanway's Journal of Eight Days Journey, Vol. II. p. 21. The ſame author obſerves, that Tea ſold at this time for ſixty ſhillings a pound. Anderſon, in his "Chronological Deduction of Commerce," remarks, that the firſt European author that mentions Tea wrote in the year 1590. However, by the preceding catalogue, it will appear, that this ſubject had been conſidered much earlier.

In Renaudot's anciennes Relations, Paris, 1718, p. 31, mention is made of two Arabian travellers who viſited China about the year 850; and related, that the inhabitants of that empire had a medicinal beverage, named chah or ſah, which was prepared by pouring boiling water on the dried leaves of a certain herb, which infuſion was reckoned an efficacious remedy in various diſeaſes.

[3] By an act made this year, the duties of Exciſe on malt liquor, cyder, perry, mead, ſpirits, or ſtrong waters, coffee, tea, ſherbet, and chocolate, were ſettled on the King during his life. Then it was that Coffee, Tea, and Chocolate, were firſt mentioned in the ſtatute book. Noorthouck, in his Hiſtory of London, remarks, that King Charles II. iſſued a proclamation for ſhutting up the coffee-houſes, &c. about a month after he had dined with the Corporation of London, at Guildhall, on their Lord-Mayor's day, Oct. 29, 1675. At this feaſt the King af-

forded

So early as 1678, Cornelius Bontekoe, a Dutch phyſician, publiſhed a treatiſe, in his own language, on Tea, Coffee, and Chocolate [1]. In this he ſhews himſelf a very zealous advocate for Tea, and denies the poſſibility of its injuring the ſtomach, although taken to the greateſt exceſs, as far as one or two hundred cups in a day. To what motive we are to impute the partiality of Dr. Bontekoe, is uncertain at this period; but as he was firſt phyſician to the Elector of Brandenburgh, and probably of conſiderable eminence and character, his eulogium might

forded the Citizens abundant matter for animadverſion, in which they indulged themſelves ſo much to his diſſatisfaction, and that of his *cabal* miniſtry, that a proclamation was iſſued December 20, for ſhutting up and ſuppreſſing all coffee-houſes; "becauſe, in ſuch houſes, and by occaſion of the meeting of diſaffected perſons in them, divers falſe, malicious, and ſcandalous reports were deviſed and read abroad, to the defamation of his Majeſty's government, and to the diſturbance of the quiet and peace of the realm." The opinions of the judges were taken on this great point of ſtopping people's tongues, when they ſagely reſolved, "that retailing of Coffee and Tea might be an innocent trade; but as it was uſed to nouriſh ſedition, ſpread lies, and ſcandalize great men, it might alſo be a common nuiſance." In ſhort, on a petition of the merchants and retailers of Coffee and Tea, permiſſion was granted to keep open the coffee-houſes until the 24th of June next, under an admonition, that the maſters of them ſhould prevent all ſcandalous papers, books, and libels, from being read in them; and hinder every perſon from declaring, uttering, or divulging all manner of falſe or ſcandalous reports againſt government or the miniſters thereof. Thus, by a refinement of policy, the ſimple manufacturer of a diſh of Coffee or Tea was conſtituted licenſer of books, corrector of manners, and arbiter of the truth or falſehood of political intelligence over every company he entertained! And here the matter ended. Chap. 15.

In May 1784 an act was paſſed, called the Commutation Act, "for repealing the ſeveral duties on Tea, and for granting to his Majeſty other duties in lieu thereof; and alſo ſeveral duties on inhabited houſes."

[1] The ſecond edition was publiſhed under the title of Van The, Coffy, en Chocolate. Haag. 1685. 8vo. The late Baron Van Swieten cenſures this phyſician for his remarkable bias in favour of this exotic. Comment. Vol. V. p. 587. Eſt modus in rebus, may be as aptly applied to Dr. Bontekoe as to Dr. Duncan.

tend

tend greatly to promote its uſe: however, we find its importation and conſumption were daily augmented; and, before the concluſion of the laſt century, it became generally known among the common people in England.

It is foreign to my ſubject, or it would perhaps afford to a ſpeculative mind no inconſiderable ſatisfaction, to trace the conſumption from its firſt entrance at the Cuſtom-houſe to the preſent amazing imports. At this time upwards of twenty-three millions of pounds are annually allowed for home conſumption; and the Eaſt India Company have generally in their warehouſes a ſupply at leaſt for one year.

The following account of the importation of Tea, from 1776 to 1795, as related by Sir George Staunton (Vol. II. p. 624), may be ſatisfactory to the Reader:

An

An Account of the Quantities of Teas exported from China, in English and Foreign Ships, in each Year from 1776 to 1795, distinguishing each Year.

	Ships.	1776.	Ships.	1777.	Ships.	1778.	Ships.	1779.	Ships.	1780.	Ships.	1781.	Ships.	1782.	Ships.	1783.	Ships.	1784.	Ships.	1785.
By Swedes - -	2	lb. 2,562,500	2	3,049,100	2	2,851,200	2	3,328,000	2	2,626,400	3	4,108,900	2	3,267,300	3	4,265,600	3	4,878,900		
Danes - - - -	2	2,833,700	2	2,487,300	2	2,098,300	1	1,388,400	3	3,983,600	2	2,341,400	3	4,118,500	4	5,477,200	3	3,204,009	4	3,158,000
Dutch - - - -	5	4,923,700	4	4,856,500	4	4,695,700	4	4,553,100	4	4,687,800	4	4,957,600	—	— —	—	— —	—	— —	4	5,334,003
French - - -	3	2,521,600	5	5,719,100	7	3,657,500	4	2,102,800	—	— —	—	— —	—	— —	—	— —	8	4,231,200	4	4,960,000
Imperial - - -	—	— —	—	— —	—	— —	—	— —	1	1,375,900	—	— —	—	— —	—	— —	5	3,428,400		
Hungarian - -	—	— —	—	— —	—	— —	—	— —	—	— —	1	317,700								
Tuscan - - -	—	— —	—	— —	—	— —	—	— —	—	— —	—	— —	—	— —	1	933,300				
Portugueze - -	—	— —	—	— —	—	— —	—	— —	—	— —	—	— —	—	— —	8	3,954,100	—	— —	4	3,199,000
American - - -	—	— —	—	— —	—	— —	—	— —	—	— —	—	— —	—	— —	—	— —	—	— —	2	880,100
Prussia - - - -	—	— —	—	— —	—	— —	—	— —	—	— —	—	— —	—	— —	—	— —	2	3,329,800		
Spanish - - -																				
Total Foreign -	12	lb. 12,841,500	13	16,112,000	15	13,302,700	11	11,302,300	10	12,673,700	10	11,725,600	5	7,385,800	16	14,630,200	21	19,072,300	18	17,531,100
English private Trade included -	5	3,402,415	8	5,673,434	9	6,392,788	7	4,372,021	—	none imported.	17	‡11,592,819	9	6,857,731	6	4,138,295	13	9,916,760	14	10,583,628
	17	lb. 16,243,915	21	21,785,434	24	19,695,488	18	15,674,321	10	12,673,700	27	23,318,419	14	14,243,531	22	18,768.495	34	28,989,060	32	28,114,728

	Ships.	1786.	Ships.	1787.	Ships.	1788.	Ships.	1789.	Ships.	1790.	Ships.	1791.	Ships.	1792.	Ships.	1793.	Ships.	1794.	Ships.	1795.
By Swedes - -	4	lb. 6,212,400	1	1,747,700	2	2,890,900	2	2,589,000	—	— —	—	— —	1	1,591,330	1	1,559,730	1	756,130		
Danes - - - -	3	4,578,100	2	2,092,000	2	2,664,000	2	2,496,800	1	1,773,000	1	520,700	—	— —	1	852,670	—	— —	1	24,670
Dutch - - - -	4	4,458,800	5	5,943,200	5	5,794,900	4	4,179,600	5	5,106,900	3	1,328,500	2	2,051,330	3	2,938,530	2	2,417,200	4	4,096,800
French - - -	1	466,600	1	382,260	3	1,728,900	1	292,100	1	294,300	2	442,100	4	784,000	2	1,540,670				
Imperial - - -																				
Hungarian - -																				
Tuscan - - -	—	— —	—	— —	—	— —	—	— —	—	— —	—	— —	—	— —	1	393,870				
Portugueze - -																				
American - - -	1	695,000	5	1,181,860	2	750,900	4	1,188,800	14	3,093,200	—	— —	3	1,863,200	6	1,538,400	7	1,974,130	7	1,438,270
Prussian - - -	—	— —	—	— —	1	499,300	—	— —	—	— —	3	743,100	1	5,070						
Spanish - - -	—	— —	—	— —	—	— —	2	318,400	—	— —	—	— —	1	— —	3	400	—	— —	1	
Genoese - - -	—	— —	—	— —	—	— —	—	— —	—	— —	1	260	—	— —	2	578,930	2	289,470	1	17,460
Total Foreign -	13	lb* 16,410,900	14	11,347,020	15	14,328,900	15	11,064,700	21	10,267,400	10	3,034,660	12	6,294,930	19	9,403,200	12	5,436,930	14	5,577,200
English private Trade included -	18	13,480,691	27	20,610,919	29	22,096,703	27	20,141,745	21	17,991,032	25	22,369,620	11	13,185,467	16	16,005,414	18	20,728,705	21	23,733,810
	31	lb. 29,891,591	41	31,957,939	44	36,425,603	42	31,206,445	42	28,258,432	35	25,404,280	23	19,480,397	35	25,408,614	30	26,165,635	35	29,311,010

* Most of these foreign ships went to China, previous to the Commutation Act, which passed into effect in England in September, 1784.

‡ Part of these should have arrived in 1780.

It is probable that the Dutch, as they traded conſiderably to Japan about the time Tea was introduced into Europe, firſt brought this article from thence. But now China is the general mart, and the province Fokien, or Fo-chen [1], the principal country, that ſupplies both the Empire and Europe with this commodity.

[1] In this province, this ſhrub is called Thee, or Te; and as the Europeans firſt landed here, that dialect has been preſerved. Le Compte's Journey through the Empire of China, p. 227. Du Halde's Hiſtory of China, Vol. IV. p. 21.

SECTION V.

SOIL AND CULTURE.

To the ingenious Kæmpfer we are principally indebted for any accurate information reſpecting the culture of the Tea Tree; and, as his account was compoſed during his reſidence at Japan, greater credit is certainly due to it. We ſhall give what he ſays upon this ſubject, and then ſtate the accounts we have been able to collect of the Chineſe method.

Kæmpfer tells us, that no particular gardens or fields are allotted for this plant, but that it is cultivated round the borders of rice and corn fields, without any regard to the ſoil. Any number of the ſeeds, as they are contained in their ſeed veſſels, not uſually leſs than ſix, or exceeding twelve or fifteen, are promiſcuouſly put into one hole, made four or five inches deep in the ground, at certain diſtances from each other. The ſeeds contain a large proportion of oil, which is ſoon liable to turn rancid; hence ſcarce a fifth part of them germinate, and this makes it neceſſary to plant ſo many together.

The ſeeds vegetate without any other care; but the more induſtrious annually remove the weeds, and manure the land. The leaves which ſucceed are not fit to be plucked before the

third

third year's growth, at which period they are plentiful, and in their prime.

In about ſeven years the ſhrub riſes to a man's height; but as it then bears few leaves, and grows ſlowly, it is cut down to the ſtem, which occaſions ſuch an exuberance of freſh ſhoots and leaves the ſucceeding ſummer, as abundantly compenſates the owners for their former loſs and trouble. Some defer cutting them till they are of ten years growth.

So far as can be gathered from authors and travellers of credit, this ſhrub is cultivated and prepared in China, in a ſimilar manner to what is practiſed in Japan; but as the Chineſe export conſiderable quantities of Tea, they plant whole fields with it, to ſupply foreign markets, as well as for home conſumption.

The Tea-tree delights particularly in vallies; or on the declivities of hills, and upon the banks of rivers, where it enjoys a ſouthern expoſure to the ſun; though it endures conſiderable variations of heat and cold, as it flouriſhes in the northern clime of Pekin, as well as about Canton[1], the former of

[1] The beſt Tea grows in a mild temperate climate; the country about Nankin producing better Tea than either Pekin or Canton, between which places it is ſituated. It has been aſſerted, that no Tea-plants have yet died in England through exceſs of cold; but the contrary, I know, has happened. The plant in the Princeſs Dowager's garden at Kew flouriſhed under glaſs windows, with the natural heat of the ſun, as now do thoſe at Mile-end, in the poſſeſſion of the intelligent Botaniſt J. Gordon. The Tea-plant belonging to Dr. Fothergill thrives in his garden at Upton, expoſed to the open air, and the plant introduced into the Botanic garden at Chelſea had one leaf which meaſured five inches and a quarter in length.

which is in the ſame latitude with Rome; and from meteorological obſervations it appears, that the degree of cold about Pekin is as ſevere in winter, as in ſome of the northern parts of Europe [1].

[1] Du Halde and other authors have obſerved, that the degree of cold in ſome parts of China is very ſevere in winter. In the inland parts of North America, and on extenſive continents, the degrees of heat and cold are found to be much more violent than in iſlands or places bordering on the ſea in the ſame latitude, as the air that blows over the ſea is liable to leſs variation in theſe reſpects, than that which blows over large tracts of land.

SECTION

SECTION VI.

GATHERING THE LEAVES.

At the proper ſeaſons for gathering the Tea leaves, labourers are hired, who are very quick in plucking them, being accuſtomed to follow this employment as a means of their livelihood. They do not pluck them by handfuls, but carefully one by one; and, tedious as this may appear, each perſon is able to collect from four to ten or fifteen pounds in one day. The different periods in which the leaves are uſually gathered, are particularly deſcribed by Kæmpfer [1].

I. The firſt commences at the middle of the laſt moon, immediately preceding the vernal equinox, which is the firſt month of the Japaneſe year, and falls about the latter end of our February, or beginning of March. The leaves collected at this time are called Ficki Tsjaa, or powdered Tea, becauſe they are pulveriſed and ſipped in hot water (Sect. IX. 1). Theſe tender young leaves are but a few days old when they are plucked; and, becauſe of their ſcarcity and price, are diſpoſed of to princes and rich people only; and hence this kind is called Imperial Tea.

[1] Amœnitat. Exotic. p. 618, et ſeq. Hiſtory of Japan. Appendix to Vol. II. p. 6, et ſeq.

A ſimilar

A ſimilar ſort is alſo called Udſi Tsjaa, and Tacke Sacki Tsjaa, from the particular places where it grows. The peculiar care and nicety obſerved in gathering the Tea leaves in theſe places deſerve to be noticed here, and we ſhall therefore give ſome account of one of them.

Udſi is a ſmall Japaneſe town, bordering on the ſea, and not far diſtant from the city of Miaco. In the diſtrict of this little town, is a pleaſant mountain of the ſame name, which is thought to poſſeſs the moſt favourable ſoil and climate for the culture of Tea, on which account it is incloſed with hedges, and likewiſe ſurrounded with a broad ditch for farther ſecurity. The trees are planted upon this mountain in ſuch a manner as to form regular rows, with intervening walks. Perſons are appointed to ſuperintend the place, and preſerve the leaves from injury or dirt. The labourers who are to gather them, for ſome weeks before they begin, abſtain from every kind of groſs food, or whatever might endanger communicating any ill flavour to the leaves; they pluck them alſo with the ſame delicacy, having on a thin pair of gloves [1]. This ſort of imperial or bloom Tea [2] is afterwards prepared, and then eſcorted by the chief ſurveyor of the works of this mountain, with a ſtrong guard, and a numerous retinue, to the emperor's court, for the uſe of the Imperial family.

[1] The ſame cautions are not uſed previous to collecting other ſorts of Tea.

[2] This cannot be the ſort to which alſo the Dutch give that name, as it is ſold upon the ſpot to the princes of the country, for much more than the common bloom Tea is ſold for in Europe. Kæmpfer, Amœnit. Exotic. p. 617. Hiſtory of Japan, Appendix, p. 9. Neumann's Chemiſtry by Lewis, p. 373.

II. The

II. The ſecond gathering is made in the ſecond Japaneſe month, about the latter end of March, or beginning of April. Some of the leaves at this period are come to perfection, others not arrived at their full growth; both however are promiſcuouſly gathered, and are afterwards ſorted into different claſſes, according to their age, ſize, and quality; the youngeſt particularly are carefully ſeparated, and are often ſold for the firſt gathering or Imperial Tea. The tea collected at this time is called Tootsjaa, or Chineſe Tea, becauſe it is infuſed, and drank after the Chineſe manner (Sect. IX. 1.) It is divided by the Tea-dealers and merchants into four kinds, diſtinguiſhed by as many names.

III. The third and laſt gathering is made in the third Japaneſe month, which falls about our June, when the leaves are very plentiful and full grown. This kind of Tea, called Ban Tsjaa, is the coarſeſt, and is chiefly drank by the lower claſs of people (Sect. IX. III.)

Some confine themſelves to two gatherings in the year, their firſt and ſecond anſwering the preceding ſecond and third. Others have only one general gathering [1], which they make alſo at the ſame time with the preceding third or laſt gathering: however, the leaves collected at each time, are reſpectively ſeparated into different ſortments.

The Chineſe collect the Tea at certain ſeaſons [2], but whether the ſame as in Japan, we are not ſo well informed, moſt pro-

[1] In this caſe the under leaves, which are harſh and leſs ſucculent, are probably left upon the trees. See Eckeberg's Chineſe Huſbandry in Oſbeck's Voyage, Vol. II. p. 303.

[2] Du Halde's Hiſtory of China, Vol. IV. p. 21.

bably

bably, however, the Tea harveſt is nearly at the ſame periods, as the natives have frequent intercourſe, and their commercial concerns with each other are very extenſive [1].

[1] Du Halde, Vol. II. p. 300. Kæmpfer obſerves, in his Hiſtory of Japan, that the trade between theſe nations has continued from remoteſt antiquity; formerly the Chineſe had a much more general intercourſe with the Japaneſe than they have at preſent; the affinity in the religion, cuſtoms, books, learned languages, arts and ſciences of the Chineſe with the latter, procured them a free toleration in Japan. Hiſtory of Japan, Vol. I. p. 374.

SECTION

SECTION VII.

METHOD OF CURING OR PREPARING TEA IN JAPAN.

Public buildings, or drying houſes, are erected for curing Tea, and ſo regulated, that every perſon, who either has not ſuitable conveniences, or wants the requiſite ſkill, may bring his leaves at any time to be dried. Theſe buildings contain from five to ten or twenty ſmall furnaces, about three feet high, each having at the top a large flat iron pan [1], either high, ſquare, or round, bent up a little on that ſide which is over the mouth of the furnace, which at once ſecures the operator from the heat of the furnace, and prevents the leaves from falling off.

There is alſo a long low table covered with matts, on which the leaves are laid, and rolled by workmen, who ſit round it. The iron pan being heated to a certain degree by a little fire made in the furnace underneath, a few pounds of the freſh-gathered leaves are put upon the pan; the freſh and juicy leaves crack when they touch the pan, and it is the buſineſs of the

[1] Some writers mention copper pans, and ſuppoſe that the green efflorescence which appears on copper may increaſe the verdure of green Tea; but, from experiments that I made, there does not appear any foundation for this ſuppoſition. See Sect. VIII.

operator to ſhift them as quick as poſſible with his bare hands, till they grow too hot to be eaſily endured. At this inſtant he takes off the leaves, with a kind of ſhovel reſembling a fan, and pours them on the matts to the rollers, who, taking ſmall quantities at a time, roll them in the palms of their hands in one direction, while others are fanning them, that they may cool the more ſpeedily, and retain their curl the longer [1].

This proceſs is repeated two or three times, or oftener, before the Tea is put in the ſtores, in order that all the moiſture of the leaves may be thoroughly diſſipated, and their curl more completely preſerved. On every repetition the pan is leſs heated, and the operation performed more ſlowly and cautiouſly [2]. The Tea is then ſeparated into the different kinds, and depoſited in the ſtore for domeſtic uſe or exportation.

As the leaves of the Ficki Tea (Sect. VI. and IX. 11.), are uſually reduced into a powder before they are drank, they ſhould be roaſted to a greater degree of dryneſs. As ſome of theſe are gathered when very young, tender, and ſmall, they are firſt immerſed in hot water, taken out immediately, and dried without being rolled at all.

Country people cure their leaves in earthen kettles [3], which anſwer every neceſſary purpoſe at leſs trouble and expence, whereby they are enabled to ſell them cheaper.

[1] Sir G. Staunton, Embaſſy to China, obſerves that the Tea leaves are each rolled ſeparately between the fingers of a female, Vol. II. p. 465.

[2] This ſhould be carefully attended to, in curing the fine green Teas, to preſerve their verdure and periſhable flavour. See Sect. VIII. ad finem.

[3] This is alſo done in China. See Eckeberg's Chineſe Huſbandry in Oſbeck's Voyage, Vol. II. p. 303.

To

To complete the preparation, after the Tea has been kept for ſome months, it muſt be taken out of the veſſels, in which it had been contained, and dried again over a very gentle fire, that it may be deprived of any humidity which remained, or might ſince have been contracted.

The common Tea is kept in earthern pots with narrow mouths; but the beſt ſort of Tea uſed by the Emperor and nobility is put in porcellane or China veſſels. The Bantsjaa, or coarſeſt Tea, is kept by the country people in ſtraw baſkets, made in the ſhape of barrels, which they place under the roofs of their houſes, near the hole that lets out the ſmoke, and imagine that this ſituation does not injure the Tea.

This is the relation we have from Kæmpfer of the method in which the Japaneſe collected and cured their Tea. In the accounts of China, authors have in general treated very ſlightly of the cultivation and preparation of Tea. Le Compte[1] indeed obſerves, that to have good Tea, the leaves ſhould be gathered while they are ſmall, tender, and juicy. They begin commonly to gather them in the months of March and April, according as the ſeaſon is forward; they afterwards expoſe them to the ſteam of boiling water to ſoften them; and, as ſoon as they are penetrated by it, they draw them over copper plates[2]

[1] Journey through the Empire of China.

[2] Upon this ſubject, ſee SECT. VII. and VIII. It may be doubted alſo whether the concluſion of Le Compte's relation is not erroneous, as it is improbable that any leaves ſhould of themſelves take ſo perfect a curl as that in which Tea is brought into Europe. No materials are uſed but iron and earthen for drying Tea, as obſerved in note [1], p. 33.

kept on the fire, which dries them by degrees, till they grow brown, and roll up of themſelves in that manner we ſee them.

However, it is certain, from the Chineſe drawings, which exhibit a faithful picture, though rudely executed, of the whole proceſs from beginning to end, that the Tea tree grows for the moſt part in hilly countries, on their rocky ſummits, and ſteep declivities; and it would ſeem by the pains the Chineſe are at, in making paths, and fixing a kind of ſcaffolds, to aſſiſt them, that theſe places afford the fineſt Tea. It appears from theſe drawings, that the trees in general are not much taller than man's height: The gatherers of the leaves are never repreſented but on the ground; they make uſe of hooked ſticks indeed, but theſe ſeem rather intended to draw the branches towards them, when they hang over brooks, rivers, or from places difficult of acceſs, than to bend down the tops or upper branches of the trees on plain ground.

They pick the leaves as ſoon as gathered into different ſorts, and cure them nearly in the manner deſcribed to be practiſed by the Japaneſe. They build a range of ſtoves, like thoſe in a chemiſt's laboratory, or great kitchen, where the men work, and curl the leaves in the pans themſelves. It ſeems alſo that they repeat the drying. They dry it likewiſe, after having ſpread it abroad in ſhallow baſkets, in the ſun; and, by the means of ſieves, ſeparate the larger from the ſmaller leaves, and theſe again from the duſt.

The Chineſe put the finer kinds of Tea into conic veſſels, like ſugar loaves, made of tutenaque, tin, or lead, covered with

with neat matting of bamboo ; or in ſquare wooden boxes lined with thin lead, dry leaves and paper, in which manner it is exported to foreign countries. The common Tea is put into baſkets, out of which it is emptied, and packed up in boxes or cheſts as ſoon as it is ſold to the Europeans [1].

One thing ſhould be mentioned to their credit; when their harveſt of Tea is finiſhed, each family fails not to teſtify, by ſome religious rite, their gratitude to the Giver.

[1] There are ſeveral diſguſting circumſtances attending the preparation of Tea. Oſbeck ſays, the Chineſe ſervants tread the Tea into the cheſts with their naked feet. Voyage to China, Vol. I. p. 252. Sir George Staunton makes a ſimilar remark, Vol. II. p. 466.

SECTION

SECTION VIII.

VARIETIES OF TEA.

It has been already obſerved (Sect. VI.) that many different ſortments of Tea are made during the times of collecting the leaves; and theſe are multiplied according to the goodneſs of their preparation, by which the varieties of Tea may be conſiderably augmented [1]. The diſtinctions with us are much more limited, being generally confined to three principal kinds of green, and five of bohea.

I. Thoſe of the former are,

1. Bing, imperial, or bloom Tea, with a large looſe leaf, of a light green colour, and faint delicate ſmell.

II. Hy-tiann, hi-kiong, or hayſſuen, known to us by the name of Hyſon Tea, ſo called after an Eaſt-India merchant of that name, who firſt imported it into Europe. The leaves are cloſely curled and ſmall, of a green colour, verging towards blue [2].

[1] Du Halde's Hiſtory of China, Vol. IV. p. 21. Oſbeck's Voyage to China, Vol. I p. 246, et ſeq.

[2] The Chineſe have another kind of Hyſon Tea, which they call Hyſon-utchin, with narrow ſhort leaves. Another ſort of green Tea they name Go-bé, the leaves of which are narrow and long.

III. Singlo,

III. Singlo, or ſonglo, which name it receives, like many other Teas, from the place where it is cultivated.

II. The bohea Teas.

I. Soochuen, or ſutchong, by the Chineſe called ſaatyang, and ſact-chaon, or ſu-tyann, is a ſuperior kind of long-fou Tea. It imparts a yellowiſh green colour, by infuſion [1].

II. Camho, or ſoumlo, called after the name of the place where it is gathered; a fragrant Tea with a violet ſmell. Its infuſion is pale.

III. Cong-fou, congo, or bong-fo. This has a larger leaf than the following, and the infuſion is a little deeper coloured. It reſembles the common bohea in the colour of the leaf [2].

IV. Pekao, pecko, or pekoe, by the Chineſe called back-ho, or pack-ho. It is known by having the appearance of ſmall white flowers intermixed with it.

V. Common bohea, called moji by the Chineſe, conſiſts of leaves of one colour [3].

[1] Padre ſutchong has a finer taſte and ſmell than the common ſutchong. The leaves are large and yellowiſh, not rolled up, but expanded, and packed up in papers of half a pound each. It is generally conveyed by caravans into Ruſſia. Without much care, it will be injured at ſea. This Tea is rarely to be met with in England.

[2] There is a ſort of Tea called lin-kiſam, with narrow rough leaves. It is ſeldom uſed alone, but mixed with other kinds. By adding it to congo, the Chineſe ſometimes make a kind of pekoe Tea. Oſbeck's Voyage to China, Vol. I. p. 249.

[3] The beſt bohea Tea is named by the Chineſe tao-kyonn. An inferior kind is called An-kai, from a place of that name. In the diſtrict of Honam near Canton, the Tea is very coarſe, the leaves yellow or browniſh, and the taſte the leaſt agreeable of any. By the Chineſe it is named Honam té, or Kuli té.

III. There

III. There has alſo been imported a ſort of Tea, in balls, of a different form from any of the preceding, made up into cakes or balls of different ſizes, by the Chineſe called Ponculcha.

I. The largeſt kind of this cake Tea, that I have ſeen, weighs about two ounces; the infuſion and taſte reſemble thoſe of good bohea Tea.

II. Another ſort, which is a kind of green Tea, is called tio tè: it is rolled up in a round ſhape, about the ſize of peas, and ſometimes as large as a nutmeg.

III. The ſmalleſt kind done in this form is called gun-powder Tea.

IV. Sometimes the ſucculent Tea leaves are twiſted into cords like packthread, about an inch and a half or two inches long; and uſually three of theſe are tied together at the ends by different-coloured ſilk threads. Theſe reſemble little bavins, one of which might ſuffice for tea for one perſon. I have ſeen them both of green and bohea Tea.

The Chineſe likewiſe prepare an extract from Tea, which they exhibit as a medicine diſſolved in a large quantity of water, and aſcribe to it many powerful effects in fevers and other diſorders, when they wiſh to procure a plentiful ſweat. This extract is ſometimes formed into ſmall cakes, not much broader than a ſixpence, ſometimes into rolls of a conſiderable ſize.

That there is only one ſpecies of Tea tree, has already been mentioned (Sect. I.) from which all the varieties of Tea are procured.

BOHEA TEA.

procured. Kæmpfer, who is of this opinion, attributes the difference of Teas to the ſoil and culture of the plant, age of the leaves when gathered, and method of curing them [1]. Theſe circumſtances will ſeverally have more or leſs influence; though whether they account for all the varieties obſervable in Tea may be doubted. The bohea Tea trees, now introduced into many botanic gardens near London, exhibit very obvious varieties. The leaves are of a deeper green colour, and not ſo deeply ſerrated; the ſtalk is uſually of a darker colour, and the whole ſhrub appears leſs luxuriant ~~than that~~ repreſented in the annexed plate of the bohea Tea; but the botanical characters are the ſame.

I infuſed all the ſorts of green and bohea Teas I could procure, and expanded the different leaves on paper, to compare their reſpective ſize and texture, intending thereby to diſcover their age. I found the leaves of green Tea as large as thoſe of bohea, and nearly as fibrous; which would lead one to ſuſpect, that the difference does not ſo much depend upon the age, as upon the other circumſtances.

We know that in Europe the ſoil, culture, and expoſure, have great influence on all kinds of vegetables: but the ſame ſpecies of plants differ in the ſame province, and even in the ſame diſtrict; and in Japan, and particularly along the continent of China, it muſt be much more conſiderable, where the air is in ſome parts very cold, in others moderate, or warm almoſt to an extreme. I am perſuaded that the method of preparation

[1] This renders what has been obſerved at the concluſion of Sect. I. more probable.

muſt alſo have no little influence. I have dried the leaves of ſome European plants in the manner deſcribed (Sect. VI.) which ſo much reſembled the foreign Tea, that the infuſion made from them has been ſeen and drunk without ſuſpicion. In theſe preparations which I made, ſome of the leaves retained a perfect curl, and a fine verdure like the beſt green Tea; and others cured at the ſame time were more like the bohea [1].

I would not, however, lay too much ſtreſs upon the reſult of a few trials, nor endeavour to preclude further enquiries about a ſubject which at ſome future period may prove of more immediate concern to this nation.

We might ſtill try to diſcover whether other arts, than are yet known here, are not uſed with Tea before its exportation from China, to produce the difference of colour [2], and flavour [3], peculiar to different ſorts. An intelligent friend of mine informs me, that in a ſet of Chineſe drawings, in his poſſeſſion, repreſenting the whole proceſs of manufacturing Tea, there are in one ſheet the figures of ſeveral perſons apparently ſeparating the

[1] A certain moderate degree of heat preſerved the verdure and flavour better than a haſty exſiccation. In the firſt caſe, it is neceſſary to repeat the roaſting oftener.

[2] Infuſions of fine bohea Teas do not differ a great deal in colour from thoſe of green. To ſpirit they equally impart a fine deep green colour.

[3] I am informed by intelligent perſons, who have reſided ſome time at Canton, that the Tea about that city affords very little ſmell whilſt growing. The ſame is obſerved of the Tea plants in England; and alſo of the dried ſpecimens from China. We are not hence to conclude, that art alone conveys to Teas when cured the ſmell peculiar to each kind; for our vegetables, graſſes for inſtance, have little or no ſmell till dried, and made into hay.

different

J. Miller del: et sc:

different kinds of Tea, and drying it in the ſun, with ſeveral baſkets ſtanding near them filled with a very white ſubſtance, and in conſiderable quantity. To what uſe this may be applied is uncertain, as well as what the ſubſtance is; yet there is no doubt, he thinks, that it is uſed in the manufacturing of Tea, as the Chineſe ſeldom bring any thing into their pieces but ſuch as relate in ſome reſpect to the buſineſs before them.

We are better acquainted with a vegetable ſubſtance which has been employed by the Aſiatics in giving a flavour to Tea. This is the Olea Fragrans, whoſe flowers are frequently to be met with in Teas exported from China: and as the plant is now not unfrequent in the gardens near the metropolis, I am enabled to give an engraving of the plant and its botanical hiſtory [1].

OLEA FRAGRANS.—Sweet-ſcented Olive.

Claſs and Order.

DIANDRIA MONOGYNIA.

Generic Character.

Cor. 4. fida: laciniis ſubovatis. *Drupa* monoſperma.	*Corol.* 4. cleft: ſegments ſomewhat ovate. *Drupe*, one-ſeeded.

[1] See Thunberg's Flora Japonica, from which work the Botanic Hiſtory of the Olea Fragrans is chiefly taken.

Specific Character and Description from THUNBERG.

OLEA *fragrans* foliis lanceolatis ſerratis, pedunculis lateralibus aggregatis unifloris. *Thunb. Fl. Japon.* p. 18, t. 2.

Caulis, arboreus vaſtus.

Rami et ramuli trichotomi, obſolete tetragoni, glabri.

Folia decuſſata, petiolata oblonga, acuta, ſerrata, margini ſubreflexo, parallelo-nervoſa, reticulata, glabra, ſupra ſaturate viridia, ſubtus pallidiora, patentia, in ramulis frequentia, digitalia.

Petioli ſemiteretes, ſulcati, glabri, ſemiunguiculares.

Flores in ramulis umbellato-aggregati, circiter 6 vel 8, pedunculati.

OLIVE *ſweet-ſcented* with lanceolate ſerrated leaves, peduncles lateral, cluſtered, one-flowered.

Stem, a vaſt tree.

Branches both large and ſmall trichotomous, faintly four-cornered and ſmooth.

Leaves growing croſs-wiſe on leaf-ſtalks, oblong, acute, ſerrated, edge ſomewhat turned back, ribs parallel, reticulated, ſmooth above, of a deep green colour, paler beneath, ſpreading on the ſmall branches, numerous, about the length of the finger.

Leaf-ſtalks, flat on one ſide, round on the other, grooved, ſmooth, half the length of the finger nail.

Flower on the ſmall branches in cluſtered umbels, about 6 or 8 together, ſtanding on peduncles.

Pedunculi

Pedunculi filiformes, uniflori, glabri, albidi, unguiculares.

Perianthium, 1-Phyllum, minimum, obſolete 4-dentatum, albidum, glabrum.

Corolla, 1-petala, rotata, flavo-alba; *Tubus* ſubnullus; *Limbus* patens, quadrifidus: laciniæ ovatæ, obtuſæ, concavæ, craſſiuſculæ.

Filamenta duo, ori tubi inſerta, alba, breviſſima.

Antheræ ovatæ, grandiuſculæ, didymæ, flaveſcentes.

Germen ſuperum, oblongum, glabrum.

Stylus filiformis.

Stigmata ſimplicia, acuta.

Flower-ſtalks filiform, one-flowered, ſmooth, whitiſh, a finger nail in length.

Perianthium, one-leaved, very minute, faintly four-toothed, whitiſh and ſmooth.

Corolla of one petal, wheel-ſhaped, of a yellowiſh-white colour; *Tube* ſcarce any; *Limb* ſpreading, quadrifid, ſegments ovate, obtuſe, concave, thickiſh.

Filaments two, inſerted into the mouth of the tube, white, very ſhort.

Antheræ ovate, ſomewhat large, double, yellowiſh.

Germen above, oblong, and ſmooth.

Style filiform.

Stigmata, ſimple and pointed.

Sir George Staunton, in his Embaſſy to China, Vol. II. p. 467, deſcribes another Plant, whoſe flowers are uſed for the purpoſe of ſcenting Tea. The flower reſembles the dog-roſe, and the leaves thoſe of Tea; hence the Chineſe call it Chawhaw, or Flower of Tea. A Plate of this Plant is annexed, with the following deſcription, which this very accurate and learned

learned traveller has obligingly permitted me to introduce here.

" A Plant very like the Tea flourifhed at this time on the fides and the very tops of mountains, where the foil confifted of little more than fragments of ftone crumbled into a fort of coarfe earth by the joint action of the fun and rain. The Chinefe call this plant Cha-whaw, or Flower of Tea, on account of the refemblance of one to the other; and becaufe its petals, as well as the entire flowers of the Arabian jeffamine, are fometimes mixed among the Teas, in order to increafe their fragrance.

" This plant, the Cha-whaw, is the Camellia Sefanqua of the botanifts, and yields a nut, from whence is expreffed an efculent oil equal to the beft which comes from Florence. It is cultivated on this account in vaft abundance; and is particularly valuable, from the facility of its culture, in fituations fit for little elfe." It is delineated on the oppofite page.

As green Tea is by fome fufpected to have been cured on copper, they have attributed the verdure to be derived from that metal (Sect. VII.); but, if there were any foundation for this fuppofition, the volatile alkali, mixed with an infufion of fuch Tea, would detect the leaft portion of copper, by turning the infufion blue [1].

[1] The hundredth part of a grain of copper, diffolved in a pint of liquor, ftrikes a fenfible blue with volatile alkalies. Neumann's Chemiftry, by Lewis, p. 62. The fineft imperial and bloom Teas fhewed no fign of the prefence of this metal by experiment.

Others

Camellia Sosanqua

Others have, with leſs propriety, attributed the verdure to green copperas [1]; but this ingredient, which is only ſalt of iron, would immediately turn the leaves black, and the infuſion made from the Tea would be of a deep purple colour [2].

Is it not more probable, that ſome green dye, prepared from vegetable ſubſtances, is uſed for the colouring?

[1] See Short on Tea, p. 16. Boerhaave attributed the verdure of green Tea to this ſubſtance.

[2] "It is confidently ſaid in the country, that no plates of copper are ever employed for that purpoſe. Indeed, ſcarcely any utenſil uſed in China is of that metal, the chief application of which is for coin. The earthen or iron plates are placed over a charcoal fire, which draws all remaining moiſture from the leaves, rendering them dry and criſp." Sir G. Staunton's Embaſſy, Vol. II. p. 465.

SECTION

SECTION IX.

DRINKING OF TEA.

NEITHER the Chinese, nor natives of Japan, ever use Tea before it has been kept at least a year; because when fresh it is said to prove narcotic, and to disorder the senses [1]. The former pour hot water on the Tea, and draw off the infusion in the same manner as is now practised in Europe; but they drink it simply without the addition of sugar or milk [2]. The Japanese reduce the Tea into a fine powder, by grinding the leaves in a hand-mill; they then mix them with hot water into a thin pulp, in which form it is sipped [3], particularly by the nobility and rich people. It is made and served up to company in the following manner: the Tea-table furniture, with the powdered Tea inclosed in a box, are set before the company, and the cups are then filled with hot water, and as much of the powder as might lie on the point of a moderate-sized knife is taken out of the box, put into each cup, and then stirred and mixed together with a curious denticulated instru-

[1] Kæmpfer, Amœnit. Exot. p. 625. History of Japan, Vol. II. App. p. 10. 16.

[2] Osbeck's Voyage to China, Vol. I. p. 299.

[3] This is called koitsjaa, that is, thick Tea, to distinguish it from that made by infusion.

ment

ment till the liquor foams, in which ſtate it is preſented to the company, and ſipped while warm [1]. From what Du Halde relates, this method is not peculiar to the Japaneſe, but is alſo uſed in ſome provinces of China [2].

The common people, who have a coarſer Tea (Sect. VI. III.) boil it for ſome time in water, and make uſe of the liquor for common drink. Early in the morning the kettle, filled with water, is regularly hung over the fire for this purpoſe, and the Tea is either put into the kettle incloſed in a bag, or, by means of a baſket of a proper ſize, preſſed to the bottom of the veſſel, that there may not be any hindrance in drawing off the water. The Bantsjaa Tea (Sect. VI. III.) only is uſed in this manner, whoſe virtues, being more fixed, would not be ſo fully extracted by infuſion.

And indeed Tea is the common beverage of all the labouring people in China: one ſcarcely ever ſees them repreſented at work of any kind, but the Tea pot and Tea cup appear as their accompaniments. Reapers, threſhers, and all who work out of doors, as well as within, have theſe attendants [3].

To make Tea, and to ſerve it in a genteel and graceful manner, is an accompliſhment, in which people of both ſexes in Japan are inſtructed by maſters, in the ſame manner as Europeans are in dancing, and other branches of polite education.

[1] An inferior kind of Tea is infuſed, and drank in the Chineſe manner. Sect. VI. II. and Sect. IX. I.

[2] Hiſtory of China, Vol. IV. p. 22.

[3] In public roads, and in all places of much reſort in Japan, and even in the midſt of fields and frequented woods, Tea booths are erected; as moſt travellers drink ſcarcely any thing elſe upon the road. Kæmpfer's Hiſtory of Japan, by Scheuchzer, Fol. Vol. II. p. 428.

SECTION X.

SUCCEDANEA.

Curiosity and intereſt would mutually induce the Europeans to make the moſt diligent enquiries in order to diſcover the real Tea ſhrub, or a ſubſtitute in ſome other vegetable moſt reſembling it, Simon Paulli, a celebrated phyſician and botaniſt at Copenhagen, was the firſt who pretended to have diſcovered the real Tea plant in Europe. By opening ſome Tea leaves, he found them ſo much like thoſe of the Dutch myrtle[1], (Flor. Su. 907.) that he obſtinately maintained they were productions of the ſame ſpecies of Tea; though he was afterwards refuted by ſeveral botaniſts in Europe, and by the ſpecimens ſent to him, and to Dr. Mentzel of Berlin, from the Eaſt-Indies, by Dr. Cleyer[2].

[1] Myrica Gale. Goule, Sweet Willow, or Dutch Myrtle. Hudſon's Fl. Angl. p. 368. Linn. Syſtem. Natur. Vol. III. p. 651. A plant of peculiar fragrance, found in the North of England, Brabant, and other Northern countries. Simon de Molingriis was the firſt who oppoſed this opinion of Simon Paulli, by ſhewing the difference betwixt this ſpecies of myrtle and the oriental Tea. See alſo Wilh. Leyl. epiſt. apud Sim. Paulli comment. &c.

[2] Figures of the ſame were publiſhed in the Acta Haffnienſia, and German Ephemerides, Dec. II. Ann. IV.

Father

Father Labat next thought he had diſcovered the real Tea-plant in Martinico [1], agreeing, he ſays, in all reſpects with the China ſort. He pretends alſo to have procured Tea ſeeds from the Eaſt Indies, and to have raiſed the plant in America; but, from his own account, this ſuppoſed Tea appears to be only a ſpecies of Lyſimachia, or what is called Weſt-India Tea [2].

Many other pretended diſcoveries of the Oriental Tea-tree have been related; all which have proved erroneous, when properly enquired into. The genus of plant, called by Kæmpfer Tſubakki [3], has the neareſt reſemblance to it. The leaves of ſeveral European herbs have been uſed at different times as ſubſtitutes for Tea, either from ſome ſimilarity in the ſhape of the leaves, or in the taſte and flavour; among theſe, two or three ſpecies of

[1] Nouveau Voyage aux Iles d l'Amerique, Paris, 1721, 12mo. 6 vol.

[2] This ſhrub I have frequently met with in the Weſt-Indies.

[3] Two ſpecimens of this plant are now in the phyſic garden at Upſal. About the year 1755, they were brought over from China by M. Lagerſtrom, a director of the Swediſh Eaſt-India Company, under the ſuppoſition of being Tea-plants, till they appeared in bloſſom, when they proved to be this ſpecies of Tſubakki, called by Linnæus, Camellia. Spec. Plant. p. 982. This celebrated Naturaliſt ſays, "That the leaves of his Camellia are ſo like the true Tea, that they would deceive the moſt ſkilful botaniſt; the only difference is, that they are a little broader. Amœnit. Academ. Vol. VII. p. 251. See alſo Ellis's Directions for bringing over foreign Plants, p. 28. A Camellia was brought in 1771 from China in good health; the leaves of this ſhrub end in a double obtuſe point (obtuſely emarginated) like thoſe of the Tea tree, which makes them ſtill more liable to be miſtaken for thoſe of the latter. Kæmpfer obſerves, that the leaves of a ſpecies of Tſubakki are preſerved, and mixed with Tea, to give it a fine flavour. Amœnit. Exotic. p. 858. It is now a common plant in the green-houſes about London.

Veronica are particularly recommended [1], beſides the leaves of ſage [2], myrtle [3], betony [4], ſloe [5], agrimony, wild roſe [6], and many others [7]. Whether any of theſe are really more ſalutary or

[1] Mich. Frid. Lochner, de novis Theæ et Coffeæ Succedaneis. Hall. 1717. 4to. Veronica officinalis. Flor. Suec. p. 12. Veronica Chamædr. Fl. Suec. p. 18. Pechlin Theophilus bibaculus, Franckfort. 1684. Francus, de Veronica vel Theezantem. Coburg. 1690. 12mo. 1700. 12mo. Paris, ſub titulo, le Thè de l'Europe. 1704 and 1707, 12mo. Frid. Hoffman de infuſi Veronicæ efficacia præferenda herbæ Theæ, Hall. an. 1694. 4to.

[2] Fr. Afforty & Joſ. de Tournefort ergo potus ex Salvia ſalubris, 1695. Wedel, de Salvia, 4to. 1707. Jena. Paulini nobilis ſalvia Ang. Vindel. an. 1688. 8vo.

[3] Simon Paulli de abuſu Theæ et Tabaci. Straſburg, 1665. Lond. 1746.

[4] Botanical writers celebrate this herb for its many virtues; hence aroſe the Italian proverb, "*Vende la tonica, et compra la Betonica.*"

[5] In the year 1776, an act was paſſed for the more effectual prevention of the manufacturing of aſh, elder, ſloe, and other leaves, in imitation of Tea; and to prevent frauds in the revenue of Exciſe in reſpect to Tea, 17 George III. chap. 29, being an amendment of the act 4 George II. intituled, "An Act to prevent Frauds in the Revenue of Exciſe with reſpect to Starch, Coffee, Tea, and Chocolate. In the Appendix, from Sir George Staunton's Embaſſy to China, this is particularly detailed.

[6] Joſeph Serer Lettera ſopra la bevanda del Caffé Europæo, Veron. An. 1730. Roſe leaves are here ſubſtituted for thoſe of Tea. Godofred. Thomaſius Thea ex Roſis in Cent III. Nat. curioſor. n. 199. See alſo Cent. vij. obſ. 15. by J. A. Fiſcher.

[7] See Neumann's Chemiſtry, by Lewis, p. 375. J. Adrian. Slevogt, De Thea Romana et Sileſiaca, an. 1721. Aignan. le prêtre Medecin, avec un Traité du Caffé, et du Thé de France. Paris. an. 1696. 12mo. This author, whoſe name is probably corrupted, prefers balm leaves to thoſe of the Aſiatic Tea.

M. Fr. Lockner, de novis et exoticis Thee et Cafe ſuccedaneis Noriberg. 1717. 4to. Et in Eph. Nat. Cur. Cent. vj.

J. Franc. Nic. Faber, de Thea Helvetica; Baſil. 1715. 4to.

J. Georg. Siegeſbeck, de Theæ et Caffeæ ſuccedaneis in Kanoldiana collectione, an. 1722. Jan.

Zanichelli

or not, is undetermined; and we now find, that from the palace to the cottage every other ſubſtitute has yielded to the genuine Aſiatic Tea [1].

Zanichelli obzervazioni intorno all abuſodella Coffea ed alla vertute di innuovo Te-Venegiano. Venez. 1755. 4to.

K. Collegii medici Rundgiorelſe om den miſbruk ſom Thee, och Caffe drickande är unders kaſtot, ſamt anwiſning pa Swenka örter, at Brucka i ſtälle for Thee Stokholm, 1746. 4to.

Conf. Murray, appar. Medicam. Vol. IV. p. 232. & ſeq.

[1] In ſome parts of Europe, however, Tea is yet a ſtranger. See Brydone's Tour through Sicily and Malta, Let. 6.

SECTION

SECTION XI.

PRESERVING THE SEEDS FOR VEGETATION.

MANY attempts to introduce the Tea-tree into Europe have proved unſucceſsful, owing to the bad ſtate of the ſeeds when firſt procured, or to a want of judgement in preſerving them long enough in a ſtate capable of vegetation. If this complaint ariſe from the firſt cauſe, future precautions about ſuch ſeeds will be in vain; it is therefore neceſſary to procure freſh, ſound, ripe ſeeds, white, plump, and moiſt internally.

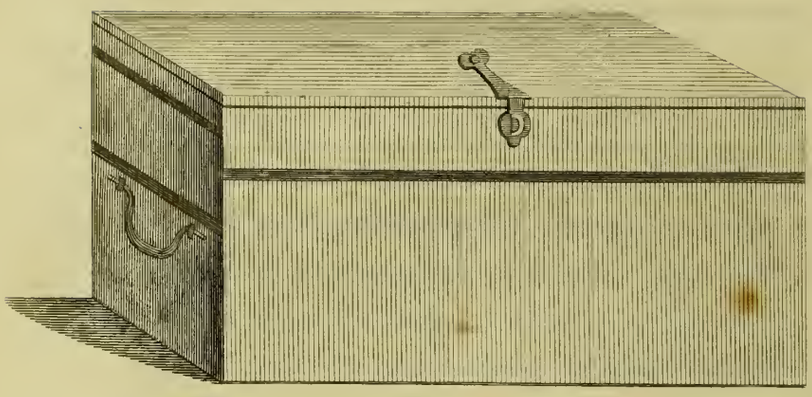
Two methods of preſerving the ſeeds have put us in poſſeſſion of a few young plants of the true Tea-tree of China; one is, by incloſing the ſeeds in bees wax, after they have been well dried in the ſun; and the other, by putting them, included in their pods, or capſules, into very cloſe canniſters made of tin and tutenague[1].

But

[1] See Directions for bringing over ſeeds and plants from the Eaſt-Indies, by J. Ellis, F. R. S. &c. in which particular directions are given, both to chooſe the proper ſeeds, and to preſerve them in the beſt manner for vegetation. See alſo the Naturaliſt's and traveller's companion, containing inſtructions for diſcovering and preſerving objects of natural hiſtory, SECT. III. We may obſerve here, that the beſt method of bringing over the parts of flowers intire is to put them in bottles of ſpirit of wine, good rum, firſt runnings, or brandy. In the directions, &c. above-mentioned the learned naturaliſt has not recommended this eaſy method of preſerving the parts of fructification; but in a future edition, I am informed he purpoſes to do it. Flowers of the Illicium Floridanum, or ſtarry anniſeed tree, publiſhed in the laſt volume of Philoſophical Tranſactions (LX.) were ſent to him in this manner.

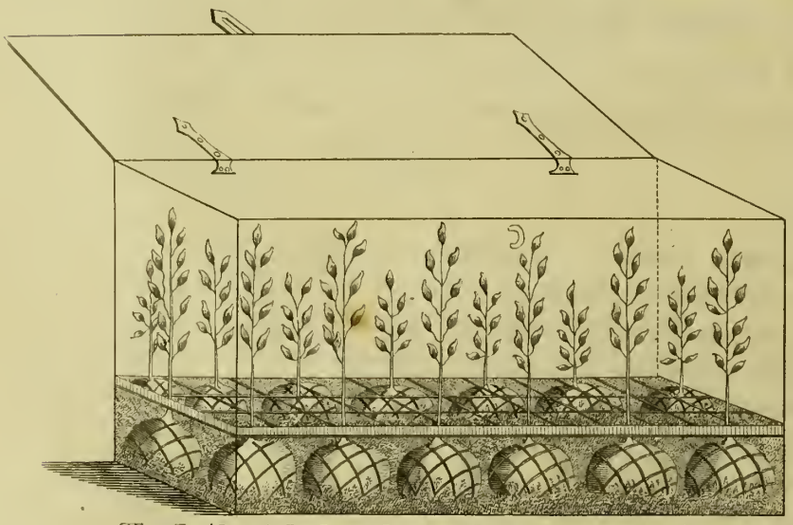
In

Boxes for conveying Plants by Sea.

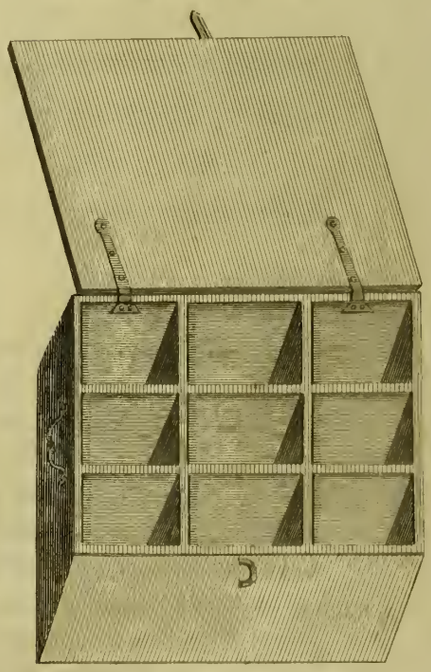


The Box with plants shut down with the openings at the ends and front left for fresh air.

The Cask for sowing seeds with the openings defended by Wire.



The Inside of the box shewing the manner of securing the roots of plants surrounded with earth & moss tied with packthread and fastened cross & cross with laths or packthread to keep them steady.



The Box with divisions for sowing different seeds in earth & cut moss.

But neither of theſe methods have ſucceeded generally, notwithſtanding the utmoſt care, both in getting freſh ſeeds, and in ſecuring them in the moſt effectual manner. The beſt method is to ſow the ripe ſeeds in good light earth, in boxes, at leaving Canton; covering them with wire, to prevent rats and other ſuch vermin coming to them. The boxes, plans of which are annexed, ſhould not be expoſed to too much air, nor to the ſpray of the ſea, if poſſible. The earth ſhould not be ſuffered to grow dry and hard, but a little freſh or rain water may be ſprinkled over it now and then; and, when the ſeedling plants appear, they ſhould be kept moiſt, and out of the burning ſun [1]. Moſt of the plants now in England were procured by

In a paper by John Sneyd, Eſq. inſerted in the Tranſactions of the Society for the Encouragement of Arts, Vol. XVI. p. 265, a method of preſerving ſeeds is related, which appears to have been highly ſucceſsful; this is merely by packing up ſeeds in abſorbent paper, and ſurrounding the ſame by raiſins, or brown moiſt ſugar; which, by experiment, ſeems to afford that genial moiſture requiſite to preſerve the ſeeds in a ſtate fit for vegetation.

Thouin, in his directions to the unfortunate navigator Pèrouſe, recommends the ſeeds to be placed in alternate layers of earth or ſand, in tin boxes, which muſt be cloſed up exactly, and placed in ſolid caſes, which ſhould be covered with waxed cloth; the boxes ſhould be put in a part of the ſhip the leaſt acceſſible to moiſture, and the moſt ſheltered from extreme heat or cold." Vol. I. p. 278.

[1] The carrying of trees cannot be done, with any hope of ſucceſs, except in boxes, wherein they may vegetate during the voyage. For this purpoſe it is neceſſary to have a box forty inches long by twenty broad, and as much in depth, with a dozen holes bored through the bottom, for the ſuperabundant water to run off. Its upper part muſt be compoſed of a triangular frame, upon which lattice work of iron wire muſt be fitted, with glazed frames and window ſhutters, to keep up a free circulation of air, encreaſe the warmth when neceſſary, and keep out the cold." Pèrouſe's Voyage, Vol. I. p. 283.

thefe means; and though many of the feedlings will die, yet by this kind of management we may probably fucceed in bringing over the moft curious vegetable productions of China, of which they have an amazing treafure, both in refpect to ufe, fhew, and variety [1]. If young plants could be procured in China, they might be fent over in a growing ftate in fome of thefe boxes.

The young Tea-plants in the gardens about London thrive very well in the green-houfes in winter, and fome bear the open air in fummer. The leaves of many of them are from one to three inches long, not without a fine deep verdure; and the young fhoots are fucculent. It is therefore probable, that in a few years many layers may be procured from them, and the number of plants confiderably increafed thereby.

It may not be improper to obferve here, that many exotic vegetables, like human conftitutions, require a certain period before they become naturalized to a change of climate; many plants, which on their firft introduction would not bear our winters without fhelter, now endure our hardeft frofts; the beautiful magnolia, among feveral others, is a proof of this

[1] Another method has fucceeded with fome North American feeds, by putting them into a box, not made too clofe, upon alternate layers of mofs, in fuch a manner as to admit the feeds to vegetate, or fhoot their fmall tendrils into the mofs. In the paffage, the box may be hung up at the roof of the cabin; and, when arrived here, the feeds fhould be put into pots of mold, with a little of the mofs alfo about them, on which they had lain. This method has procured us feeds in a ftate fit for vegetation, which had often mifcarried under the preceding precautions; and therefore might be tried at leaft with Tea and other oriental feeds. In order to fucceed more certainly, fome of the Tea feeds, in whatever manner they may have been preferved, fhould be fown when the veffel arrives at St. Helena, and alfo after paffing the tropic of Cancer, near the latitude of 30 degrees North.

obfervation;

obſervation; and we have already taken notice (Sect. V.), that the degree of cold at Pekin ſometimes exceeds ours. We have hence reaſon to expect, that the Tea-tree may in a few years be capable of bearing our climate, or at leaſt that of our colonies; at length thrive, as if indigenous to the ſoil; and, were labour cheaper, become an article of export [1], like the common potatoe, for which we are indebted to America, or Spain [2]. It is, however, better ſuited for the climates of the

[1] The high price of labour in this country may prove the principal objection to this proſpect. In China proviſions are very cheap. Oſbeck ſays, that a workman who lives upon plucking of Tea-leaves, will ſcarce be able to get more than one penny a day, which is ſufficient to maintain him. Voyage to China, Vol. I. p. 298.

[2] The following extract from Gerard's Herbal, p. 780. ed. 1636. though foreign to the ſubject of this Eſſay, is ſo curious, that it may not be deemed improper to tranſcribe it. "Potatoes grow in India, Barbarie, Spaine, and other hot regions, of which I planted diuers rootes (that I bought in the Exchange in London) in my garden, where they flouriſhed untill winter, at which time they periſhed and rotted." At this date, he adds, "they were roaſted in the aſhes; ſome, when they be ſo roaſted, infuſe them, and ſop them in wine; and others, to give them the greater grace in eating, do boile them with prunes, and ſo eate them. And likewiſe others dreſſe them (being firſt roaſted) with oile, vinegar, and ſalt, every man according to his own taſte and liking."

"Theſe rootes (he obſerves) may ſerue as a ground or foundation wheron the cunning confectioner, or ſugar-baker, may worke and frame many comfortable delicate conſerves, and reſtorative ſweete meates."

In 1664 J. Foſter publiſhed his "England's Happyneſs increaſed by a Plantation of Potatoes," 4to.

"Captain Hawkins is ſaid to have brought this root from Santa Fè, in New Spain, A. D. 1565. Sir Walter Rawleigh ſoon after planted it on his lands in Ireland; but, on eating the apple, that it produced, which is nauſeous and unwholeſome, he had nearly conſigned the whole crop to deſtruction. Luckily the ſpade diſcovered the real potatoe, and the root became rapidly a favourite eatable. It continued, however, for a long time to be thought rather a ſpecies of dainty than of proviſion;

 nor,

the Southern parts of Europe, and America; but hitherto it has not been cultivated in an extenſive manner, in either of theſe quarters of the world; nor is it likely ever to be, whilſt it can be procured from Aſia at the preſent reduced price. It was introduced into Georgia about the year 1770. Hence the ingenious author of Ouabi (Mrs. Morton) in her recent poem of Beave-hill, in deſcribing the products of this province, introduces the exotic of China:

" Yet round theſe ſhores prolific plenty twines,
" Stores the thick field, and ſwells the cluſtering vines;
" A thouſand groves their gloſſy leaves unfold,
" Where the rich orange rolls its ruddy gold,
" *China's green ſhrub*, divine Magnolia's bloom,
" With mingling odours fling their high perfume."

It is indeed probable that the North American ſummers, in the ſame latitude with Pekin, would ſuit this Tree better than ours; for, in China and ſome parts of North America, the heat in ſummer is ſuch, that vegetables make quicker and more early ſhoots, whereby they have time to acquire ſufficient ſtrength and firmneſs before the winter commences: but, in England, the tender ſhoots are puſhed forth late, and, winter ſoon after ſucceeding, they often periſh, in a degree of cold much leſs ſevere than at Pekin, or in colder latitudes of North America.

nor, till the cloſe of the 18th century, was it ſuppoſed capable of guarding the country where it was foſtered, from the attacks of famine." Andrews's Hiſtory, Vol. I. p. 408. Comp. Mocquet's Travels, p. 54.

Shakeſpeare, very early alſo in this century, mentions this root in the Merry Wives of Windſor, one edition of which, in 4to. was printed in 1619. Vide Scene III. Falſtaff.

THE

THE MEDICAL HISTORY OF TEA.

PART II.

SECTION I.

As the cuſtom of drinking Tea is become general, every perſon may be conſidered as a judge of its effects, at leaſt ſo far as it concerns his own health; but, as the conſtitutions of mankind are various, the effects of this infuſion muſt be different alſo, which is the reaſon that ſo many opinions have prevailed upon the ſubject.

Many, who have once conceived a prejudice againſt it, ſuffer it to influence their judgement too far, and condemn the cuſtom as univerſally pernicious. Others, who are no leſs biaſſed

on the other extreme, would make their own private experience a ſtandard for that of all, and aſcribe the moſt extenſive virtues to this infuſion. This contrariety of opinion has been particularly maintained among phyſicians [1]; which will ever be the caſe, while mere ſuppoſitions are placed in the room of experiments and facts impartially related.

Some phyſicians, however, avoid both extremes; who, without commending it, or decrying it univerſally, admit its uſe, while they are not inſenſible of the injuries it may produce. It requires no ſmall ſhare of ſagacity to fix the limits of good and harm in the preſent caſe: multitudes of all ages, conſtitutions, and complexions, drink it freely, during a long life, without perceiving any ill effects. Others, again, ſoon experience many inconveniences from drinking any conſiderable quantity of this infuſion.

It is difficult to draw certain concluſions from experiments made on this herb. The parts which ſeem to produce theſe oppoſite effects are very fugitive. We become acquainted chiefly with the groſſer parts by analyſis. I made the following experiments with conſiderable care; but, I own, they inform us not ſufficiently wherein conſiſts that grateful relaxing ſedative property, which proves to the generality of mankind ſo refreſhing; nor from whence it is, that others feel from the pleaſing beverage ſo many diſagreeable effects. Accurate obſervation would inſtruct us in this difficult inveſtigation, more than ſimple experiments on the ſubject itſelf.

[1] Compare Joh. Ludov. Hannemane de potu calido in Miſcell. curioſ. Simon Paulli de abuſu Theæ et Tabaci. Tiſſot on the diſeaſes of literary and ſedentary perſons, &c. with Waldſmick in Diſput. var. argum. &c.

EXPE-

EXPERIMENT I.

I TOOK an equal quantity of an infuſion of ſuperfine green Tea, and of common bohea Tea, made equally ſtrong; and alſo the ſame quantity of the liquor remaining after diſtillation (SECT. III. 1.), and of ſimple water; into each of which, contained in ſeparate veſſels, I put two drachms of beef, that had been killed about two days.

The beef, which was immerſed in the ſimple water, became putrid in forty-eight hours; but the pieces in the two infuſions of Tea, and in the liquor remaining after diſtillation, ſhewed no ſigns of putrefaction, till after about ſeventy hours [1].

EXPERIMENT II.

INTO ſtrong infuſions of every kind of green and bohea Tea that I could procure, I put equal quantities of ſalt of iron (ſal martis), which immediately changed the ſeveral infuſions into a deep purple colour [2].

It

[1] See Percival's Experimental Eſſays, p. 119, et ſeq. wherein many ingenious experiments and obſervations are related.

[2] In this experiment, four ounces of infuſion were drawn from two drachms of each kind of Tea, and one grain of ſal martis added to the reſpective infuſions.

See

It is evident from theſe experiments, that both green and bohea Tea poſſeſs an antiſeptic (EXPERIMENT I.), and aſtringent power (EXPERIMENT II.), applied to the dead animal fibre.

See Neumann's Chemiſtry by Lewis, page 377. Short, on the Nature and Properties of Tea, p. 29. The firſt author I have met with, that tried this experiment, was J. And. Hahn, who wrote in the year 1722. De herbæ exoticæ Theæ infuſo, ejuſque uſu et abuſu, Erford, 4to. Though it ſhould be premiſed, that Nic. de Blegny, who publiſhed his work, intituled, *Le bon uſage du Thé*, &c. in 1680, takes notice of the aſtringency of Tea, from which quality he deduces many of its virtues. Vid. Act. Eruditor. V. vi. page 49. Ann. 1688.

SECTION

SECTION II.

NEVERTHELESS, as I have often obſerved that drinking Tea, particularly the moſt highly-flavoured fine green, proves remarkably relaxing to many perſons of tender and delicate conſtitutions, I was induced to proſecute my enquiries farther.

1. To this end I diſtilled half a pound of the beſt and moſt fragrant green Tea with ſimple water [1], and drew off an ounce of very odorous and pellucid water, free from oil, and which on trial (SECTION I. EXPERIMENT II.) ſhewed no ſigns of aſtringency.

2. That part of the liquor which remained after diſtillation, was evaporated to the conſiſtence of an extract; it was ſlightly odorous, but had a very bitter, ſtyptic, or aſtringent taſte. The quantity of the extract thus procured weighed about five ounces and a half [2].

EXPERIMENT III.

a. Into the cavity of the abdomen, and cellular membrane of a frog, about three drachms of the diſtilled odorous water (No. 1.) were injected.

[1] J. Andr. Hahn takes notice alſo of the odour of the water diſtilled from Tea.

[2] The ſame author prepared an extract from this Tea, though in a leſs proportion than my experiment afforded, or what Neumann relates from his.

In

In twenty minutes, one hind leg of the frog appeared much affected, and a general loſs of motion and ſenſibility ſucceeded[1]. The affection of the limb continued for four hours, and the univerſal torpidity remained above nine hours; after this the animal gradually recovered its former vigor.

b. In like manner ſome of the liquor remaining after the diſtillation of the green Tea (No. 1.) was injected; but this was not productive of any ſenſible effect.

EXPERIMENT IV.

a. To the iſchatic nerves laid bare, and to the cavity of the abdomen of a frog, I applied ſome of the diſtilled odorous water (No. 1. and EXPERIMENT III, 1.). In the ſpace of half an hour, the hindermoſt extremities became altogether paralytic and inſenſible; and in about an hour afterwards the frog died.

b. In like manner I applied the liquor remaining after diſtillation (No. 1. and EXPERIMENT III. 2.) to another frog; but no ſedative or paralytic effect was obſervable.

[1] Theæ infuſum, nervo muſculove ranæ admotum, vires motrices minuit, perdit. Smith, Tentamen inaugurale de actione muſculari. Edinburgh, p. 46. Exper. 36.

3. From

3. From theſe experiments the ſedative and relaxing effects of Tea appear greatly to depend upon an odorous fragrant principle, which abounds moſt in green Tea, particularly that which is moſt highly flavoured [1]. This ſeems farther confirmed by the practice of the Chineſe, who avoid uſing this plant, till it has been kept at leaſt twelve months, as they find when recent it poſſeſſes a ſoporiferous and intoxicating quality. (Part I. Sect. IX.)

Thus often under trees ſupinely laid,
Whilſt men enjoy the pleaſure of the ſhade,
Whilſt thoſe their loving branches ſeem to ſpread
To ſcreen the ſun, they noxious atoms ſhed,
From which quick pains ariſe, and ſeize the head.
Near Helicon, and round the learned hill
Grow Trees, whoſe bloſſoms with their odour kill [2].

[1] Two drachms of this odorous water were given to a delicate perſon. He was ſoon after affected with a nauſea, ſickneſs, general lowneſs, and debility, which continued for ſome hours, which he obſerves uſually follows the uſe of ſuperfine green Tea.

Smelling forcibly at the ſame has occaſioned ſimilar effects upon ſome delicate people. Dr Blegny, who wrote in 1680, attributes conſiderable virtues to this fragrant odour, which he recommends to be breathed into the lungs, where it acts as a ſedative, according to his own relation, producing ſleep, and relieving pains of the head. Agreeable to Counſellor De Blegny's experience, I know a lady, frequently troubled with a nervous head-ach, who uſed to hold her head over a hot infuſion of Tea, and thus receive the fragrant exhalation, which always affords her the moſt inſtantaneous and effectual relief.

[2] Arboribus primum certis gravis umbra tributa eſt
Uſque adeo, capitis faciant ut ſæpe dolores,
Si quis eas ſubter jacuit proſtratus in herbis.
Eſt etiam in magnis Heliconis montibus arbos
Floris odore hominem tetro conſueta necare. Lucretius, B. 6.

SECTION III.

WAVING, however, any attempts to fix with precision the effects of Tea from these experiments alone, let us endeavour to collect from observation likewise, such facts as may enable us to judge what its effects are on the human frame, and from thence draw the clearest inferences we can, how far it is salutary or otherwise.

The long and constant use of Tea, as a part of our diet, makes us forget to enquire whether it is possessed of any medicinal properties. We shall endeavour to consider it in both respects.

The generality of healthy persons find themselves not apparently affected by the use of Tea: it seems to them a grateful refreshment, both fitting them for labour and refreshing them after it. There are instances of persons who have drank it from their infancy, to old age; have led, at the same time, active, if not laborious lives; and yet never felt any ill effects from the constant use of it.

Where this has been the case, the subjects of both sexes were for the most part healthy, strong, active, and temperate. Amongst the less hardy and robust, we find complaints, which are ascribed to Tea, by the parties themselves. Some complain that after a Tea breakfast, they find themselves rather fluttered;

fluttered; their hands leſs ſteady in writing, or any other employment that requires an exact command of ſpirits. This probably ſoon goes off, and they feel no other injury from it. Others again bear it well in the morning, but from drinking it in the afternoon, find themſelves very eaſily agitated, and affected with a kind of involuntary trembling.

There are many people who cannot bear to drink a ſingle diſh of Tea, without being immediately ſick and diſordered at the ſtomach: To ſome it gives excruciating pain about that part, attended with general tremours. But in general the moſt tender and delicate conſtitutions are moſt affected by the free uſe of Tea; being frequently attacked with pains in the ſtomach and bowels; ſpaſmodic affections; attended with a copious diſcharge of limpid urine, and great agitation of ſpirits on the leaſt noiſe, hurry, or diſturbance.

SECTION IV.

THERE is one circumſtance, however, that renders it more difficult to inveſtigate the certain effects of Tea; which is, the great unwillingneſs that moſt people ſhew, to giving us a genuine account of their uneaſy ſenſations after the free uſe of it; from a conſciouſneſs that it would be extremely imprudent to continue its uſe, after they are convinced from experience that it is injurious.

That it produces watchfulneſs in ſome conſtitutions is moſt certain, when drank at evening in conſiderable quantities. Whether warm water, or any other aqueous liquor, would have the ſame effect, is not certain.

That it enlivens, refreſhes, exhilarates, is likewiſe well known. From all which circumſtances it would ſeem, that Tea contains an active penetrating principle, ſpeedily exciting the action of the nerves; in very irritable conſtitutions, to ſuch a degree as to give very uneaſy ſenſations, and bring on ſpaſmodic affections: in leſs irritable conſtitutions, it rather gives pleaſure, and immediate ſatisfaction, though not without occaſionally producing ſome tendency to diſagreeable tremours and agitation.

The

The finer the Tea, the more obvious are theſe effects. It is perhaps for this, amongſt other reaſons, that the lower claſſes of people, who can only procure the moſt common, are in general the leaſt ſufferers. I ſay, in general, becauſe even amongſt them there are many who actually ſuffer much by it: they drink it as long as it yields any taſte, and, to add to its flavour, for the moſt part hot; and thus the quantity which they take, and the degree of heat in which it is drank, conſpire to produce in them, what the finer kinds of Tea effect in their ſuperiors.

It ought not, however, to paſs unobſerved, that in a multitude of caſes the infuſions of our own herbs, ſage for inſtance, mint, baum, even roſemary, and valerian itſelf, will ſometimes produce ſimilar effects, and leave that ſenſation of emptineſs, agitation of ſpirits, flatulence, ſpaſmodic pains, and other ſymptoms, that are met with in people, the moſt of all others devoted to Tea.

Beſides the injuries which the ſtomach ſuſtains, by taking the infuſion of Tea extremely hot; it is not improbable but the teeth alſo are affected by it. Profeſſor Kalm, in his Travels into North America, obſerves, that ſuch of the inhabitants as took their Tea and food in general, in this ſtate, were frequently liable to loſe half their teeth at the age of twenty, without any hopes of getting new ones. This cannot be attributed to the variations of weather in that clime, becauſe the Indians who enjoy the ſame air, but take their viands almoſt cold, were to a great age poſſeſſed of fine white teeth;

as

as were likewiſe the Europeans who firſt ſettled in America, before the uſe of Tea became general. It was no leſs remarkable, that the Indian women, who had accuſtomed themſelves to drink this infuſion after the European faſhion, had likewiſe loſt their teeth prematurely, though they had formerly been quite ſound[1]. Kalm does not appear to ſuſpect any injury to the teeth from the ſugar uſed with the Tea.

[1] Vol. I. p. 282. Ed. 2.

SECTION

SECTION V.

MANY, from a ſuppoſition that Tea was dried in India on copper, have attributed its pernicious properties to this metal; but we have already obſerved (Part I. § VIII.), that, if Tea were tinctured with the leaſt quantity of copper, it might eaſily be detected by chemical experiments.

Some have attributed the injurious qualities of this faſhionable exotic upon the ſtomach to the ſugar uſually drank with the Tea; but I have had ſufficient opportunities of obſerving in the Weſt Indies the good effects of drinking freely the juice of the ſugar-cane, to obviate this objection. I have known feeble emaciated children, afflicted with worms, tumefied abdomen, and a variety of diſeaſes, ſoon emerge from their complicated ailments, by drinking large draughts of this ſweet liquor, and become healthy and ſtrong [1].

"While

[1] In ſome parts of Scotland the common people give children large draughts of ſugar and water to deſtroy worms. See alſo Boerhaav. Elem. Chemiae, Tom. II. p. 160. Hiſtoriſch Verhaal. &c. inde Voorreeden Bezoar. London, 1715, 8vo. Slare de Sacchar. et lapid. Van. Swieten Commen. v. V. p. 586. Duncan, in his Avis Salutaire, frequently introduces ſugar as an agreeable poiſon, though he offers no proof in ſupport of this epithet. Dr. Robertſon, in his Hiſtory of Charles V. Vol. I. p. 401, 8vo. obſerves, that "ſome plants of the Sugar-cane were brought from Aſia; and the firſt attempt to cultivate them in Sicily was made about the middle

" While flows the juice mellifluent from the cane,
" Grudge not, my friend, to let thy ſlaves, each morn,
" But chief the ſick and young, at ſetting day,
" Themſelves regale with oft-repeated draughts
" Of tepid nectar, and make labour light [1]."

That there is ſomething in the finer green Teas, that produces effects peculiar to itſelf, and not to be equalled by any other ſubſtance we know, is, I believe, admitted by all who have obſerved, either what paſſes in themſelves, or the accounts that others give of their feelings, after a plentiful uſe of this liquor. Nor are the finer kinds of bohea Teas incapable of the like influence. They affect the nerves, produce tremblings, and ſuch a ſtate of body for the time, as ſubjects it to be agitated by the moſt trifling cauſes, ſuch as ſhutting a door too haſtily, the ſudden entrance even of a ſervant, and other the like cauſes.

middle of the 12th century. From thence they were tranſplanted into the ſouthern provinces of Spain. From Spain they were carried to the Canary and Madeira Iſles, and at length into the New World. Ludovico Guicciardini, in enumerating the goods imported into Antwerp, about the year 1560, mentions the ſugar which they received from Spain and Portugal as a conſiderable article of import. He deſcribes that as the product of the Madeira and Canary iſlands. Deſcritt. de Paeſi Baſſi, p. 180, 181. The ſugar-cane was either not introduced into the Weſt-Indies at that time, or the cultivation of it was not ſo conſiderable as to furniſh an article in commerce. In the middle ages, though Sugar was not raiſed in ſuch quantities, or employed for ſo many purpoſes, as to become one of the common neceſſaries of life, it appears to have been a conſiderable article in the commerce of the Italian States." It is, however, well aſcertained, that the Sugar Cane is indigenous to South America, and the Weſt Indies. Moſeley on Sugar, p. 29.

[1] Granger's Sugar Cane, 4to. p. 109. See alſo p. 9.

" Dulces bibebant ex arundine ſuccos. LUCAN.

Μελι καλαμινον το λεγομενον σακχαρι. ARRIAN.

I know

I know people of both ſexes, who are conſtantly ſeized with great uneaſineſs, anxiety, and oppreſſion, as often as they take a ſingle cup of Tea, who nevertheleſs, for the ſake of company, drink ſeveral cups of warm water, mixed with ſugar and milk, without the ſame inconvenience.

A phyſician, whoſe acquaintance I have long been favoured with, and who, with ſome others, was preſent when the preceding experiments were made at the college of Edinburgh, has a remarkable delicacy in feeling the effects of a ſmall quantity of fine Tea. If drank in the forenoon, it affects his ſtomach with an uneaſy ſenſation, which continues for ſeveral hours, and entirely takes away his appetite for food at dinner; though at other times, when he takes chocolate for breakfaſt, he generally makes a very hearty meal at noon, and enjoys the moſt perfect health. If he drink a ſingle diſh of tea in the afternoon, it affects him in the ſame manner, and deprives him of ſleep for three or four hours through the ſucceeding night; yet he can take a cup of warm water with ſugar and milk, without the leaſt inconvenience.

It may be remarked that opium has nearly the ſame effect upon him as Tea, but in a greater degree; for he informs me, that when he once accidentally took a quantity of the ſolution of opium, it had not the leaſt tendency to induce ſleep, but produced a very diſagreeable uneaſineſs at his ſtomach, approaching to nauſea. The late celebrated Profeſſor Whytt [1], of Edinburgh, affords a ſtriking example how injurious the effects of Tea may be upon conſtitutions, which I ſhall relate in his

[1] Whytt's Works, 4to. p. 642.

 own

own words. "I once imagined Tea to be in a great meaſure unjuſtly accuſed; and that it did not hurt the ſtomach more than an equal quantity of warm water; but experience has ſince taught me the contrary. Strong Tea drunk in any conſiderable quantity, in a morning, eſpecially if I eat little bread with it, generally makes me fainter before dinner than if I had taken no breakfaſt at all; at the ſame time it quickens my pulſe, and often affects me with a kind of giddineſs. Theſe bad effects of Tea are moſt remarkable when my ſtomach is out of order."

SECTION

SECTION VI.

I am informed likewiſe by a phyſician, of long and extenſive practice in the city, that he has known ſeveral inſtances of a ſpitting of blood having been brought on, by breathing in an air loaded with the fine duſt of Tea. It is cuſtomary for thoſe who deal largely in this article to mix different kinds together, ſo as to ſuit the different palates of their cuſtomers. This is generally performed in the back part of their ſhops, ſeveral cheſts perhaps being mixed together at the ſame time. Thoſe who are much employed in this work are at length very often ſufferers by it; ſome are ſeized with ſudden bleedings from the lungs or from the noſtrils; and others attacked with violent coughs, ending in conſumptions.

Theſe circumſtances are chiefly brought in ſight to prove, that, beſides a ſedative relaxing power, there exiſts in Tea an active penetrating ſubſtance, which, in many conſtitutions, cannot fail of being productive of ſingular effects.

An eminent Tea-broker, after having examined in one day upwards of one hundred cheſts of Tea, only by ſmelling at them forcibly, in order to diſtinguiſh their reſpective qualities, was the next ſeized with a violent giddineſs, head ach, univer-

ſal ſpaſms, and loſs of ſpeech and memory. By proper aſſiſtance, the ſymptoms abated, but he did not totally recover. For, though his ſpeech returned, and his memory in ſome degree, yet he continued, with unequal ſteps, gradually loſing ſtrength, till a partial paralyſis enſued, then a more general one, and at length he died. Whether this was owing to the effluvia of the Tea, may perhaps be doubted. Future accidents may poſſibly confirm *the ſuſpicions* to be juſt or otherwiſe.

SECTION

SECTION VII.

An aſſiſtant to a Tea broker, had frequently for ſome weeks complained of pain and giddineſs of his head, after examining and mixing different kinds of Tea: the giddineſs was ſometimes ſo conſiderable, as to render it neceſſary for a perſon to attend him, in order to prevent any injury he might ſuffer from falling or other accident. He was bled in the arm freely, but without permanent relief; his complaint returned as ſoon as he was expoſed to his uſual employment. At length he was adviſed to be electrified, and the ſhocks were directed to his head. The next day his pain was diminiſhed, but the day after cloſed the tragical ſcene. I ſaw him a few hours before he died; he was inſenſible; the uſe of his limbs almoſt loſt, and he ſunk very ſuddenly into a fatal apoplexy. Whether the effluvia of the Tea, or electricity, was the cauſe of this event, is doubtful. In either view the caſe is worthy of attention [1].

A young man of a delicate conſtitution, had tried many powerful medicines in vain, for a depreſſion of ſpirits, which he

[1] From theſe inſtances of the deleterious effects of Tea, one might be led to ſuppoſe that the ſame unhappy conſequences would frequently attend thoſe who are employed in examining and mixing different kinds of Tea in China; but there the Teas are mixed under an open ſhed, through which the air has a free current, by which the odour and the duſt are diſſipated: but in London this buſineſs is uſually done in a back room, confined on every ſide.

laboured

laboured under to a degree of melancholy, which rendered his ſituation dangerous to himſelf and thoſe about him. I found he drank Tea very plentifully, and therefore requeſted him to ſubſtitute another kind of diet; which he complied with, and afterwards gradually recovered his uſual health. Some weeks after this, having a large preſent of fine green Tea ſent him, he drank a conſiderable quantity of the infuſion on that and the following day. This was ſucceeded by his former dejection and melancholy, with loſs of memory, tremblings, a proneneſs to great agitation from the moſt trifling circumſtances, and a numerous train of nervous ailments. I ſaw him again, and he immediately attributed his complaints to the Tea he had drank; ſince which he has carefully denied himſelf the ſame indulgence, and now enjoys his former health.

I have known many other inſtances, where leſs degrees of depreſſion, and other complaints depending upon a relaxed irritable habit, have attended delicate people for many years; and though they have had the advice of ſkilful phyſicians, yet in vain have medicines been adminiſtered, till the patient has refrained from the infuſion of this fragrant exotic[1].

[1] Van Swieten, in his Commentaries on Boerhaave's aphoriſms, ſpeaks of the effects of Tea and Coffee in the following manner. "Vidi plurimos, his potibus diu abuſos, adeo enervatum corpus habuiſſe, ut vix languida membra traherent, ac plures etiam apoplexia et paralyſi correptos fuiſſe." Tom. III. § 1060, p. 362, de paralyſi.

SECTION

SECTION VIII.

In treating of this ſubſtance, I would not be underſtood to be either a partial advocate, or a paſſionate accuſer. I have often regretted that Tea ſhould poſſeſs any pernicious qualities, as the pleaſure which ariſes from reflecting how many millions of our fellow-creatures are enjoying at one hour the ſame amuſing repaſt; the occaſions it furniſhes for agreeable converſation; the innocent parties of both ſexes it daily draws together, and entertains without the aid of ſpirituous liquors; would afford grateful ſenſations to a ſocial breaſt. But juſtice demands ſomething more. It ſtands charged by many able writers, by public opinion, partly derived from experience, with being the cauſe of many diſorders; all that train of diſtempers included under the name of NERVOUS are ſaid to be, if not the offspring, at leaſt highly aggravated by the uſe of Tea. To enumerate all theſe would be to tranſcribe volumes. It is not impoſſible but the charges may be partly true. Let us examine them with all poſſible candour.

The effect of drinking large quantities of any warm aqueous liquor, according to all the experiments we are acquainted with, would be, to enter ſpeedily into the courſe of circulation, and paſs off as ſpeedily by urine or perſpiration, or the increaſe of ſome of the ſecretions. Its effects on the ſolid parts of the conſtitution

conſtitution would be relaxing, and thereby enfeebling. If this warm aqueous fluid were taken in conſiderable quantities, its effects would be proportionable; and ſtill greater, if it were ſubſtituted inſtead of nutriment [1].

That all infuſions of herbs may be conſidered in this light ſeems not unreaſonable. The infuſion of Tea, nevertheleſs, has theſe two particularities. It is not only poſſeſſed of a ſedative quality (Sect. II. Exp. III. IV.), but alſo of a conſiderable aſtringency (Sect. II. Exp. II.); by which the relaxing power aſcribed to a mere aqueous fluid is in ſome meaſure corrected. It is, on account of the latter, perhaps leſs injurious than many other infuſions of herbs, which, beſides a very ſlight aromatic flavour, have very little if any ſtypticity, to prevent their relaxing debilitating effects.

Tea, therefore, if not too fine, nor drank too hot, or in too great quantities, is, perhaps, preferable to any other vegetable infuſion we know. And if we take into conſideration likewiſe its known enlivening energy, it will appear that our attachment to Tea is not merely from its being coſtly or faſhionable, but from its ſuperiority in taſte and effects to moſt other vegetables.

[1] Vide Trattato di Medicina preſervation: Scritto da Carlo Gianella. Veron. 1751. p. 112. Simon Pauli, who took a pleaſure in oppoſing the uſe of Tea, indulges himſelf with the irony of the following lines:

Drinct Wiin and warff,
Drinct Beer and verdarff,
Drinct Waater and ſtarff:

Or;

Drink Wine, and profit;
Drink Beer, and grow thin;
Drink Water, and die.

SECTION

SECTION IX.

It may be of ſome uſe in our inquiries to conſider its effects where it has been long and univerſally uſed. Of Japan we know little at preſent: of China we have more recent accounts; from theſe it appears, that Tea of ſome kind, coarſer or finer, is drank plentifully by all degrees of people; the general proviſion of the lower ranks eſpecially is rice, their beverage Tea. The ſuperior claſſes of people drink Tea; but they likewiſe partake of animal food, and live freely.

Of their diſeaſes we know but little, nor what effects Tea may have in this reſpect. They ſeldom or never bleed. The late Dr. Arnot, of Canton, a gentleman who did his profeſſion and his country honour, and was in the higheſt eſtimation with the Chineſe, I am informed, was the firſt perſon who could ever prevail upon any of the Chineſe to be blooded [1], be their maladies what they might. It would appear from hence, that inflammatory diſeaſes were not frequent among them; otherwiſe a nation, who ſeem ſo fond of life as the Chineſe are reputed to be, would by ſome means or other have admitted of this almoſt only remedy in ſuch caſes. May we infer from hence, that inflammatory diſeaſes are leſs frequent in China,

[1] See Du Halde's hiſtory of China, V. III. p. 362. He obſerves here, that bleeding is not entirely unknown amongſt the Chineſe.

than in ſome other countries, and that one cauſe of this may be the conſtant and liberal uſe of this infuſion? Perhaps, if we take a view of the ſtate of diſeaſes, as exactly deſcribed a century ago, and compare it with what we may obſerve at preſent, we may have a collateral ſupport for this ſuggeſtion. If we conſider the frequency of inflammatory diſeaſes in Sydenham's time, who was both a conſummate judge of theſe diſeaſes, and deſcribed them faithfully, I believe we ſhall find they were then much more frequent than they are preſent; at leaſt, if any deference is due to the obſervations of judicious perſons, who moſtly agree, that genuine inflammatory diſeaſes are much more rare at preſent, than they were at the time when Sydenham wrote. It is true, this diſpoſition, admitting it be fact, may ariſe from various cauſes; amongſt the reſt, it is not improbable, Tea may have its ſhare.

SECTION

SECTION X.

Before the uſe of Tea, the general breakfaſt in this country conſiſted of more ſubſtantial aliment[1]; milk in various ſhapes, ale and beer, with toaſt, cold meat, and other additions. The like additions, with ſack, and the moſt generous wines, found their way amongſt the higher orders of mankind. And one cannot ſuppoſe but that ſuch a diet, and the uſual exerciſe they took, would produce a very different ſtate of blood and other animal juices, from that which Tea, a little milk or cream, and bread and butter, affords.

It was not the breakfaſt only that ſeems to have contributed its ſhare towards introducing a material alteration in the animal ſyſtem, but the ſubſequent regale likewiſe in the afternoon.

[1] The late Owen Saluſbury Brereton, Eſq. a gentleman well known among the learned, had in his poſſeſſion a MS. dated "apud Eltham, menſe Jan. 22, Hen. viij." intituled, "Articles deviſed by his Royal Highneſs (the title of Majeſty was not given to our Kings till a reign or two after), with Advice of his Council, for the Eſtabliſhment of good Order and Reformation of ſundry Errors and Miſuſes in his Houſehold and Chambers." In p. 85, "The queen's maids of honour to have a chet loaf, a manchat, a gallon of ale, and a chine of beef, for their breakfaſts." Compare the Archæologia, publiſhed by the Society of Antiquaries of London, Vol. III. p. 157. Hume's Hiſtory of England, Vol. IV. p. 499. Hiſtoria delle coſe occorſe nel regno d'Inghilterra in materia del Duca di Notomberlan dopo la morte di Odvardo vi. Venice, 1538.

Tea is a ſecond time brought before company; it is drank by moſt people, and often in no very ſmall quantities. Before the introduction of this exotic, it was not unuſual to entertain afternoon gueſts in a very different manner; jellies, tarts, ſweetmeats; nay, cold meat, wine, cyder, ſtrong ale, and even ſpirituous liquors under the title of cordials, were often brought out on theſe occaſions, and perhaps taken to exceſs, much to the injury of individuals.

This kind of repaſt would tend to keep up the natural inflammatory diatheſis, which was the reſult of vigour, and a plenitude of rich blood, as well as favour diſeaſes originating from ſuch cauſes. It ſeems not unreaſonable therefore to ſuppoſe, that, as the diet of our anceſtors was more generous, their exerciſes more athletic, and their diſeaſes more generally the produce of a rich blood, than are obſervable in the preſent times, theſe debilitating effects before-mentioned may in part be attributed to the uſe of Tea, as no cauſe appears to be ſo general and ſo probable.

SECTION

SECTION XI.

If theſe ſuggeſtions are admitted, they will aſſiſt us in determining when and to whom the uſe of Tea is ſalutary, and to whom it may be deemed injurious. Thoſe, for inſtance, who either from a natural propenſity to generate a rich inflammatory blood, or from exerciſe, or diet, or climate, or all together, are diſpoſed to be in this ſituation: to theſe the uſe of Tea would ſeem rather beneficial, by relaxing the too rigid ſolids, and diluting the coagulable lymph of the blood, as a very ſenſible and ingenious author very juſtly ſtyles it [1].

There are idioſyncraſes, certain particularities, which are objections to general rules. There are, for inſtance, men of this temperament, ſtrong, healthy, vigorous, and with not only the appearance, but the requiſites of firm health, to whom a few diſhes of Tea would produce the agitations familiar to an hyſteric woman; but this is by no means general: in common they bear it well, it refreſhes them, they endure fatigue after it, as well as after the moſt ſubſtantial viands. Nothing refreſhes them more than Tea, after laſting and vehement exerciſe. To ſuch it is undoubtedly wholeſome, and equal at leaſt, if not preferable, to any other kind of regale now in uſe.

[1] Philoſophical Tranſactions, Vol. LX. 1770. p. 368, & ſeq.

But,

But, if we conſider what may reaſonably be ſuppoſed to happen to thoſe who are in the oppoſite extreme of health and vigour; that is, the tender, delicate, enfeebled, whoſe ſolids are debilitated, their blood thin and aqueous, the appetite loſt or depraved, without exerciſe, or exerciſing improperly; in ſhort, where the diſpoſition of the whole frame is altogether oppoſite to the inflammatory; the free and unreſtrained uſe of this infuſion, and ſuch accompanyments, muſt unavoidably contribute to ſink the remains of vital ſtrength ſtill lower.

Between theſe two extremes there are many gradations; and, every thing elſe being alike, Tea will in general be found more or leſs beneficial or injurious to individuals, in proportion as their conſtitutions approach nearer to theſe oppoſite extremes. To deſcend into all the particulars would require experience and abilities, more than I can boaſt. Suffice it to ſay, that, except as a medicine, or after great fatigue, large quantities are ſeldom beneficial, nor ſhould it ever be drank very hot; and, as hath been already mentioned, the finer Tea, the green eſpecially, is more to be ſuſpected than the common or middling kinds.

SECTION

SECTION XII.

The experiments and obſervations hitherto related render it evident, that Tea poſſeſſes a fragrant volatile principle, which in general tends to relax and enfeeble the ſyſtem of delicate perſons, particularly when it is drank hot, and in large quantities. I have known many of this frame of conſtitution, who have been perſuaded, on account of their health, to deny themſelves this faſhionable infuſion, and received great benefit (Sect. VII.). Others, who have found their health impaired by this indulgence, are unhappily induced to continue it for want of an agreeable ſubſtitute, eſpecially for breakfaſt.

But, if ſuch cannot wholly omit this favourite regale, they may certainly take it with more ſafety, by boiling the Tea a few minutes, in order to diſſipate this fragrant principle (Sect. II. 1, and Exp. IV.) which is the moſt noxious; and extract the bitter, aſtringent, and moſt ſtomachic part (Sect. II. 2, and Exp. III.) inſtead of preparing it in the uſual manner by infuſion.

An eminent phyſician in the city, frequently experiencing the prejudicial effects of Tea by drinking it in the uſual form, was induced, from reading a diſſertation upon this ſubject, publiſhed ſome time ſince at Leyden [1], to try the infuſion pre-

[1] Siſtens Obſervationes ad vires Theæ pertinentes. Lugd. Batav. 1769.

pared

pared after another manner. He ordered the Tea to be infused in hot water, which after a few hours he caused to be poured off, stand over night, and to be made warm again in the morning for breakfast. By this means, he assures me, he can take, without inconvenience, near double the quantity of Tea, which formerly, when prepared in the usual method, produced many disagreeable nervous complaints.

The same end is obtained by substituting the extract of Tea (Sect. II. 2.) instead of the leaves. It may be used in the form of Tea, by dissolving it in warm water; and, as the fragrancy of the Tea is in this case dissipated, the nervous relaxing effects, which follow the drinking it in the usual manner, would be in great measure avoided. This extract has been imported into Europe from China, in flat round dark-coloured cakes, not exceeding a quarter of an ounce each in weight, ten grains of which, dissolved in a sufficient quantity of water, might suffice one person for breakfast. It might also be made here without much expence or trouble (See Sect. II. 2.).

It is remarkable, that in all the forms which Du Halde relates, for administering Tea as a stomachic medicine among the Chinese, it is ordered to be boiled for some time, or prepared in such a manner, as to cause a dissipation of its fragrant perishable flavour; which practice, as it seems consonant to experiments here (Sect. II. Exp. III.), may probably have taken its rise in China, from long experience and repeated facts.

SECTION

SECTION XIII.

Perhaps it will not be deemed foreign to an eſſay upon this ſubject, to take a conciſe view of the manners and diſpoſitions of the Chineſe, as we have done of their diſeaſes. Thoſe who are beſt acquainted with human nature ſeem to aſcribe even to their food, and way of life, as well as to their climate and education, certain propenſities at leaſt to vice and virtue; and it may be of uſe to draw what light we can in theſe reſpects, from the character of a people, who have uſed the infuſion of Tea for a long ſeries of years.

They are in general deſcribed to be a people of moderate ſtrength of body, not capable of much hard labour, rather feeble when compared with the inhabitants of ſome nations, excelling in ſome minute fabricks and manufactures, but exhibiting no proofs of elevated genius in architecture, either civil or military. They are ſaid to be puſillanimous, cunning, extremely libidinous, and remarkable for diſſimulation and ſelfiſhneſs [1], effeminate, revengeful, and diſhoneſt [2].

[1] See Anſon's Voyage round the World, 8vo. p. 366, and many later authorities.

[2] See likewiſe Du Halde's Hiſtory of China, Vol. II. p. 75, 130, et ſeq. Les Lettres Curieuſes et Edifiantes des Jeſuites.

It would be unjuſt to aſcribe all theſe qualities to their manner of living: other cauſes have undoubtedly their ſhare: but it may be ſuſpected, that the manner of life, or kind of diet, that tends to debilitate, virtually contributes to the increaſe of the meaner qualities. When force of body is wanting, cunning often ſupplies its place; and if not regulated by other principles, it would diſcover its effects more univerſally; and thus will take place whether the debility is natural, or acquired by a diet that enfeebles the body. That there is a probity, fortitude, and generoſity, in female minds, not inferior to the like qualities poſſeſſed by the other ſex, is moſt certain; but that it is generally ſo may perhaps be doubted;

though both
Not equal, as their ſex not equal ſeem'd;
For contemplation he and valour form'd,
For ſoftneſs ſhe, and ſweet attractive grace [1].

Whether the preſent age exhibits as many inſtances of ſuperior excellence as the preceding, is beyond my abilities to determine: that it is tarniſhed more than ſome others with one vice at leaſt, is generally confeſſed; and it may, perhaps, be a problem not unworthy of conſideration, whether the general uſe of Tea may not gradually increaſe the diſpoſition. For whatever tends to debilitate, ſeems for the moſt part to augment corporeal ſenſibility. The ſame perſon, who in health

[1] Milton's Paradiſe Loſt.

does

does not ſtart at the firing of a cannon, ſhall be extremely diſconcerted when ſunk by diſeaſe to the border of effeminacy, at the ſudden opening of a door. Deſire is not always proportioned to bodily ſtrength: it may ſometimes be ſtrongeſt when the corporeal ſtrength is at the loweſt ebb; it is often found ſo; and therefore another reaſon occurs, why the general uſe of Tea ought not to be conſidered as the moſt indifferent of all ſubjects.

From what has been ſaid upon this ſubject, it will probably be admitted, that children and very young perſons in general ſhould be deterred from the uſe of this infuſion. It weakens their ſtomachs, impairs the digeſtive powers, and favours the generation of many diſeaſes. We ſeldom perceive the rudiments of ſcrophulous diſeaſes ſo often any where as in the weak feeble offspring of the inhabitants of towns, and whoſe breakfaſt and ſupper often conſiſt of the weak runnings of ordinary Tea, with its uſual appurtenances. It ought by no means to be the common diet of boarding-ſchools; if it be allowed ſometimes as a treat, the children ſhould at the ſame time be informed, that the conſtant uſe of it would be injurious to their health, ſtrength, and conſtitution in general.

SECTION XIV.

THUS far I have chiefly endeavoured to trace the effects of Tea as a part of our diet. In medicine it has at present but very little reputation amongst us. It is even scarcely ever recommended as a part of the furniture of a sick chamber; it is seldom mentioned even as a gentle diaphoretic: in cases, however, where it is necessary to dilute and relax, to promote the thinner secretions, it promises at least as much advantage as most other infusions. For, besides its other effects, it seems to contain something sedative in its composition (SECT. II. EXP. III. IV.), not altogether unlike an opiate. Like this class of medicines, it mitigates uneasiness, perhaps more than any other merely aqueous infusion: and, like very small doses of opium, it sometimes prevents rest, and gives a temporary flutter to the spirits.

Where, therefore, large quantities of the infusion must be taken, to produce or support a considerable diaphoresis, a decoction of Tea, or a strong infusion, may be administered with great propriety, particularly in inflammatory complaints; the sedative power of Tea, assisted by the diluting effects of warm water, generally producing a diaphoresis, without stimulating the system. The Chinese most commonly give it as a medicine in decoction, in a variety of diseases; but if the infusion were drawn

drawn from a large proportion of fine Tea, and ſoon poured off, that the fineſt part may be procured, and drank warm, it would ſeem preferable as an attenuant and relaxant.

I have more than once given fine green Tea in ſubſtance with ſome diluting vehicle, and obſerved the ſame effects nearly as are produced from taking the infuſion. Thirty grains of this kind of Tea powdered, taken three or four times at as many hours interval, generally relaxes the ſolids, diminiſhes heat and reſtleſſneſs, and induces perſpiration. Such a doſe as produces a ſlight nauſea, which this quantity uſually does, more certainly induces a perſpiration, and a mitigation of the ſymptoms accompanying inflammatory complaints. If this doſe be doubled, the nauſea and ſickneſs will be increaſed, and a diſagreeable ſenſation or load is felt for ſome time about the region of the ſtomach, which uſually goes off with a laxative ſtool.

SECTION

SECTION XV.

It is ſaid that in Japan and China the ſtone is a very unuſual diſtemper, and the natives ſuppoſe that Tea has the quality to prevent it[1]. So far as it ſoftens and meliorates the water, which is very bad, it may certainly be of uſe[2]. We may alſo obſerve here, that every ſolvent is capable of taking up a limited quantity only of the ſolvend, and, when fully ſaturated with it, is incapable of ſuſpending it long; hence it is plain, that the quantity of the ſtony matter carried off muſt be greater when the urine is increaſed in quantity, and has not been too long retained in the bladder: and therefore, as Tea is a diuretic, it may in this view prove lithonthriptic.

Tea, we have already obſerved, contains an aſtringent antiſeptic quality (Sect. I. Exp. I, II.) It likewiſe poſſeſſes no inconſiderable degree of bitterneſs; and, as the uvæ urſi, and other bitters, have mitigated ſevere paroxyſms of the ſtone, may not Tea prove ſerviceable alſo by its antacid quality?

[1] Vid. Alex. Rhod. Sommaire, &c. J. N. Pechlin. Obſ. xxvii. de Remed. Arthr. Prophylact. p. 276. Baglivius in doloribus calculoſis et podagricis eam ſpecialiter commendavit, p. 117. Vogel. Mat. Med. Thee Folia. Sir G. Staunton, Vol. II. p. 68, 69.

[2] By long boiling, water is certainly freed from ſome of the earthy and ſaline ſubſtances it may contain, and thereby rendered conſiderably ſofter; but it is by no means altered in theſe reſpects by infuſing with Tea. See Percival's Experiments and Obſervations on Water, p. 27 et 33.

It

It is an obſervation I have often had occaſion to make, that people, after violent exerciſe, or coming off a journey much fatigued, and affected with a ſenſe of general uneaſineſs, attended with thirſt and great heat, by drinking a few cups of warm Tea, have generally experienced immediate refreſhment. It alſo proves a grateful diluent, and agreeable ſedative, after a full meal, when the ſtomach is oppreſſed, the head pained, and the pulſe beats high [1]; hence the Poet ſays,

"The Muſe's friend, Tea, does our fancy aid,
"Repreſs thoſe vapours which the head invade,
"And keeps that palace of the ſoul ſerene,
"Fit on her birth-day to ſalute a queen."

WALLER.

[1] This is particularly remarked, as one of the good effects of Tea, by De Blegny, who wrote in 1680, which he probably copied from Alex. Rhod. Sommaire des divers Voyages, &c. printed in 1653. See alſo Chamberlayn on Coffee, Tea, and Chocolate, p. 40. Le Compte's Memoirs and Obſervations, p. 227. Home's Principia Medicinæ, p. 5. Cheynæi Tractatus, p. 89. Percival's Experimental Eſſays, p. 130. Tiſſot on the Diſeaſes of Literary and Sedentary perſons, p. 145, & ſeq. Dr. Kirkpatrick, in his notes upon this Work, relates the caſe of a Lawyer, who had been troubled for ſome time with the gravel and ſtone, and taken many medicines in vain; till at length he reſolved to try the effects of Tea, an account of which is given by himſelf in the following words. "I had never uſed myſelf to "Tea, ſo that the drink was new to me. I took a quarter of an ounce of fine bohea "Tea, and, pouring a quantity of boiling water upon it, ſuffered the infuſion to "ſtand till it grew cold. I then poured it off clear, and drank three cups of it in "the morning, at the diſtance of about an hour between each, two cups faſting, "one after breakfaſt, and a fourth two hours after dinner. The firſt day, the only "effect produced was a more plentiful diſcharge of urine: but the ſecond day I "voided in the morning twelve large fragments, a nucleus of the ſize of a ſmall pea, "with ſome gravel; and what gave me more ſatisfaction was, that the uſe of the "Tea kept my body open as in perfect health."

SECTION

SECTION XVI.

I SHALL finiſh theſe remarks with ſome reflections on this herb, conſidered in another light.

As luxury of every kind has augmented in proportion to the increaſe of foreign ſuperfluities, it has contributed more or leſs its ſhare towards the production of thoſe low nervous diſeaſes, which are now ſo frequent. Amongſt theſe cauſes, exceſs in ſpirituous liquors is one of the moſt conſiderable; but the firſt riſe of this pernicious cuſtom is often owing to the weakneſs and debility of the ſyſtem, brought on by the daily habit of drinking Tea [1]; the trembling hand ſeeks a temporary relief in ſome cordial, in order to refreſh and excite again the enfeebled ſyſtem; whereby ſuch almoſt by neceſſity fall into a habit of intemperance, and frequently intail upon their offspring a variety of diſtempers, which otherwiſe probably would not have occurred.

Another bad conſequence reſulting from the univerſal cuſtom of Tea-drinking, particularly affects the poor labouring people, whoſe daily earnings are ſcanty enough to procure them the neceſſary conveniences of life, and wholeſome diet. Many

[1] See Percival's Experimental Eſſays, p. 126. Duncan, in his Avis Salutaire, takes occaſion to be merry upon the uſe and influence of Tea and hot liquors; whilſt he would not deprive voluptuous perſons of their idol, he would prevent it from burning its adorers, as *Moloch* did. Methuſelah, he obſerves, who lived near 1000 years, was a water-drinker; but, ſince the time of Noah, the firſt wine-drinker, the life of man is contracted, and diſeaſes augmented.

of

of theſe, too deſirous of vying with their ſuperiors, and imitating their luxuries, throw away their little earnings upon this foreign herb, and are thereby inconſiderately deprived of the means to purchaſe proper wholeſome food for themſelves and their families. In the words of Perſius we may here juſtly exclaim,

O curas hominum quantum eſt in rebus inane!

I have known ſeveral miſerable families thus infatuated, their emaciated children labouring under various ailments depending upon indigeſtion, debility, and relaxation. Some at length have been ſo enfeebled, that their limbs have become diſtorted, their countenance pale, and a maraſmus has cloſed the tragedy [1].

Theſe effects are not to be attributed ſo much to the peculiar properties of this coſtly vegetable, as to the want of proper food, which the expence of the former deprived theſe poor people from procuring. I knew a family, conſiſting of a mother and ſeveral children, whoſe fondneſs for Tea was ſo great, that three times a day, as often as their meals, which generally conſiſted of the ſame articles, they regularly ſent for Tea and ſugar, with a morſel of bread to ſupport nature; by which practice, and the want of a due quantity of nutritious food, they grew more enfeebled; thin, emaciated habits and weak conſtitutions characteriſed this

[1] See Dr. Walker's excellent Remarks, in Memoirs of the Medical Society, Vol. II. p. 43.

diſtreſſed family, till ſome of the children were removed from this baneful nurſery, by which they acquired tolerable health.

My valuable friend, Dr. Walker, of Leeds, in Yorkſhire, has noticed, in ſeveral parts of that extenſive and commercial county, and particularly in Leeds; that, "ſince the more plentiful introduction of Tea into the families of the induſtrious poor, by the late reduction of its price, the Atrophia Lactantium, or Tabes Nutricum, a ſpecies of decline, has made an unuſually rapid progreſs. The difficulty with which animal food is procured by the lower ranks of ſociety, in quantity ſufficient for daily nutriment, has led many of them to ſubſtitute, in the place of more wholeſome proviſions, a cheap infuſion of this foreign vegetable, whoſe grateful flavour (and perhaps narcotic quality, which it poſſeſſes in a ſmall degree in common with moſt other ever-greens) is found to create an appetite for itſelf, in preference to all other kinds of aliment that the ſcanty income of poverty allows theſe deluded objects to procure; though I am ſorry to have occaſion to add, that the lowering effects of tea-drinking lead too many of theſe to ſeek relief from ſpirits, and other pernicious cordials, at the expence of health, and the ſure conſequences of penury and want.

"As this change, in the article of diet, has been very generally made, eſpecially by the females, and the younger branches of the families of the manufacturing poor, their conſtitutions have been rendered much leſs able to bear evacuations of any ſort, and particularly that of lactation. I may, with great truth, aver, that more than two hundred patients of this denomination have, within the laſt two years, come

come under my notice: upon their application for relief, and the conſequent enquiry which I have been led to make reſpecting the nature of their diet, their almoſt invariable reply has been, that they have chiefly depended upon Tea for their ſupport, at the ſame time that they were permitting an apparently healthy child to draw the whole of its nouriſhment from them.

"That it is debility, and an impoveriſhed ſtate of the whole ſyſtem, ariſing from a deficiency in the due ſupply of proper and ſufficiently nutritious aliment, at a time when the conſtitution particularly requires it, in conſequence of the continual waſte which the mother ſuſtains from the ſuckling of her infant, which lay the foundation of this diſeaſe, and that the lungs are but ſecondarily or ſymptomatically affected, is clearly evinced from an attention to the ſymptoms.

"The patient firſt complains of languor, and general weakneſs; loſs of appetite; fatigue after exerciſe, though it be of the gentleſt kind; weariſome pains in the back and limbs; ſoon after which, ſymptoms of general atrophy come on; the face, in particular, grows thin, and is marked by a certain delicacy of complexion; paleneſs about the noſe; but with a ſmall degree of ſettled redneſs in the cheeks. In a ſhort time, if the patient ſtill continues to give ſuck, ſhe is ſeized with tranſitory ſtitches in the ſides, under the ſternum, or in ſome other part of the thorax; accompanied with a ſhort dry cough, and ſlight dyſpnæa, upon any muſcular exertion; the pulſe alſo becomes frequent, but ſeldom ſo hard as in the inflammatory ſtate of the genuine phthiſis pulmonalis; morning ſweats next

make their appearance; abſceſſes and ulcers are often formed in the lungs; pus mixed with mucus is expectorated; the general weakneſs increaſes; the emaciated patient is unable to ſupport an erect poſture; and at laſt dies literally exhauſted."

An ingenious author obſerves, that as much ſuperfluous money is expended on Tea and Sugar in this kingdom, as would maintain four millions more of ſubjects in bread [1]. And the author of the Farmer's Letters calculates, that the entertainment of ſipping Tea coſts the poor each time as follows:

	d.
The tea — — —	$\frac{3}{4}$
The ſugar — — —	$\frac{1}{2}$
The butter — —	1
The fuel and wear of the Tea equipage	$\frac{1}{4}$
	$2\frac{1}{2}$

When Tea is uſed twice a day, the annual expence amounts to 7l. 12s. a head. And the ſame judicious writer eſtimates the bread, neceſſary for a labourer's family of five perſons, at 14l. 15s. 9d. per annum [2]. By which it appears, that the yearly expence of Tea, Sugar, &c. for two perſons, exceeds that of the neceſſary article of bread, ſufficient for a family of five perſons.

[1] Eſſays on Huſbandry, p. 166. [2] Vol. I. p. 202. and 299.

It

It appears alſo, from a moderate calculation, that twenty-one millions of pounds of Tea [1] are annually imported into England. In the beginning of the preſent century the annual public ſales by the Eaſt-India Company did not much exceed 50,000 pounds weight, independently of what little might be clandeſtinely imported. The Company's annual ſales about this time, 1797, approach to twenty millions of pounds; being an increaſe of four hundred fold in leſs than 100 years, and anſwers to the rate of more than a pound weight each in the courſe of the year, for the individuals of all ranks, ſexes, and ages, throughout the Britiſh dominions in Europe and America [2].

Since the year 1797, it is probable, that the import of Tea has increaſed in a much greater ratio; for the Eaſt-India Company, at their ſale in September 1798, put up 1,300,000 pounds of bohea; 3,500,000 pounds of congou and campoi; 400,000 pounds of ſouchong and pekoe; 600,000 pounds of ſinglo and twankay; 400,000 of hyſon; hyſon ſkin 100,000; making, in the whole, 6,300,000 pounds, the quantity ſold in the autumnal quarterly ſale: and it may be preſumed, from the table annexed, (p. 1. Section IV.) and other documents, that at leaſt 30,000,000 of pounds are annually imported into Europe and America!

[1] If we include the quantity ſmuggled into this kingdom, the conſumption might be calculated at half a million more.

[2] Compare Sir George Staunton's Embaſſy, vol. I. p. 22.

FINIS.

DIRECTIONS FOR THE PLATES.

Green Tea, to front the title page.
Bohea Tea - - - - Page 41
Olea fragrans - - - - 43
Camellia Sefanqua - - - - 46
Boxes for conveying plants by fea - - 55

ERRATUM.

P. 41. l. 10. for *than that* read *as*.