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*** START OF THE PROJECT GUTENBERG EBOOK A TREATISE ON TOBACCO, TEA, COFFEE, AND CHOCOLATE ***

Preliminary Transcriber's Notes:



A

TREATISE

ON

Tobacco, Tea, Coffee, and Chocolate.



A TREATISE

\mathbf{ON}

TOBACCO, TEA, COFFEE, and CHOCOLATE.

IN WHICH

- I. The Advantages and Disadvantages attending the Use of these Commodities, are not only impartially considered, upon the Principles of *Medicine* and *Chymistry*, but also ascertained by *Observation* and *Experience*.
- II. Full and distinct Directions laid down for knowing in what Cases, and for what particular Constitutions, these Substances are either beneficial, or hurtful.
- III. The *Chinese* or *Asiatic Tea*, shewn to be the same with the *European Chamelæagnus*, or *Myrtus Brabantica*.

The Whole Illustrated with Copper Plates, exhibiting the Tea Utensils of the Chinese and Persians.

Written originally by SIMON PAULI;

AND

Now Translated by Dr. JAMES.

Ante omnia scire convenit Naturam Corporis; quia alii graciles, alii obesi sunt, alii calidi, alii frigidiores, alii humidi, alii sicciores, alios adstricta, alios resoluta, alvus exercet.

Celsus, Lib. 1. Cap. 3.

LONDON:

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M,DCC,XLVI.



A TREATISE ON *TOBACCO*, &c.

S *Nicolaus Monardus*, in *Simpl. Med. Histor*. has given so full and accurate an History and Description of *Tobacco*, that others have only borrowed their Accounts of it from his Works, we shall, in the Words of that Author, in *Cap. 14*, inform the Reader what *Tobacco* is, where it is produced, and to what Uses it is applied.

"The Plant *Tobacco*, says he, was formerly used by the *Indians*, and especially by the Inhabitants of *New Spain*, for the Cure of Wounds. A few Years ago it was imported into *Spain*, rather for the Decoration of Gardens, than on Account of its medicinal Virtues: But it is now more celebrated for the latter, than used for the former.

"This Plant is among the *Indians* called *Picelt*; for the *Spaniards* first called it *Tobacco* from a certain Island of that Name, where great Quantities of it were produced.

"It rises to a great Height, and is sometimes as tall as the *Lemon-Tree*. Its Trunk is strait, and sends out many large Branches, which bear Leaves almost resembling those of the *Lemon-Tree*, but larger, like those of the *Burdock*, of a faint green Colour, and a little rough and shaggy, as the Whole of the Plant is. The Tops of the Branches bear Flowers of the Shape of a small Bell, which are white at the Extremities, but of a purple Colour in the Middle; and when these Flowers fall off, they are succeeded by small Heads, which resemble those of the *Black Poppy*, and contain a very small cineritious blackish Seed. The Root is thick, divided into many Parts, internally of a ligneous or woody Nature, Saffron-coloured, bitter, and easily deprived of its Bark: But I am acquainted with no medicinal or other Quality of which it is possessed.

"The Plant grows in most Places of the *Indies*, and especially those of a moist and shady Nature, and in light well cultivated Soils: It may be sown at all Seasons; but when it appears above Ground it is to be preserved from the Cold, and may be transplanted for the Decoration of Garden-Walls; for, like the *Citron-Tree*, it continues green through the whole Year.

"The Leaves are only used; though when these cannot be had, some use the Seeds in their Stead. The Leaves are preserved by passing a Thread through them, suspending them in a shady Place, and thus drying them, after which they are used either whole or reduced to Powder.

"*Tobacco* is hot and dry, and consequently heats, resolves, cleanses, and is a little astringent, as will appear from these following Virtues, of which it is possessed.

"The Leaves of *Tobacco* heated and applied, prove an excellent Remedy for a *Cephalæa*, and *Hemicrania*, provided these Disorders arise from a cold Cause, or Flatulences, but the Use of them is to be often repeated, till the Disease is removed. Some, before the Application of them, anoint the Head with the Oil obtained from the Flowers of the *Orange-Tree*. The same Remedy is beneficial for a Rigidity of the Neck or *Tetanus*, and for Pains of the whole Body, arising from the same Cause.

"When a Tooth-ach proceeds from a cold Cause, the wiping the affected Tooth with a Linen-Cloth, soaked in the Juice of *Tobacco*, and then putting a Piece of the Leaf, made up in Form of a Pill, into the Hollow, not only removes the Pain, but also prevents the spreading of the Corruption.

"A Decoction of Tobacco-Leaves with Water, and a *Linctus* prepared of the same Decoction, are beneficial in Disorders of the Breast, inveterate Coughs, Asthma's, and other similar Disorders proceeding from cold Humours. A small Quantity of a Syrup prepared of Sugar, and a Decoction of the Leaves eliminates any putrid Humours lodged in the Breast. The Smoak of Tobacco-Leaves received into the Mouth, sometimes affords Relief to asthmatic Patients; but proper Evacuations ought previously to be made, if the Patient's Condition can possibly admit of it.

"Tobacco-Leaves heated under the Ashes and applied to the Pit of the Stomach, without shaking the Ashes off, afford Relief to Persons afflicted with a Rumbling of the Intestines, and Flatulencies. For the same Purposes others bruise the Leaves with their Hand, anointed with Oil, and apply them to the Region of the Stomach. The Leaves triturated in a little Vinegar, long used by way of Ointment, and bound upon the Parts affected, are beneficial in Obstructions, or schirrous Tumours of the Stomach and Spleen; but over this Preparation warm Leaves, or a Cloth soaked in the warm Juice of the Leaves, are to be applied frequently every Day. When the Leaves

cannot be had, Snuff may be mixed with any deobstruent Ointment, and the obstructed or tumid Part long anointed with it.

"The *Indian* Women greatly extol the Use of *Tobacco*, not only for Children, but also for adult Persons who are afflicted with Crudities of the Stomach; for after anointing the *Abdomen* with Lamp-Oil, the Leaves heated under the Ashes, and applied opposite to the Stomach, on the Breast and Back, concoct the Crudities, and render the Body soluble, provided the Application is repeated sufficiently often. A small Quantity of the Juice of *Tobacco* Leaves, concocted and depurated with Sugar, expels both flat and round Worms from the Intestines; but for answering this End more effectually, the triturated Leaves ought to be laid upon the Navel, and a proper Clyster injected.

"The Leaves heated under the Ashes, and applied as hot as the Patient can bear, afford great Relief in nephritic and flatulent Pains, provided the Remedy be sufficiently often repeated. *Tobacco* is also in many Cases an useful Ingredient in Clysters, Fomentations, and Plaisters.

"In Suffocations of the *Uterus*, the Leaves rendered sufficiently hot, and applied to the Navel, and Region of the *Uterus*, afford present Relief; and if a *Deliquium* should succeed, which it frequently does, the Patient will be forthwith roused from it by blowing the Smoak of *Tobacco* up her Nostrils. This Practice is so common among the *Indian* Women, that for this very Reason they carefully preserve and greatly esteem *Tobacco* Leaves. Some for uterine Disorders previously apply odorous Substances to the Navel, and then lay *Tobacco* Leaves over them: But the most proper Substances for this Purpose, are *Tachamahach*, Oil of liquid *Amber*, *Peruvian* Balsams, *Caranna*, or a Plaister of all these together worn daily on the Navel.

"Arthritic Pains, provided the Humours are cold, or at least are not too hot, are greatly relieved by the Application of the warm Leaves, or of a Linen-Cloth soaked in the warm Juice of the Leaves; for these resolve and digest the Humours; for which Reason they are advantageously laid upon ædematous Tumours, previously washed with the warm Juice of the Leaves.

"It is certain from Experience, that *Chilblanes* are cured by rubbing them three or four Times with *Tobacco* Leaves, and then washing the Hands and Feet in warm Water and Salt.

"A few Years ago *Tobacco* has been found to resist Poison, even that of the most virulent Kind, with which the *Cannibals* taint their Arrows. It was formerly customary to sprinkle *Sublimate* into the Wounds thus inflicted; but the *Spaniards* found a Method of subduing the Force of the Poison by Means of *Tobacco*.

"A Company of *Cannibals* made an At-tack upon a Body of *Indians* and *Spaniards*, some of whom were killed and others wounded with their poisoned Darts. But as those who survived had no *Sublimate*, they were advised by a certain *Indian* to pour the expressed Juice of *Tobacco* into their Wounds, and then apply the triturated Leaves of the same Plant to them, by which Means their Pains were forthwith alleviated, the Symptoms checked, the Force of the Poison subdued, and the Wounds cured. This Accident laid a Foundation for the subsequent Use of *Tobacco* against Poisons; and the King of *Spain*, in order to be convinced of its Efficacy, ordered a Wound to be made in the Throat of a Dog, and to be anointed with the Poison used by Hunters; soon after which a large Quantity of the Juice of *Tobacco* was poured into the Wound, and the triturated Leaves of the Plant applied to it, by which Means the Dog was effectually secured against the Symptoms usually produced by Poisons.

"*Tobacco* Leaves laid upon pestilential and malignant Carbuncles induce an *Eschar*, and induce a Cure; nor are they a less present efficacious Remedy against the Bites of poisonous Animals.

"The Leaves, when laid upon recent Wounds, immediately stop the *Hæmorrhage*, and produce a Conglutination; but if they are large, they ought to be previously washed with Wine, their Lips brought into Contact, and sprinkled with the Juice of the Leaves, after which the triturated Leaves are to be secured upon the Wound: The same Measures are to be taken the next and subsequent Days, and a proper Regimen observed.

"An Instillation of the Juice, and an Application of the triturated Leaves deterge, cure, and cicatrise old Ulcers and Gangrenes; provided due Evacuations are made, a sufficient Quantity of Blood, if necessary, is taken away, and a proper Regimen observed.

"By this Means Ulcers are not only cured in Men, but also in Animals. For through all the *Indies*, Cows, Sheep, and other Animals, are much subject to Ulcers, which, on Account of the excessive Humidity of the Climate, easily become putrid, and full of Worms. In these Ulcers it was sometimes customary to sprinkle *Sublimate*, the Inhabitants being destitute of better Remedies. But as this Medicine is dear in that Part of the World, what was used for the Cure of these Ulcers generally cost more than the Animal was worth. For this Reason the Inhabitants, conscious of the Efficacy of *Tobacco* on Mankind, transferred its Use to the putrid, fetid, and wormy Ulcers of Animals; and accordingly found that its Juice instilled into them, not only killed the Worms, but also cleansed the Ulcers, and induced a *Cicatrix*. *Tobacco* is also good against the Gallings of Cattle, for which Reason the *Indians* always carry the Powder of it about with them.

"I knew a certain Person afflicted with Ulcers of the Nostrils, which discharged a seemingly contagious *Sanies*. By my Advice he dropped the Juice of *Tobacco* into them; after the second Instillation a large Number of Worms fell away; then a smaller Quantity and after a few Days the Ulcers were cured, though the Parts eroded were not restored. The rubbing Ring-worms and Scall'd Heads with *Tobacco* Leaves is also a beneficial Practice.

"Tobacco is the celebrated Plant used by the Indian Priests before they give their Responses; for it is customary among the Indians to consult the Priests with respect to the Event of Wars, and

other Affairs of Importance. Upon such Occasions, the Priest consulted, burnt dry *Tobacco* Leaves, received the Smoak of them into his Mouth through a small Tube contrived for that Purpose, then dropt down as it were in an Extasy, lay totally destitute of Motion, and remained in that Condition for some Time. When the Fumes of the *Tobacco* were discussed, he returned to himself, told that he had communicated the Affair to his Demon, and gave such ambiguous Responses, that, whatever the Event should be, the superstitious Crowd might be easily perswaded, that he had prophesied rightly. Thus the credulous *Barbarians* are miserably hoodwink'd by the impious and fraudulent Stratagems of their Priests.

"The common People among the *Indians* also receive the Smoak of *Tobacco* into their Mouths and Nostrils, when they want either to be transported with pleasant Dreams, or to predict the Events of their Affairs from the Occurrences which happen to them during Sleep; for as the grand Impostor, the Devil, knows the Virtues of Herbs, he has taught them the Qualities of *Tobacco*, in order to deceive them by means of these Dreams.

"Various Plants, when chewed, or taken internally, are observed to excite false and delusory Representations and Ideas of Objects. Thus *Dioscorides*, in Cap. de *Solano Maniaco*, *seu Furioso*, tells us, that a Dram of the Root of this Plant, drank in Wine, produces false, tho' not unpleasant Representations; that double the Quantity produces an Alienation of Mind, which lasts for three Days; and that four Times the Quantity proves mortal. It is also reported, that if a Person, when he is going to sleep, eats *Aniseeds*, they excite pleasant and agreeable Dreams; whereas, the eating of *Horse-Raddish* procures those of a turbulent and ungrateful Kind.

"Garcias ab Orta informs us, that the Juice of a certain Plant called Bangue, mixed with some other Juices, produces Alienation of Mind, excites Dreams, and frees the Mind from all Anxiety and Uneasiness: The like Effects are brought about by Opium, which is much used by the East-Indians, and concerning which Garcias has treated very largely.

"The *Indians* also, when fatigued by carrying Burdens, or by any other violent Exercise, smoak *Tobacco*, by which Means they become as it were stupid, and fall asleep; but when they awake, they find themselves refreshed, and their Strength repaired. The *Ethiopians* brought thither as Slaves, following the Example of the Natives, smoak *Tobacco* too frequently, for which their Masters chastise them severely, and burn their *Tobacco*, in order to deprive them of an Opportunity of using it, which, however, they continue to do secretly and in private.

"Tobacco is also used by the Indians in order to allay Hunger and Thirst; for they calcine some Shells of River-Snails, and by Trituration reduce them to a fine Powder, of which, and Tobacco Leaves, they take equal Parts, and chew them together till they are reduced to a Kind of Mass, which they form into Pills, larger than a Pea: These they dry in a Shade, and preserve for Use. When they intend to travel through Desarts, where they expect neither Meat nor Drink, they take a sufficient Quantity of these Pills along with them, put one between their Under-Lip and Teeth, and constantly suck the Liquor from it; so that when one is consumed, they supply its Place with another, and thus they perform a three, and sometimes a four Days Jour-ney; during which Time, they say, they neither feel the Effects of Hunger nor Thirst: The Reason of this probably is, that as they continually suck these Pills, they draw the pituitous Humours from the Brain, which being swallowed, moisten the Stomach, and allay its natural Heat, but are at last consumed by it for Want of other Aliments. Instances of a similar Nature may be observed in many Animals, which, during the whole Winter, confine themselves to their Holes without any Food; because the natural Heat of the Stomach is employed in digesting and consuming the Fat which they had gathered in the Winter."

These are all the Virtues and Qualities of *Tobacco* known to *Monardus*: But, besides this, *Zacutus*, in *Observat. Lib. 1. de Medic. Princip. Histor.* informs us, that he had often found the Juice of *Tobacco* effectual for the Cure of an *Alopecia* or Falling off of the Hairs: Nor is this to be wondered at, since, as the Medicine indicated ought to bear an Analogy to the indicating Symptoms, as *Tobacco* is hot and dry, resolvent, cleansing, and somewhat astringent; and as all these Qualities are, according to *Galen*, indicated in an *Alopecia*, *Zacutus* might succeed in the Cure of it by means of *Tobacco*. I remember two Girls, who being indisposed, had a *Lixivium*, in which dry *Tobacco* Leaves were macerated, prescribed for taking the Scales off their Heads; but the one was seized with a gentle *Vertigo*, and the other thought she perceived herself, as it were, drunk. But I mention these Accidents for the Sake of young Practitioners, without any Design to discourage them from applying *Tobacco* and its Preparations to other Parts of the Body; for the celebrated *Hartmann* seems to have thought the Essence of the green Leaves of *Tobacco*, obtained by Infusion in *Malmsey* Wine, a Specific for the Cure of the *Palsey*; and after a Sweat has been procured, orders the paralytic Limbs to be long rubbed with it; by which Means, he says, he has often seen them happily restored.

Though *Tobacco* is a valuable Herb, yet the Abuse of it, which we shall afterwards consider, is intolerable, and highly noxious. Besides, *Monardus, Ægidius Everartus*, in 1587, at *Antwerp*, published a beautiful Commentary upon the Virtues and Uses of *Tobacco*: And when the same Work was reprinted at *Utrecht* in 1644, various Treatises concerning *Tobacco* were added to it; such as the *Misocapnus*, or a Treatise on the Abuse of *Tobacco*, taken from the Works of King *James* the Sixth of *England*; *Tobacologia Johannis Neandri*. *Epistolæ ac Judicia clarissimorum aliquot Medicorum*; and the *Hymnus Tabaci Raphaelis Thorii*. After these Authors appeared *Chrysostomus Magnenus*, Professor of Medicine in the University of *Padua*, who in 1648, published very learned Exercitations concerning *Tobacco*. Not only from the Authors already mentioned, but also from *Andreas Cæsalpinus*; *Dalechampius's Historia generalis Plantarum*; *Lobelii Adversaria*, *Clusius in his Notæ ad Monardum*; *Dodonæus*; *Tabernamontanus*; *Nardi Antonii Recchi Res Medicæ Novæ Hispaniæ*, *cum Terentii Lyncei Notis*, we learn what is the

Discovery of America by Christopher Columbus and Americus Vesputius. Some of these Authors have also described its Virtues and Use, whilst others of them have treated very fully concerning the Abuse of it. Following the Example of these great Men, I shall proceed, without any Partiality, and with that Freedom which is always peculiar to Truth. This is certainly a difficult Attempt, considering the Opposition and Prejudice with which I have to grapple. But before I proceed, I shall take Notice of the Error of Libavius, who, according to Magnenus in Exercitat. 1. Par. 1. asserts, that Tobacco was a Native of Europe, since it was found in the almost inaccessible Places of the Hercynian Forest: But adds this Author, Who denies that Seeds are dispersed, and carried every where by the Winds? But it is by no means probable, that the Seeds of Tobacco, which, comparatively speaking, are as small as the Atoms of Democritus, could, by a Whirlwind, be conveyed to the Hercynian Forest in Germany, from France, Italy, or Spain, much less from America. This is a Plant of a particular specific Kind, and the Native of America: Neither does any Historian mention such a Whirlwind for the Dispersion of its Seeds. It is true, Mount Ætna in Sicily, and Mount Hecla in Iceland, by their sulphureous Eruptions, throw the Ashes to a vast Distance: But it does not to me seem probable, that the Air should ever be in such a gyratory Motion, as to convey Seeds from one Quarter of the World to another, or from one Country to another, though it is not to be denied but they may be carried from a Plain to a rising Ground, or from one Garden to another adjacent to it.

native Soil of Tobacco, and how the knowledge of it was introduced into Europe after the

Those Authors, who have called *Tobacco Herba rixosa*, the Strife-producing Herb, and *Herba insana*, the Plant which excites Madness, seem not to have been very much in the wrong; for what is more frequent than for People of all Denominations to spend the whole of the Day smoaking *Tobacco* in Ale-Houses and Taverns? Nay, so fond are young and old Men of *Tobacco*, that the Father forgets the Interests of the Son, and the Son those of the Father for its Sake. Thus some Men use large Quantities of *Tobacco*, whilst, perhaps, their Families are starving at Home: Whereas some Children spend upon *Tobacco* what their industrious Parents had, with Toil and Care, amassed for their Use. Nay, such is the Madness of some *Europeans*, that they will, for a Trifle, dispose of their Goods, in order to gratify themselves with *Tobacco*.

King James the Sixth of England tells us, "that, among the Americans, a Servant addicted to the Smoaking of *Tobacco*, can hardly find a Purchaser; so odious is that Custom to the Authors of it themselves." We Europeans, however, are so infatuated and hood-winked, as yearly to sail to America, spare no Expences, and expose ourselves not only to Storms and Tempests, but also to Sickness and Death, for the Sake of Tobacco; and it is certain, that our Men, on their Return from America, spread through all Europe the Neapolitan Disease, which, as Fiorovanta thinks, was endemial to the Americans, on Account of their eating human Flesh. This, to use the Phrase of Agrippa, de Vanitat. Scientiarum, Cap. 84. is to purchase Death at a great Price. The Indians and Barbarians have such an Aversion to the Abuse of Tobacco, that they severely chastise the Ethiopians and Slaves for it, and burn their Tobacco; probably, because they suspect that it renders them valetudinary, and disables them to work; in which Situation they are a Burthen upon their Masters. According to Viganenus, in Lib. de Ritibus Moribusq; Turcarum; and Johannes Chrysostomus Magnenus, in Exercitat. de Tabac. Exercit. 6. §. 10. Amureth, the 4th Emperor of the Turks, by an Edict, prohibited the Use of Tobacco, under Pain of Death, lest, by the Abuse of it, his Subjects should become effeminate, feeble, and barren. According to Adamus Olearius, in Lib. 3. Cap. 6. the Emperor of Muscovy, in 1634, by an Edict prohibited the Importation of Tobacco and Snuff into his Territories, under the Penalty of being beat with Rods, and having the Nostrils slit in Case of Disobedience: And the same Author says, he saw some who had these Marks of Infamy inflicted upon them. In Lib. 5. Cap. 31. he also tells us, that Schach Abas, the Persian Monarch, prohibited all Use of Tobacco in that Army, which he raised against Tameran Chan under the Penalty of the Offender's having his Nose and Lips cut off; nay, he was so rigid, or rather cruel in his Discipline, that when a certain Persian, ignorant of the Edict, came into his Camp with some Tobacco to sell, he ordered both him and his Commodities to be thrown into one Funeral Pile and burnt.

These, and other similar Examples, might perhaps have a lucky Influence on some Europeans, unless the Custom of using *Tobacco* had become so prevalent and universal, that *James* the Sixth said he believed "that a whole Wood in England would hardly afford Trees enough for hanging the Dealers in Tobacco." Hoffman, in Lib. 2. de Medicam Officinal. Cap. 3. informs us, "that this Prince, in the University of Oxford, disputed publickly against the Use of Tobacco, giving Instances of Persons who used it, who were afflicted with incurable Disorders of the Breast, Deliriums, Watchings, and Convulsions; and after whose Death, the Lungs were found black and parched, just as if they had been indurated in Smoak." The same Hoffman informs us, that he was told by some Soldiers who had resided in Holland, "that upon dissecting the Heads of some Snufftakers, who had been executed, they observed, that the whole internal Part of what Anatomists call the Patera of the Brain, was black with Snuff." He was also told by Patricius Noræus, "that in the last Bohemian War, he saw all the Heads of the English Soldiers, who were killed, in the same Condition." Nardus Antonius Recchus, in Lib. 5. Rer. Medicar. Nov. Hisp. observes, "that those who use *Tobacco* too frequently, become ill coloured, have a squalid, sordid Tongue, a Palpitation of the Throat, and a preter-natural Heat of the Liver, and fall into Cachexies and Dropsies, by which they are at last cut off." Thus they suffer for their Folly in gratifying themselves in so preposterous a Manner.

of his Danger, by the foregoing Observations. That Smoaking is more prejudicial and injurious than Snuffing, I think may be justly asserted, if we consider the Instances which Anatomists give us of the Effects produced by each, which we shall hereafter do: I must, however, here observe, that we cannot enough admire the Zeal of *James* the Sixth of *England*, for the Good of his Subjects; since, in the last Words of his *Misocapnus*, he expostulates with them in the following pathetic and affectionate Manner: "At last, therefore, O Citizens, if you have any Sense of Shame, or Dread of Infamy, left in your Bosoms, lay aside the Use of *Tobacco*, a Custom attended with Ignominy, received through Error, and established by Stupidity. By its Means the Wrath of Heaven is excited against us, the Health of our Bodies impaired, our Substance wasted, and the Dignity of our Nation not only diminished at Home, but also despised Abroad; for *Tobacco* is a Substance loathsome to the Sight, disagreeable to the Smell, noxious to the Brain, injurious to the Lungs, and, by its Clouds of black Smoak, nearly resembling the horrid Steams of Hell."

If any Champion for the Interests of Tobacco, deaf to my salutary Instructions, should ask me whether I would have the Pope, the Emperor, and all the Kings, Electors, Princes, and Dukes in Europe, prohibit and discharge the Use of Tobacco? I answer, that such a Revolution is really to be wished for, on Account of the Abuses of Tobacco before enumerated. But, before I proceed to give a fuller Answer, I would have the Person who asks this Question, attentively listen to the following sublime and truly noble Sentiments of Seneca, in Lib. de Vita Beata, Cap. 1. "Nothing, says he, is more worthy in itself, nor more becoming the Dignity of a free-born Soul, than not, like the Cattle, implicitly to follow the Van of the Flock, going, not whither we ought to go, but whither they go before us. But nothing involves us in more terrible Misfortunes, than our judging of Things by Fame and Report, esteeming those Things best, which are most universally assented to, and approved, as we find in numberless Instances. We neither live agreeably to the Dictates of Reason, nor in a Manner that is uniform and consistent with itself: Hence it is, that such Numbers of Individuals fall, as it were, upon others. In a large and crowded Army, none falls without drawing another along with him, and the foremost prove fatal to those who succeed them. The like happens in every Part and Circumstance of human Life; for it is the universal Practice to impose upon our own Reasons, and, by that Means prove the Cause of Errors to others." It is therefore to be lamented, that we Europeans should thus brutally follow the Custom of the Barbarians, without listening to Reason, in which we so far excel them, since, to use the Expressions of Salust, "They are addicted to Intemperance and Sleep, so rude and uncultivated, that they seem to lead the Life of Brutes, rather than that of Men, since they indulge themselves in Voluptuousness, whilst their Souls are a Burthen to them." In a word, they live in a no less brutal Manner, than the Inhabitants of the Main Land of Africa, who, according to Hippocrates, in Lib. de Morbo sacra, "lie upon Goat-Skins, and eat Goat's Flesh, without any Bed-Cloths, or Garments, or Shoes, except what are made of Goat-Skins." The Americans are still worse, since they feed upon human Flesh, have nothing to cover them, and pass their Time in desart Places, and lurking Holes. Since, therefore, the Climate, Soil, and Non-Naturals of the Americans, are widely different from those of the Europeans, it is highly reasonable, that we should neither admit, nor tolerate, the continual and habitual Use of *Tobacco* in *Europe*.

Cornelius Agrippa, in Lib. de Vanitat. Scient. Cap. 84. seems, with a good deal of Reason, to think, "That it would greatly contribute, not only to the Health of Mankind, but also to the Interests of particular States, to prohibit the Importation of foreign and exotic Drugs, which are often counterfeited, or adulterated, by those who deal in them, to the great Detriment of the State." No less salutary and reasonable is that Law enacted at Rome by Nero, which runs in the following Tenor: "Apothecaries are hereby injoined, to use no other Medicines, but those found in Italy, since these are not only better suited and adopted to the Constitutions of Romans, but may also be had far fresher, more genuine, and with less Difficulty, Expences, and Danger, than foreign Medicines, the most of which are justly to be suspected, as sophisticated, spurious, spoiled in the Ship, corrupted by Age, or not collected at due Seasons, or in proper Places." Since the Diseases described by the Antients, sometimes seize the Europeans, though with new and uncommon Symptoms; and since new Diseases also appear in Europe, I think it is not to be doubted, but the Meats, Fruits, and other Delicacies, sent from Asia, Africa, and America, into Europe, are, in some Measure, the Sources of our Calamities.

But, without any farther Digression, I shall confine myself to the Abuse of *Tobacco*. That *Tobacco*, when used with Prudence and Propriety, is a salutary Medicine, I do not deny; since I myself use it with great Advantage in the *Spring* and *Autumn*, at which Seasons I am afflicted with catarrhous Defluxions. Most People, when only seized with a gentle Cough, are so cautious, as not to venture upon a small Dose of the Syrup of Violets, or Liquorice, without consulting their Physicians, Friends, and Nurses; but vast Numbers of the *Europeans*, without any Advice, greatly incommode and disturb the Brain, the Seat of their Reason, by using the highly penetrating Smoak of *Tobacco*, in the Morning and Evening, in the Night as well as the Day, and in all States and Constitutions of the Weather, calm and serene, as well as cloudy and over-cast. Let us therefore lay aside this barbarous Custom, so fatal and prejudicial to Health.

Besides, it is probable, that the crafty *Americans*, sensible of the vast Quantity of *Tobacco* yearly imported into *Europe*, may, for the Sake of Gain, impose upon us; for it is certain, that our own Merchants, influenced by a base and sordid Principle of Avarice, have long ago found Methods of adulterating *Tobacco* by Means of Brine, Lemons, Vinegar, Wine, and Euphorbium. But with respect to these Frauds, the Reader may consult *Neander* in his *Tabacologia*. Besides, it is hardly credible, that the Roaps brought from *America*, under the Name of *Tobacco*, consist intirely of good and sound *Tobacco* Leaves: For almost every one knows, that the Marks of the Goodness of *Tobacco*, whether drawn from the Colour, Smell, Taste, or Weight, vary very greatly among the *Europeans*, who, to their Disgrace be it said, have learned to hang their *Tobacco*, when

corrupted, insipid, or light, in Houses of Office, or Vaults, in order to be rendered more acrid and ponderous by the volatile Salts of human Urine and Excrements, under a specious Pretence, that these Salts render it beneficial and salutary, by cleansing the Head; which, they say, is highly beneficial to Persons who drink much. But this is certainly an improper and prejudicial Method of treating the Head, and evacuating its Excrements; concerning the copious Production of which, by means of the corrupted Temperature of the Brain in Persons who daily smoak *Tobacco*, we shall afterwards treat.

Having premised these Things, we now come to decide a Question lately begun to be agitated, namely, Whether Snuffing or Smoaking is the more innocent and safe Custom? I affirm, then, that both are generally pernicious, and none of them to be recommended to any one without great Caution and Deliberation: Though I remember I was formerly a Smoaker of Tobacco, yet, I am of Opinion, that Snuffing is a less injurious and hurtful Practice. Some are of Opinion, that by the constant Use of Snuff, the Sight is rendered more clear and penetrating; but with how great Danger this Practice is accompanied, is sufficiently confirmed by Adrianus Spigelius, in Corp. human. Fabr. Lib. 7. Cap. 2. where he proposes a Problem, together with its Answer, in the following Words: "What is the Cause, why many Persons, by often repeated Sternutations, especially when industriously excited, suddenly become blind? This happens, either because the Ramifications of the caroted Arteries, which are so near the Optic Nerves as to touch them, are so filled, as to compress them; or, because a large Quantity of pituitous Humours is conveyed from the Brain to the Optic Nerves, which are thereby obstructed. When the Disorder arose from the former of these Causes, I have seen the Patients cured by a Seton; but, when it proceeded from the latter, I never remember to have seen it cured." Joh. Chrysostomus Magnenus, in Exercitat. 8. de Tabaco. §. 1. affirms, "that by violent Sternutation, some Persons have died; since by it the Head has been so strongly agitated, as by the Effort to burst the Meninges, and relax the Compages of the Brain." And this Opinion he confirms by the Example of a certain Baker, mentioned by Famianus Strada, "who, when he had twenty-four Sternutations immediately succeeding each other, died of the twenty-fifth, by the violent Shock, of which the Arteries of the Brain, and Membranes surrounding it, were broken." The same Author, in Sect. 4. of the lastcited Chapter, affirms, "That he saw a certain Man, who by the excessive Use of Snuff, had the chrystaline Humours of his Eyes corrugated, so that all Objects seemed to be in a Kind of fluctuating Motion before him."

If it should be objected, that such Accidents are rare; I answer, that though they are rare, yet they are not impossible; and, what has happened to some, may also be the Fate of others. Though, therefore, the Falx of the Dura Mater, and the Torcular of Herophilus, the fatal Seat of an Apoplexy, are not forthwith so disordered as to yawn by Snuffing, yet the Interests of the Five Senses are but ill consulted, by often drawing from the Brain with Snuff, what we call Snot or Mucus, which is evacuated through the Nose; or rather, according to Galen, and other Anatomists, through the Os Ethmoides, which is the Organ of Smell, but not at all destined for eliminating the Excretions of the Brain. Thus Persons who use Snuff to Excess, instead of bettering, rather impair their Sight, and for their Pains generally lose the Sense of Smelling.

As the Person who, for his Crimes, has lost his Ears, is looked upon with Infamy; what better Treatment does he deserve, who, either through a Contempt of Medicine, or an obstinate Fondness to gratify his own Inclinations, either impairs or destroys those Senses, which indulgent Heaven has bestowed upon him for so noble Purposes! With respect to Instances of this Misfortune, and the Reasons why it happens, Magnenus in Tr. de Abusu Tabaci, Exercitat. 6. Sect. 15. speaks in the following Manner: "The Sense of Smelling, as I have been told by many, who have either snuffed or smoaked to Excess, is abolished by the Abuse of Tobacco, because the mamillary Processes are thereby dried, so that when they are rendered drier than the Effluvia exciting the Perception of any Smell, they cannot be duly acted upon by such Effluvia; for Smell, according to Aristotle, in Lib. 3. de Animal. consists in the dry Effluvia surpassing the Moisture of these Processes; so that the common Sensory may have a Change produced in it by proper and adequate Objects." Magnenus also, in Exercitat. 28. Sect. 1. tells us, "That he knew a Man, who, in one Day, snuffed four Ounces." After which, he proceeds to enquire into the Advantages and Injuries attending the Use of Snuff; and to consider why it excites Sternutation in those who are not accustomed to it, but not in those who are. This accurate Author also, among other Reasons against the excessive Use of Snuff, advances this, that it may enter the Passages of the Os Ethmoides, form itself into Concretions, and there lodge for a great while. Hence, it is sufficiently obvious, that when the Passages and Perforations of this Bone are obstructed by Snuff, the Air can neither have Access to the Brain for its Ventilation, nor can the Effluvia of odorous Bodies be conveyed to it; in Consequence of which, the Sense of Smelling must necessarily be lost. Though this should, perhaps, be looked upon as a trifling and inconsiderable Loss; yet Snuff, by its highly narcotic, heating, drying, penetrating, and unctuous Qualities, has such an unlucky Influence on the eighth Pair of Nerves of Spigellius, or the first of Bartholin, which are appropriated to Smelling, that it gradually impairs, and, in process of Time, totally destroys that Sense; because this Pair of Nerves is conveyed to the mamillary Processes, which are situated in the interior Part of the Brain, near the Os Ethmoides, which is covered with the Dura Mater. Since, therefore, a large Quantity of Snuff is violently attracted towards the Root of the Nose; and since, according to the Doctrine of *Hippocrates*, Nature is never one Moment idle in a living Body, all whose Parts are pervious and transparable, it must necessarily happen, that the Parts subservient to the Sense of Smelling must be greatly injured by the narcotic Quality of Snuff. Having said thus much of the Misfortunes produced by excessive Snuffing, we now come to consider those attending the Abuse of Smoaking; in doing which, we shall confine ourselves to Examples, which have a better Effect on the Vulgar, than the nice and fine-spun Deductions of a Philosopher's

It is therefore certain that *Tobacco* is possessed of an highly penetrating Quality. Thus the celebrated Heurnius, in Lib. 1. Method. ad Prax. speaks of it in the following Manner: "Tobacco, when smoaked, produces very singular Effects, since it draws a surprizing Quantity of Phlegm from the Mouth and Nostrils: The Smoak arising from its dry Leaves laid upon live Coals, when received into the Mouth by a Funnel, pervades the whole Brain, and is also conveyed to the Ears, and Uterus. But I can affirm, that this Herb is, in a peculiar Manner, appropriated to the Brain; easily conveys its Virtues thither, and evacuates all its Sordes: For, about a Year ago, when I was afflicted with the Tooth-ach, I made a Decoction of Tobacco with Water, adding some Camomile Flowers: A Spoonful of this Decoction, when tepid, I put in my Mouth, and spit it out some Time after; and this I did for two Hours; by which Means my Pain was considerably alleviated. Next Day, when I went to my Garden, and stooped to pull up a Weed, a large Quantity of a Saffroncoloured Liquor, which smelled like Tobacco, flowed from my Nose, upon which my Tooth-ach was immediately removed. During the whole of my Life, neither Blood, nor any other Liquor, except a ferous Phlegm, had flowed from my Nose, but upon this Occasion I never saw any Liquor of a deeper yellow Colour." Other similar Accounts of the penetrating Quality of Tobacco, I have had from my old Master, Henningus Arnesæus, Physician to Christianus, the fourth King of Denmark, who affirmed, "That not only the Smoak of Tobacco, but also that of every other Substance received by the Mouth, was penetrating on Account of its Acrimony; in Consequence of which, it must pervade and alter the whole Substance of the Brain, both Meninges, and all the Vessels, and Contents of them." Besides, as the Smoak of *Tobacco* is hot, proceeding immediately from kindled Tobacco; and as, according to Aristotle, it is the Property of Heat to collect homogeneous, and separate heterogeneous Substances, it must necessarily happen, in the very Nature of Things, that this Smoak should fuse and colliquate the Phlegm, the Receptacle of which is the Brain, which, according to Hippocrates, is the largest of all the Glands. I do not in the least doubt of the Truth of Arnesæus's Opinion; for I think that all the Fore-runners of Catarrhs, such as Sternutations, Spittings, and Discharges of Saliva, are produced by Heat, which is the necessary Cause of Catarrhs, though not the productive Cause of the morbific Matter. Thus the celebrated Hoffman, in Lib. 3. Institut. Medic. Cap. 193. informs us, "That Heat alone, and, for the most part, of the external Kind, such as that of the Sun, or that procured by Exercise, Wine, and Aromatics, among which are Cinnamon and Saffron, with which we so plentifully season our Aliments, is sufficient to fuse and colliquate the Phlegm, or acrid Serum." Thus a Pipe filled with the burned Wicks of Candles, gathered out of Snuffers, or with a Piece of Match used in discharging Cannons, or with a Piece of bituminous, fossile Earth, especially that of Holland, will procure as copious a Spitting, as a Pipe of the best Virginian Tobacco. Soldiers also, and Sailors, produce the same Pleasure and Effects in themselves by smoaking kindled Paper, as are produced by smoaking Tobacco. Since, therefore, acrid Smoak and Heat of every Kind, conveyed to the Brain, fuse the Phlegm, and eliminate it by the Os Ethmoides and Sphænoides, the Nose and the Palate of the Mouth, I see no Reason why Heurnius should affirm, "That it has a surprizing Faculty of drawing the Phlegm from the Mouth and Nostrils; that it is peculiarly adapted to the Brain, easily conveys its Virtues thither, and eliminates all its Sordes."

As Tobacco is hot, dry, unctuous, and penetrating; it must, on account of these Qualities, soon take Flame: And, as it is possessed of an highly narcotic Quality, it, by its narcotic Sulphur, stupifies those who use it, corrupts the Temperature of the Brain, and destroys its Tone; whereas, the moderate Smoaking of Marjoram, Betony, Rosemary, Amber, and other Substances of a like Nature, would eliminate the Phlegm more safely, and without producing any of these ill Consequences. This narcotic Quality of Tobacco, is the Reason why great Smoakers are, during the whole of their Lives, afflicted with a continual Spitting, as I have observed in Histor. Pompinellæ Class. secund. Quadripartit. Though by the frequent Use of Tobacco, a large Quantity of Phlegm is eliminated from the Brain; this Plant is not, therefore, a peculiar Specific, adapted to that Organ: For, on the contrary, since it manifestly abounds with a narcotic Sulphur, it is highly injurious, not only to the Nerves, but also to the whole Substance of the Brain. Hence, as I observed before, many Users of Tobacco, not only have their olfactory Nerves so injured by its narcotic Sulphur, as to lose the Sense of Smelling, but are also observed not to have a very exquisite Taste, the fourth and seventh Pairs of Nerves being affected. Persons of this Kind are also observed to be fond of Malt Liquors, and to complain of a languid Appetite; because the sixth Pair of Nerves, which descends into the Stomach, is stupified by the narcotic Sulphur of the Tobacco: It is, therefore, absurd to maintain, that Tobacco is of a cephalic Quality, and peculiarly adapted to the Disorders of the Head, since it is so unfriendly to the Nerves as to produce a Stupor in them. It is more reasonable to argue thus: *Tobacco* is hot, consists of very subtle Parts, and is highly penetrating; therefore, being at the same Time narcotic, it will prove the more hurtful, the more penetrating it is; because the narcotic Quality of Tobacco, which is otherwise slow, like that of Opium, or Hemlock, is, by its other Qualities, exalted, and put in Action; or, to speak my Sentiments more freely, by means of the Acrimony ascribed to its Salt, whether fixed or volatile, the narcotic Sulphur is conveyed in its full Strength to the Nerves of the Head. That this Sulphur remains pretty long intire, even in a living Person, is sufficiently evinced, by that Saffroncoloured Liquor, smelling like Tobacco, which was discharged from the Nostrils of Heurnius, next Day after the Abuse of a Decoction of Tobacco and Camomile Flowers. I would not have any one imagine, that as soon as he lays by his Pipe, his Brain is no longer heated by the Smoak, which, for two or three Days after, he smells, or expires, when he sneezes. Thus, this narcotic, unctuous, and strong-smelled Sulphur, adhering to the Membranes, Ventricles, Gyrations, or other latent Passages of the Brain, and being left alone without either Smoak or Heat, gradually and insensibly corrupts the whole Mass of the Brain, by which Means Tobacco-Smoakers are obliged to spit and expectorate continually. When the Brain is thus weakened by the copious Spitting

excited by the narcotic Sulphur, neither the *Tonsils* nor the *Thymus*, which are destined for imbibing the natural excrementitious Humours of the Brain, are any longer fit for that Purpose. When such an Accident happens, the *Tobacco*-Smoaker begins to yawn, to have a hoarse and shrill Voice, and a stinking Breath, like those labouring under a *Lues Venerea*.

I think I have now sufficiently proved, that as *Tobacco* is of a narcotic Quality, and its Fumes penetrate intimately into the Brain, so, of course, Smoaking must be more prejudicial than Snuffing. But, if People will still obstinately indulge themselves in the Use of this noxious Plant, all I can do farther, is to warn them of their Danger.



A TREATISE ON TEA.

I Have hitherto strenuously endeavoured to preserve the Health of the *Europeans*, by discarding and exploding the Abuse of *Tobacco*: But if any one should ask my Sentiments of *Tea*, which some Years ago began to be imported from *Asia*, and the *Eastern* Countries, and which has Qualities quite contrary to *Tobacco*, since it prevents Sleep, and therefore is by some Authors highly commended as an excellent Cephalic, and very grateful to the *Viscera*, subservient to Nutrition: I answer, that no satisfactory Reply can be made, till we know the Genus and Species of *Tea*, and to what Species of *European* Herbs it may be referred or compared; for *Tobacco* is by us called the *Peruvian Hyosciamius*, but we give no Name of any of our Plants to *Tea*: Nay, it is not known, whether *Tea* is what the *Greeks* call $\Pi o \alpha$, an Herb, or $\Theta \alpha \mu \nu i \sigma \kappa i \nu i$ shrub, which Words, according to *Ruellius*, *Morantha*, and others, are so confounded by *Dioscorides*, *Theophrastus*, and other Botanists, as to occasion great Disputes among the Learned. But the Authors, who have most faithfully collected whatever has been wrote upon *Tea*, either in the *Spanish*, *French*, *Latin*, *English*, or *Dutch* Languages, are *Nicolaus Tulpius*, and *Nicolaus Trigautius*, from the Works of whom I shall enquire,

1st, Of what Kind and Species the Herb Tea is?

2d, Whether *Tea* is only the Produce of *Asia*, and whether it is ever found in *Europe*, or not? And, 3d, Which of the *European* Herbs may be most properly used in its Stead.

Tulpius, then, speaks in the following Manner: "In the East Indies nothing is more common than drinking the Decoction of an Herb, which the Chinese call Thee, and the Japonese, Tchia. As my Accounts of this Plant were received from the best and most impartial Authors, I shall willingly hand them down to Posterity. The Herb Tea, therefore, has long acuminated Leaves crenated about the Edges. Its Roots are fibrous, and divided into very small Shreds. It grows not only in China and Japan, but also in Chiam, only the Leaves of the Chinese Tea are of a blackish green Colour: Whereas the Japonese Tea is of a fainter Colour, and more grateful Taste. Hence it also happens, that the Tchia of the Japonese, is far more esteemed than the Thee of the Chinese; since one Pound of the former is frequently sold at an Hundred Libræ; for it is in these Parts of the World believed, that nothing is more salutary and beneficial than this Herb, whether for protracting Life to extreme old Age, or for preventing the Attacks of Diseases. It not only renders the Body vigorous and active, and prevents the Stone, to which none of the Inhabitants are for this Reason subject, but also removes Head-achs, Stuffings of the Head, Inflammations, and Distillations of the Eyes, a Difficulty of Breathing, Weakness of the Stomach, Gripes of the Intestines, and Weariness. It also so effectually prevents Sleep, that those who drink it at Night, can sit up, without feeling the least Inclination to sleep: for it is moderately heating, and by constricting the Mouth of the Stomach, hinders the Ascent of those Vapours which are necessary to procure Sleep; so that, by its Means, nothing hinders or interrupts those who intend to read or write all Night.

"This Plant, however, seems neither to have been long known, nor long used, among the *Chinese*, since they have no hieroglyphical Characters, such as most of their Letters are, which express its Nature and Qualities. These two Nations also differ widely, with respect to the Manner of using *Tea*; since the *Japonese* mix the *Tea*, powdered in a Marble Mortar, with warm Water: Whereas, the *Chinese*, boil the Plant itself with some Liquor, adding a few Grains of Salt, or Sugar. This Decoction, they drink with their Friends and Visitors; and even their leading Men do not think it beneath them, but rather a Piece of Honour to prepare the *Tea* for their Guests; for which Purpose they have Closets in their Palaces, fitted up on purpose, in which they keep their Pots, Tripods, Tunnels, Cups, Spoons, and other *Tea* Utensils, which they buy at an exorbitant Price, preserve in Silk, and only use when their best Friends visit them. These, they esteem as much as we do Adamants, Gems, and the most precious Stones. See *Joh. Maffæus, Rer. Indicar. Lib. 6. & 12. Ludovic, Almeid. Select. Epist. Lib. 4. Petr. Garric. Tom. 2. Lib. 2. Cap. 17. Matth. Ricius, de Christ. Expedit. apud Sinas, Lib. 1. Cap. 7. Alois Frois, in Relat. Japon. Jac. Bontius, Dialog. 6. Med. Indorum, & Johan. Linseot, Cap. 26."*

Nicolaus Trigautius, in Tractat. de Regno Chinæ, Cap. 3. where he treats of the Things produced in China, gives us the following Particulars, with respect to Tea: "I purposely, says he, omit the Description of many Things necessary, such as Marbles of different Colours, Carbuncles, and other Stones and Gems, not unfit for painting; odoriferous Woods, Bitumens, and an incredible Number of other Curiosities; but I neither can, nor ought to pass over, in Silence, two or three Things, unknown to the Europeans; the first of which is, that Shrub, of the Leaves of which is prepared that celebrated Liquor, called Cia, by the Chinese, Japonese, and neighbouring Countries. It is not possible, that the Herb from which this is prepared has been very long used by the Chinese; since, in order to represent it, they have no hieroglyphical Characters, such as all their Letters are. Hence it may, perhaps, be suspected, that our European Woods produce this Herb. They gather the Leaves in the Spring, dry them in a Shade, and keep them for preparing a Decoction, which they almost continually use, not only at their Meals, but also when their Friends come to visit them; for this is generally the Entertainment to which they invite each other. It is always drank, or rather sipped warm; nor is it ungrateful to the Palate, in consequence of its temperate Bitterness; but it is very salutary, and frequently used for various Disorders. Tea is not

with them all of one Price; since, sometimes, a Pound is sold for a Noble, and, at other Times, for two or three, if it is accounted good: The best of the Japonese Tea is often sold for ten or twelve, and the Method of preparing it with these, is somewhat different from that of the Chinese; for the Japonese, having reduced their Tea to a Powder, mix two or three Spoonfuls of it with a Cup of boiling Water, which they drink when moderately cool: Whereas, the Chinese throw some of the Leaves into a Vessel of boiling Water, which, after it has imbibed the Force of the Tea, they drink, leaving the Leaves." But, in the seventh Chapter of the same Work, which treats of some of the Customs of the Chinese, the Author speaks in the following Manner: "When any one receives a formal Invitation to a Feast; the Day before, or several Days before, it is to be kept, the Master sends him a Kind of Ticket, desiring his Presence: When he is come to the House, and the usual Ceremonies past, he is set down in the first Hall, where he drinks his Tea; after which he is conducted to the Feasting-Room, which is not adorned with Carpets, which they never use, but with Pictures, Flowers, Vessels, and other antient Houshold Furniture." Though these Accounts may satisfy the Vulgar, yet they will not prove satisfactory to Physicians, who want to know, whether Tea is an Herb, a Shrub, or a Species of Copse; for the two last quoted Authors differ from each other; since *Tulpius* calls the *Chinese Tea*, "an Herb, with darkish, green, oblong Leaves, acuminated and crenated about the Edges, with fibrous Roots, divided into many small Shreds. Whereas, the Leaves of the Japonese Tea are of a fainter green Colour, and of a more grateful Taste." But Trigautius affirms, "that it is a Shrub of the Leaves, of which the celebrated Cia, of the Chinese and Japonese, is prepared by Decoction." The former asserts, that the Herb Tea, grows not only in China and Japan, but also in Chiam: The latter thinks it is to be suspected, that it is also produced in the European Woods: But, as I shall afterwards accurately discuss these Points, I shall only here observe, from Olearius, that Maffœus, in Tr. de Rebus Indicis, affirms, that the Japonese, from a certain Plant, express an highly salutary Liquor, which they call Chia; and Linschotanus, in Tr. de Insula Japoniæ, tells us, that the Inhabitants of Japan prepare a Drink called Chaa, from a certain Herb: But these Authors neither mention the Shrub, nor the Leaves, but unanimously assert Tea to be an Herb. Jacobus Bontius, Physician in Ordinary to the Town of New Batavia, in the Island of Java, in the East Indies, in Medic. Indor. Lib. 2. de Conserv. Valetud. Dialog. 6. affirms, "that the Leaves of the small Herb, from which Tea is prepared, resemble those of the Daisy or lesser Cousound, and have small Incisions about their Edges." But since, in the subsequent Chapter, he affirms, that the Inhabitants of that Country, though brutally ignorant in every other Respect, have yet such an exact Knowledge of Roots and Plants, that if Pavius, the greatest Botanist of his Age, was to rise from the Dead, he would wonder to find that he could be instructed by these Men; I am surprized, he should have despised their Information, and, contrary to the Custom of their Historiographers, given us (Europeans) such a lame and imperfect Description of Tea, when commenting on the Indian Plants. One would be ready to take it for an Herb, when he is told, that its Leaves resemble those of the Daisy, and have small Incisions about the Edges, which Tulpius also ascribes to them. It is worth our Observation, that Tulpius, Trigautius, Bontius, and other Authors, unanimously agree in this, that the Decoction of Tea is of a pretty, grateful, bitter Taste. In order, therefore, to clear up these Difficulties, I must have recourse to the Reverend Father, Alexander de Rhodes, who, in his Sommaire des divers Voyages & Missions Apostoliques, speaks in the following Manner: "Among the most memorable Things in this Country, is Tay; the Use of which is not only common to all the Eastern Countries, but also begins to be known in Europe: It is justly to be reckoned among the most salutary Substances which I observed in this Country; and I do not know but it is one of the principal Causes, why the Inhabitants not only enjoy such a good State of Health, but also arrive at so extreme an old Age. The Leaves are as big as those of the Pomegranate Tree, and the Shrub itself resembles the Myrtle Bush. Nor does Tea grow in any Part of the World, except in two Provinces of China, which are Nanquin and Chim, the Inhabitants of which have their Harvests for Tea Leaves, as we have for our Grain in Europe. These Leaves they dry in Furnaces, and preserve for Use in close stopped Vessels. It is frequently used through all China, Japan, Tonquin, and other Kingdoms; and there are such great Quantities of it, that it is sold at a Small Price. For this Reason they use it frequently every Day, or rather each Hour, prepared in the following Manner: They throw the Leaves into boiling Water, which they forthwith take off the Fire; and when the Leaves have subsided, which is generally in a Quarter of an Hour, they drink the Water, from which they find three very happy Effects; the first of which is to repress Vapours, and alleviate Pains of the Head: For when I laboured under an Hemicrania, or any other Disorder of the Head, by drinking this Water, I had my Pain so quickly alleviated, as if a Person had done it by the Application of his Hand. When, for the Sake of hearing Confessions, I was obliged to sit up whole Nights, I used the same Remedy, and, by its Means, was not only hindered from sleeping, but also felt no more Uneasiness next Day, than if I had not sat up. I once made an Experiment of this for six Nights successively, but must confess I found myself wearied and exhausted. The second Virtue of this Water, or Decoction, is to corroborate the Stomach, and the third to purge the Kidnies from Stones and Gravel." Bernardus Varenius, in Descript. Regni Japoniæ, Cap. 23. speaks in the following Manner: "Not only the Japonese, but also the Chinese, are delighted with Draughts of almost boiling Water, in which the Powder of Tea is sprinkled. The Herb Tea is not only Green itself, but also tinges any Liquor with the same Colour. It grows only in some, and not in all Countries, and the finer Kind of its Leaves is thought to be very valuable. These Leaves are, by the richer Sort, kept in large Vessels, close stopped, in order to prevent the Access of the Air. The Leaves, before they are used, are reduced to a Powder." And a little after he subjoins, "This Liquor is pleasant to the Taste, and highly salutary, especially for carrying off the Uneasiness produced by Surfeits, and for removing all pituitous Disorders: So that it is become a proverbial Saying, with respect to the Rich, How is it possible they should not enjoy good Health, since they drink the best Tsia?" Olearius, in the Work before quoted, speaks of Tea in the following Manner: "We have already observed, that at the Maidan in Ispahan, there are, among others, particular

Tartars. This Herb has oblong pointed Leaves, about an Inch long, and half an Inch broad, which, when dried, are of a blackish Colour, and shrivel up into the Form of a Worm; but they are the same with what the Chinese call Tea, and the Japonese and Indians, Chia, and Cha. In each of these Nations, this Herb is highly esteemed; the Persians boil it with Spring-Water, Anise and Fennel: Some of them also add a small Quantity of Cloves to it. The Persians, Chinese, Japonese, and Indians, ascribe uncommon Virtue and Efficacy to this Water, affirming, that it produces the most salutary Effects on the Stomach, Lungs, Liver, Mass of Blood, and all the Viscera, which it deterges and corroborates. It also expels the Stone, removes the Head-ach, and dissipates that superfluous Humidity, which produces Lassitude and Drowsiness. By drinking this Water, a Person is rendered so lively, brisk, and alert, as chearfully to bear the Want of Sleep for several Nights, and without any Pain, or Fatigue, apply long to Business of the greatest Importance. This Liquor, when drank in Moderation, not only preserves Health, but also protracts Life to an excessive old Age. This Herb Tea is, at present, well known in Holland, since the East-Indiamen bring large Quantities of it to Amsterdam." Johannes Albertus von Mandelslo, in Itinerar. Indiæ Orientalis, Cap. 11. gives us the following memorable Account of Tea: "In our Visits, we make use of the black Water, in which the Herb Tea is boiled. This Liquor, which is very common in the Indies, is greatly admired, not only by the Natives, but also by the English and Dutch; since it is said to carry off Phlegm, warm the Stomach, and procure Digestion. We drink it three Times a Day, namely, in the Morning, Afternoon, and Evening. The Persians also drink a black Water, called Chavve, which, in Colour, resembles the Tea, though its Virtues and Efficacy are different; since the Chavve is a great Cooler, and procures Sterility, on which Account, the lascivious Persians chuse to drink it: On the contrary, the Tea moderately warms, and strengthens, the Bowels and Stomach."

Species of Inns, called *Tzai*, *Chattai*, and *Chane*, in which, as well as in other Places, the *Persians* drink an hot, black Water, prepared of an Herb, brought into their Country by the *Usbeck*

Gulielmus Leyl, a Native of Denmark, after his Return from the East Indies, at my Request, courteously wrote me the following Particulars with respect to Tea: "I was informed by the Chinese, in the Islands of Java, Macascar, Celebes, and other Places, that the Cha, or Thee, grew in China and Cathaya; but that the best came from Cathaya, a Country belonging to the Tartars. The Herb is, in the Chinese, Japonese, Tartarian, Persian, Arabic, Turkish, and Indostan Languages, called Cha; in the Pronunciation of which Word, it is to be observed, that the Ch is sounded as it is in Spain and England; but is by the Persians, Arabians, and Turks, expressed by one of their own Characters. By such of the *Chinese* as border upon the Sea it is called *The*. In these Countries, vast Sums of Money are laid out upon this Herb, which is said to be possessed of very considerable Virtues; for it corroborates the Stomach, and produces a good Digestion; nourishes the Limbs, and dissipates and carries off by Urine, or otherwise, all peccant and redundant Humidity. It also cures the Gout, and prevents, or expels the Stone and Gravel. During my Residence, for many Years there, I never had the smallest Symptoms of the Gout, with which I have been violently afflicted since my Return into Europe. The Chinese are also Strangers to the Stone, and their Tea not only preserves the Body in good Health, but also removes Intoxication. It prevents Sleep, and renders Persons alert and chearful in the Dispatch of Business. The Water prepared of this Herb, is to be drank in a Morning fasting, with preserved Ginger, as also after Dinner, between Meals, after Supper, or at any Time, since the frequent Use of it is not hurtful. They boil a Pint of Water in a Pot, then put a Spoonful of Tea into it, and cover it close up for a Quarter of an Hour, during which Time they shake it frequently. Those to whom this Liquor is disagreeable, on account of its bitter Taste, put Sugar-Candy into the Cup; but, its Efficacy is greater, when drank without it. The People of Fashion in China and Japan, have their particular Kettles, in which they boil the Water by itself, and then pour it upon the Tea in another Vessel, which they cover for a Quarter of an Hour, shaking it frequently."

In order to determine that dubious and perplexing Question, Whether the Tea of the Chinese is an Herb, or a small Shrub? It is necessary I should previously enquire, whether it is only produced in Asia, or whether any of it is also to be found in Europe; as also which of the European Plants is the most proper Succedaneum to it? In these Disquisitions, I must, therefore, have recourse to the Suffrages of the before-quoted Authors. But I must here advise all Physicians to divest their Minds of Prejudice, and carefully peruse Hippocrates's Treatise de Aere, Aquis, & Locis, by which they will be informed, how much Airs, Waters, and Soils, agree, or disagree, and what proportionable Variations, or Alterations, these Agreements, or Differences are capable of producing. The celebrated Hoffman, in Lib. 2. de Medicament. Officinalibus, Cap. 15. when speaking of the Myrtle, tells us, "That we are carefully to attend to the native Soil and Climate of a Plant, by which it is rendered either better or worse, in consequence of which, its Faculties and Virtues will not be the same in different Countries." This Doctrine I have everywhere inculcated in my Quadripartitium, but especially in the Histories of Betony, Carduus Benedictus, Scurvy-Grass, Marsh Trefoil, Dragons and Squills. My Design in advancing this is, to shew the Probability of the Production of Tea, not only in the Kingdoms of the East Indies, such as China, Japan, Chian, Nanquin, and Cham; but also, according to the Conjecture of Trigautius, in the European Woods and Forests: And I am the more inclined to this Opinion, because the celebrated Olearius informs us, that the Tartars of Uzbeck, who, according to De Laet. in Descript. Persiæ, Cap. 1. are separated from the Persians, wage War upon them, and export Tea from Cattajo into Persia: Besides, Gulielmus Leyl, a Gentleman, not only of Distinction, but also of untainted Veracity, informs me, in his Letter, that in Java the greater, Macassar, and Celibes, he was told by the Inhabitants, that Cha or The grows in China and Catajo; but that the best is, by the Tartars, exported from the latter of these Places, Now, it is sufficiently known, that Tartary, on account of the Elevation of the Pole, in many Respects, agrees with the European Provinces, situated under the same Degree of Elevation; so that, it is by no means absurd to assert that many Trees, Shrubs, and Herbs, should thrive as well in these Northern Provinces, as in Tartary, which, like them, is diversified with Precipices, Forests, Mountains, Pasture-Grounds, Vallies, and Rivers. In a word, as Tulpius and Trigautius think that neither Tea, nor its Use, were long known to the Chinese, because they had neither any antient Names for it, nor Hieroglyphics to express its Nature; I am more and more confirmed, that Cha, or The, grows more plentifully in Catajo than in China itself, especially since Olearius and Leyl inform us, that Cha is a Tartarian Word; and, according to the latter of these Authors, only some of the Chinese, who live upon the Shore, have begun to call Cha, Te. Since, therefore, the Europeans frequent China, or its adjacent Islands, much more than they do Tartary, and since the Chinese call the Cha of the Tartars The, it is probable, that this is the Original of the Word Tea in Europe, But it is to be observed, that Tulpius asserts, that, the Tchia of the Japonese, is far more valuable than the Thee of the Chinese; since a Pound of the former is sometimes sold at an Hundred Libræ of Silver, which, if I am not mistaken, amount to forty Crowns. But Trigautius affirms, that a Pound of the Chinese is sold at one Noble, and at most for two or three; whereas, a Pound of the best Japonese is often sold at ten or twelve. Father Rhodius tells us, that Tea is no where produced, except in two Provinces of China, Nanquin and Chim; and immediately subjoins, That there was such Plenty of it, that it sold at a very low Rate: Though these Accounts are inconsistent with each other, yet it is none of my Business to reconcile them; since my Design is only to shew, that the Cha, the Tchia, or Thee, whether a Species of Copse, or an Herb, is indigenous to Tartary. Now, as Tulpius and Trigautius have shewn, that Tea has not been long known to the Chinese; and, as Olearius and Leyl assert, that it is exported from Tartary into Persia, as well as China, I am of Opinion, that it probably began to be known in China when the Tartars in 1644 made an Incursion into that Country, and that it was first transported into Europe from the East-Indies. And though the Authors mentioned by Olearius affirm, that the Thee of the Chinese was known before this Incursion; yet as the *Tartars* had several Times before laid *China* waste, it is not improbable, but the Chinese were, by the Tartars, with whom I believe it is cheap, first taught the Use of Tea, as we were by the Chinese: For if, according to Tulpius, Tea is sold at so great a Rate in China, or, if a Pound of the best Tea is often sold at twelve Nobles in Japan, I cannot see how the Merchants of Amsterdam and Hamburg, who may reasonably be allowed a fourth of Profit, could afford a Pound for eight Nobles. Since, therefore, Tartary is a very extensive Kingdom; and since, in some Provinces of it, the Tea of the Chinese grows, I think it very probable, that the same Tea may be found in the similar, heathy, copsy, and uncultivated Places of Europe. We now come to enquire, whether Tea is an Herb, or a Kind of Copse: Besides the Authors, therefore, already quoted from Olearius, as affirming that it is an Herb, Bontius, Varenius, Olearius, Johannes Albertus von Mandelslo, and Leyl, also call it an Herb: But Trigautius and Rhodius pronounce it a Kind of Copse, or small Shrub. If, therefore, we are swayed in our Judgment by the Plurality of Voices, we must infallibly conclude Tea to be an Herb. But as, in all Cases, one Eye-Witness is better than ten who take Things upon Report; and as the two last-mentioned Authors travelled through the East-Indies, it is more reasonable to trust to their Descriptions, than to those of the others, who, being no professed Botanists, were, in some measure, misled by botanical Authors, who too often confound Words, as we have shewn in the Dissertation on Tobacco: However, to reconcile these Differences, we say, that Tea may be defined and described, either as an Herb, or as a Kind of Copse, or small Shrub; for as Geographers, in their Descriptions of Nova Zembla, and the Terra Australis incognita, make Conjectures about some Things which they never saw, because they were never there; so, why may not I, though I never was in Asia, make an Attempt to delineate an Asiatic Plant, which is the Herb, or Shrub, Tea, in order to prevent that excessive Import of it, which corrupts our Regimen, and impairs our Health no less than the Tobacco sent us from America? Now, though Asia furnishes the Chinese with Tea, as a salutary Medicine, yet she obtrudes it upon us, at the same Time we are ignorant what it is; for which Reason I shall describe Tea, both as an Herb, and as a Kind of Copse, or small Shrub. "Tea, therefore, as an Herb, has oblong Leaves, acuminated, crenated about the Edges, and about an Inch long, and half an Inch broad. In China these Leaves are of a dark green Colour, and of a bitter Taste; whereas those produced in Japan, are of a fainter Green, and more grateful Taste, tinging any Liquor with the same Colour. These Leaves, when dried, become black, and shrivelled up, like small Worms, and the Herb has a fibrous Root, divided into many small Shreds." If any should tell me, that this seems to be a Description of Betony, I answer, so it is; and I would rather perswade the Europeans to use this Herb, possessed of numberless known Virtues, than to persist in the Use of the unknown Tea of the Chinese, purchased at a great Expence, and calculated for impoverishing Families. It is indeed certain, that, as the moderate Use of it, without producing a preter-natural Heat, conforts and dries the Brain, and whole nervous System, so the immoderate Use of it, cannot fail to be equally noxious to the Europeans as the Abuse of Wine. Tea, as a Kind of Copse, or small Shrub, may be described in the following Manner: "Tea is a small Shrub, greatly resembling the Myrtle-Bush, with dark green Leaves, as large as those of the Pomegranate, but with small Incisions about the Edges, like those observable in the Leaves of the Daisy. These Leaves are carefully collected in the Spring, dried in a Shade, or in proper Furnaces, and preserved in pretty large Vessels, close stopped, in order to prevent the free Access of the Air." If any one should find fault with me for describing Tea, both as an Herb, and as a Kind of Copse, or small Shrub; I can vindicate myself, by desiring him to compare each of these Descriptions with the different Accounts given by all the before-cited Authors, whose Veracity cannot be called in Question. But, perhaps, it may be objected, that Bontius asserts, that Tea is an Herb, and describes it as such, and consequently, that I corrupt what I intended to correct, which happened to Epicurus, attempting to rectify the Doctrines of Democritus: I answer, that Bontius, through an Affectation of laconic Brevity, darkened his Description of Tea, by comparing its Leaves, which are crenated, to those of the Daisy, which have small Incisions: Whereas, he might, with more Justice, have compared them to the Leaves of any Shrub, or Copse:

But the Reader will, possibly, condemn me for Pyrrhonism, or Scepticism, and upbraid me with treating of Things, without coming to any fixed and final Conclusion. But, in answer to this Charge, I affirm, in the Words of Vossius de Sect. Philosoph. Cap. 20. "That Scepticism is not absolutely to be condemned; since, though many Things are certain, yet far more are uncertain; and these latter combined and interwoven with the former, impose on the Mind by their Similitude to Truth; so that it is necessary to use all Diligence in distinguishing Truth from Error." Cicero, in Lib. 1. de Natur. Deor. professes himself of the same Opinion: "I am none of those, says he, to whom nothing appears true; but I affirm, that Truth and Falshood are sometimes so intimately mixed, and bear so near a Resemblance to each other, that there is hardly any Criterion for distinguishing them." But, leaving all dubious Ratiocinations, we shall now declare our Sentiments in an explicit Manner, and come to a fixed and determinate Conclusion. For this Purpose, let us compare the Descriptions which Dodonæus gives us of the Herb Betony, and of the Shrub Chamelæagnus, with those two I have given of the Chinese Tea: I am then intirely free from Partiality, when I think that the Properties ascribed to these two, especially to the Chamelæagnus, exactly agree to the Chinese Tea; nor, considering how far I am advanced in Years, do I care how much I may be ridiculed for maintaining such an Opinion, since I have long ago formed my Mind upon those noble and exalted Sentiments, which Epictetus, in Enchirid. Cap. 29. expresses in the following beautiful Manner: "If thou inclinest to commence the Study of Wisdom and Virtue, thou must forthwith prepare thyself for future Reproach and Contempt, since many will hiss thee, upbraid thee with becoming a Philosopher all on a sudden, and sneeringly ask the Reason of thy supercilious Air: Do thou, in the mean time, guard against a supercilious Behaviour, as much as thou possibly canst; but, like a faithful Centinel, placed in a particular Post by thy Master, rigidly maintain and adhere to those Things which, to thee, appear best and most praise-worthy; and, for thy Comfort, remember this, that if thou resolutely keepest thy Post, thou wilt, at last, become the Admiration of those who before derided thee: Whereas, if thou shamefully quittest thy Station, and succumbest to the heedless and unthinking Herd, thou wilt be doubly derided." But, as moral Reflections may be thought impertinent on such Occasions, we shall return to our Subject. Dodonæus, therefore, in Pemptad. 1. Lib. 2. Cap. 20. tells us, "that Betony has oblong, broad, and green Leaves, somewhat rough, serrated about the Edges, and resembling those of the Oak, though somewhat smaller." Now, Tulpius informs us, that the Leaves of Tea are oblong, acuminated and serrated about the Edges: And Olearius affirms, that they are about an Inch in Length, and half an Inch in Breadth. Tulpius also asserts, that in China, they are of a dark green Colour; whereas, in Japan, they are of a fainter Colour; so that these Descriptions quadrate very exactly with Betony. The Chamelæagnus is, by Dodonæus, in Stirp. Histor. Pemptad. 6. Cap. 20. described in the following Manner: "The Chamelæagnus is a small and low Shrub, rarely rising to the Height of a Cubit: It sends forth some Branches, which bear small, broad, and oblong Leaves, not unlike those of the Myrtle, but harder, and frequently longer: All the Parts of the Shrub, and especially its Seeds, are somewhat odorous: It delights in wild and uncultivated Soils, which are somewhat marshy and aqueous." The Authors before quoted, have made no Mention, either of the Seeds, or Flowers; nor, though I have had an Opportunity of turning over large Quantities of Tea, have I ever found any Part of a Flower, Stem, Apex, Calyx, Down, Seed, Pods of Seed, Berries, or any Thing analogous to any of these, except some few Pieces, of a Kind of arundinacious Grass; from which we may justly infer, that the Chinese Tea delights in uncultivated, aqueous, and marshy Soils, as well as the European Chamelæagnus; which, as described by Dodonæus, exactly resembles the Tea of the Chinese. The Reasons why I have compared Tea to Betony, are sufficiently obvious; since my Accounts of the former, taken from Trigautius, Rhodius, and Bontius, exactly agree to the latter; for Trigautius affirms, that the Leaves called Tea, when gathered from a certain Shrub, and boiled in Water, afford that celebrated Liquor, so much used by the Chinese, Japonese, and their neighbouring Nations: And Rhodius asserts, that the Leaves of Tea are, in a great measure, like those of the Myrtle, and, in Bulk, equal to those of the Pomegranate. I have, in a particular Manner, mentioned the Crenations of the Leaves, because no such Circumstance is specified, either by Dodonæus, in his Description of the Chamelæagnus, or by Trigautius and Rhodius, in their Accounts of the Leaves of Tea, which, according to Olearius, are about an Inch long, half an Inch broad, and, when dried, assume a blackish Colour, all which Circumstances hold true of the Chamelæagnus. Tulpius informs us, that the Leaves of Tea are of a dark green Colour, oblong, acuminated, and crenated about the Edges; and Bontius describes them with small Incisions about the Edges, like those of the Daisy: Besides, if the Reader compares what Dodonæus advances, with respect to the native Soil of the Chamelæagnus, with the Description I have given of it, he will find it probable that it is also produced in Tartary; so that we have just Reason to conclude, that the Cha of the Tartars, and Thee of the Chinese, are nothing else but the European Chamelæagnus. Another Analogy is also to be observed between the Leaves of Tea, and those of the Chamelæagnus, which is, that only the larger Leaves of each of them are crenated. If it should be objected, that Dodonæus inclined to insinuate, that the Leaves of the Chamelæagnus are like those of the Myrtle; and that the Leaves of the true Myrtle are not crenated: I answer, that I am sufficiently apprised of this; but, at the same time, would have the Objector remember, that Caspar Bauhine finds some Things wanting in the Figure of the Chamelæagnus, exhibited in the Latin Edition of Dodonæus, and for that Reason, prefers the Figure in the Dutch Edition to it. His Description is also very defective, since he neither mentions the Crenation of the Leaves, nor the Sporting of Nature, which are very material Points; since the Leaves are not all crenated in the same Manner, and sometimes not crenated at all, especially at the Points, till they have arrived at a certain Age and Bulk. Similar Sportings of Nature are frequently to be observed; since, in one and the same Mallow, it often happens, that one Leaf is not like another. There is also a surprizing Variety, both in the Form and Number of the Leaves of the Eupatorium Canadense Foliis Enulæ Jacobi Cornuti of the Lysimachia Lutea Major and Minor, and of the

Pseudolysimachia. It is also sufficiently known, that the Peruvian Flower in Europe, varies every Day considerably from the same Flower in Peru; but we are not, for this Reason, to deny that they both belong to the same Species. Thus, though in Europe, there is a Kind of Sporting of Nature in the Leaves of the Chamelæagnus; yet all these Leaves, when most accurately compared with the Tartarian or Chinese Tea, are only found to differ inconsiderably from them in Size, Colour, and Crenations: So that we may conclude, that the Shrub Chamelæagnus belongs to the same Species with the Tea of the Tartars and Chinese: But, lest my own Authority should be questioned, I shall, from that of other Botanists, prove this surprizing Variation in our own Chamelæagnus. I am indeed sorry that the Chamelæagnus is not sufficiently and fully treated of, either in the last Edition of Tabernemontanus, or in the Ebrodunense Herbarium. But we must supply this Defect from Bauhine, who, in Pinax. 40. Lib. 11. Sect. 4. tells us, "That the Rhus Myrtifolia Belgica, or Chamelæagnus, has its Leaves sometimes broad, and sometimes narrow; and I have been told by Dr. Backmaster, that its Leaves are sometimes crenated like those of a Shrub; such as the Rosemary of the Northern Nations, or our own Myrtle." In 1622, when walking in a Copsy Field, near Rostock, I broke off a small Twig of this Chamelæagnus in the Spring, before it was in the Flower. This I carefully preserved till it was fully dry, and found the Leaves exactly to resemble those of the Chinese Tea, in Tenderness, Size, Colour, and Crenations. But that this Affinity and Resemblance might be still farther evinced, I have, in Quadripartit. Botan. given a Cut of one of the tender Leaves of the Chamelæagnus, gathered in the Spring, and another of a full grown Leaf, gathered in the Summer; and to these I have added two Cuts of Tea Leaves, produced in China: But, some may object, that the Chinese Tea differs from the Chamelæagnus, because, according to Rhodius, the Leaves of the former appear in the Beginning of the Spring at Nanquin and Chim; and, when dried, are so far from resembling Leaves, that they rather seem to be small Buds or Gems of Shrubs, or Trees: Whereas, the Branches of our Chamelæagnus are not cut, till the Middle, or latter End of the Summer, and are negligently hung up in the Shops, with the Leaves, Seeds, and Flowers. These Circumstances, I confess, must produce a considerable Difference in these Leaves, not only with respect to Colour and Smell, but also, perhaps, with respect to Qualities and Virtues. If I should be asked, whether it is expedient to recommend the Chamelæagnus as a Succedaneum, to the Chinese Tea? I answer, it is highly expedient. If it should be said, that it affects the Head; I reply, so does Betony, which procures a certain Hilarity, or Agility, to the Brain and Members, by which Means, it greatly invigorates the Animal Faculty: For this specific Quality of Tea, it is so much used by Statesmen, in order to render them brisk and active, for the Discharge of their Offices: For this Class of Men, as well as Physicians, are allowed Angular and uncommon Indulgences by Plato, in Lib. 3. de Republica. "The Gods, says he, can obtain no good End by lying to Mortals; but, a Lie may be useful to sick Persons; for which Reason Lying is pardonable in Physicians, immediately employed in their Business, but not at all in Persons of a private Character. In Governors also, Lying is pardonable, when it has a Tendency, either to promote the Good of their Subjects, or frustrate the Designs of their Enemies." Some affirm, that Ale, prepared with the Chamelæagnus, excites violent Head-achs, from which they infer, that its Sulphur is injurious to the Head: But I would have such Persons remember, that the best Things may be used to Excess. Thus a Pain is immediately produced in the Head, by the Abuse of the Wine of the Rubus Idæus, or that in which the Pimpinella Sanguisorba has been macerated. Hence, if you mix but a small Quantity of the Chamelæagnus, full of its Seeds, with Ale, such Ale will speedily intoxicate those who drink it; but if you put only a few of the Leaves to the Ale, it will revive the Spirits as effectually as the Asiatic Tea. At the Haque, Sinapi is called Senney, and in the Netherlands, Mustard; but this Change of Names does not hinder Sinapi from being an Herb of the same Species in these different Parts. In Europe we are to have a due Regard to the most commodious Time of gathering the Leaves of the Chamelæagnus, which, in Asia, is the Spring, and after they are gathered, we are carefully to keep them in large, close-stopped Vessels. Besides, we are to consider, that the Climates of Asia and Europe differ very widely; though I have shewn, that from the same Elevation of the Pole, some Northern Countries have a Climate, not much unlike to that of the Tartars. But some may say, granting that the Chamelæagnus, or Myrtus Nostras Sylvestris, is really the Cha of the Tartars, and the The of the Chinese and Persians; yet it never arrives at such Perfection in any Part of Europe, as in Tartary or China: This, perhaps, I may grant, with respect to China, but not with respect to Tartary, for the Reasons before specified, and on account of the Climate, which, it is to be suspected, produces Tea of little or no Value; for it is not so much as mentioned in the following Account of the Tartars, and their Herbs, given by Antonius Maginus, in Comment. Nov. Geograph. "The Tartars live in a most sordid, nasty Manner; since only a very few of them use Table-Cloths and Napkins at their Meals: They drink Water, Milk, and Ale prepared of Millet. Very little Wine is produced in their Country; and with that which is imported they intoxicate themselves, which is with them considered as an honourable and glorious Thing. They commend the Juice or Milk of Sorrel, because it corroborates the Stomach, and proves purgative at the same Time. They chearfully eat various Herbs, especially such as grow near the Tanais, among which they greatly extol an Herb called Baltracan, which greatly nourishes them, and restores their Strength. At the Season, therefore, when this Herb bears Fruit, the Tartars freely wander through these Desarts, in which no other Kind of Food or Aliment is to be found; for, if they can provide nothing else, this Herb, which they frequently find, and carry home on Carts and Horses, proves sufficient for their Sustenance." But I shall proceed to contemplate our Chamelæagnus, with greater Accuracy. It is, therefore, certain, that Iceland, a cold and harsh Climate, produces the best Angelica in all Europe; and Norway, which is somewhat milder, though intolerably cold in the Winter, yet affords those large Quantities of Gentian, and other medicinal Herbs, which the Traders in Germany and Holland have annual Occasion for. It is therefore probable, that our Chamelæagnus may also be possessed of very singular medicinal Virtues; and, that it is so, we shall afterwards fully demonstrate. If it should be objected, that the Chinese and Tartarian Teas

have become famous, but not the European Chamelæagnus; I answer, that the Objection has no Foundation in Reason; because the Qualities and Temperaments of Medicines are not altered by the Time at which they began to be in Repute: Thus the Angelica of Iceland, and the Norvegian Gentian are celebrated in Europe; and tho' it is not to be doubted, but Tartary, and other Countries, lying under the same Elevation of the Pole, produce Angelica and Gentian equally good, yet these Medicines are not there celebrated, because the Inhabitants have not ventured upon the Use of them. Thus, the perfumed Gloves sent us from Greece, are more esteemed than those smelling of Amber, Musk, Stacte, and Cassia, sent us from Italy, and Spain, only because they were famed before these latter Countries began to use such a Practice; such, and so great, is the Tyranny of Opinion, and the Force of Custom! It is, therefore, merely an ill-grounded Opinion, to believe that our Chamelæagnus is inferior in Virtues to the Chinese or Tartarian Tea; or that it is to be neglected, and not introduced into the Shops. Nor is it reasonable to infer, that it is not the Chinese Tea, because it has never been prepared in their Manner; or that it ought not to be substituted in its stead, because it has hitherto been little known, and only used by a few instead of Hops. Tho' I am always willing to yield to superior and more powerful Reasons, yet I cannot help thinking, that our Chamelæagnus may be very commodiously substituted to the Chinese Tea. Thus the Scordium of Crete is generally thought the best of all others, for no other Reason, but that it grows there. The Germans and Danes, however, ceased to import it from Crete and Venice, after they discovered the true Scordium, and found large Quantities of it produced in Lapland, which also yielded great Plenty, not inferior to that of Asia; so that we despise the Asiatic, in comparison of our own. Thus, also, when we found from Experience, that the Qualities of our common Wormwood, were not inferior to those of the Wormwood brought from Pontus and Rome, we ceased to bring it from these Places, and wisely used our own. Hoffman, in Lib. 2. de Med. Offic. §. 5. tells us, "That these European Mountains which are most exposed to a free Air, produce the wild or common Wormwood; whereas, those of the Pontic and Roman Kinds, are only to be found in Gardens." But how opposite is our Conduct with respect to Tea, which, at great Expence and Trouble, we bring from Asia, when large Quantities of it are produced in Europe? It is certainly unaccountable, and an unpardonable Folly, for a Man, who is rich at Home, to go Abroad and beg: Now, we are equally foolish, for despising that Plenty we have at Home, and purchasing, at a great Price, the Chinese Tea, when its Virtues are almost destroyed, as I shall afterwards demonstrate. Some Persons may, perhaps, reject my Sentiments, unless they found an exact Agreement between the Decoctions of Chinese and Tartarian Tea, and the Chamelæagnus, in Colour, Taste, Smell, and other Qualities; and I doubt not in the least, but they would find this Agreement, provided our Chamelæagnus was gathered at a proper Season, treated in the same Manner with the Chinese Tea, and prepared in the Method used by them. I would have tried Experiments of this Kind, had not I wrote this Treatise in the Winter Season; but I thought a Delay of its Publication might be attended with bad Consequences; since all Europe has large Sums of Money annually drained from it by the Asiatic Tea, I therefore obtest, not only all Physicians, but also others, fairly to examine, whether my Sentiments and Reasonings on this Particular are true, or only probable; for most Truths, according to Cicero, have the Disadvantage to be blended with Falshood and Error. But some Persons may say I advance many Things without establishing any. I own it is so; for I am like the Images of Mercury set up by the Highways of the Antients, which pointed out the Road to others, without ever entering it themselves. Perhaps practical Physicians may blame me for making the Chamelæagnus a Succedaneum for the Chinese Tea; since it is sufficiently known that the former greatly affects the Head. I own, indeed, I am subject to Error and Mistake, as well as other Mortals: But I would have these Physicians consider, that Trigautius and Rhodius affirm, that the Leaves of Tea resemble those of the Myrtle. Now, the Leaves of the Chamelæagnus, when arrived at their full Growth in the Summer, are so like those of the Myrtle, except that these last are crenated at the Points, that the one cannot be distinguished from the other. They also produce an Effect similar to those of the Myrtle; we must therefore compare the Chinese Tea, the true Myrtle, and the Chamelæagnus, with one another, in order, from this Comparison, to ascertain and determine the Virtues and Faculties of the Leaves of each of them. The Virtues and Faculties, then, of Tea, according to Tulpius, are these following: "It renders the Body vigorous, and removes nephritic Pains, to which none of the Chinese are, for this very Reason, obnoxious. It carries off Pains and Stuffings of the Head, Inflammations of the Eyes, Defluxions, Difficulty of Breathing, Weakness of the Stomach, Gripings of the Intestines, and Weariness: It also prevents Sleep, heats moderately, and by constricting the Mouth of the Stomach, hinders the Vapours from ascending to the Head. This Liquor, when drank warm, Trigautius thinks highly salutary in a great many Cases." Though I do not deny these Things, yet, when the Chinese assert, that nothing is more conducive to the protracting of Life to an extreme old Age than Tea, they run into an Hyperbole, no less glaring and ostentatious than that of Cicero, when describing his own Return, in L. Calphurn. Pis. "Rome herself, says he, seemed to move from her Foundation, in order to contemplate her returning Guardian and Preserver, whom she received with such unbounded and universal Joy, that even the Walls and Temples of the City seemed to rejoice." This Happiness of the Chinese, is intirely owing to other Causes; for their Air is clement, and their Regimen so temperate, as, almost, to come up to that of the Pythagoreans; though the Tartars cannot boast either of such a Climate, or such Moderation. But, with the Europeans, a fuller and more copious Diet is used, which is therefore productive of more Diseases: Hence, the incomparable Bartholine, in Consil. Med. de Cometa. gives the Europeans a most salutary Advice, by recommending a spare and slender Diet, and condemning a full and copious Regimen: "Moderate eating of Flesh, says he, is to be injoined; since Excess, in this Respect, is the Origin of violent Putrefaction, and various Disorders. Thus Diogenes apud Porphyr. in Lib. I. de Abstinen. used to say, that those who eat much were generally Thieves, and Soldiers; and such as eat Flesh were Sycophants and Tale-Bearers. Hence the Quadragesimal Fast, in Concil. Laodicen. Canon. 50. is ordered to be kept with Bread, Salt,

and Water, as Christoph. Justellus explains the Word Ξηροφαγία from Epiphanius:" Hence the eating little Flesh, but somewhat more Broth, is conducive to the Preservation of Health: So that the slender, spare Diet of the Asiatics protracts their Lives to extreme old Age; whereas, the full and luxurious Regimen of the Europeans, cuts them off, before the natural Period of their Life is expired: So happy a Tendency have a clement Air, and a proper Regimen, if not to protract Life, yet, at least, to preserve Health, and prevent Diseases. Not only Tea, which we have from the East, but also Chocolate, which is imported from the West Indies, begins to be famous: With respect to this latter Commodity, the Reader may consult Antonius Colmerus de Ledesma, whose Work is translated from Spanish into Latin, by Marcus Aurelius Severinus. But I proceed in the History of Tea, which is possessed of admirable Qualities; since, according to Rhodius, "It relieves the Head, prevents Vapours, and is a Specific against the Hemicrania; since, when he was afflicted with this, or any other Disorder of the Head, he was, by drinking Tea, immediately relieved. It also prevents Sleep, corroborates the Stomach, purges the Kidnies from Stones and Gravel; and, according to Varenius, is of singular Efficacy in removing the Uneasiness arising from previous Surfeits, and all pituitous Disorders." Olearius also affirms, that it is possessed of constrictive and astringent Quality, and is highly salutary to the Stomach, Lungs, Liver, Blood, and all the human Viscera, which it deterges and corroborates; that it expels the Stone, removes Head-achs, and dries up all superfluous and redundant Homours, which occasion Laziness and Drowsiness. Johannes Albertus von Mandelslo informs us, that the Water impregnated with Tea, is not only much admired by the *Indians*, but also highly esteemed by the *Dutch*, who frequently use it for evacuating Phlegm, corroborating the Stomach, heating and strengthening all the Viscera; and that he was convinced, that by drinking three Times a-day, large Quantities of Tea, which is of an astringent Quality, he was freed from a violent Uneasiness and Diarrhæa at Surat. Gulielmus Leyl asserts, that it corroborates the Stomach, and assists its concoctive Powers, heats the Members, and removes all excrementitious Humours, which it expels by Urine, or in some other Manner; that it removes the Gravel and Gout, as he experienced in himself, when Governor of the Camp of Danisburg, in the Island of Cormandel, in the East Indies; that he was racked with the Gout upon his Return into Europe; that Tea removes Intoxication, renders Men active in transacting Business, and prevents Sleep. Though I do not in the least doubt of the Truth of these Assertions, yet I shall prove, that the true Myrtle, is possessed of the same, and other excellent Qualities; since it not only seems to be, but really is, a Species of Tea. If, therefore, the Leaves of the Danish and German Myrtle, called Chamelæagnus, vary much among themselves, and greatly resemble Tea, may we not conclude, that the Leaves of Tea, the Myrtle, and the Chamelæagnus, also agree in Virtues and Qualities. This is what I now intend to evince. Hippocrates, therefore, in order to shew the Efficacy of the Myrtle in curing and removing Diseases, in Lib. de Superfætat, Sect. 3. tells us, that when the Mouth of the Uterus is præternaturally constricted, it is opened by a Suffumigation, for which Purpose, among other Things, he orders green Myrtle Leaves contused. He prescribes them green, and not dry, because the former most abound with Sulphur and volatile Parts; whereas the latter contain little of these; but, on account of their terrestrial, and somewhat hot Parts, are violently drying; for which Crasis and Diversity of Parts, as Myrtle is but gently, or hardly, hot at all, Galen calls it cold. This Effect, therefore, mentioned by Hippocrates, evinces, that Myrtle consists of very subtle Parts, and is of a highly drying Quality. I am surprized, that the Writers of the Chinese History, have not determined, whether Tea was beneficial for both Sexes. The same Hippocrates, in Lib. 1. de Morb. Mulieb. Sect. 5. Ver. 6. among other Things proper for expelling a corrupted Fætus, prescribes Myrtle-Berries, Sweet Flag, and Lentiles, boiled in Wine, and, a little after, he recommends Pessary of the Leaves of Myrtle for the same Purpose: And in Lib. de Natur. Muliebr. Sect. 5. he orders the Fruit of the Black Myrtle macerated in Water, and mixed up with fine Flower, to be exhibited as a Medicine for rendering the Body soluble, and opening the Uterus. Galen also, in Lib. 7. Med. Simpl. informs us, "That Myrtle consists of contrary and heterogeneous Substances, that a cold and terrestrial Principle, however, predominates in it, notwithstanding which, it has a certain subtile Heat, in consequence of which, it is of an highly drying Nature: That the Leaves, the Buds, the Fruit, and the Juice, have different Degrees of Astringency; that the dried Leaves are more exsiccant than such as are green; and that all Parts of the Plant are of an astringent Quality, whether used internally or externally." The same Author, in Lib. 2. de Aliment. Facultat. Cap. 18. affirms, that, like the Fruit of the Juniper, it nourishes little, though it is possessed of a contrary Quality: "For, says he, it is highly astringent; and, for that Reason, stops Fluxes; but its Coldness does not bear a Proportion to the Degree of its Astringency." (Circumstances which ought to be carefully adverted to in investigating the Virtues of Tea, the Myrtle, and the Chamelæagnus) "because it is not only astringent, but also possessed of a certain Acrimony. Besides, it is peculiar to all Aliments, possessed of a strong medicinal Quality, to lose that Quality," (which Words I would have the Reader carefully observe) "by boiling, roasting, or Maceration; after which they afford but little Nourishment, and before none at all: This holds true in Onions and Leeks." Diascorides, in Lib. 1. Cap. 156, tells us, "That the Myrtle and its Seeds are of an astringent Quality; and, that the Juice expressed from the green Berries, produces the same Effects, is beneficial to the Stomach, creates a Discharge of Urine, and cures the Bites of venomous Spiders and Scorpions, if drank in Wine." He also informs us, that there are two Kinds of Myrtles, in like Manner as there are two Kinds of Tea, sent into Europe, by the Chinese. Athenæus, in Deipnosophist. Lib. 15. tells us, "That such of the Greeks as were afflicted with Head-achs by drinking too much Wine at their Feasts, stood in need of a Remedy for their Disorder, which, by a certain Instinct of Nature, they knew to be most expeditiously removed by Bundles of Flowers, and especially by Garlands wore on the Head; for, according to Andreas, when any one was seized with an Head-ach, his Pain was forthwith alleviated by tying it tight up:" (This may be accounted for from Harvey's late Discovery of the Circulation of the Blood) "For this Reason they swathed the Heads of those who had drank to Excess, with a Crown wove of an hederaceous

Plant, which is plentifully produced without any Culture, which is sufficiently beautiful, and throws a grateful Shade over Forehead and Eyes. For this Reason such Crowns seem to have been dedicated to Bacchus, who both invented Wine, and was supposed to remove the Disorders produced by it: But, in process of Time, Mankind became so voluptuous, that they were not content to have the Effects of Drunkenness removed by this Disorder; but also sought to gratify their Smell and Eyes. Then they began to use a Crown of Myrtle, which is astringent, and dispels the Exhalations of Wine, or a Garland of Roses, which, in some measure, alleviates the Pain of the Head, and cools those who are overheated by excessive Drinking: But over their Cups, they never used the Laurel, which is heating, and of a disagreeable Smell: They also rejected Violets, which by their Smell offend the Head, and every other Thing, which could either create Uneasiness, or produce Obstructions." And afterwards, he declares himself of Philonis's Opinion, in the following Words: "But I am intirely of the Sentiments of Philonis, who affirmed, that a Crown of Myrtle dispelled the Vapours of Wine, and a Garland of Roses refrigerated and alleviated the Pain of the Head." Bodæus, a Stapelen. in Comment. Lib. 4. Hist. Plant. Theophr. informs us, from Clemens Alexandrinus, "that the Myrtle was efficacious for exciting Laughter, which is represented as the Concomitant of Venus: And he adds, that Myrtle was supposed to be so grateful to this Goddess, that all who celebrated her Festivals, were adorned with Crowns of it. The same Author, from Athenæus informs us, that the Lesbians crowned themselves with Wreaths of Myrtle Twigs, which they called Hypothymidæ; because, as he tells us, they refreshed and revived the Brain by their grateful Fragrance. Those who desire to know more concerning the Virtues of the Myrtle, may consult the Histor. Plantar. Universal. Ebrodunens. Herbarior. Lib. 5. Cap. 1. where, what we have advanced, is farther confirmed, or similar Qualities of the Myrtle ascertained. But we proceed to enquire into the Virtues and Qualities of the Myrtus Brabantica, or Chamelæagnus. Though a great deal is not said of this Plant, which Bauhine calls the Rhus Myrtifolia Belgica, either by the antient or modern Botanists; yet that it is possessed of singular Virtues, is evinced from this, that Pliny, in Lib. 24. Cap. 11. informs us, that the Herb called Rhus, which, according to Clusius and Dodonæus, is our Chamelæagnus, expels Poison, and cures scalled Heads; a signal Proof, that whether green, or dry, it abounds with a singular volatile Salt and Sulphur; which is also farther confirmed, partly by its acrid, tho' not ungrateful Smell, and partly by the Effects it produces. This is sufficiently confirmed by the Authority of *Dodonæus*, who speaks of its Qualities and Virtues in the following Manner: "Its Seeds, says he, are intensely hot and dry, almost in the third Degree: Its Leaves are also hot and dry, though in a much smaller Degree: Its Fruit, which is prejudicial to the Brain, when used in preparing Ale, which is customary with many, renders the Ale highly offensive to the Head, and soon productive of Intoxication or Drunkenness. The whole Shrub, and its Fruit, when dried, and laid among Clothes, preserve them from Moths and Worms." It also banishes Dormice, as I have observed in my Quadripartit. Botan. Besides, a certain Person of great Distinction in Holstein, and a Man of the strictest Veracity, informs me, that the Polanders use our Chamelæagnus for killing the Lice of their Hogs; for, if this Plant is strewed under them in their Styes, the Lice which infest them will be destroyed in a few Hours; nor will their Nits ever become alive. Besides, Serpents are never found to have their Holes in those Forests, which produce the Chamelæagnus, nor are they ever observed to come near it, much less to creep through it, as I have been informed by Forest-Keepers of great Veracity. It is not, therefore, to be denied, but the Chamelæagnus is an Herb of singular and excellent Virtues, since it produces these, and a great many other uncommon Effects. Dalechampius, Author of the Herbarum Lugdunense, in Cap. 1. gives us the following Account of it: "The Rhus Sylvestris Dodonæi, and the Rhus Plinii seems to be another Plant, which is by some called the Myrtus, by others the Pseudomyrsine, and the Myrtus Brabantica. It is a low, woody, hard Plant, with many Branches, which bear pretty long Leaves, not unlike those of the Box-Tree. Between the Branches rise many Twigs, bearing, as it were, a great Number of Ears, which are, at first, loaded with many small Flowers, and afterwards with a Congeries of many angular Seeds, full of a certain pingueous Humour, of the same bitter Taste with the Leaves, Flowers, and Fruit, but of a pleasant grateful Smell. The Inhabitants of Roan in Normandy, whose dark and gloomy Forests produce great Quantities of it, call it Piment Royale, as it were Melyssophyllum Regium. The Country People in Summer gather the Branches loaded with the Leaves and Seeds, tie them up in small Bundles, for no other Purpose, but to give Clothes an agreeable Scent, and hinder them from being corroded by Worms and Moths. Its highly bitter Taste evinces that it is remarkably drying and discutient, and that it is in a peculiar Manner adapted to kill and expel Worms, whether exhibited internally, or applied externally: It flowers in the Months of May and June, and bears Fruit in July and August." An anonymous Author, who makes some Additions to Dodonæus, speaks of it in the following Manner: "The Gagel has, in English, the Appellation of Gold from the Gold-coloured Flowers, or the clammy sulphureous Matter lodged between the Seeds and their Husks. Gagel is, by some, esteemed a good Remedy, in all Cases, wherein the true Myrtus is used; but this Opinion is false: The Flowers and the clammy sulphureous Substance lodged between the Seeds, and their Husks, are, by some, accounted good in Consumptions and all other Disorders of the Breast. These are also used in making Gold; others use the whole Plant as an Antidote against Poison. Some put Gagel into Beer instead of Hops; whilst others put it into Must, affirming, that it gives the Wine an agreeable Flavour, without injuring the Brain." These last Words excellently describe those Virtues of the Chamelæagnus, in which it agrees with the Chinese Tea, especially as the Author had before informed us, that, in consequence of its abounding with a viscid, yellowish Dew, or roscid Sulphur, it was of a drying Quality, and that it has hitherto been despised, as an Herb possessed of no other Virtues, than that of intoxicating, when Ale is prepared with it; and certainly, this Effect is to be ascribed to no other Cause, than the large Quantity of Sulphur contained in the Chamelæagnus: But I am sensible, that I am entering upon chymical Principles, which I have fully explained in another Work, when treating of malignant Fevers, and especially the Nature, Genius, and Effects of volatile Salts and Sulphurs.

Now, as no one has hitherto contradicted any of my Opinions, I hope this seeming Paradox, with respect to *Tea*, will meet with the like favourable Reception; for, from the Comparison instituted between the *Chinese Tea*, and the true *Myrtle*, it is evident, that they agree, not only in Form, but also in Virtues and Faculties: And as, not only *Tea*, but also the *Chamelæagnus*, is like the true *Myrtle*, and may be used as a Succedaneum to it, we cannot doubt, but the *Chamelæagnus* is the genuine *Cha* of the *Tartars*, or *Thee* of the *Chinese*; and as I have sufficiently demonstrated this, I hope the *Europeans* will not, for the future, be so foolish, as to despise the *Tea* produced in their own Climate, in comparison of that which is brought from *China*: Besides, that *Tea* is nothing else but our *Chamelæagnus*, may be proved by the following Syllogism.

Whatever Things agree in Form and Virtues, are of the same Species:

The ${\it Cha}$ of the ${\it Tartars}$, the ${\it Thee}$ of the ${\it Chinese}$, and our ${\it Chamel@agnus}$, agree in Form and Virtues:

Therefore, they are all of the same Species and Kind.

But Physicians may object, that I am still bewildered, and at a Loss; since the Chinese Tea, and our Chamelæagnus, produce different Effects: For, as all the Effects which the Chinese or Indians ascribe to their Tea, seem to arise from the Diversity of its Parts, some of which are moderately warm, others excessively dry, some gross, and some subtle: Hence, both Tea and the true Myrtle, prevent Intoxication; nay, an Infusion of Tea surprizingly keeps those who drink it in China, from sleeping for some Nights. It may, therefore, be objected to me, that the Chamelæagnus is so far from preventing or removing Drunkenness, that it forthwith intoxicates the Person who drinks the Ale in which it has been boiled; but these Effects are as diametrically opposite to each other, as those others are of the Chinese Tea removing an Hemicrania, and Head-achs, and the European Chamelæagnus exciting them: I answer, all this is true; but, at the same time, it is to be remembered, that Galen every where demonstrates, of how great Efficacy, the Diversity of Parts, in a compound Body, is; a memorable Example of which he has given, in Acorns arrived at perfect Maturity, in Tr. de Composit. Medicament. Loc. 1. Lib. 6. I shall not affirm, that this Diversity of Parts alone, is sufficient to account for all the Effects produced by Tea, and the Chamelæagnus: But I am of Opinion, that both considered, with respect to their whole Substance, and the Mixture of Parts peculiar to each, act not so much by their weak Heat, as by their excellent drying Virtues; so that they produce their respective Effects only by their primary or secondary Qualities. But I can easily prove, whence this Disagreement of Qualities derives its Origin. We are, therefore, to consider, that the Chamelæagnus abounds with a Salt, and a glutinous Sulphur, of which, according to Dodonæus, the Seeds and Fruit cannot be destitute: But, I deny that this Sulphur is, in the least, offensive to the Brain and Nerves; and affirm, that like the Wreaths of Myrtles, wore by the Lesbians, it, by its Fragrance, comforts and revives the Brain; for, if it was otherwise, I do not see how Ministers and Ambassadors to the Courts of China, should often, by the Use of Tea, be enabled to attend Business for whole Nights, without sleeping: This Account, however, must either be confirmed, or refuted, by Experience. Diogenes Laertius informs us, that Democritus, when nothing else could be of any Service to him, protracted his Life three Days longer, only by the refreshing Smell of Bread, newly taken from an Oven. Thus, also, the moderate Use of Wine revives, corroborates, and, by its Sulphur, dries the Nerves; which is sufficiently known by Dancers, who frequently bath their Feet in Wine, in order to strengthen them; and by Musicians, who take the same Measures with their Hands: And if other Persons would frequently bathe their Feet and Hands with Wine, impregnated either with Rosemary, Sage, or Betony, it is incredible, how much it would contribute to their Health. Besides, it may happen, that, by this Means, malignant Disorders may be prevented. This Redundance, therefore, of a volatile Sulphur in the Chamelæagnus, which palpably affects the Smell of those who walk in Copsy Ground, disturbs the Brain, intoxicates, and produces Headachs. Thus, in Wine-Vaults, a Person is intoxicated by drinking, sooner than elsewhere, because the Wine, though contained in close Casks, sends forth sulphureous Exhalations, which escape the Sight. It is certain, that the Tartars import their Cha, or Chamelæagnus, into China; but, it is not, to me, probable, that they prepare it in the same Manner with the Chinese: For, if we consider the Customs and Regimen of the Tartars, we find them intolerably addicted to Drunkenness; notwithstanding which, they are very robust and hardy: Hence, if they eat Herbs crude, and also boiled, as they do their Baltracan, it is probable, they toast their Cha, or dry it, and use it, whether after a Crapula, or not, and whether they are afflicted with a Pain of the Head, or not; provided they are intoxicated with it, as the Country People of Europe are with the Chamelæagnus In order to correct this intoxicating Quality of the Chamelæagnus, the Chinese gather the Leaves in the Spring, and not in the Summer: Now, it is sufficiently certain, from chemical Observations, that the sulphureous Parts of Herbs are easily exhaled. This was well enough known to Galen, since, in Lib. de Aliment. Facultat. Cap. 18. he tells us, that the drastic Qualities of Substances, that is, their saline, sulphureous, and volatile Parts, are corrected, or drawn out by boiling, roasting, or Maceration. Hence, the Chinese toast, or carefully dry their Tea, in a Stove; after which, they macerate it for a Quarter of an Hour in warm Water, but do not boil it, lest, by that Means, it should be deprived of all its Virtues: Thus, it is sufficiently known, that *Rhubarb* is deprived of its purgative Qualities by toasting it, and *Alexandrian Senna* by being boiled, and strongly expressed. If, therefore, as I before hinted, the Europeans would imitate the Chinese, they would only use those Leaves of the Chamelæagnus, which are gathered in the Spring; but not the Shrub itself, nor the Flowers, nor Seeds, boiled in Ale instead of Hops; for the Leaves ought only to be macerated: Nor is it probable, that the Chamelæagnus would intoxicate so soon, if it was intirely deprived of its Seeds; for this Effect is produced by the Sulphur which abounds in other Herbs and Shrubs, as well as the Chamelæagnus, and is sometimes more, and sometimes less volatile, or fixed: Thus, the Scent of the Heart of the Moschatella is intirely lost,

it appears half withered, it emits no Smell; but sends forth a strong one when gently rubbed between the Hands; for if it should be bruised, the Labour would be lost. Rue also contains so volatile a Sulphur, that, when it is dry, it has almost no Colour, whilst its Seeds are oleous and sulphureous. Wormwood holds a Kind of Medium, consisting of one highly volatile Principle, which greatly affects the Head; for which Reason some would have it washed in warm Water before it is used for the Preparation of the Vinum Absinthites, and another of a more fixed Nature; as also a volatile and fixed Salt: Thus, also, Garlick, Mother of Thyme, and especially the Laurel, abound in Sulphur, as well as the Chamelæagnus, in which, indeed, it is more slowly and difficultly consumed, than in the others. When, in order to investigate the Virtues and Faculties of the Chamelæagnus, I kindled some Part of it, together with the Seeds; it did not burn suddenly, like the Juniper, but slowly, like the Beech, with certain Noises, or Kinds of Explosions, intermixed. The Smoak, which filled the whole Laboratory, was of an acrid Smell, highly resembling that of the kindled Twigs of the Beech: Hence, we infer, that the Chamelæagnus contains a large Quantity of Sulphur and volatile Salt. From these Reasonings and Experiments, I think it is sufficiently obvious, that it is, upon account of the grateful and duly corrected Sulphur of the Chinese Chamelæagnus, that the Brain is so much refreshed, and that Persons who use it in China, can, without any Loss, sit up whole Nights in transacting Business; a memorable Instance of this we have in Alexander Rhodius, who always had Disorders of his Head removed by drinking it: Whereas, the European Chamelæagnus, especially that which is full grown, and abounds with Seeds and Flowers, when boiled in Ale, intoxicates those who drink such Ale, procures Sleep, and excites Head-achs. These Circumstances, when impartially weighed, will vindicate me from Partiality, when I despise the costly Chinese Chamelæagnus, and, in its stead, substitute our own, a Shrub of uncommon and excellent Qualities against Poison, and the Bites of Serpents: Since, according to Pliny, these noxious Animals cannot endure the Smell of it. These Virtues of the Chamelæagnus, we can teach the Asiatics, but can hardly believe that, by Virtue of their Tea, Persons may sit up all Night, without sustaining any Loss.

by being frequently smelled. The Geranium Moschatum also, has this peculiar to itself, that when

Every one is convinced that two Kinds of *Tea* are sold in the Shops, one of a blackish Colour, and the other of a faint Green; the one pretty much, and the other far less crenated: This Variation of the *Chinese Tea*, I can sufficiently account for; since *Tulpius* tells us, that the Leaves of the *Chinese Tea* are of a dark green Colour; whereas those produced in *Japan* are of a fainter Colour, and more grateful Taste; for which Reason, one Pound of the latter is, in the *Indies*, frequently sold for an Hundred *Libræ* of Silver, or, according to *Trigautius*, only for ten or twelve *Nobles*. Notwithstanding this, the Shopkeepers of *Amsterdam* and *Hamburg* sell a Pound of this Commodity for eight *Nobles*, as I have often before observed.

I cannot, on this Occasion, forbear recommending the Conduct of Oluis Wormius, who, in his Musæum, Lib. 2. Cap. 14. informs us, that he macerated a certain Quantity of both Kinds of Tea, in warm Water, and found the Leaves of the one, when spread, of a dark green Colour, crenated like Rose-Tree Leaves, oblong, and about an Inch in Length. Mr. Harford, the King's Apothecary, made me a Present of two large Boxes full of Tea, of different Colours: In the one Box, which contained the green, I found neither Stalks, nor Flowers, nor Seeds of the Plant, but only the Leaves; but, in turning over the Bohea Tea, contained in the other Box, I found three Stalks, so nearly resembling those of the Myrtle, that, not only Mr. Harford and I, but also some others, thought that they might be justly accounted the Stalks of the Myrtle: This, in so dubious a Case, is a pretty strong Argument, that Bohea Tea is adulterated with Myrtle, which may, very properly, be substituted, in its stead, or rather exactly agrees with it. This blacker Species of Tea, or Myrtle, is far cheaper among the Indians than the green Kind. The celebrated Olaus Wormius, on account of the vast Diversity in the Leaves of Tea, suspects that the Leaves of some other Plant are often sold in their Stead. This also, as I before observed, often happens with respect to Tobacco. That I might not, however, be charged with Rashness, or falsly accusing the Asiatics of Fraud, I thought it incumbent upon me, attentively to view the Chinese Tea; for which Purpose, I ordered Mr. Harford's two Apprentices, to pick out some of the largest, and most perfect Tea Leaves, to be macerated in warm Water, and then spread and unfolded: Accordingly they shewed me ten, which were neither lacerated, nor torn; and two of the most perfect of which were accurately engraved by Albert Halwey, the King's Engraver. See Histor. Cochlear. 4. Class. Quadripartit. Botantic. These Leaves were of different Shapes and Bulks, but so like those of the Chamelæagnus, that the one could hardly be distinguished from the other. The Leaves of the green Kind seemed to be produced by an Herb, or Shrub, of a quite different Species from the Chamelæagnus, the Leaves of which, when gathered small, and in the Spring, make, in my Opinion, the most genuine *Tea*.

But though I have before shewn, from the Authority of *Bauhine*, that the Leaves of one and the same *Chamelæagnus*, sport and vary considerably from each other; yet, I would not, because this may also probably happen to the *Chinese Tea*, have any one infer, that, in *China*, the *Tea*, which some maintain to be the *Cha* of the *Tartars*, is not adulterated. I am, indeed, of Opinion, that it is adulterated, but never either affirmed, or so much as intended to insinuate, that Nature sported and varied so in the *Chamelæagnus*, either of the *Tartars*, or *Europeans*, as to produce Leaves of a different Species: Nor is this Variation, and Sporting of Nature, surprizing in the *Chamelæagnus*; since it is equally, if not more, palpable, in Prunes of different Colours, Peaches, Apricots, sweet and bitter Almonds, and the Leaves produced by these Trees. I have often carefully viewed and turned over all the three Thousand Plants, with which my Repository is enriched, in order to see whether any of them resembled the spurious *Chinese Tea*, or that with which the genuine is adulterated; and I found the Leaves of two Shrubs highly similar to those of the spurious *Tea*: The one is by *Carolus Clusius* in *Lib. 5. Rarior. Plantar. Histor. Cap. 20.* called

Pyrola quarta Fruticans; and Bauhine, in his Pinax, calls it the Pyrola Frutescens Arbuti Folio: The other is a Shrub, called by Clusius, in Lib. 1. Histor. Plant. Cap. 53, the Spiræa Theophrasti, and by Bauhine, Frutex Spicatus Foliis Salignis Serratus dictus.

As it was expedient to compare my Description of the Chinese Tea with those which Dodonæus gives of the Herb Betony, and the Chamelæagnus; so, in this Place, I think it proper to insert the Descriptions which Clusius has given of the Pyrola Fruticans, and the Spiræa Theophrasti; the former of which he describes in the following Manner: "One Genus of this Plant is sometimes of a shrubby Nature; for new, short, and small Branches springing up every Year, remain firm and green for some Years, and rise above the Earth, till by their own Weight they bend downwards, hide themselves in the Ground, and sometimes send out fibrous Roots. Two, three, or four small carnous Leaves generally grow between the Nods: The superior Parts of these Leaves are of a deep green Colour, and shining, whilst, in Form and Bulk, they almost resemble those of the Chamædaphne, or Laureola, only they are serrated about the Edges, and of an highly drying and bitterish Taste, like the Leaves of the other Species of Pyrolæ." These last Words ought carefully to be adverted to. The same Clusius, in Lib. 1. in Rarior Plantar. Histor. describes the Spiræa in the following Manner: "It rises to about the Height of two Cubits, with small Branches, or Twigs, covered with a reddish Bark. Among these Branches arise, without any Order, numerous, long, and narrow Leaves, resembling those of the Willow, serrated about the Edges, with their superior Surfaces of a faint green, and their inferior as if they were besprinkled with Verdegrease: They are of a drying and kind of bitter Taste." The last Words of this Description are also to be carefully adverted to, since the Leaves of Tea are not only serrated, but also of a drying and bitter Taste. As, therefore, the Pyrola Fruticans of Clusius, and the Spiræa of Theophrastus, and especially the former, are of a drying and bitterish Taste, it is highly probable, that the *Chinese* Tea may be adulterated with one, or both of these; especially, since they not only greatly resemble each other in Form, but also in Taste. A Cut of one Leaf of the Pyrola, I have annexed to the Description of Scurvy-Grass, in my Quadripartitium, No. 9. and another of a Tea-Leaf, produced in China. As for a Cut of the Spiræa, the Curious may have recourse to Clusius, or they may find one Leaf of it accurately engraved in Plate 2, of this Work; where two Leaves of Chinese Tea are engraved. The larger of these is so like the Spiræa of Theophrastus, both in Length, Breadth, Bulk, the Course of the Veins, and the Disposition of the Crenations, that there is hardly the smallest Possibility of distinguishing the one from the other: But both these Leaves are vastly unlike to that Tea Leaf which, in No. 7. of the last cited Plate, I ordered to be engraved, with the Cochlearia Danica: But the other small uncrenated Leaf is like the Chinese Tea, as the latter is like the *Chamelæagnus*, which, as I have already observed, sports and varies very surprizingly in its Leaves: This latter, I take to be genuine Tea; whereas, I am of Opinion, that the former, resembling the Spiræa, is spurious. Since, therefore, both Tartary and China, abound with the Pyrola, and the Spiræa of Theophrastus, I think we have just Reason to conclude, that all the Leaves sold among us for Tea, have not been gathered from one Species of Shrub, or Herb, but are adulterated with those of the Pyrola, the Spiræa, or some other Shrub; among which, we may justly reckon the Rhus, or Sumach, on account of the Similarity of its Leaves, Flowers, Taste, and Bulk; though I am sensible, that the celebrated Bauhine, in his Pinax, has placed it among the Species of Agnus Castus, and made it a Kind of intermediate Plant, between the Vitex and Ligustrum, calling it Frutex Spicatus Foliis Salignis serratis. In consequence of this, it seems dubious to what Kind of Shrubs it is principally to be referred: Its Flowers grow in a spicated Order, on the Tops of the Twigs, like those of the Agnus Castus; so that the Spiræa very much resembles the Vitex: But, when the Flowers, and crenated Leaves of the Spiræa, are accurately viewed, we find, that it is more justly referred to the Rhus, or Sumach, than to any other Species of Shrub. As neither Theophrastus, Clusius, nor Bodæus a Stapelen, have mentioned its Virtues, I shall not assert that they agree exactly with these of the Chinese Tea; only, it is highly probable, that the Chinese Tea is adulterated with the Spiræa, either by the Asiatic or European Dealers. Avarice has not only prompted People to this Piece of Fraud, but also to lodge Tobacco in Office-Houses, in order to render it more acrid. In order to evince how like the Chinese, or Japonese Tea is to the Spiræa, I refer the Reader to Tab. 1. Fig. 6, & 7, the former of which is a Leaf of Tea, and the latter that of the Spiræa.

Happening one Day to visit *Hieronymus Molmanus*, a learned Jesuit, to whom I communicated my Paradox about *Tea*; that Gentleman, upon my commending *Trigautius* and *Rhodius*, ordered me to read *Martini Martinii novus Atlas Sinensis*, as the best and latest Account of the *East Indies*, or rather of *China*. When I found this Work, I was glad to meet with a Description of the *Cha*, in the Account of the Town *Hojechu* in *Nanquin*, in which the Author affirms, that it is no where better and more valuable. *Martinius* informs us, that the *Chinese Tea* belongs to the *Rhus*, and is highly similar to it: But this *Rhus*, as I have already shewn from *Pliny*, *Clusius*, *Dodonæus*, and *Dalechampius*, is the same with our *Chamelæagnus*. Hence, it is not only obvious in itself, but confirmed by the Authority of *Martinius*, that the *Chinese* are guilty of Fraud and Imposture in adulterating their *Tea*.

The Description which *Martinius* gives of the *Thee*, is as follows: "The Leaves, most commonly known by the Name of *Cha*, are no where more valuable, than in the Province of *Nanquin*; and, for the Sake of the Curious, I shall describe them as briefly as possible. The Leaf is exactly similar to that produced by the *Rhus Coriaria*; and I am apt to think the former is a certain Species of the latter, though the *Thee* is not wild, but cultivated, is not a Tree, but a Kind of Shrub, sending forth various small Branches: The Flowers of the one do not much differ from those of the other, except that those of the latter are of a more yellowish White than those of the former. The *Tea* flowers in the *Spring*, and the Flower emits a gently fragrant Smell. It is succeeded by a green Berry, which soon assumes a blackish Colour: The tender Leaves appearing

in the Spring, are thought best. These, when gathered, they put into an Iron Pan, over a slow Fire, and heat them a little; then they put them in a thin fine Cloth, and again expose them to the Fire, till they are intirely dry, and shrunk up. When thus prepared, they generally keep them close stopped leaden Vessels, in order to prevent Evaporation, and the free Access of the Air. After they have been kept a long Time, they resume their primitive Verdure, and expand themselves when put into boiling Water, in which they produce a greenish Colour, and communicate to it a pretty grateful Taste, especially to those who are accustomed to drink it. The Chinese greatly extol the Virtues of this warm Liquor, which they frequently use by Day and Night, making it the common Entertainment for Strangers and Visitors. The Price is very various, since a Pound ascends from an Halfpenny, to two, or more, Nobles: To this Liquor, it is principally said to be owing, that the Chinese are never afflicted with the Gout and Stone. When drank after Meals, it removes Crudity and Indigestion, for it greatly assists Concoction: It affords Relief after hard Drinking, and Surfeits of every Kind; for it is of a drying Quality, removes superfluous Humours, expels somniferous Vapours, and prevents Drowsiness and Oppression in those who incline to study: It has various Names in China, according to the Places where it is produced, and the different Prices of it. The best in Nanquin, is generally called Sunglocha. For a farther Account, the Curious may consult Rhodius de Regno Tunking." Martinius also informs us, that the City Luchen, in the Province of Kiangnan, is celebrated both for the great Quantities, and the Goodness of its Tea.

I could heartily wish, that all the practical Physicians in Europe would concur to giving a Sanction to this Doctrine by their Practice; for besides the Testimonies of Trigautius and Rhodius, I am certain from Experience, that the Cha is the Rhus Coriaria, or a certain Species of it, whose Qualities and Marks are known from what has been already said. I do not, in the least, doubt, but the Cha of the Tartars, or the Thee of the Chinese, is our Chamelæagnus, or Pliny's Herb Rhus; especially since Clusius, in Auctar. Exoticor. Libror. expresly asserts, that from the Cuts of some Chinese Books, which Pavius and Joseph Scaliger received in a Present from some East India Merchants, though coarsely engraved, he perceived that many Chinese Plants are exactly similar to some of those produced in Europe. This Circumstance renders it highly probable, that China which borders upon Tartary, produces our Chamelæagnus. I am heartily sorry, however, that I have not had an Opportunity of conversing with Martinius on this Subject, since, according to Galen, in Lib. de Compos. Med. Cap. 3. reading an Author's Works, is not so satisfactory, as a personal Conversation with him. However, as I have only followed Reason, and the Course of my own Thoughts, I hope I shall have no Cause to repent my Labour; since, according to *Cornelius Tacitus*, in *Annal. 15.* many Things are obtained by Experiments and Efforts, which, to the lazy and sluggish Part of Mankind, seemed highly difficult, if not impossible. Thus the Romans, by Bravery and Activity, raised their originally petty State, to a most extensive and powerful Empire. Columbus discovered America by Reading and making Efforts for that Purpose. Copernicus, and Ticho Brahe, by their extensive Acquaintance with Mathematics, discovered and demonstrated many important Things, unknown to our Forefathers. The illustrious Hoffman, in Paralcip. Officinal, when giving a noble Scope to his Imagination, in the Investigation of Mineral Waters, tells us, that the advancing probable Things, is an Advantage to the Cause of Truth, and was always looked upon as such by Plato, Aristotle, Galen, and all other Philosophers. Notwithstanding the incomparable Learning and Industry of Martinius, I cannot comprehend some Things in his Description of Tea; for I cannot conceive why he asserts, that the Rhus Coriaria is not wild, but cultivated among the Chinese; since Matthiolus, Bauhine, and Hoffman, do not, with Galen, make a Distinction between the Rhus Coriaria, and Culinaria, which, by Trigautius and Rhodius, is called the Cha, or Thee; but if Martinius had mentioned the Myrtle, I should have conjectured, that he followed other Botanists, who exclude the Myrtus Sylvestris Dioscoridis, in the Shops known by the Name Ruscus, or Bruscus, from the Species of true Myrtles. Thus Marcellus Virgilius, in Comment. in Dioscorid. Lib. 1. Cap. 132. makes a great Difference between them in the following Passage: "The Myrtus Sativa of Pliny, which I describe in this Chapter, is not like other Plants, sown in continued Tracts of Ground; and though it thrives better in Gardens, than in uncultivated Soils, this is not the only Difference between it and the Myrtus Agrestis, which is a Plant of an intirely different Kind, which the Greeks call Oxymyrsene, and the Latins, Ruscus; for, upon Comparison, the Myrtle is milder than the Ruscus, whose cuspidated Leaves are pricking and sharp. It is, however, certain, that the Ruscus was, by some of the Antients, called *Myrtus Sylvestris*." I do not remember, that any Botanist has brought such a Charge against our Chamelæagnus, since it is universally enumerated among the Species of true Myrtle, though of the wild Kind. The Reason why Martinius calls the Chamelæagnus a cultivated Plant, as I suppose, is, because the Chinese, seeing us so fond of Tea, have begun to cultivate it, in order to draw the Profits arising from it, just as the Europeans do the Vine, for the Sake of the Grapes, the Persians the Mulberry-Tree, for the Silk; the Inhabitants of Narbon and Provence, the Ilex Coceigera, for the Sake of the Cochineal; or the Americans the Tobacco, on account of the large Quantities of it imported into Europe. As Trigautius thinks it not impossible for Tea to grow in some Parts of Europe, and as Rhodius affirms, that the Chinese are as busy in the Time of gathering their Tea, as the Europeans are in their Harvest; so, it is probable, that some Tracts of Land may be sown with Tea in China; notwithstanding which, it is more agreeable to the usual Way of speaking, to call Tea rather a wild, than cultivated Shrub. The Chinese also, according to Rhodius, do not gather all the Leaves produced by the Shrub, but only such as appear first in the Spring, and are soft and tender, which they also gather, one after another. Hence I infer, that the Leaves in the Summer, are very unlike those in the Spring, which is also observed in those of our Chamelæagnus, with respect to Softness, Smoothness, and Colour; so that it is not to be wondered at, if the Chinese Chamelæagnus appears milder than our own; since they collect, prepare, and dry theirs in a quite different Manner from us: "For, first, they

put it in an Iron Pan, and warm it gently over a slow Fire; then, they wrap it up in a smooth, thin Cloth, and again expose it to the Fire, till it is corrugated, and shrivelled up." Hence it is, that our Chamelæagnus, when macerated in warm Water, is of a different Colour, Taste, and Smell from the Chinese Tea, though their Effects are the same, only those of the former are stronger and more considerable than those of the latter. If, therefore, in our Country, the Chamelæagnus was gathered with the same Circumstances, Pains, and Precautions observed by the Chinese, I doubt not but it would be equal to, their Tea; for if the same Measures are not taken in the Preparation of the same Herb, how is it possible, that it should produce similar and uniform Effects, especially if the one is gathered in the Spring, and the other in the End of the Summer: The one artificially dried in the House, and the other dried in the open Air by the Heat of the Sun; the one collected when it begins to appear, and other when the Plant is full of a roscid, sulphureous Dew, and bears Flowers, and Seeds. For this Reason, Scherbius justly observes, "That when many Things concur to the Production of the same Effect; all these Things ought to be exactly the same." Hoffman, in Comment. Lib. 7. represents this Doctrine in the following accurate and beautiful Manner: "Individual Objects often appear to our Senses to have no Difference; whereas, a very considerable one is observed in their Effects. This Circumstance constitutes that Individuality, which cannot be described, and which, I remember, Scherbius, my old Master, used to illustrate by the following Simile: If a Bell-Founder should make twenty small Bells, of the same Metal, in the same Mould, at the same Time, and in the same Place; yet the Sound of no one of them will be perfectly similar to that of another. What can be the Cause of this Variation? The Artist, the Mould, the Metal, and the Fire, concur to produce the same Effects, which, however, is not obtained. Besides, if we were carefully to examine these Bells by the Sight, the Touch, the Weight and other Circumstances, we can discover no Difference; which, however, is sufficiently evinced by the Sound. Some Things, said my Matter, can neither be described, nor expressed, and of this Kind are these Differences. Perhaps, in this Case, there is not an equable Thickness of the Metal, because the Fire has not equably pervaded all its Particles. Perhaps the Surface is not every where smooth because the fused Metal might have been in some Parts more refrigerated than in others: and perhaps, there maybe other Variations; for, unless all Circumstances exactly concur, the same Sound cannot be produced in all the Bells." I have quoted this Passage from Hoffman, lest any Person, observing some Differences between our Chamelæagnus, and the Chinese, or Tartars Tea, should forthwith doubt,—whether they are Shrubs of the same Species, as I have already proved them to be. The Chinese Tea, therefore, and our Chamelæagnus, are Shrubs of the same Species; though, for the former, we go beyond the Cape of Good Hope, into China, cross the Equator four Times in every Voyage, and expose ourselves to uncommon Hardships and Dangers, in order to bring Home the Leaves of an unknown Shrub, which has not the same Virtues and Qualities for which the Chinese Tea is celebrated in China, and to which our European Betony is preferable. Since, therefore, the Chamelæagnus is now sufficiently known, we have no more Occasion for Tea from China, than we have for Arum from Asia, Wormwood from Pontus, or Scordium from Crete.

I now proceed to consider the peculiar Virtues commonly supposed to reside in Tea, but which I assert are equally to be found in European Plants; for the Chinese are guilty of a fulsome Exaggeration, when they assert that it has a Tendency to prolong Life. The Virtues, then, of the Tea, seem to be most accurately described by Rhodius and Martinius, who seem to have reduced them to three Heads; the first of which, according to Rhodius, is, that it alleviates Pains of the Head, and represses Vapours: The second, that it corroborates the Stomach: And, the third, that it expels the Stone and Gravel from the Kidneys. These Virtues are, by Martinius, recited in the following Order: To the drinking of this warm Liquor, it is said to be owing, that the Chinese are Strangers to the Gout and Stone. When drank after Meals, it removes Crudities and Indigestion. When exhibited to drunken Persons, it affords them Relief, and prevents the bad Consequences of Surfeits; for it is of a drying Nature, carries off superfluous Humours, expels somniferous Vapours, and removes the languid State of Students, who are oppressed by long Application. These Virtues are, at present, to be carefully examined. I shall not here speak of those Qualities, which are the Result of its Temperature; since I before evinced, that the whole Substance of the Tea was grateful to the Brain; but at the same time shewed, from a singular Observation, that *Betony* was possessed of the same Virtues and Qualities.

First, then, it is asserted of *Tea*, that it removes the bad Consequences of Surfeits, because it is of a drying Nature, and carries off superfluous Humours: The same Effects are also produced by *Betony*: But as for the Expulsion of somniferous Vapours, and removing the languid State of hard Students; these Properties are more frequently ascribed to the true *Myrtle*, than to *Betony*; which, however, as we shall afterwards shew, is also recommended against Intoxication.

The second Virtue of *Tea* macerated in warm Water, is, that it corroborates the Stomach; which Effect is also remarkably produced by *Betony*.

The third Virtue it is said to be possessed of, is, that it frees the Kidneys from Stones and Gravel; for which Reason, according to *Martinius*, the *Chinese* are Strangers to nephritic and arthritic Disorders. *Betony* remarkably produces this Effect, and, at the same time, is a powerful Preservative against the Gout. The other Qualities of *Tea*, enumerated by other Authors: I shall not here mention, that I may, at more Length, compare it with *Betony*. The Reader may, however, consult my *Quadripartitium*, and *Antonius Musa*, who, in *Libell. de Betonica*, affirms, that *Betony* is possessed of so excellent medicinal Virtues, that it cures no less than forty-seven Disorders; which none of the *Chinese* have ever dared to assert, concerning their *Tea*: The *Asiatic Tea* is, therefore, far inferior to the *European Betony*. The same Author affirms, "That *Betony*, previously taken, prevents Intoxication." By which Words, *Musa* insinuates, that it guards against a Surfeit, and, consequently, frees us from Drowsiness; so that the whole Substance of it is equally grateful

and refreshing to the Brain with *Tea*. It were to be wished, that this Physician had directed the Method of preparing *Betony*, in order to prevent Intoxication; by which Means the *Europeans* would, in all Probability, have been encouraged to greater Care and Diligence in cultivating, drying, and separating the small from the large Leaves of our *Chamelæagnus*, a Decoction of whose Flowers would have been as grateful to them as that of the *Chinese Tea* is to them. But if any should foolishly dread the Use of the *Chamelæagnus*, which, however, is much used, and greatly extolled in *Denmark*, and the Lower *Saxony*; such Persons may, I think, substitute *Betony* in its Room. But, if a Physician should order an *European* Cobler, or Day-Labourer, frequently to use a Decoction of *Betony*, they would sneeringly bid him use his insipid Water himself. But the Custom of drinking *Tea* only prevails, because it is a new Thing, unknown to the Forefathers of the *Chinese*, and is imported from *Asia* into *Europe*, whose Inhabitants of all Ranks are so excessively fond of it, on account of its grateful Bitter, and sub-astringent Taste: The same may be said of the *Indian Chocolate*, and the Water impregnated with the *Chavva* of the *Persians*, since these three Liquors have generally no more grateful a Taste, than a Decoction of coarse *European* Pears, or what the *Germans* call a *Pear-souse*.

But, as Antonius Colmeri de Lodesma has given a distinct Account of Chocolate, and the Method of preparing it, the Reader may expect that I should say something of the Use and Method of preparing the Water of Chavva; and this I shall the more willingly do, because no Physician, or Botanist, so far as I know, has expresly, but only accidentally, and imperfectly, given the History of the Chavva. But I would advise Physicians to order the Use, not only of Chocolate, but also of the Chavva, very sparingly; though both Liquors are highly commended by the high and learned, as well as the low and illiterate Part of Mankind: For Hieronymus Benzo, who, according to Dalechampius, Lib. 18. Histor. General. Plant. calls it, "A Wash rather fit for Hogs, than a Liquor proper for human Creatures." Benzo, after residing above an Year in the Province of Nicariquan, in America, had, all the while, a mortal Aversion to this Liquor; till, falling short of Wine, he learned to imitate the Natives, that he might not be under a Necessity of drinking Water perpetually. This Liquor, by its somewhat bitter Taste, refreshes and refrigerates the Body, without intoxicating those who use it. This is the principal and dearest Commodity of those Countries; nor do the Indians, who use it, esteem any thing more highly, according to Clusius, Lib. 2. Exot. Cap. 29. and Anonym. Auctar. in Dodon. I must own I should, with Benzo, have preferred pure Water to this unnatural Mixture, which, as well as Coffee, and Tea, the Europeans may very well want, without any Loss of Health: And it were to be wished, that the excessive Demands for all these, did not excite People of sordid Tempers, to adulterate them, with Substances of heterogeneous Parts, and such as are unfriendly to Nature. This, as I have before mentioned, with respect to *Tobacco*, is the Reason why, in our Age, we are seized with Disorders, the Names of which are not so much as mentioned in the Writings of the Antients. Hence Bartholin thinks, "That Aromatics and Spices, which are no less the Causes of Wars in Europe, than of Commotions in the Body, ought to be prohibited; since the Purposes of Life and Health will be far better answered, by cleansing the Blood now and then with the Leaves of the Coluthea, Water-Cresses, or Fumitory. We are also to chuse an Antidote for common Use; but not the Theriaca, of which the Emperor Antoninus took the Bulk of a Bean every Morning, nor the Mithridate: for these are injurious by their Heat, and consequently improper for us. But we are to use Conserve of Roses, Rob. of Elder, Electuaries of Marygolds, the Morus Norvegica, and other indigenous Plants, whose Qualities are best suited to our Temperaments and Constitutions." But the Use of the Herb Tea, if it could be brought fresh and recent from China into Europe, would be more tolerable than that of Chocolate, and Coffee, which is of all others the worst: Since a Decoction of the Chavva surprizingly effeminates both the Minds and Bodies of the Persians; by imitating whom, we shall never arrive at that Vigour and Hardiness, which Julius Cæsar, and Cornelius Tacitus, so much admired in our Forefathers.

We have before observed, that *Amurath*, the fourth Emperor of the *Turks*, under Pain of Death, totally prohibited the Use of *Tobacco*, lest his Subjects should become barren. But we *Europeans* heedlesly go on by the Abuse of *Coffee*, to emasculate ourselves like the *Persians*, who are fond of Sterility, and, according to *Olearius*, much more salacious than the *Europeans*; But of this Effect of *Coffee* we shall afterwards treat.

As the Fruit of the *Cacao*, or *Cacarate*, which resemble *Almonds*, are the Basis of *Chocolate*, they are found engraved in *Tabernemontan*. *Lib. 3. Cap. 16*. So that I shall here give no Cuts of them, since I have done that in *Quadripartit*. *Botan*. *Class*. *3. No. 11*, *12*. when, describing the Seed *Bon*, or *Ban*, which is also called *Buna*, or *Buncho*, and *Bunea*, or the Seed from which is prepared the *Coava*, *Caova*, *Cavve*, *Choava*, and *Cahvve*, which, by a Corruption, is, no doubt, the *Coffee* of the *Europeans*.

If it should be asked, to what Class of Simples, whether that of Herbs, or Trees, we are to refer the Plant which bears the Seed *Bon*, from which the Water of *Chavve* is prepared, and which is also mentioned by *Olearius*, in *Itinerar. Persiæ, Cap. 17*. I answer, that some, ignorant of *Botany*, may take it for an Herb, whose Seeds resemble those of the *Turkish* Corn, or the *Indian* Corn, by *Bauhine* called *Mays*, or for our Wheat: Whereas, it is no Herb, but a Tree, by *Olearius*, in the last quoted Passage, described in the following Manner: "The *Persians*, in smoaking *Tobacco*, have always the black Water of *Chavve* present. The Fruit with which they prepare this Liquor is sent from *Egypt*; and, in the inner Side, resembles the *Turkish*, though on the outer Side, the *European* Wheat. This Fruit is of the Bigness of a *Turkey Bean*, and the Shrub bears a white Flower. The Fruit, or Berries, they burn, or roast, in a dry Pan; after which they grind them, and boil them in Water, which they drink, and which has a Kind of hot, unpleasant Taste. It is esteemed a great Cooler; for which Reason it is drank by most; but if it is used to Excess, it extinguishes the Inclination to Venery, and induces Sterility." The Seed *Bon*, or *Ban*, is collected

from a Tree bearing its own Name, if we may believe Prosper Alpinus, Lib. de Plant. Egypt. Cap. 16. This Author, after residing some Years in Egypt, saw the Bhon-Tree in the Green-House of Hali Bei, the Turk. An intire Description and Cut of this Tree is also to be found in Tom. 1. Lib. 4. Histor. Plantar. Univers. Cap. 5. Since, therefore, Alpinus compares this Tree to our Euonymus, and says, that the former resembles the latter: Hence Caspar Bauhine, in his Pinax, places it among the Species of Euonymus, and calls it the Egyptian Bon, like the Euonymus, with a Fruit like Bay-Berries, from whose Seeds the Egyptians make their Liquor, called Coava. Though this Fruit, with respect to Figure, Bark, and Colour, is highly similar to Bay-Berries, yet it is far less in Bulk. In my Opinion, it most resembles the Seeds of the admirable Peruvian Tree, Decoctions of which, are used by the Eastern Nations, the Egyptians, Turks, and Persians, for corroborating a cold Stomach, assisting Concoction, and removing Obstructions of the Viscera. They also, with Success, use this Decoction for many Days against old Obstructions, and cold Tumors of the Liver and Spleen. This Decoction, according to Alpinus, seems also appropriated to the Uterus, which it warms, and frees from Obstructions: Thus, the Egyptian and Arabian Women, for the due Evacuation of their Menses, use this Decoction for several Days after they commence. Hence, according to Olearius, the Persians are not afraid, lest the Decoction of Cavve render them cold; unless we should also say, that Agnus Castus which induces Sterility, is also of a cold Temperature: But this Doubt will be cleared by-and-by. It were to be wished, that the celebrated Johannes Weslingius, who also travelled into Egypt, had had an Opportunity of seeing this Tree; since he would have given us a more accurate Description of it, than we have hitherto got; for, in Commentar. in Prosper. Alpin. he tells us, that the Fruit of this Tree is brought from Jamin, or Arabia Felix into Egypt; and, that a Decoction of it is sold in some Thousands of Taverns at Memphis. Prosper. Alpinus also, in Lib. de Medicina Egyptor. Lib. 4. Cap. 3. when treating of the Decoctions used by the Egyptians, whether sick, or in Health, tells us, that, in a particular Manner, they make use of the Decoction called Choava, prepared with the Coats or Husk of the Seeds called Bon. Then he describes the Preparation of Bon, by telling us, that it smells like Corn, Rye, Barley, or Pease, when thrown upon live Coals, and burned a little. Alpinus, however, endeavors to evince, that the Seeds of Bon consist of two Substances, the one thick and earthy, by which they brace up and corroborate, and the other thin and subtile, by which they heat, absterge, and remove Obstructions. That they are highly drying is certain, but I cannot for this Reason comprehend why Prosper Alpinus asserts, that Cold prevails moderately in them; for they act by their whole Substance, both by their Salt and both Kinds of Sulphur: So that it is highly probable they produce these Effects, on account of their ungrateful Taste and Smell. But it is said these Seeds are corrected with Sugar. Thus Weslingius informs us, "that some correct the Bitterness of this Decoction with Sugar, and preserve the whole Kernel of the Fruit incrustated with Sugar. Nor is this only customary in Egypt, but also through all the Provinces of Persia. This renders the Seeds Bon not only dear, but scarce, in Europe." Though Weslingius thinks that these Seeds are useful to the Europeans, yet I am of a different Opinion; for, in like Manner, the Europeans have resolved to sweeten, not only their Coffee, but also their Chocolate and Tea, without having any View to prevent Disorders, or recover Health; but only to follow the Customs of the Asiatics, and indulge themselves in a Liquor, whose Taste is pleasant to them.

If it should be said, that Tulpius informs us, that the Chinese dissolve a few Grains of Salt, or Sugar, in their Infusions of *Tea*, I answer, we here enquire not what is done, but what ought to be done; not what is palatable, but what is conducive to preserve Health, and restore it when lost. Though I do not altogether disapprove of Salt in Tea, yet I absolutely condemn Sugar. How ill the Europeans, especially those of the Northern Countries, consult their Health, by mixing their Mustard, and their Sauces of Vinegar, and Horse-Radish, designed as a Preservative against the Scurvy, with Sugar, I have already shewn, in Class. 3. Quadripartit. Botan. For the same Reason, Sugar, mixed with an Infusion of Tea, infringes and impairs its Virtues; so that, by this means, we drink, not a medicated Water, but little more only than simple European Water, edulcorated with Sugar. This, no doubt, is an excellent Remedy against Intoxication; but certainly if we read both antient and modern Authors, we shall find, that Drunkenness may be removed by drinking cold Water. Besides, an Intoxication, next to Madness, may be greatly alleviated by wrapping up the Scrotum in Cloths dipped in cold Water. Hence we have but little Reason to bring Tea from China, Tartary, and Japan, at an extravagant Price, which might be far better laid out, in relieving poor indigent Families at Home. But the present Europeans are vastly different from what they were before the Asiatic Effeminacy was known among us. The Europeans might, perhaps, be indulged in the perpetual Use of Tea, provided their Regimen was the same with that of the Asiatics. Now, Regimen includes all the five Non-Naturals, which are Air, Meat and Drink, Excretion and Retention, Motion and Rest, Sleep and Watching, and the Passions of the Mind. Now, all these, in *Europe*, are vastly different from what they are in the *Indies*, as is obvious from the faithful and impartial Accounts, given us by Martinius, and Mandelslo. This Subject is excellently handled by Hippocrates, in Tr. de Aere, Aquis, & Locis, who joins these three together, with great Judgment, and for very sufficient Reasons; since each of the three has Atoms, in a manner, peculiar to itself, which it continually sends forth, and diffuses even to a great Distance: So that some Bodies, according to Bartholine, may, by means of the Atoms they emit, propagate the Sphere of their sympathetic Actions, to the Distance of a Thousand Miles. About the Equinoxes, and Solstices, the sudden Changes of the State of the Atmosphere, and the Variety of Vapours exhaled from the Earth, produce surprizing Alterations in Health. And these Exhalations rise sometimes in such large Quantities, as to be condensed, and by their own Weight to fall down, in the Form of sulphureous Showers: A memorable Instance of this we had in Norway, where, on May 19, 1665, a violent Tempest, accompanied with uncommon Thunder, and thick Clouds, broke out: During this Storm, there fell from the Clouds, a Substance, highly similar to Sulphur, which not only floated on the Water, but also seemed to cover the Earth. When

Stobæus subjected this Matter to an Examination, he found, after drying, and passing it through a Sieve, that when it was become moderately warm, on an heated Tile, it emitted a fetid Smoak of the same Colour with that of the Spirit of Nitre, in Distillation. But this Matter could not be fused by the strongest Fire; by which Means, however, it became inodorous, and like small Sand, though before it resembled a fetid, coarse Sulphur, reduced to Powder. The same Author, in his Letters also, informs me, that, when about as much of the recent Matter, as would lie on the Point of a Knife, was laid upon a red hot Tile, it was spontaneously kindled, made a Kind of Noise, and emitted a reddish fetid Smoak. Next Day Stobæus endeavoured to sublime this crude and sulphureous Matter, by itself, without any Addition, in order to discover, whether Flowers of Sulphur could be obtained from it; but his Labour was in vain; for though the Matter became red hot by due Degrees of Fire, yet no Flowers appeared; only the first Steam, which, in the Alembic, appeared reddish, in the Water, assumed a dark ferruginous Colour: Then, by augmenting the Fire, a whitish Spirit appeared, which gave a similar Colour to the Water. This Steam and Spirit appeared in Distillation to be of an acrid Taste; so that Stobæus justly concluded them to contain a volatile Salt, of a particular Kind. The same Author informs me, in his Letter, that the Rain which fell, during the Thunder, smelled of Sulphur: And from this Observation, he thinks, the Chemists Doctrine, concerning the Generation of Thunder, may be confirmed. As every Substance does not act upon every other Substance, nor sulphureous Things on those of the same Nature, he put this Matter into Spirit of Turpentine, and digested it by a gentle Fire; by which Means, it gave the Liquor a a yellowish Colour, and a Smell, very like that of Balsam of Sulphur: But of these I shall not treat at greater Length, since I am perswaded that Miracles have ceased, and that Providence disposes of second Causes according to wise and stated Laws. Hence it is, that about the Vernal and Autumnal Equinoxes, or Solstices, all Sorts of Diseases, and especially those of the endemial or epidemical Kind, rage; such as the Scurvy, Measles, and Small-Pox, as also the Plaque, though often these Disorders are confined to one City. A memorable Instance of this, we have in the Cities of Hambourg and Amsterdam, which, in 1663, and 1664, were afflicted with a Pestilence, which, however, did not spread itself to Denmark, Sweden, Britain, France, and Germany. But, as the Plague is imported from Africa, it is probable, that the Salubrity of the Atmosphere, in those Countries which escaped, checked the sulphureous, saline, and pestilential Atoms, which first contaminated the Air of Amsterdam, and then that of Hambourg. But all Countries differ so widely, with respect to Air, Water, and Situation, that none of them, even the most contiguous, are exactly alike, and conspire in producing the same Effects. Thus, among the German Wines, the Rhenish is the best; though it also differs in Goodness, according to the particular Parts in which it is produced. The like holds in the French Wine, the worst of which is reckoned that of Orleans; for which Reason, Quercean, in his Diæticum, Cap. 6. tells us, "That in the Oeconomy of the King of France's House, it is enacted, by a domestic Law, that the Steward shall give the King no Orleans Wines;" which, however, has a very grateful Taste. The same holds, not only in Ales, but also in other Things: Thus, the Noremberg Cakes, on account of the peculiar Qualities of the Water with which the Meal and Aromatics are made up, are far better, and more pleasant to the Taste, than those prepared in the same Manner, in any Part of Europe. This is what the Philosophers have been at so much Pains to account for. The Air, Water, and Situation, also constitute the Reason, why Tea in Europe does not produce the same Effects it does among the Asiatics, especially the Chinese. Many Persons of Rank and Distinction have informed me, that they could never be sensible of the so-much-extolled Virtues of Tea, nor perceive that it prevented Sleep, or rendered them more brisk, and fit for Business. One or two Persons, however, subject to Catarrhs, have confessed to me, that they have become far better by the long Use of Tea. Thus, I have heard, that a certain Ambassador to the Dutch, who before laboured under a Difficulty of Hearing, had his Disorder totally removed, by the large Quantities of Tea he drank at the Hague. I, myself, have found Tea to be diuretic. I own, two or three Persons who have travelled, not only through Europe, but also through the East Indies, have affirmed to me, that in Japan, the drinking of Tea infallibly removes Intoxication, and prevents Sleep; but this Effect is not at all produced by it in Europe. Thus, I have been informed, that Strangers, upon their Arrival in Muscovy, can drink such large Quantities of Brandy, as would put an End to their Lives in other Countries. Thus, it may happen, that the Chinese, or Japonese Tea, with the Assistance and Concurrence of other Things, may produce a particular Effect, which Tea will not do in Europe. But all these Effects are produced by Betony, an Herb universally known in Europe: Thus, it is certain, that our Chamelæagnus is the Tea of the Chinese, or Japonese. But to illustrate my Subject the better, I shall make a few Remarks on the peculiar Genius, Regimen, and Method of living used among the Indians and Chinese. The Indians then are fond of moistening Aliments, which guard against the Heat of the Sun; such as Cherries, Fruits of all Kinds, Pot-Herbs, Fishes, Oysters, Crabs: Besides, Michael Boym, a learned Jesuit, in his Flora Sinensis, mentions various Fruits which are not produced in Europe; whereas Nature has furnished the Chinese with others, either like to, or exactly the same with, those of the Europeans. The former of these, and the other similar Delicacies of the East Indies, do, in all Probability, give rise to new Diseases in Europe. This Jesuit speaks of China in the following Manner: "The Kingdom of China is, as it were, a Compound of the whole Globe, or rather, a Gem, in which more Riches are to be found than in all the rest of the World besides. In the Southerly Parts of the Country, the Heats are most intense, and produce large Quantities of all the Indian Fruits, such as Dates, Mangas, Ananas, and others: Whereas the Northern Parts produce Figs, Chesnuts, Nuts of all Kinds, Peaches, Apricots, and Pears of various Kinds." Thus provident Nature has furnished the Southermost Parts of China with Fruits intirely unknown to the Europeans; whereas, the Northern Parts produce such as are known in Europe, and suited to its Soil and Climate: Since, in the former, the Heats are very intense, but not so in the latter. Thus Nature seems to have prohibited us the Use of the former of these Fruits, by placing us at such a Distance from them, and to have indulged us in the Use of the latter, by placing us so near them;

for the Precept, of sometimes using Things to which we are not habituated, does not hold in this Case: Since, being *Europeans*, we ought to use the Regimen, Aliments, and Drinks, peculiar to *Europe*; for it is no less generally than justly observed, that the natural Produce of any Country is best suited to the Constitution of its Inhabitants. Thus *Tea* seems by Nature adapted to the Inhabitants of *China, Coffee* to those of *Persia, Chocolate* to those of *America*, and *Ale* and *Wine* to those of the different Parts of *Europe*. Thus the antient Inhabitants of *Saxony* and *Megapolis*, before they became fond of foreign Delicacies, used to say proverbially, *Drink Wine*, and reap Benefit from it; drink Ale, and become fat; drink Water, and die. It is also certain, that in former Times, the Inhabitants of *Iceland* and *Norway*, when they used a simple Regimen, and were Strangers to foreign Luxury, enjoyed good Health to an incredible Age; whereas, their Posterity are not only weaker, but hardly live beyond the thirtieth, fortieth, or fiftieth Year of their Age: So that the *Lyric* Poet seems to have made a just Prophecy of our own Generation, in the following Lines:

Damnosa quid non imminuit dies? Ætas Parentum pejor avis; tulit. Nos nequiores, mox daturos Progeniem Vitiosorem.

Europeans then must have their Constitutions impaired, and their Strength exhausted, by living like the Inhabitants of Asia, Africa, and America; especially since Macrobius, in Lib. 7, Saturnal. Cap. 4. shews, that the most simple Aliments are the most salutary, and easily digested. Besides, Socrates ordered his Pupils to abstain from such Meats and Drinks as created an Appetite after Hunger and Thirst were satisfied. But, according to the Chinese, Tea produces an Appetite after Hunger and Thirst are satisfied; therefore the drinking of it is to be abstained from. The same holds true with respect to Chocolate, and Coffee. But I return to the Chinese, who are accustomed to Water-drinking, and a frugal Life. Hence, their Physicians, whom Martinius, in the Preface of his Atlas Sinicus, seems to prefer to those of Europe, no doubt, enjoin them the Use of Tea, in order to prevent the Generation of excrementitious Humours; or, when generated, to carry them off by Stool, or Urine; for, it is certain, from what has hitherto been said, that Tea is moderately heating, bitter, drying, and astringent. If it should, for these Reasons, be said, that Tea is justly to be commended for a Weakness of the Stomach, I answer with Celsus, in Lib. 1. Cap. 8. "Our Countrymen ought not to be believed, who, when indisposed, covet Wine, or Water, and instead of charging their own Luxury, lay the Fault on the Stomach, which has no Share in it." This Passage is equally applicable to Tea, Coffee, and Chocolate, and seems to insinuate, that such Persons, in order to satiate their Thirst, falsly accuse their Stomachs. If this were more carefully adverted to by the Patrons of the Chinese Delicacies, and especially those who look upon Tea as a Panacea, they would use it more sparingly, especially in a bad State of Health; because Celsus, in Chap. 3. of the same Book, tells us, "That Changes ought to be gradually and slowly made; since that to which the Patient is not accustomed, proves, hurtful, whether it be

But the *Chinese* Method of using *Tea*, is not agreeable to the Custom of the *Europeans*, and therefore hurtful to them.

Hence the Germans, Saxons, and Inhabitants of other Nations, in the Baltick Sea, being neither accustomed to much Wine, nor to dilute it with Water, are generally seized with malignant Fevers, when they go into France, or Italy; because every fixed Substance fixes such as is volatile; whereas, such as is volatile, resolves that which is fixed. Hence the thick and fœculent Blood of the Germans, consisting of saline, sulphureous, fixed, and volatile Parts, and being changed by the Regimen of France, and the Heat of the Sun, is subtilized by the Tartar and Sulphur of the French Wine, especially in such Germans as took great Care of their Health, when in their own Country; and in those who enjoyed good Health, their Blood is not only subtilized, but also ferments, undergoes an Ebullition, and is despumated. Hence arise Spots of different Colours, produced by the Blood variously corrupted. But these I have considered more fully in my Digressio de Febribus Malignis. This Doctrine is warmly inculcated by Hippocrates, who, in Lib. de Fract. Senectut. §. 6. tells us, "That the Age and Constitution of one Person, differ widely from those of another." But this Assertion, how true soever, is but little adverted to by most of the Europeans. But I think it incumbent upon me, for the Reasons now alledged, to warn them against the Abuse of Tea; especially since we find, that this Herb does, by no means, answer the Encomiums bestowed upon it by the Chinese and Japonese. I own Tea is of a more drying Quality than many European Herbs; but, for this very Reason, the constant Use of it is so far from procuring Longevity, especially in Persons of a middling Age, that it rather accelerates old Age; which, according to Macrobius, in Lib. 7. Saturn. Cap. 11. is, "an Exhaustion and Dissipation of the vital Liquor, by Length of Time; for old Age is dry, for Want of natural Moisture, and sometimes moist through a Redundance of peccant Humours, produced by Coldness of Constitution." Since then Tea, by Means of the Sulphur it contains, is of a more heating and drying Nature than Ginger, Cinnamon, Pepper, Cubebs, Cardamomis, or Arabian Castus; hence, it necessarily follows, that it is injurious to old Persons, and such as are of a dry Constitution, and loose Texture of the solid Parts. On account of this dry Constitution, and natural Marasmus of old People, which no Art can prevent, they become thirsty, and more addicted to tippling, than in their younger Years: Hence arises the German Proverb, If a young Man knew the Pleasure of drinking in old Age, he would be saving in his younger Years.

It is not, therefore, the native Heat, but that fatal Dryness which renders the Members cold, and the Skin corrugated, which renders old Persons fond of drinking; and for this Reason, I have, in my *Commentaries*, universally commended a moistening Diet for them. Hence, the Inhabitants of

those Nations, who, besides Tea, daily drink Wine, ought carefully to guard against all sudden Changes in Diet and Regimen. Thus, when a certain celebrated French Physician, endeavoured to perswade a Person of eminent Rank, who was, generally, twice or thrice a Year seized with a Catarrh, to change his Regimen, and give over the Use of Wine, or, at least, dilute it with Water; because, in all Probability, the Physician told him, that cold Water powerfully corrected acrid Humours. Upon this, the Person of Distinction asked the Physician, whether he was in good Health? To whom the Physician replied he was: Then, says he, continue to drink Water, or Wine and Water, till you can drink no more; but you shall never, on account of slight Catarrhs, which are rarely offensive to me, perswade me to accept of a French, or Italian Regimen, instead of a Danish, and German: Nor will I drink Water instead of Wine, or Ale. I am at present full of Flesh and Blood, and enjoy a good Appetite: My Forefathers, for many Years back, were of the like Constitution, and used the same Regimen I do; but if, in the sixtieth Year of my Age, I should begin to drink Water, I am afraid I should rather resemble you than them; for you, who are a Water-drinker, though you enjoy good Health, yet you are emaciated, have a cadaverous Countenance, and seem to be rather a Skeleton than a living Person. I wish all Persons, especially such as are old, would follow the Example of this Gentleman, and obstinately reject Tea, which so dries the Bodies of the Chinese, that they can hardly spit. It is also an egregious Mistake, not only among the Persians, but also among most other Nations, to think that the Seed Bon, or Ban, which when toasted is called Coffee, and which I have taken Care to have engraved in the Plate after the History of Scurvy-Grass, No. 11, 12. of my Quadripartitium, is of so cooling a Quality, as to produce Impotence, even in those who use it frequently; for it only dries them. Thus Casmin, the Wife of Sultan Mahmud, after her Husband had so weakened himself by the Use of Coffee, that he had been impotent for many Years, is said, when she saw the Preparations making, for gelding a generous Persian Steed, to have told the Persons employed in that Work, that there was no Occasion for so much Trouble, since, by giving the Horse Coffee, he would become like her Husband, the King. This Story is, with the same Circumstances, related by Olearius, in his Travels through Muscovy and Persia. Coffee, then produces Sterility in the Persians, not because it is cold, but because it gradually dries their Bodies, by means of a certain Sulphur, as peculiar to itself, as those of Opium, Tobacco, or Agnus Castus are to them. As the Agnus Castus, or Vitex is, by Galen, said to be dry in the third Degree, like Rue, and to consist of very subtile Parts, it is impossible it should produce Impotence by rendering the Seed cold, which it diminishes and dissipates, not so much by the Subtilty of its Parts, as by its peculiar Sulphur. The incomparable Hoffman, both in his Variæ Lectiones, and in his Treatise de Medicamentis Officinalibus, has treated accurately of the Vitex. But, if that Author had been still alive, he would have agreed with me in this, that what Galen ascribes to the Subtilty of the Parts, not only of all Simples, but also of such Things as act by their whole Substance, such as Opium, Tobacco, Agnus Castus, Chinese Tea, European Tea, or the Myrtus Brabantica, or the Chamelæagnus Danica, is to be ascribed to their small sulphureous, and excessively dry Parts. Thus the Seeds of the Agnus Castus affect the Head, and from what has been said, it is sufficiently obvious, that the Seeds of the Chamelæagnus contribute principally to intoxicate the Country People, who prepare their Ale with it: The Seeds of the Agnus Castus, according to Hoffman, "do not convey Flatulences to the Head, except when they affect it by the Subtilty of their Parts (which I call their sulphureous Quality) just as Wine, whose Taste and Smell they have, according to Pliny, affects the Head, and procures Sleep." All these Properties of Wine, as well as of our Chamelæagnus, proceed from their Sulphur, which is grateful to the Nerves: But these Effects could never be produced, only by Galen's Subtilty of the Parts. But to proceed, in the Words of Hoffman: "Another Proof of the Subtilty of the Parts of Agnus Castus, (which I call its sulphureous Quality) is, that its Seeds, whether crude, or toasted, discuss Flatulencies of the Intestines, and most powerfully when toasted; since these do not so much affect the Head as the former." Thus, it also happens, that an Account of the artificial and careful Toasting of the Chinese Tea, by which most of its sulphureous Parts are dissipated, it prevents Sleep in the Chinese: Whereas, the European Tea, or Chamelæagnus, renders the Country People, as it were, intoxicated, and disposed to Sleep. But these different Effects are not owing to any occult Qualities of the Chinese and European Teas, but manifestly to the sulphureous Parts, of which the Chinese has a far smaller Quantity than our Chamelæagnus. Thus, it is certain, that prepared Vipers may be safely eaten, and that Dioscorides roasted Vipers for Food; so vast a Difference there is between artificial Preparations, and natural Productions. But to proceed: Hoffman, with respect to toasting the Seeds of the Agnus Castus, tells us, "That in toasting, the remarkably subtile Parts are dissipated." These remarkably subtile Parts, I call sulphureous, which the Persians also dissipate, by an artificial toasting, from the Seeds Bon, or Ban, conveyed to them from Egypt. Thus, the celebrated Hoffman, only differs from me in Words, but not in Sentiments. The same also holds true of Chocolate. I, therefore, conclude, that all these Substances are of a drying Quality, on account of their sulphureous Parts. I would, therefore, advise all Europeans to have a due Regard to these Things, to preserve Youth by moistening Substances, and prevent old Age, which is brought on before its due Time, by Means of these drying and sulphureous Commodities; though, at the same time, I do not prohibit the Use of moderately hot Substances. Let no one condemn me for making Repetitions; since it is a Maxim, not only of Policy, but also of common Humanity, That the Safety of the People, is, of all other Laws, the most essential and important. If, therefore, an immense Reward was bestowed on the Man who preserved a single Roman Citizen, I may, certainly, hope for Indulgence, when, by repeated Expostulations, I attempt to preserve all Europe, by perswading its Inhabitants not to exchange our own salutary Regimen, for that of the Asiatics, and Chinese, by following their Custom of Tea-Drinking. Martinus Martinius, indeed, in his Preface to his Atlas Siniticus, greatly extols the Chinese Regimen, in the following Manner: "Their Drinks, says he, whether prepared with Water, Wine, or Rice, must always be warm; they macerate their Tea in particular in boiling Water, which they drink as hot as they can bear. When

I was accustomed to this Regimen, I commended the *Chinese*, and condemned the *Europeans*, who are so fond of drinking cold Liquors; for, in *China*, the Inhabitants, by drinking their Liquors warm, both extinguish Thirst, and so dissipate the redundant Humours, that they hardly ever spit; nor are they afflicted with Crudities of the Stomach, as the *Europeans* are: They have also fewer, and less violent Diseases; neither are the Stone, the Gout in the Hands and Feet, and other similar Disorders, known among them." But these Things happened to *Martinius*, in *China*, and not in *Europea*. Nor shall he ever perswade me, to change the *European*, for the *Indian* Regimen. Since, according to *Martinius* himself, some of the Inhabitants of that Country, on account of the *Pythagorean* Doctrine, of the Transmigration of Souls, religiously abstain from Flesh, and think,

----Scelus est in Viscere Viscera Condi, Congestoq; Avidum pinguescere Corpore Corpus, Alterusq; Animantem Animantis vivero Letho.

Martinius, therefore, makes an insufficient Enumeration of Causes; since the good Health of the Chinese, is not totally owing to the Use of Tea, but to various other Circumstances, which we shall not here enumerate: Only I shall, from the Amphiatridius of Johannes Boterius, published in 1600, observe, "That in the various Districts of China, the Clemency and Salubrity of the Air is so great, that a Pestilence has never been remembered to rage universally in them." For the Sake also of those who want the sixth Part of the Theatrum Europæum Johannis Bleau, or the Novus Atlas Martinii, I shall, from the Preface of the last-mentioned Author, take the following Passage: "In Practice, the Chinese Physicians surpass those of Europe, who are more addicted to Dispute and Speculation, but less successful and happy in the Cure of Diseases, than the former." But, if a Chinese Physician was to practice on the Baltick Shore, where endemial Scurvys rage, it is hardly credible, that he would cure them with greater Success, than a skilful European Physician does; since, according to Hippocrates, there are many nominal, but few real Physicians. The same Author, in his Prisca Medicina, informs us, "That most Physicians resemble bad Pilots, who, if they steer the Vessel in a smooth and calm Sea, can prevent the Detection of their Ignorance; but, when they are attacked by blowing Winds, and violent Tempests, it becomes sufficiently obvious, that the Ship must be lost through their Fault, and Want of Skill." But to drop the Defence of the European Physicians, I shall return to the Asiatics. Martinius then, in the Passage last quoted, tells us, "That the Chinese Physicians generally prepare their Medicines of Simples and Decoctions; that they use Unctions, and Frictions, but not Venesections, which they look upon as an irreparable Error. They rather chuse to reduce the Blood to a due Temperature, by Fasting, and refrigerating Medicines; for, say they, because Broth boils in a Pot, the Broth is not, therefore, to be poured out, but the Fire to be removed from the Pot." But this Comparison is certainly far from being just: And, a little after, the Author subjoins, "In *China* are great Numbers of Chymists, who confidently boast of producing Gold, and preventing Death by Means of their Medicines. The Design of these Men is like that of their Brethren in Europe, to extort Money from the credulous and avaritious Part of their Fellow Creatures."

I now return, to consider the Air, Water, and Situation of the Chinese. Martinius then, in the Place before quoted, tells us, that China, or the most remote Parts of Asia, abounds with all Kinds of metallic Mines, such as those of Gold, Silver, Mercury, Iron, Tin, Copper, Minium, Lapis Lazuli, and Vitriol; in consequence of which, it is probable, that the Chinese Waters, flowing from the Mountains, as well as those of Europe, partake of the Qualities of the various Minerals through which they glide. Thus, according to Georgius Agricola, in Lib. 10. de Natur. Fossil. Cap. 18. at Goslar, in Saxony, there is a Kind of Bole, or Earth, impregnated with the Juice of Vitriol, as also with Oker. The same Agricola, in Lib. 1. De Natura eorum quæ ex Terra effluunt. Cap. 4. informs us, that the River Ochra, receives its Name from Oker, with which it is tinged, of a yellow Colour, at the Place where a Rivulet coming from Mount Ramelus, disembogues itself into it. Hence, it is easy to assign a Reason, why the Goslar Ale is so diuretic: The Garlabian Ale also, so much used at Helmstadt, is of a medicinal Nature: Hence, according to the celebrated Hoffman, in Paral. Officin. Cap. ult. "It both cures and produces Diseases in such as are not accustomed to it; for it is prepared of some hot, mineral Water, as is obvious from its peculiar Taste. On the contrary, the Turgensian Ale is highly agreeable; because the Water of which it is prepared has some mineral Quality, which is easily lost by Carriage; which also happens to other Waters. Hence, Augustus, Elector of *Leipsic*, in preparing his Ale, instead of *Malt*, ordered only a Drag to be boiled." I would not, however, have any one confide too much, either in hot or cold Mineral Waters. But among Mineral Waters, I also reckon that described by Martinius, in his Account of the ninth Province of China, called Kiangnar, and the fifth Town, called Chang-chew, in the following Manner: "Near Kiangin is a Mount, called Mount Chin, celebrated on account of a fabulous Chinese Story; for they assert, that a Woman was there born of a Deer. The Rivulet Leang, from a small Hill, called Hoej, flows into a Lake, near Vusie: Its Origin is a Fountain called Hoej, whose Waters are, by the Natives, accounted to be the second in Goodness; and I myself am convinced from Experience, that the Chinese are in the right, with respect to these Waters; for they are universally admired by the Grandees; and hardly any Ship passes, without purchasing, for a Trifle, large Quantities of this Water, previously put up in Casks; though Strangers, who stay for any Time there, may, for nothing, drink as much as they please. It is conveyed to the most remote Provinces, even as far as *Peking*; for it is excellently well suited to the Preparation of *Tea*: So that these two Commodities are generally sold together." But surely this *Chinese* Water is to be had in no Part of Europe. The same Author, in his Description of the fifteenth Province, called Junnam, and its Metropolis, tells us, "That in Mount Xang, situated to the North of the Town, there is a Spring of intensely cold Water, which, however, is highly beneficial to paralitic Persons." He also tells us, that in the same Province, there is a Spring called Hiangkui, which, in their Language, signifies odoriferous Water, "Because it diffuses a fragrant Scent, especially in the Spring, at which Time, the Inhabitants offer Sacrifices to the Fountain, and drink Water, mixed with Wine, or with a Liquor prepared of Rice. They also assert, that this Liquor cures many Diseases." That these Waters are impregnated with Metallic Particles, I have two Reasons to believe: First, Because Martinius informs us, that the Rivulet near the City Vusie, flows from a Fountain on a little Hill, called Hoei: The second is, that the Waters of this Lake are conveyed to the remotest Provinces, even to the Royal City, Peking, where they are used by the Grandees in preparing their Tea. But the best Waters, when taken from the Spring, cannot be long preserved from Corruption, unless they abound with a peculiar Salt: Since the cold Mineral Waters of the Spaw, lose much of their Virtue by being conveyed only into the Provinces adjacent to Germany. Thus, it is sufficiently known to all the Europeans, that the May Rains abound with Salt and Sulphur; in consequence of which, they keep longer free from Corruption than other Waters. For this Reason, it is customary among the Papists, to prepare their Holy Water of May Rain: See my Digressio de Febribus Malignis. But, lest these Reasons should be esteemed conjectural, I shall farther prove, and confirm my Opinion from Martinius, who, in the Place before quoted, speaks in the following Manner: "It is not without Reason that the City Gnihing receives that Name, which, in their Language, signifies the Glory of the Earth; and which was bestowed upon it, because in it are made the earthen Vessels, used in diluting, and drinking their Tea. The Reason why these are preferred to the Chinese, though more transparent, and diaphanous, is, because the former convey to the Tea, a certain Taste and Smell, much admired by the Chinese; so that the Inhabitants of that City are much employed in making them; and some of them are sold at a Price equal, if not superior, to those of Portugal." Since, therefore, these Vessels communicate to the Tea, both a Smell and Taste, which are grateful to the Chinese; since the Cause of Taste is a volatile Salt, and that of Smell a certain Sulphur; since this Salt and Sulphur can hardly be separated by Chymistry; and since it is peculiar to Salt to penetrate into the Essence of Things; it must necessarily happen, that the Water, taken from the Lake, or River last mentioned, and which is without any Smell, (for, if it had been odorous, Martinius would have mentioned that Circumstance, as he did of the third Fountain) must gradually extract the Taste and Smell from those precious Vessels, resembling Lemnian or Silesian Earth. But this Water of the Rivulet Leang, or of the Fountain Hoej, would either not at all, or with Difficulty, extract the Taste and Smell from these earthen Vessels, unless it abounded with an highly penetrating Salt, or, perhaps, a Vitriol; since Martinius tells us, that Vitriol Mines are found in China, for no Substance can communicate to another, a Quality which it does possess itself. Tea has indeed a Taste, though not of the grateful Kind, as is obvious from what has been said. The Taste and Smell, therefore, which the Chinese perceive in drinking Tea, do not proceed from the Tea itself, but from the Water, or earthen Vessels they use, or from both; from the Water, which by its Mineral Salt, extracts from the Vessels their Salt and Sulphur; and from the Vessels, which in return communicate these to the Water. For this peculiar Quality of the Earth, the City is called Gnihing, which, according to Martinius, signifies the Glory of the Earth. It is, by no means, surprizing to find various fragrant Mineral Earths: Thus, in the Dutchy of Kalenberg, in Germany, there is dug up a certain bituminous Mineral, which is a Kind of intermediate Substance, between Earth, Clay, and Stone; and which if it is either licked with the Tongue, or has cold Water, and especially Rain-Water, poured upon it, diffuses a Smell as fragrant as that of the Violet: The Truth of this, I know from Experience. But these precious Vessels are so rare in Europe, that the smallest of them are not to be purchased under an immense Sum. When, however, I understood, that Frederic the third, King of Norway and Denmark, had, among other Chinese Curiosities, two of these elegant and sumptuous Vessels; I obtained the Use of them from him, and prevailed upon Julius Reichelt, Professor of Mathematics at Strasburg, and a skilful Designer, to delineate them. This Gentleman has, with the greatest Accuracy, not only exhibited in the following Plates, these, and other Chinese Utensils, but also informed himself of their real Bulk, with all the Care and Pains he possibly could: But we shall give an Account of his Performance in his own Words:

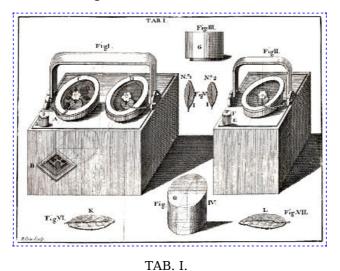
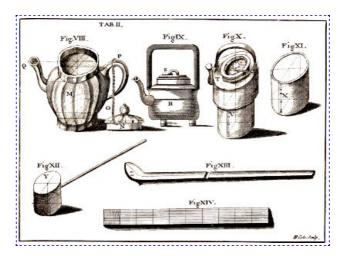


Fig. I. Fig. II. Fig. III. Fig. IV.

Fig. V. Fig. VI.



TAB. II. Fig. VIII. Fig. IX. Fig. X. Fig. XI. Fig. XII. Fig. XIII. Fig. XIV.

B. Cole. Sculp.

"At the Request of the learned and judicious *Simon Pauli*, I have delineated some of the *Chinese* Utensils, and hope for Indulgence, because these Vessels are neither exhibited according to the Laws of Painting, nor Perspective; but in a Manner, used by Mechanics, since I thought it expedient, both for the Sake of the Subject, and the Satisfaction of the curious Reader, to have a due Regard to Capacity, and Measure. I have exhibited the Orthography of the Vessel represented by *Fig.* IX. the Scenography of *Fig.* III. of which the Orthography is represented by *Fig.* IV. In *Fig.* VIII. the Scenography of the Vessel M, and the Orthography of its Cover N, are represented; but I have only described the Scenographies of all the rest. I have used the *Rhinlandian* Geometrical Foot, to the Measure of which all the Parts of these Vessels are adjusted, in that Proportion, observable in *Fig.* XIV. which represents a smaller Foot, divided into ten Parts. *Fig.* XIII. exhibits a wooden Instrument, exactly of the same Size with the Figure. In all the Figures I have represented the Length and Breadth by Diameters and Diagonals; but the Height or Depth, by pricked Perpendiculars. I hope the Mathematical Reader will find no Fault with the quadrangular Passage B in *Fig.* I. for conveying the Air, in order to ventilate the Coals; nor with *Fig.* IX. the two Feet of which, shade other two similar to themselves."

An Explanation of the Figures, representing some Chinese Utensils.

Fig. I. Represents a Kind of Kettle, curiously made of *Chinese* Copper, furnished with a Handle, divided by a Copper Partition; and which, though at first View, it appears to be one Vessel, is yet, upon narrower Inspection, found to be two, with two Coverings; for A represents a small Furnace, into which the Coals are put; and B, the Mouth of the Furnace, covered with Cross-Bars, for the better Ventilation of the Coals. The other Vessel has its internal Surface lined, or covered with Tin, serves either for drying, or boiling the *Tea*, and is furnished with a particular small Tube, the Cover of which is exhibited by *a*; by the Benefit of which, the large Coverings, C D, being shut up, the Vapours of the *Tea* may be retained, or allowed to exhale at Pleasure.

Fig. II. E represents a Copper Vessel, in which the *Tea* is either boiled, or preserved, when dry. E represents its Tube, and F the covering of the Tube.

Fig. III. and IV. G G exhibit different Views of one and the same Vessel, the internal Surface of which is lined with a thin gilded Plate, of some proper Metal, and the external Surface, covered with Lack, after the Manner of the *Chinese*.

Fig. V. I I. No. 1. represents a genuine *Chinese Tea-Leaf* macerated, and stretched to its full Extent. No. 2. A Leaf of the *Chamelæagnus*, or what the *French* call *Piment Royal*, artificially dried.

Fig. VI. K represents another, and, in my Opinion, a spurious Chinese Tea-Leaf, brought from China.

Fig. VII. L exhibits a Leaf of what *Clusius* calls the *Spiræa Theophrasti*, found in the Green-Houses of *Copenhagen*, and so like the spurious *Chinese Tea*, with which the genuine is adulterated, that the one cannot be distinguished from the other.

Fig. VIII. M represents a curious Polygonal *Tea-Pot*, probably made of sealed *Lemnian*, or *Silesian* Earth. N its Lid joined by the golden Chain O, to its Handle P. and Q. Its Stroup curiously tipped with Gold.

Fig. IX. R represents another earthen *Tea-Pot*, with a Stroup, but of a roundish, or oblong Form, and in the Lid of which, is fixed a Ring of Clay S for taking it off and putting it on: Both these earthen *Tea-Pots* are highly fragrant; the former is of a light, and the latter of a pale red Colour.

Fig. X. T exhibits a Copper Vessel lined with Tin, capable of containing four Ounces; and whose inferior Part about the Letter V is covered with a Kind of Case, woven of such Wood as the Europeans use in making Sieves; but so as that the Vessel can be taken out of the Case. But I am of Opinion, that the Chinese pour their hot Tea, whether infused, or boiled, into this, in order to prevent the scalding of their Hands; and so cool the Liquor, as that it may neither burn their Lips, nor Tongue.

Fig. XI. X represents this wooden Case, or Handle, by itself.

Fig. XII. Y exhibits a small wooden Ladle, with a semicircular wooden Handle.

Fig. XIII. Z represents a small, and somewhat incurvated wooden Spatula.

Fig. XIV. represents a small geometrical Foot, divided into ten equal Parts, for ascertaining the just Proportion of the Utensils described.

It is to be observed, that these Vessels are of a grateful fragrant Smell, resembling those of the Juniper, Cypress, or Aloes Tree, which is certainly owing to the bituminous Earth of which they are formed. Thus we have before observed, that the Kalenburgian bituminous Earth is as fragrant as Violets; and that, according to Martinius, it is on account of the Fragrance of these Vessels, that the Chinese are so fond of them, and purchase them at such immense Prices. We have also taken Notice from Tulpius, and Maffæus, that these Pots, Vessels, and other Pieces of Tea Equipage, are, by the Chinese, bought at the Rate of some Thousand Nobles, wrapped up in silken Coverings, shewn only to their nearest Friends, and as much valued by them as Adamants, Gems, and curious Medals are by the Europeans. Let the Europeans, therefore, before they drink Tea, which itself is void of Smell, provide themselves with the fragrant Vessels of Gnihing, and the Waters of the Rivulet Vussie, which they must bring uncorrupted from China; and then, on Supposition the Air was the same, which it is not, the same Effects might be produced in Europe by Tea, as those which it is boasted to produce in China. It is therefore far more congruous to Truth and Reason, to suppose, that the Chinese are free from the Stone, Gout, and arthritic Pains, rather by the Goodness of their Water, than by their Tea alone, which may also contribute something to their Happiness in these Respects. Besides, the Force and Virtue of Tea, must be considerably impaired and lost, by the intense Heat of the Sun, during so long a Voyage, in which the Equator must be twice crossed, before the Ships arrive at any European Ports. Hence we know from Experience, that those Persons most consult the Interest of the Europeans, who, according to Mercator, in his Description of China, advise, that Rhubarb, with the best Sort of which, China abounds, should be brought through Persia by Land, lest it should be spoiled and corrupted by so long a Voyage. What must therefore happen to Tea, or the Chinese Chamelæagnus, which is in China frequently toasted in an Iron Pan, so as to corrugate and conglomerate its Leaves, according to Rhodius and Martinius? For, if the Virtues of Rhubarb, which is a compact Substance, are, by such a Voyage, exhaled, this Misfortune must much more happen to the tender Leaves of Tea, which are gathered in the Spring, and have a bitterish Taste, but no Smell. Hence we may infer, that these Leaves are, after their Arrival at Europe, possessed of a volatile and fixed Salt, but deprived of their Sulphur, especially the most volatile Part of it; for, if they were intirely destitute of Sulphur, they would not take Flame, nor could they be burned. The Author of a Book, intitled, Artificia Hominum Miranda Naturæ in Sina & Europa, in Chap. 35. tells us, "that in Chekiang, in China, there are Woods of Mulberry-Trees, so many Silk-Worms, and such immense Quantities of Silk, that a Person may there purchase ten silken Suits of Cloaths at an easier Rate, than he can have one of Cloth in any Part of Europe. The Chinese prune their Mulberry-Trees every Year, as the Europeans do their Vines; nor do they suffer them to grow up into tall Trees, because they have found from long Experience, that the Leaves of the smallest Trees produce the finest Substance for Silk, and the best Thread: For which Reason, they justly distinguish between the first and second Weaving of the Thread: The former is produced when the Worms are nourished by the Leaves which appear in the Spring, and are soft and delicate: The latter is, when they are fed upon the Summer Leaves, which are coarse and hard; so great is the Difference of Work produced by these Animals only by a Change of Food." If this Account of the Nourishment of Silk-Worms is true, as we Europeans find it by Experience, so it is equally certain, that there is as great a Difference between those Leaves of the Chinese Tea, or European Chamelæagnus, which appear in the Spring, and those which are produced in the Summer, as I have all along insinuated in this Work. By this remarkable Passage of the anonymous Author, I am more and more convinced, that the vernal Leaves of the Chamelæagnus, or European Tea, are possessed of different Virtues from those which appear in the Summer, when the Sun has entered Leo: And those who will not grant this Truth, are confuted by the palpable Instance drawn from the Nourishment of the Silk-Worms.

By way of Digression, I shall intreat every Lover of Truth, to throw the Leaves, (not the Shrub, Flowers, or Seeds) of the *European Chamelæagnus*, which, when dry, have no Scent upon live Coals, and do the same with an equal Quantity of *Chinese Tea*, tho' in different Rooms, and by the exact Resemblance of the Smell diffused by each, he will be convinced that the *Chamelæagnus* is a Plant of the same Species with *Tea*.

I am not acquainted with all the Acts, Statutes, and Laws, of the different Cities of Europe, made

Lower Germany, a certain Fine is, by public Authority, laid upon the Apothecary who sells old and mouldy Herbs, or uses any Methods to make them appear good and fresh: Nay, it is customary, in some Provinces of Germany, publickly to burn such Herbs, Roots, Shrubs, or Plants as are bad, or suspected to be more than one Year old; lest the poorer Inhabitants should, like the Widow mentioned in Luke, Chap. viii. 43, spend all their Money upon Physicians, without being healed by any: But the Case is quite otherwise with Tea; for supposing it to be only one Year old, when it is put into the Ships at China, it must be double that Time, and often more, before it arrives to us. How great then is the Stupidity of us Europeans, who are never disgusted at the Avarice and Baseness of the Asiatics, though they should send us Tea as old as the Trojan War, whilst they use it fresh and good themselves? Besides, as the Tea-Leaves have no Smell, it is highly probable, that the Asiatics have infused and macerated them, and then dried them a second Time for the Use of the Europeans; since, when chewed in the Mouth, they are resolved into a Kind of gross Powder. I am also of the Opinion of the celebrated Wormius, who thought it highly probable, that Tea-Leaves were either mixed with others, or had others intirely substituted in their stead. If we are at such Care and Pains to discharge and prohibit the Sale of old European Plants, ought we not, with the same Rigour and Authority, to prohibit the Import of Tea deprived of its Smell, and long ago dried and prepared for the Use of the Chinese? The Man would surely be ridiculous who should import into Europe large Quantities of Tobacco, already cut small for the present Smoaking of the Indians, or Americans; or who should commend it on account of its unctuous Sulphur, or prefer it to large Pricks, made up hard and compact for the Sake of keeping; for cut Tobacco after it has been kept some Months and become dry, loses all its Virtue, and is despised by a phlegmatic European. It is also obvious from what has been said, that after the Chinese have toasted their Tea, they preserve it in close stopped Vessels, that it may not be corrupted, or too much dried by the Access of the Air: It is, therefore, the Duty of every European to join in engaging the Legislature to put a Stop to this epidemical Evil, and prohibit the Abuse, not only of Tea, but also of Tobacco, since both of these, and Coffee, as I have before shewn, so enervate the European Men, that they become incapable of propagating their Species, like Eunuchs, some of whom are highly salacious; but it is sufficiently known, that they are incapable of Procreation, tho' they emit something analogous to Semen. For this Reason, the Turks perform Castration in a different Manner from the Italians, since the former cut off Penis, Testicles, and all; and the latter only the Testicles. The Curious may consult Bartholinus Anatom. Reformat. Lib. 1. at the End of which, they will be informed why, and when it happens, that Horses and Bulls procreate their respective Species after Castration: The Turks, therefore, lest their Eunuchs should provide them with a spurious Progeny, treat them in a far more inhuman Manner, than the Italians do. Since we have mentioned the Turks, it will not be improper to observe, that the Persians, though salacious, are, nevertheless, generally impotent: For since, on account of Polygamy, which they have in common with the Turks, they have a numerous Progeny to be supported; when they copulate with their Wives and Whores, they are not so sollicitous to procure an Offspring, as, like the infamous Onan, to emit a vapid and unprolific Seed, which, on account of the Coffee corrupted in their Veins, may, by a Person acquainted with Chymical Principles, be justly compared to the Lees of Wine, in a great Measure deprived of the volatile Salt and Sulphur of the Wine: Or it may be compared to that of the Eunuchs of other less brutal Nations; or that of the Scythians, who are by Hippocrates, in Lib. de Aere, Aquis, & Locis, stiled emasculated and effeminate Mortals. The same Author, in the Work now quoted, assigns other Causes for the Sterility of the Scythians; "for, says he, they make so deep Incisions in the Veins behind their Ears, that when they come to be married, they are impotent." But Olearius informs us, that without this Practice, the salacious Persians emasculate themselves only by the Use of Coffee: Nor is this surprizing, since Salacity, instead of promoting Procreation, procures Sterility. Hence a common Strumpet rarely becomes pregnant, notwithstanding her frequent venereal Encounters with salacious Rakes and Debauchees. Besides, there is a vast Difference between stimulating, cold, and languid Constitutions to Venery, which is obtained by Rocket, and fecundating the Semen, which is obtained by some Vegetables, as Sweet Almonds, Pine Kernels, Pistachio Nuts, and Chesnuts; as also by Animals, as Capons, Larks, Thrushes, Kids-Flesh, Mutton, or Veal. I do not deny, but Coffee, Chocolate, and Tobacco, have a Power of stimulating to Venery, but may yet induce Sterility, because they consist of heterogeneous Parts, or rather act by their whole Substances: But all these Things are unfit for fecundating the Semen; as also all other Substances of a drying Quality, and not cold Substances, as is commonly believed. The Effeminacy and Impotence then produced by drinking Coffee, and smoaking Tobacco, are sufficiently obvious. And to these two, if I am not mistaken, good Judges will join Tea, because according to Martinius, the Chinese by the last not only extinguish Thirst, but also dissipate their Humours to such a Degree, that they hardly ever spit. It is also by a drying Quality, that the Agnus Castus, Rue, Mint, and Camphire, render Men impotent. Besides, Tea is to the Chinese themselves only a new Thing, whose Virtues and Faculties they have not, as yet, sufficiently investigated; for which Reason I justly prefer to it our own Betony, which has been deservedly celebrated for so many Ages. The Chinese Incapacity of Spitting is, therefore, a manifest Proof that Tea contains a drying, though not an intensely hot Sulphur. I do not find it expresly affirmed by Authors, that Chocolate, as well as Coffee, produces Sterility and Impotence; since they rather assert, that it proves a Stimulus to Venery: A Circumstance confirmed by the Accounts of some Men of Learning and Penetration, upon their Return from Africa and America. But as Benzon informs us, "that Chocolate has a somewhat bitterish Taste, and refrigerates, or dries the Body, without producing the smallest Degree of Intoxication:" Hence we may reasonably infer, that as Chocolate agrees with Coffee and Tea, in one Third of its Qualities, so all these three exactly agree with each other, in producing Effeminacy and Impotence: But I shall not here attempt an Investigation of their other Qualities. I therefore hope, that for the future, the Europeans will be

for suppressing and preventing the Avarice and Exorbitance of Apothecaries; only in Upper and

wise, and reject Coffee, Chocolate, and Tea; since they are all either equally bad, or equally good: Nay, I hope to see People of all Ranks and Conditions, have as great an Aversion to them as the Mahometans and Turks, or rather their Emperors have to Tobacco, the Lovers of which, as well as thole who are idle, prodigal, barren, impotent, or effeminate, they will not suffer to live within their Territories. There is another Method of producing Barrenness and Impotence, probably brought from Asia into Europe, which is the indiscriminate Use of Venesection, in both Sexes, behind the Ears, for intolerable Tooth-achs. But let me tell the Persons, who, despising the Authority of Hippocrates, suffer, like the Scythians, the Veins behind their Ears to be opened, that they will afterwards repent their Folly, when they find Sterility and Impotence to be their Fate. Some practical Physicians may furnish us with Instances of Tooth-achs, accompanied with Deliriums, and other violent Symptoms; but none of them seem to have observed, that a Toothach, when removed by opening the Veins behind the Ears, has proved the Cause of Sterility, as Hippocrates, who, according to Macrobius, was never deceived himself, nor imposed upon others, affirms, not of a single Instance or two, but of the whole Nation of the Scythians. Let, therefore, the Masters and Mistresses of Families reject the Custom of cauterising or opening the Veins behind the Ears, unless they incline that their Children should be cursed with Sterility, or Impotence, which are attended with a dire and numerous Train of Woes. So that we hope the Europeans will guard against Sterility; produced in the Indies by Coffee, Tea, and Chocolate; and in Scythia by opening, or burning the Veins behind the Ears.

Having already considered the Regimen of the *Chinese*, I shall proceed to take Notice of their Manners, Customs, and Dispositions: In the Execution of which Design I shall take my Accounts from *Martinius*, who, when treating of Quack-Physicians, affirms, that the *Chinese*, as well as the *Cretans*, are greatly addicted to Lying. The same Author, in his *Atlas Chinicus*, speaks in the following Manner: "The *Europeans* are superior to the *Chinese* in Fortitude, but the *Chinese* excel the *Europeans* in Brightness of Genius: They are also sagacious, cunning, intrepid, industrious, and dextrous, in managing sudden Emergencies: Notwithstanding their great Abundance, they collect and preserve the most worthless Things, such as Dogs Bones, Feathers, and Hogs Bristles, which they sell. Their Penetration often discovers itself by Fraud, Guile, and Imposition. Their Merchants are industrious and active, and the whole of the Inhabitants spare no Pains, and think no Labour too severe, when they have the smallest Prospect of Gain, because they always prefer Profit to Honesty. They have sound and robust Constitutions, being accustomed to Fatigue from their Infancy: Some of them are of as fair Complexions as the *Europeans*."

As I have before compared the Chinese with the European Regimen, so I should here institute the Comparison between their Manners and Dispositions, if Barclay had not already executed that Design with great Judgment and Accuracy: Only I must observe, that their Cunning surpasses our Prudence, and that their Fraud sufficiently evinces their Inclination to deceive us. In a word, Cunning, Avarice, and Lying, are the distinguishing Characteristicks of the Asiatics, who yearly defraud the Europeans of such immense Sums of Money for Teas. As Hippocrates spared no Pains to remove and root out the Athenian Plague, so I have used the utmost of my Endeavours to destroy the raging epidemical Madness of importing Tea into Europe from China; since I have demonstrated, that the Chinese Tea, and the Chamelæagnus, or Myrtus Brabantica, are Plants of the same Species. Let such, therefore, as are unacquainted with Botany, cease to use Chinese Tea, and in its Room substitute our European Chamelæagnus. Tho' I have not Authority sufficient to force my Opinions upon others, yet let me perswade my Countrymen to use Betony, which, as Antonius Musa informs us, cures no less than forty Disorders, instead of the Chinese Tea, which is without Smell, corrupted by the Length of the Voyage, and destitute of the Qualities it is possessed of in Asia: Nor do I in the least doubt, but the European Betony would happily cure those Disorders, for which the *Chinese* recommend their *Tea*. The Physicians of *China* are indeed to be commended for curing Diseases by Abstinence from Meat and Drink, and the Use of simple Decoctions, or other similar Things; because Nature delights in Simplicity, is contented with little, and overpowered by a Farrago of compound Medicines.

If I should be laughed at for my Opinions, I shall comfort myself with this Reflection, that I have always had so sacred and inviolable an Attachment to Truth, that I have chearfully gone whithersoever she led me; so that I may, with a few Variations, put a Close to this Work, in the Words of *Cicero*, in *Academ. Quest. Lib. 4*.

"If I had been induced to this Work by Ostentation, or the Love of Dispute, I ought to be condemned, not only as a Fool, but also as a vicious and immoral Man; for, if Obstinacy in Trifles is justly ridiculed, it ought to be much more so in Affairs of Importance. During the whole Course of my Life I have been impartial in my Searches after Truth, and never attempted to impose upon the Judgment of others; for I can swear by the immortal God, that I not only have an ardent Love to Truth, but also that I speak the genuine Sentiments of my Mind; for why should not I desire to discover Truth, when I rejoice to find what bears a near Resemblance to it. As it is the peculiar Glory of the human Nature, to perceive Truth in its genuine Colours; so, it is a Disgrace to Reason to embrace Falshood for Truth. I do not, however, lay claim to Infallibility, since I confess that I may err, as well as other Men."

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The Lord hath created Medicines out of the Earth, and he that is wise will not abhor them. Ecclesiasticus, Chap. xxxviii. Ver. 4.

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Transcriber's Notes:

- 1. æ and œ ligatures were used interchangeably in this text. Based on context, the transcriber chose the most appropriate ligature for each incidence.
- 2. Examples: All instances of Chamelœagnus were corrected to Chamelæagnus; instances of Spirœa were corrected to Spiræa; instances of Dodonœus were corrected to Dodonæus
- 3. Both preternaturally and præternaturally are used in the text; left as printed.
- 4. Minor punctuation and printer errors repaired.
- 5. Every effort has been made to replicate this text as faithfully as possible, including obsolete and variant spellings and other inconsistencies.
- 6. It is noted that, despite the title, only the treatises on Tobacco and Tea were present in this volume.

*** END OF THE PROJECT GUTENBERG EBOOK A TREATISE ON TOBACCO, TEA, COFFEE, AND CHOCOLATE ***

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