A complete history of drugs / Written in French by monsieur Pomet, chief druggist to the late French King Lewis XIV. To which is added what is further observable on the same subject, from mess. Lemery and Tournefort, divided into three classes, vegetable, animal, and mineral; with their use in physic, chemistry, pharmacy, and several other arts. Illustrated with above four hundred copper-cuts ... A work of very great use and curiosity. Done into English from the originals.

Contributors

Pomet, Pierre, 1658-1699.
Tournefort, Joseph Pitton de, 1656-1708.
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A COMPLETE

HISTORY

OF

DRUGS.

Written in FRENCH

By Monſieur POMET,

Chief DRUGGIST to the late French King LEWIS XIV.

To which is added what is farther obſervable on the ſame Subject, from

Meſſ. *LEMERY* and *TOURNEFORT*,

Divided into Three CLASSES,

VEGETABLE, ANIMAL, and MINERAL;

With their Uſe in

PHYSIC, CHEMISTRY, PHARMACY,

And ſeveral other ARTS.

Illuſtrated with above Four Hundred COPPER-CUTS, curiouſly done from the Life; and an Explanation of their different NAMES, PLACES OF GROWTH, and COUNTRIES where they are produced; with the Methods of diſtinguiſhing the Genuine and Perfect, from the Adulterated, Sophiſticated, and Decayed; together with their VIRTUES, *&c.*

A WORK of very great Uſe and Curioſity.

Done into *Engliſh* from the ORIGINALS.

The FOURTH EDITION, carefully corrected, with large ADDITIONS.

LONDON,

Printed for *J.* and *J. Bonwicke*, *S. Birt*, *W. Parker*, *C. Hitch*, and *E. Wickſteed*.

M DCC XLVIII.

TERIA MEDICA.

WELLCOME HISTORICAL MEDICAL LIBRARY

The DEDICATION of the former Editions

To Sir *HANS SLOANE.*

SIR,

I THINK myſelf under many Obligations of offering this Undertaking to you, which I ſhould be much wanting to myſelf, if I did not acknowledge. The firſt is, That you have been a very generous Encourager of this Deſign, not only by recommending the Work, but in aſſiſting the Performance; which is a Favour I beg Leave to thank you for, as well as the kind Preſent you made me of your *Natural Hiſtory of* Jamaica. And though theſe were Inducements, they were not the real Motives that made me think this Work could come to none ſo properly as yourſelf; but it was the Conſideration, that you are, without the leaſt Tincture of Flattery, the only Perſon of the Faculty in theſe Kingdoms, who of late Years hath made the *Materia Medica* your Study: So that it is hard to ſay, whether your Diſcoveries in the Theory of Medicine, or your judicious Improvements of thoſe Diſcoveries in the Practice, have exceeded.

It would look vain in me to attempt the Characters of my Authors, to one who is ſo much better acquainted with them, and whoſe ſingle Recommendation would be ſufficient to make the Publick value their Productions: But I flatter myſelf you will forgive me if I briefly inform you of the Method uſed in compiling and tranſlating this Work, wherein I hope you will be of Opinion I have done my Authors no Injuſtice. For, in the firſt

Place, I have taken Monſieur POMET for my Text, making uſe of the Liberty of throwing out Repetitions, or whatever elſe was foreign to the Purpoſe, or better deſcribed by others, eſpecially Meſſieurs TOURNEFORT and LEMERY, whom you know well to be more accurate and conciſe. And in the next Place, I have added ſeveral Things to Monſieur POMET, wherein he was erroneous in Deſcription, Doſe, or Choice of Drugs, which were much better known in theſe Countries, and more in Uſe amongſt us. And, indeed, I have purſued the ſame Rule with Monſieur LEMERY, but with more Caution; ſo that it made this a Work of more Time than I expected when I firſt engaged in it. And yet perhaps I have not come up to the Taſte of ſome curious Gentlemen, who are more accurate in Botany than I can pretend to; therefore I throw myſelf entirely upon your Favour, becauſe I am aſſured you have too much Candour for Induſtry, and Concern for uſeful Knowledge, not to pardon ſmall Faults, for the Sake of many Things that may be commendable and inſtructive, and that otherwiſe would not be ſo readily uſhered into the World.

And though it is certain, that the Knowledge and Choice of Drugs is one of the moſt uſeful and important Parts of Phyſick, yet it has been the moſt neglected of any to this Day; and it is not eaſily apprehended how much the Publick ſuffers in the Sale which is daily made of I know not what ſophiſticated and decayed Drugs, which are not capable of producing the Effects that are deſigned by them, and expected from them, either to reſtore or preſerve the Health of Mankind. We may yet be more ſurprized at the fatal Miſchief that flows from Mens Ignorance in the common Choice of Drugs; and that nothing is more frequent in Druggiſts and Apothecaries Shops than adulterated Medicines, which deſerve not leaſt the Tittle of thoſe pompous Names, by which they enhance the Prices of them.

Hence

Hence, *Sir*, you may plainly ſee our Author's Deſigns were to expoſe the ill Practices of thoſe Men who did ſo much Prejudice to the Profeſſion of Phyſick, by rendering the Practice precarious, and ſetting a greater Value on a decayed Drug, or Compoſition of the Shops, than on the Life or Health of one of their Fellow-Creatures: Therefore, as one can ſcarce diſcover their Works of Darkneſs without ſuffering by the Malignity of their Tongues, who ſo undeſervedly make a Gain of People's Credulity, I ſtand in need not only of an Advocate but a Protector: And ſince every one knows that you are univerſally ſkilled in all the moſt curious and uſeful Secrets of Nature, either in the Vegetable, Animal, or Mineral Kingdoms, whatever is here treated of in the following Books, your Travels into thoſe Countries Abroad, where many of them are produced, and your Diligence in furniſhing your *Muſeum* at Home, from all Parts of the World, have made you intimately familiar with; ſo that no Perſon but will allow your Approbation a ſufficient Sanction to this Work, and Protection to the Compiler thereof, who is, with the utmoſt Eſteem,

SIR,

Your very Humble

Servant to command, &c.

PREFACE

TO THE

FORMER EDITIONS.

THE Knowledge of ſimple Drugs is a Study ſo agreeable, and ſo exalted in its own Nature, that it has been the Purſuit of the fineſt Genius's in all Ages. Several Princes have applied themſelves to it with a great deal of Satisfaction to their own Minds, and Improvement to the Publick, and to theſe we are obliged for the firſt Eſſays of Medicine. It is alſo an indiſpenſable Knowledge to all who are concerned in Compoſition, eſpecially Apothecaries; for which Reaſon they ought to begin with this Study, before they undertake *Pharmacy*, elſe they can never prepare any thing with Exactneſs, which is the occaſion of ſo many groſs Errors that attend the Buſineſs, to the great Prejudice of the Patient: They ought to know, as well as the Druggiſt, from whence every Drug comes, becauſe different Climates encreaſe or leſſen much their Virtues; they ought to diſtinguiſh them by their Names, their Figures, their Subſtance, their Touch or Feeling, their Weight or Lightneſs, their Colour, their Smell, their Taſte; and to take particular Care that thoſe which come from foreign Countries be not counterfeited or adulterated: For the Merchants, through whoſe Hands they paſs, are ſometimes too covetous of extravagant Gain, ſo that they ſophiſticate and counterfeit ſo well, that it is a hard matter to diſcover the Cheat, if we have not been very converſant, or well acquainted with thoſe Drugs before. Druggiſts themſelves are ſometimes deceived in buying great Quantities of falſe Drugs for good ones, and they then ſell them ſo again; for which Reaſon it is very neceſſary that the Apothecary ſhould be well ſkilled in the Knowledge of the True from the Falſe, which is gained by a continual Trade in them, and a Frequency of ſeeing them. A Druggiſt ought to apply himſelf as much as poſſible to get Drugs at the firſt hand, and to know the Places of their Growth, and their true Natural Hiſtory: But moſt Books that have been written hitherto, have told us nothing but Fables on this head.

The Publick will find themſelves much indebted to Monſieur *Pomet*, for the great Number of curious and uſeful Remarks they will meet with in this *General Hiſtory of Drugs*; which is farther enriched by the Diſcoveries of a great many Things that were before in the Dark, but ſince brought to Light, by the Labour and Induſtry of him, and the more accurate *Lemery*: But Intereſt, we ſee, prevails upon Curioſity, ſince we meet with very few Merchants that will employ any

Part

Part of their Time to inſtruct themſelves in theſe Affairs, which they are not perſuaded are any ways neceſſary to their Buſineſs.

Beſides, this Work is not only uſeful to thoſe who profeſs Phyſick, and who will put nothing in the Compoſition of Medicines that they preſcribe, except choice Drugs, but likewiſe it is ſerviceable to Students in Pharmacy, to Druggiſts and Apothecaries, who may improve themſelves by what they will find in this Work, from whence they may learn to make a right Judgment of what is true or falſe in the Uſe or Trade of Drugs; ſince People that compoſe Medicines ought to know, that what they buy will anſwer the Ends they propoſe: Beſides, there are ſeveral Artiſts and Tradeſmen who make uſe of Drugs, to whom it is neceſſary, and of great Importance to the Publick, that they ſhould not be cheated or impoſed on, as Surgeons, Goldſmiths, Painters, Dyers, Farriers, *&c.*

I am perſuaded, that thoſe who read this Work will be ſatisfied, that they never ſaw one Treatiſe of Drugs ſo complete; for here is not only collected what may be found ſcattered in a great many Authors, but a great many Things that were unknown before *Pomet's General Hiſtory of Drugs*, or at leaſt very few of them were ever taken notice of by any former Author; for he acknowledges to have abundance of Materials given him by Monſ. *Tournefort*, and ſeveral others of his Friends, who made it their Buſineſs to aſſiſt him with all the new Diſcoveries they could meet with. And though this Work is not ſwelled into many Volumes, of much larger Size than the two preſent, yet they contain twice as much as is in *Pomet*, beſides the Additions that are neceſſary to the Text from *Lemery*; and this conſidered, together with the Number of Figures, and the neat Performance of them, which are nothing inferior to the Originals, renders this one of the cheapeſt Books that has appeared of latter Years; which has been contrived for the Good of the Publick, many of the Figures being brought into one Plate, on purpoſe to prevent the Book from ſwelling to too large, and too exorbitant a Price, and ſo deſtroying the Uſefulneſs of the Deſign, and the Sale of the Book together.

All the Drugs herein mentioned, have either their proper *Latin* Names, or the Names given them by the Country from whence they are brought, with their Etymology; where moſt pertinent, their Deſcription and Hiſtory taken alſo from Mr. *Lemery's Univerſal Treatiſe of Simple Drugs*; the judicious Author whereof has endeavoured to inform himſelf both from ancient and modern Authors, and the Relations of ſeveral Travellers, of whatever could be known concerning the Subſtances and Principles of which each Drug is compoſed, and its Quality, and as ſuccinctly as poſſible, to give an Idea of the Thing treated of, that might be ſatisfactory. Now all Drugs are taken from Animals, Vegetables, and Minerals, their Parts, and what proceeds from thence; as their Hair, Nails, Horns, Milk, Blood, and Excrements. Under Vegetables are comprehended Trees, Shrubs, and other Plants, with what comes from thence; as Roots, Barks, Flowers, Fruits, Seeds, Muſhrooms, Moſſes, Gums, Roſins, Pitches, Turpentines, and Balſams.

Under

Under Minerals are underſtood Minerals, Metals, Marcaſites, Stones, Earths, and Bitumens.

All Animals, according to the moſt probable and moſt received Opinions, come from Eggs, and are there encloſed, as it were in Abridgment, till the Seed of the Male penetrate their Covering, and ſtretches them ſufficiently that they are ready for hatching: There enter into their Veſſels a chylous Juice, which being puſhed forwards by the Spirits, circulates through the whole Habit of the little Body, nouriſhes and dilates it by little and little, which makes what we call Growth. This Circulation, repeated ſeveral times, makes the nutritious Juices ſo refined and attenuated, that they take a red Colour, and are converted into what we call Blood. This natural Operation has a great Reſemblance to ſeveral chymical ones, by which, in attenuating and diſſolving the ſulphureous or oily Subſtances, we can make a red Colour, which, notwithſtanding, has a great deal of Difference: For example, if we boil in a Matraſs one Part of Chyle or Milk, with two Parts of Oil of Tartar, *per Deliquium*, the white Liquor will become red, becauſe the Salt of Tartar being rarified, diſſolves and exalts the unctuous Part of the Milk, and reduces it into a kind of Blood. If we boil together in Water one Part of common Sulphur, and three Parts of Salt of Tartar, the white or yellowiſh Liquor that was before acquires a red Colour, according to the Quantity of the Sulphur diſſolved. If we digeſt upon the Fire Flower of Sulphur in Spirit of Turpentine, the Liquor gains a red Colour.

The Circulations that are made perpetually in Animals, exalt ſo much their Subſtances, and render them ſo diſpoſed for Motion, that the Principles which ariſe from thence are almoſt wholly volatile. But indeed theſe Principles are not equally volatile in all Animals: For example, Fiſh afford leſs volatile Salts than terreſtrial Animals: The *Scorpion*, the *Crab*, and the *Eel*, yield leſs than the *Viper*; *Earth-worms* and *Snails* afford leſs than *Serpents*; *Ivory* leſs than *Hart's-horn*; and ſo of the reſt.

The different Degrees of Volatility that are in Animal Subſtances, give them different Virtues one from the other; ſo thoſe which have very volatile Salts, are uſually reckoned cephalick and diaphoretick; as the *Viper*, *Human Scull*, *Hart's-horn*, *Goat's-blood*, *Elk's-claw*; becauſe the Matter being heated in the *Viſcera*, puſhes forth their Salts into the Brain, and by the Pores of the Body. Thoſe whoſe Subſtances are leſs volatile have an aperitive Virtue, ſuch as is to be met withal in *Hog-lice* and *Crawfiſh*; becauſe the Salts of theſe Animals being heavier, are more inclinable to precipitate and open the urinary Paſſages.

Every Plant ariſes from its Seed, and is confined in miniature as in an Egg, after the ſame manner as Animals, the Earth becomes a Matrix to the Seed, it ſoftens it and extends the Bark, opens the Pores, and by a nitrous Fluid it is penetrated and unſheathed from the Huſk, ſo that the Parts of the little Plant are

ſtretched, that were before wound or locked up together confuſedly, and then this ſmall Plant begins to appear upon the Surface of the Earth, and the nutritious Juice or Sap circulates in the Fibres that do the Office of the Veins, Arteries, and Nerves; they dilate, extend, and grow to a certain determinate Size, limited and appointed by the great Author of Nature.

A Plant draws its principal Nutrition by the Root, becauſe the Pores thereof are better diſpoſed than others, for receiving in the Juice from the Earth. This Juice, in circulating in the Veſſels of the Plant, purifies itſelf, is rarified, exalted, and brought to perfection after the ſame manner as the Chyle and the Blood acquire their Perfection by Circulation. Then the more exalted and ſpirituous Parts of the Juice, which may be called the animal Spirits of the Plant, are imployed upon the Flowers and Fruits; the leſs ſubtle Parts ſupply Nouriſhment for the Stalk, the Branches, and the Leaves; the groſſer Parts ſtill congeal or coagulate into Gums, Roſins, and Balſams: Thoſe that are the groſſeſt of all, produce an external Bark. Though all the Plants of the Earth receive their Nutrition from one and the ſame Spring, they, notwithſtanding, every one of them, acquire different Qualities, occaſioned from the Diverſity of Fermentations and other natural Elaborations, that are produced by the Texture or Diſpoſition of their different Fibres. We may diſtinguiſh Roſins from Gums, in that Roſins are much fatter, and that they diſſolve, conſequently, much eaſier in Oil.

The Origin of Minerals is different from thoſe of Vegetables and Animals; this proceeds from the Congelation of acid or ſaline Waters charged with ſuch Matters as will diſſolve in the Earth. Metals are produced from a greater degree of Concoction, a longer Digeſtion, and cloſer Union than the Minerals, which are ſeparated or divided from the groſſer Parts in the Ores, after the ſame manner as Gold and Silver ſeparate themſelves from their Metals in the Cupel. All Ores are not in a State or Condition of producing Metals, for it is neceſſary there ſhould be a Diſpoſition and natural Heat capable of raiſing extraordinary Fermentations and Elaborations; and high Mountains are uſually the propereſt Places for theſe Productions, becauſe the Heat therein contained is more regular and exact than elſewhere.

It is not Chance only that conducts us to the Diſcovery of metallick Mines, but thoſe who apply themſelves that Way, obſerve or take notice of ſeveral Circumſtances which direct them to the Places where they may be found: For example, When on a Mountain, or in the Cliſts and Breaches of Rocks, they meet with Marchaſites, and ſmall heavy Stones of a Mineral Kind, or that they perceive on the Surface of the Earth ſeveral Mineral Veins; theſe are Signs that there is ſomething to be found, that is likely to anſwer their Expectations, and that they may be aſſured of Succeſs.

When in certain Streams or Rivulets there is ſeen a ſort of Sand of little Pieces of Marchaſite of ſome Mineral, there is a Sign that there is ſome metallick Mine near the Place; for theſe metallick Bits are waſhed off, and conveyed by the Current of the Water that flows uſually from the Bottom of ſome Hill; ſo that it runs back again towards the Fountain-head, inſomuch that if you purſue theſe ſmall Pieces of Marchaſite, they will bring you to the Place where the Mine is.

When the Aſpect or Figure of a Mountain is rough and wild, the Earth is barren, naked, and without any kind of Plants, or that only ſome particular Kinds are produced, which are almoſt withered and dry; theſe are Signs that there are Mines in this Mountain, becauſe the great Barrenneſs of the Surface was occaſioned by nothing elſe but the mineral Vapours, which conſume the Roots of the Plants; though it does not always happen that mineral Places are barren, there being very many that are covered with great Variety of Herbs. When we ſee a very clear Water flow from a Mountain that has a mineral Taſte, it is a Sign that the Place abounds with ſome kind of Metal or Mineral; for thoſe ſort of Places are uſually ſupplied with a great deal of Water, which give great Diſturbance to the Workmen, it being neceſſary to drain off the Water before you can ſearch for the Metal.

When we are very certain, by ſeveral Signs or Obſervations, that any Hill or Mountain contains in it ſome Mine of Metal, we begin to ſink or dig a Pit at the lower Part or Foot of the Hill, in order (as the Miners call it) to carry the Level, whereby the Waters may run off of their own accord, and without the Aſſiſtance of Engines; and thereby they may be able to come at the Deep, where the largeſt and richeſt Part of the Metal lies. We muſt take notice, that the metallick Matter being as yet ſtony in the Mine, divides itſelf into ſeveral Veins or Channels, that repreſent the ſeveral Branches of Trees, or the Arms of a River. Metals differ from other Minerals in being more malleable, whereof there are ſeven; to wit, Gold, Silver, Iron, Tin, Copper, Lead, and Quickſilver; the laſt is not malleable, but will amalgamate with any of the others, and therefore is by ſome called a half Metal, though others believe it to be the Seed of all Metals.

The Aſtrologers and Alchemiſts join in their Opinions herein, and affirm this as an unconteſtable Truth, that there is a great Correſpondence between the ſeven Metals and the ſeven Planets in their Influences, which flow the one from the other, and ſerve reciprocally for their Nutrition. And though this Opinion is without any Foundation, it has nevertheleſs many Followers, notwithſtanding their fineſt Reaſonings are but *gratis dicta*; for, excepting the Sun and Moon, there is not the leaſt ſhadow of Probability, how any of the reſt ſhould communicate any Influence to any thing that grows upon this terraqueous Globe, eſpecially ſubterraneous Bodies, where neither Sun nor Moon ſeems to have any Dominion.

A great

A great many Phyſicians and Apothecaries think it ſufficient to anſwer the Ends of their Profeſſion, that they know the moſt common Drugs in Uſe, without giving themſelves any further Trouble: But nothing is a greater Obſtruction to the Progreſs and Advancement of Medicine than ſuch a lazy Notion, which gives a Check to all Enquiries into the Secrets of Nature, and prevents the Diſcovery of an infinite Number of excellent Medicines that are unknown to us. We ſee that every Age has brought to light ſome new Drugs, and we had never known the chief Part of the beſt Medicines in Uſe among us at this Day, if the Chemiſts had not brought them out of the Fire, from ſuch Metals and Minerals as the Ancients believed not only uſeleſs in Phyſick, but pernicious to Health. How ſhould we have met with the *Bark*, *Ipecacuana*, *&c.* which produce ſuch extraordinary Effects, if the Botaniſts had not carried their Enquiries into the New World? And the *Materia Medica* had never been ſo copious as it is now, if thoſe who have made ſo many valuable Diſcoveries had contented themſelves with ſuch Drugs only as ſerved their Predeceſſors? We likewiſe ſee, that ſuch Phyſicians as practiſe Phyſick with the moſt Succeſs, are ſuch as have applied themſelves moſt to the Knowledge of Drugs; as we have an eminent Inſtance in Monſ. *Fagon*, Firſt Phyſician to the *French* King; and ſome of our own Nation, who are, and have been, the greateſt Ornaments to the Profeſſion of Phyſick, as well as the Study of Botany, as Dr. *Moriſon*, Dr. *Grew*, Dr. *Sloan*, Dr. *Woodward*, Mr. *Petiver*, and others: Therefore all thoſe who apply themſelves to the Compoſition of Medicine, ought ſeriouſly to enquire into the Knowledge of Drugs, and to penetrate into their ſecret Virtues, it being certain there is not one of them that has not in it ſome ſpecifick Quality for the Cure of Diſeaſes. It is pity there are few Perſons whoſe Leiſure and Fortune will give them an Opportunity of applying all their Time to this Buſineſs; but I am perſuaded, that any Phyſician or Apothecary that would uſe a little Induſtry this way, might, in the Courſe of his Life, diſcover the particular Virtues of at leaſt ſome one Drug; and this would, in Time, enrich the Practice of Phyſick with a great many more Simple Medicines, that are ſurer, ſafer, and more efficacious than thoſe we uſe at this Day.

THE PREFACE of the EDITOR OF THIS FOURTH EDITION.

THE Author of this uſeful Work appears to have been a Man of great Candour and Openneſs in the Diſcovery of every thing he knew regarding his Subject; and, what is perhaps a Merit more than equal to that or any other, in the Author of a Treatiſe of this kind intended for general Uſe, a Perſon of the ſtricteſt Probity; to this he had added an uncommon Induſtry and Application to his Buſineſs, as a Druggiſt, for a long Series of Years, and by being himſelf daily converſant among the Objects he had to deſcribe to others, he ſeems to have made himſelf much better acquainted with the external Appearances and Differences of Drugs, and the various Accidents they are ſubject to, than any Author who had wrote before him. With theſe Qualifications, the World could not but expect a valuable Work from him, on a Subject he ſo well underſtood; and his Countrymen, when the Book appeared, declared that he had not fallen ſhort in it, of what they expected from him: Indeed we find him every where talking as if he had the Subſtances treated of before him; his Deſcriptions are clear, ſuccinct, and diſtinctive; his Cautions againſt Deceits are not calculated from the Figments of a fertile Invention, but given from the Memory of Sophiſtications by which himſelf had, at ſome time or other, ſuffered: and his Directions how to know the good from the bad in every Species, are a Leſſon that every Druggiſt, Chemiſt, and Apothecary, ought to have eternally in Memory.

If the Work has, among us, been accuſed of ſome Inaccuracies, it is but Juſtice to the Author to obſerve, that it was in many Caſes the *Engliſh* Tranſlator, and not he, who was chargeable with them; and if there are ſome Inſtances in which we can perceive Errors in his Accounts of the Drugs, it is owing to the Diſcoveries made in later Times, of Things not ſo much as ſuſpected by the beſt Judges at the Time of his publiſhing this Work.

In this Edition, the groſs Errors of the Tranſlator are amended, and the Author is ſet in the juſt Light he deſerves, and his Senſe rendered clear where it was before miſtaken or left obſcure: And as the Improvements made in all Parts of natural Knowledge ſince his Time have been very great, whatever might ſeem neceſſary for the farther inſtructing the young Student in the true Nature and Properties of the Body deſcribed, is here added at the End of the Chapter, from the Writings of the *French* Academicians, of *Reaumur* and *Geoffroy*, in their particular Treatiſes, from our own *Dale*, and from ſuch others as have given Lights into the Subject unknown to theſe; and ſometimes from Accounts or Obſervations later than the Works of any of them.

The Reader will not be diſpleaſed to find, that what is added of this kind is not ſpun out into an unneceſſary Length, by Obſervations foreign to the Intent of the Work; the Deſign not being to enter into the Detail of all the Particulars, in regard to each Subject, as a Matter of Science, or to give Botanical, or other compleat Treatiſes on the Bodies under Conſideration; but to point out the Nature and Properties of each as a Drug; that is, as it becomes the Subject of this Hiſtory; with juſt enough of its Characteriſticks or Deſcription, for the diſtinguiſhing it from other Things of the ſame kind. Thoſe who want to be further informed of the general Hiſtory of the Subject, are referred to the Page or Chapter of ſome of the Authors of the greateſt Credit who have treated more largely of it.

The *Engliſh* Tranſlation having been made from the firſt Edition of the Original, it has been judged neceſſary to add here the more material Part of what was afterwards added to it in the ſucceeding one, publiſhed by the Son of the Author; and as there are ſome few Drugs in uſe among us, which by Inadvertency were paſſed over in ſilence by this Author, there are added ſhort Accounts of them, by which they may be known when genuine, and by which the Sophiſtications, not leſs frequent in the Shops of *London* than in thoſe of *Paris*, may be avoided.

JOHN HILL.

A N

ACCOUNT

OF THE

NAMES of AUTHORS

cited in this Work.

A.

ACOSTA, (Chriſtopher) an *African* Phyſician and Surgeon, who made a Treatiſe of Drugs and Medicines in the Year 1582, which was tranſlated into *Latin*, then into *French*, and printed at *Lyons* in *Octavo*.

Adverſariorum Opus, done by *Peter Pena* and *Matthew Lobel*, both Phyſicians. This Book was printed at *London* 1570, at *Antwerp* 1576, and reprinted at *London* 1605, in *Folio*.

Agricola (George) of the Riſe and Cauſes of ſubterraneous Productions. Book the Fifth, of the Nature of thoſe Things which ſpring from the Earth. Book the Fourth, of the Nature of Foſſils. Book the Tenth, of old and new Metals. Book the Second, *Bermannus*, or a Dialogue of metallick Affairs, being a *German* Interpretation of metallick Terms.

Aldinus: An exact Deſcription of ſeveral ſcarce Plants, contained in the *Farneſian* Garden at *Rome*. Printed there 1625, in *Folio*.

Aldrovandi, (Ulyſſis) Dendrologia, printed at *Bononia*, in *Folio*.

Alpinus, ſee *Proſper Alpinus*.

Amatus Luſitanus, upon the five Books of *Dioſcorides*; to which is added the Names of Plants in ſeveral Languages; printed at *Straſburgh* 1554, in *Quarto*.

Ambroſinus Hyacinthus, his *Phytologia* of the Garden at *Bononia*, or the firſt Tome of the firſt Part of Plants; printed at *Bononia* 1666, in *Folio*.

Anguillaria, (Aloſius) Third Preſident of the Garden at *Padua*, his Opinion of ſeveral Plants; a ſmall Work divided into fourteen Parts; with the Works of *John Marinel.* in *Italian:* To which are added two Figures, one of the *Chamælian-Thiſtle*, and the other of the Tree *Houſe-leek*; printed at *Venice* 1691, in *Octavo*.

Apuleius Platonicus, of the Virtues of Herbs, joined with a Demonſtration of the Herbs to every ſingle Sign of the *Zodiack*, and alſo of the erratick Stars, or ſuch as are not fixed; printed at *Paris* 1528, in *Folio*.

Barbarus,

B.

Barbarus, (Hermolaus) his five Books of Additions upon *Dioſcorides*; printed at *Cologn* 1530, in *Folio.*

Bellonius: Theſe Works are tranſlated by *Cluſius*, and placed in the ſecond Volume of Plants, printed at *Antwerp.* There are, beſides, printed at *Paris*, ſeveral Treatiſes of the ſame *Belon*, of coniferous and ever-green Plants, in *Quarto.* Of the wonderful Excellency of the Works of the Ancients, in *Quarto.* Of embalming the Dead, in *Quarto.*

Benzonis, (Hieronymus) his Hiſtory of the New World, rendered into *Latin* by *Urbanus Calvatones*; printed at *Geneva* 1600, in *Octavo.*

Boccones, (Paul) his Figures and Deſcriptions of choice Plants; printed 1674.

Boetius de Boot of *Bruges*, Phyſician to the Emperor *Rodolph* the Second, his Hiſtory of Gems and Stones; printed at *Leyden.*

Bontius, (James) a Phyſician of *Batavia*, who writ ſix Books of the Natural Hiſtory of the *Eaſt-Indies*, but being prevented by Death left them unfiniſhed: Afterwards *William Piſo* reduced them into Order, illuſtrated and publiſhed them together with the Natural Hiſtory of the *Weſt-Indies*; printed at *Amſterdam* 1658, in *Folio.*

Botanicum Monſpelienſe, the *Montpellier* Botaniſt; printed at *Leyden* 1676, in *Octavo.*

Breynius, (James) of *Exoticks*, &c.

Brunfelſius, (Otho) his *Latin* Hiſtory of Simples, with Cuts, in three Volumes; the firſt publiſhed 1530, another in 1531, and a Poſthumous Work in 1536; printed at *Straſburgh.*

C.

Caſpar Baubinus's Pinax, or *Store-houſe* of *Botanical Rarities*; printed at *Baſil* in 1623, and reprinted at the ſame Place, with ſome Alterations, in 1671, in *Quarto.*

Cæſalpinus, (Andreas) Aretinus, Profeſſor in the Univerſity of *Piſa*, his ſixteen Books of Plants; printed at *Florence* 1583.

Camerarius, upon the *Epitome* of *Matthiolus*; printed at *Frankfort* 1586, in *Quarto.*

Camerarius, on the Medical and Philoſophical Garden; publiſhed at *Frankfort* 1588, in *Quarto.*

Cardanus, (Hieronymus) of the Variety of Things; ſeventeen Books, printed at *Baſil* 1581, in *Octavo.*

Caſtor Durante's New Herbal; printed at *Rome* 1585, and at *Venice* 1684, in *Folio.*

Cluſius, (Charles) his Appendix of the Hiſtory of Plants, or his Deſcription of ſeveral Roots as yet unknown; printed at *Antwerp* 1611, in *Folio.*

Cluſius, of Exotick Plants, ten Books; printed at *Antwerp* 1605, in *Folio.*

Cluſius's Hiſtory of ſcarce Plants; printed at *Antwerp* 1601, in *Folio.*

Cluſius's Hiſtory of ſeveral rare Plants obſerved throughout *Spain.*

Cluſius's Hiſtory of ſeveral ſcarce Roots obſerved throughout *Pannonia*, *Auſtria*, &c.

Columnæ, (Fabii) Phytobaſanos, with Cuts; printed at *Naples* 1592.

Two Parts of the ſame Author, of the leſs known Plants; the firſt of which contains One hundred ſixty-one Figures, printed at *Rome* 1616; the other, forty-four Figures, printed at the ſame Place 1616.

Cordus, (Valerius) his Annotations on *Dioſcorides.*

The Hiſtory of Roots by the ſame Author, in four Books, with ſeveral Cuts from *Tragus*, and ſome new ones added by *Geſner.*

A *Sylva* of Obſervations, which were likewiſe publiſhed together by *Geſner* at *Straſburgh* 1561, in *Folio.*

A Diſpenſatory of the ſame Author.

Cornutus, (James) a *Pariſian* Doctor, his Hiſtory of the Plants of *Canada*, and others not known before; printed at *Paris* 1635, in *Quarto.*

Cornarus,

Cornarus, (Janus) who undertook *Dioſcorides*, and added Cuts to every Head; printed at *Baſil* 1557, in *Folio*.

Cortuſus, (James) Anthony, a Senator of *Padua*, and Preſident of the Phyſick-Garden there, and who publiſhed nothing but a Catalogue of the *Padua* Garden, with the *Area* or Plans of the ſame; printed at *Venice* 1591, in *Octavo*.

Coſteus, (John) concerning the whole Nature of Plants, in two Books, printed 1578, in *Quarto*.

Annotations of the ſame Author upon the *Muſeum*, with the Works thereof; printed at *Venice* 1570, in *Folio*.

Creſcentius, (Peter) of *Bononia*, of the Parts of Agriculture, with the Nature and Uſefulneſs of Plants; printed at *Baſil* 1548, with ſome Cuts.

D.

Dalechamp's Hiſtory of Plants in two Volumes; printed at *Lyons*, in *Folio*.

De la Duquerie, (John Baptiſt) his *Lexicon Medico-Etymologicum*.

Dioſcorides of the *Materia Medica*, five Books in *Greek*, of which there are various Editions extant in *Greek* and *Latin*, with the Interpretation of *Marcellus Virgilius*, *Goupiſius Aſſulanus*, *Johannes Ruellius*, *Johannes Coñarius*, *Johannes Antonius Saracenus*, and others.

Six Books of the ſaid *Dioſcorides*, with *Ruellus's* Notes, and ſmall Cuts 350; to each Chapter of which is added compendiary Annotations of the ſecond Edition: Alſo thirty Figures of Roots not before delineated; by *James Dalechamp*; printed at *Lyons* 1552, in *Octavo*.

Dodonæus, (Rembertus) of *Mechlin*, Imperial Phyſician, his Hiſtory of Roots, in thirty Books; printed at *Antwerp* 1616, in *Folio*.

Dodonæus's French Hiſtory of the ſame, by *Cluſius*.

The *Belgick* Hiſtory, by the ſame Author.

F.

Furicius Cordus's Botanologicum, or Diſcourſe of *Botany*, by way of Dialogue; printed at *Cologn* 1534, in *Folio*.

The Garden of *Eyſtettenſis*, deſcribed by *Baſilius Beſlerus*; printed at *Norimbergh* 1613, in *Folio*.

Fracaſtorius's Works; printed at *Lyons* 1590, in *Octavo*.

Fragoſus, (John) Phyſician and Surgeon to the King of *Spain*, his Hiſtory of Aromaticks, Fruits, and Simples, that are brought from both the *Indies* into *Europe*; publiſhed by *Iſrael Spachius*, a Phyſician of *Straſburgh*, and printed at the ſame Place 1610, in *Octavo*.

Fuchſius's Commentaries on the Hiſtory of Roots; printed at *Baſil* 1542, in *Folio*.

G.

Galenus, (Claudius) of *Pergamus*, the moſt eminent after *Hippocrates*.

Garzias ab Horto, Phyſician to the Viceroy of the *Indies*, his Hiſtory of Aromaticks and Simples that have their Growth in *India*, digeſted into an Alphabetical Order, and found writ in the *Portugueze* Language, by the way of Dialogue, but contracted by *Cluſius*, and rendered into *Latin*. This Book was tranſlated into *French* under the Title of *The Hiſtory of Drugs, Spices, and ſimple Medicines*.

Gerard, (John) his Hiſtory of Plants, in *Engliſh*; printed at *London* 1597, in *Folio*.

Gerard's Hiſtory enlarged by *Johnſon*; printed at *London* 1636.

Geſner, (Conradus) of the Gardens of *Germany*.

Geſner, of the Collection of Roots.

Geſner's Catalogue of Plants, in four Languages.

Geſner, on the Nature of Foſſils, Stones, and Gems, with Figures, &c. printed at *Zurick* 1565, in *Octavo*.

Guilandinus, (*Melchior*) Fourth Preſident or Governor of the Garden at *Padua*, his Apology againſt *Matthiolus*; printed at *Padua* 1558, in *Quarto*.

Gulielmus Piſo, Phyſician at *Amſterdam*, his Natural and Medicinal Account of both the *Indies*; printed at *Amſterdam* 1658, in *Folio*.

H.

Hariot, (*Thomas*) his Deſcription of *Virginia*; *Cluſius* turned it into *Latin*, and this is the firſt Part of the *Weſt-Indies*.

Hermannus. See H. L. B.

Hermander, (*Francis*) his Hiſtory of Plants, Animals, &c. of *Mexico*; firſt compiled by this Author, and afterwards digeſted into a Volume by *Nardo Antonio Reccho*; printed at *Rome* 1651, in *Folio*.

Hermolaus Barbarus, his five Books of Commentaries on *Hippocrates*; printed at *Cologn* 1530, in *Folio*; and the ſame Author's Corrections of *Pliny's* Natural Hiſtory; printed at *Baſil* 1534, in *Folio*.

Hieronymus, or *Jerome* of *Brunſwick*, his plain *German* Proof: To which is added, *Brunfelſius's* Herbal; printed at *Straſburgh* 1531, in *Folio*.

Hippocrates's Works.

Honorius Bellus Vincentinus, a Phyſician of *Crete*, his Epiſtles of Plants, writ to *Cluſius*; to which is added the Hiſtory.

Hortus Medicus Edinburgenſis, the Phyſick Garden at *Edinburgh*, or a Catalogue of Plants there, by *Jacob Sutherland* of *Edinburgh* 1683, in *Octavo*.

Hermannus's Catalogue of Plants of the Garden at *Leyden*, by *Paul Hermannus*, Profeſſor of Phyſick and Botany in that Univerſity; printed there 1687.

Hortus Malabaricus Indicus.

Hortus Regius Bleſenſis; printed at *Paris*, 1655.

Hortus Regius Pareſienſis, The Royal Garden of *Paris*, 1655.

I.

Johannes Bauhinus's Hiſtory of Plants, carried on by *Henricus Charleus*, Doctor of *Baſil*, and enlarged by *Chabræus* of *Geneva* 1650, in *Folio*.

Imperatus Ferantes, a *Neapolitan* Apothecary, publiſhed a Natural Hiſtory in twenty-eight Books, with Figures of Stones, Corals, Sponges, &c. and of Plants and Fruits, thirty-three; printed at *Naples* 1599, and *Venice* 1672, in *Folio*.

Ten Parts of the Hiſtory of the *Weſt-Indies*, with an Addition to the ninth Part, in *Folio*.

Ten Parts of the *Eaſt-Indies*, in *Folio*.

Johnſton's Natural Hiſtory of Animals, with Copper-cuts; printed at *Amſterdam* 1657, in *Folio*.

L.

Lacuna, (*Andrew*) his Commentaries on *Dioſcorides*, with Figures; writ in *Spaniſh*, and printed at *Salamanca* 1552, in *Folio*.

Lemnius, (*Levinus*) of ſacred Plants; printed at *Lyons* 1595, in *Octavo*.

Lerius, (*Johannes*) writ the Hiſtory of *Braſil*, firſt in *French*, then in *Latin*; printed at *Geneva* 1594.

Linſcotus, (*John Hugh*) his Itinerary and Voyage into the *Eaſt-Indies*, belonging to the *Portugueſe*; with the Annotations of *Bernardus Paludanus*; printed at the *Hague* 1599, in *Folio*.

Lobellius, (*Matthew*) his Figures of Plants and Roots; printed at *Antwerp* 1581, in a long Form in *Quarto*.

His Illuſtrations of Roots, together with the further Care and Diligence of *William How* an *Engliſhman*; printed at *London* 1655, in *Quarto*.

Lobellius's Obſervations and Hiſtory of Plants and Roots; printed at *Antwerp* 1576, in *Folio*.

Lonicerus, (Adam) this was the Herbal of *Eucharius*, writ in *High-Dutch*, and afterwards publiſhed under the Name of *Adam Lonicerus*, with 833 Cuts, about the Year 1582, at *Frankfort*.

Ludovicus Romanus his Voyage into the *Eaſt*: Seven Books, with the Notes of *Archangelus Madriguanus* and others, who have deſcribed the New World.

A General Hiſtory of Plants of *Lyons*, by *Gulielmus Revillius* 1586; it is uſually called *Dalechamp's* Hiſtory, in *French*.

M.

Malpighius, (Marcellus) his Anatomy of Plants; printed at *London*; in *Folio*.

Marcgravius, (George) his eight Books of the Natural Hſtiory of *Braſil*; this Work was printed in *Holland* with that of *Piſo*, in the Year 1648, in *Folio*.

Matthiolus his Commentaries on ſix Books of *Dioſcorides*, &c. printed at *Venice* 1565.

Matthiolus quoted by *Lobellius* in the Book intituled *Icones Lobellii*.

Matthiolus on the *Venice* Edition 1565.

Mentrelius, chief Phyſician to the Elector of *Brandenburgh*, his univerſal Index of Names of all the Plants, in ſeveral Languages; with a ſmall one of the ſcarceſt Plants, and ſome Figures cut in Copper; printed at *Berlin* 1682, in *Folio*.

Meſue's Works, of the Choice of cathartick or purging Medicines, with the Correction and Uſe of the two Books, whereof the firſt are the general Canons, and the ſecond treats of Simples; printed at *Venice* 1623, in *Foleo*.

Monard, (Nicholas) a Phyſician of *Seville*, his Hiſtory of ſimple Medicines brought from *America*; writ firſt in *Spaniſh*, then done into *Latin* by *Cluſius*, and afterwards tranſlated into *French* by *Antony Colin*, Apothecary at *Lyons*: This Work was printed with that of *Garzias ab Horto* and *Acoſta*, in the Year 1619, in *Octavo*.

Moriſon's Univerſal Hiſtory of Plants; the ſecond Part by *Robert Moriſon*, Botanick Profeſſor at *Oxford*, printed there 1680, in *Folio*.

The *Hortus Regius Bleſenſis*, enlarged by *Robert Moriſon*; printed at *London* 1669, in *Octavo*.

Moriſon's Botanick Preludes.

N.

Noriſon's New Deſcription, or ranging of umbelliferous Plants; printed at *Oxford* 1672, in *Folio*.

Nehemiah Grew's New Anatomy of Plants; printed at *London* in *Folio*.

Nicander's Treacle and Alexipharmacks, with the *Greek* Readings, or *Scholia* of an uncertain Author; printed at *Venice* 1523, in *Quarto*.

An Edition of the ſame Author, with the *Greek* and *Latin* Readings of *Gorræus*; printed at *Paris* 1557, in *Quarto*.

O.

Oviedus Gonſalvus Ferdinandus his general Hiſtory of the *Weſt-Indies*: This Work has been turned into *French* by Mr. *Duret*. In *Octavo*.

P.

Paludanus Bernardus's Notes on the *Indian* Hiſtory of *Linſcotius*, with the Addition of Indexes, &c.

Paul Herman's Prodromus of the *Batavian* Paradiſe; printed at *Amſterdam* in *Octavo*.

Parkinſon's Terreſtrial Paradiſe, in which is contained a Hiſtory of all Flowers, Fruit-Trees, &c. that are cultivated in Gardens or Orchards; printed at *London* 1629, in *Folio*.

Parkinſon's Theatrum Botanicum; printed at *London* 1640, in *Folio*.

Petrus Pena. See *Adverſariorum Opus*.

Palus Renealmus Bleſenſis his Specimen of the Hiſtory of Plants, with Copper-cuts; printed at *Paris* 1611, in *Quarto*.

Philip Pigafetta's Hiſtory of the Kingdom of *Congo*, &c.

Pile-

Pileterius, (*Caſpar*) of the Plants growing in *Zeland*, in an Alphabetical Manner; printed at *Middleburgh* 1610, in *Octavo*.

Piſo. See *Gulielmus Piſo*.

Pliny's Hiſtory, in which ſeveral Things are extant concerning the Culture and Virtue of Plants. This Work was tranſlated into *French* by Mr. *Dupinet*, and printed at *Lyons* 1581, in *Folio*.

Pitton Tournefort's Elements of Botany, or the Method of knowing Plants; printed at *Paris* at the King's Charge 1694, in *Octavo*.

Leonard Plukenett's Phytographia; the firſt Part printed at *London* 1691, in *Folio*.

Father *Plumier's* Deſcription of *American* Plants; printed at *Paris* 1693, in *Folio*.

Pona (*John*) Apothecary at *Verona*, his Catalogue of Simples growing in *Montebaldo*, with the Deſcription of ſeveral others, and ſixteen Figures, adding *Cluſius's* Hiſtory of rare Plants. This Work, after ſeveral Editions, was tranſlated into *Italian* by *Francis Pona*, Doctor of Phyſick, and the Author's Son; printed at *Venice* 1617, in *Quarto*; at *Baſil* 1608, and at *Antwerp*, in *Folio*.

Proſper Alpinus of *Egyptian* Plants; printed at *Venice* 1633, in *Quarto*.

Proſper Alpinus's two Books of Exotick Plants; printed at *Venice* 1656, in *Quarto*.

Johannes Baptiſta Porta, a *Neapolitan*, twelve Books; printed at *Frankfort* 1592, in *Quarto*: This Author writ ſeveral other Works, eſpecially the *Phyſiognomy*, or Hiſtory of ſeveral Plants, adorned with Figures, in *Octavo*.

Q.

Quadramius, a Divine, and Botaniſt to the Duke of *Ferrara*, writ a Treatiſe of Treacle and Mithridate; printed at *Ferrara* 1597, in *Quarto*.

R.

Ray's Catalogue of *Engliſh* Plants, and the Iſles adjacent; printed at *London* 1677, in *Octavo*.

Ray's Hiſtory of Plants; printed at *London* 1686, in *Folio*.

Ray's Methodical Synopſis of *Britiſh* Roots, by the ſame Author, *John Ray*, Fellow of the Royal Society; printed at *London* 1690, in *Octavo*.

Rauwolfius, (*Leonard*) his Deſcription of ſeveral Plants in his Travels into the *Eaſt-Indies*, and their Cuts; printed 1583, in *Quarto*.

Renodæus, (*John*) his five Books of Pharmaceutical Inſtitutions; to which are added three of the *Materia Medica*; printed at *Paris* 1608, in *Quarto*.

Robini Hortus, or the Garden of *John Robin*, Royal Botaniſt to *Henry* IV. of *France*, with 214 Figures; printed at *Paris* 1608, in *Folio*.

Rondeletius of Fiſh, printed at *Lyons* 1554.

Ruellius's Tranſlation of three Books of *Dioſcorides* into *Latin*, concerning the Nature of Roots; printed at *Brſil* 1557, in *Folio*.

S.

Scaliger, (*Julius Cæſar*) his Animadverſions upon ſix Books of *Theophraſtus*, of the Cauſes of Plants; printed at *Geneva* 1566, in *Folio* and *Octavo*.

Schola Botanica, printed at *Amſterdam* 1689, in 12°.

Schroder's Pharmacopœia Medico-Chymica, whereof there are ſeveral Impreſſions.

Schwencfeldius's Catalogue of the Roots and Foſſils of *Sileſia*; printed at *Leipſick* 1601, in *Quarto*.

Suvertii Florilegium, in which, beſides the many Figures, there are forty-ſeven Plants from both the *Indies* not deſcribed before; printed at *Frankfort* 1612, in *Folio*.

Sylvatici, (*Matthæi*) *Opus Pandectarum*; printed at *Venice* 1499, in *Folio*.

T.

Tabernæmontanus his *German* Hiſtory, publiſhed in three Parts, with 2087 Figures; printed at *Frankfort* 1588, in *Folio*.

The ſame enlarged with the Deſcription of Plants, Cuts, and ſeveral Medicines, by *Caſpar Bauhinus*, in the Year 1613, in *Folio*.

The Figures or Prints of the ſame, with the bare Names in *Latin* and *High-Dutch*; printed at *Frankfort* 1590.

Thalius, *Sylva Hercynia*, or a Catalogue of Plants, growing naturally on the Mountains and Parts adjacent to *Hercynia*; printed at *Frankfort* 1588. This Catalogue is uſually joined to and adorned with the Medicinal Garden of *Camerarius*.

Theophraſtus's Hiſtory of Plants, the *Greek* Edition, printed at *Venice* 1552, in *Octavo*; at *Baſil* 1541, in *Quarto*; and *Gaza's* Verſion at *Lyons* 1552, in *Octavo*, with *Jordan's* Correction.

Theophraſtus Ereſius's ten Books of the Hiſtory of Plants, which *Bodæus* illuſtrated; printed at *Amſterdam* 1644, in *Folio*.

Thevet's Coſmography, in *French*, publiſhed with ſeveral Figures of Plants and Animals. The ſame Author has writ in *French*, a Hiſtory of what is ſingularly remarkable in *New France* in *America*; whereunto are added twelve Figures of Plants; printed at *Paris* 1557, in *Quarto*.

Tragus his Hiſtory, which was often publiſhed at *Straſburgh* in the *German* Language, in *Folio*, but now is tranſlated into *Latin*, with 567 Cuts, though they are deſcribed to 800; printed at *Straſburgh* 1522, in *Quarto*.

Turner, (*William*) his Hiſtory of Plants, in *Engliſh*, with ſome Figures; printed at *London* in *Folio*.

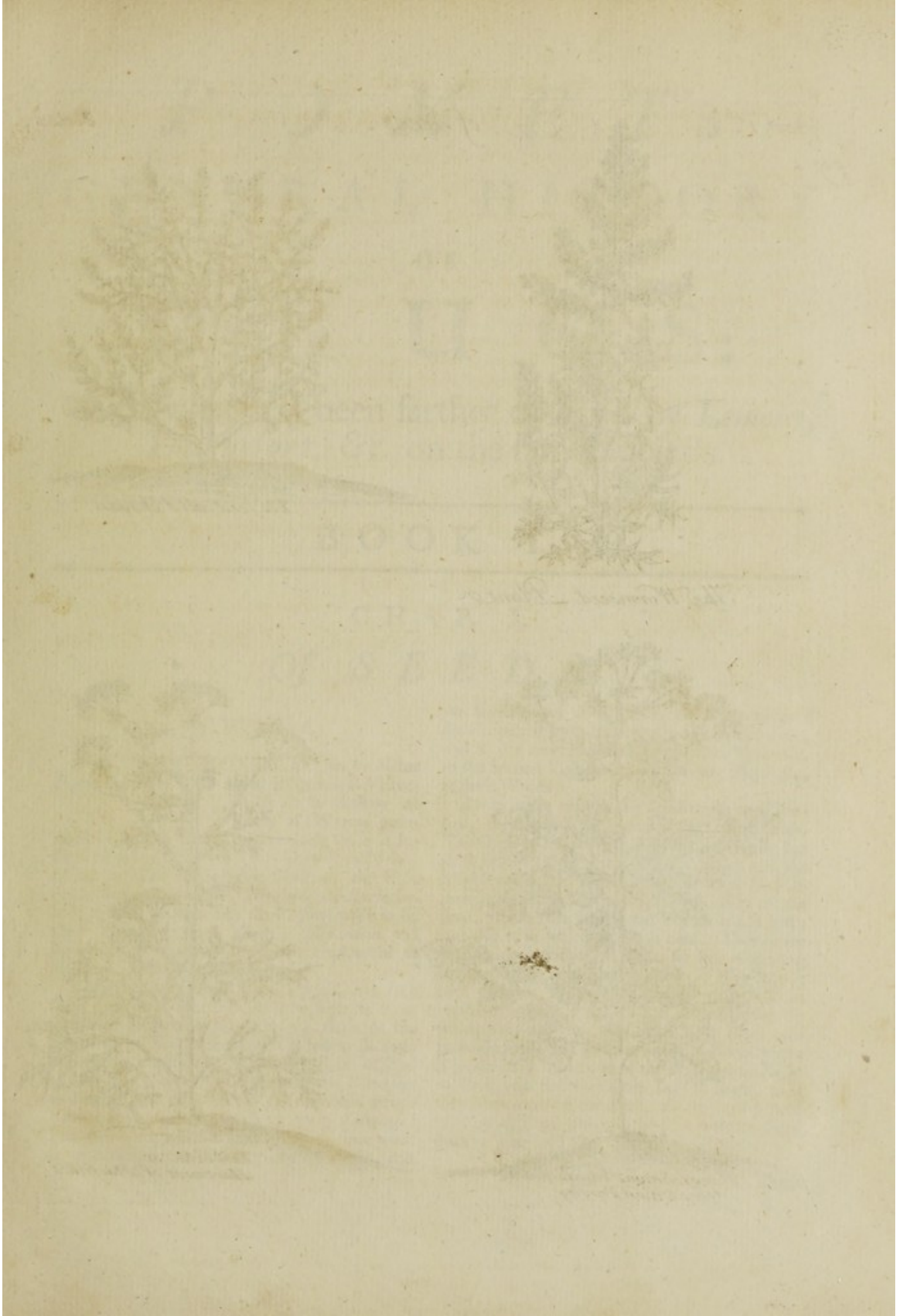
V.

Veſlingius's Obſervations upon *Proſper Alpinus*, concerning *Egyptian* Plants; printed at *Padua* 1638, in *Quarto*.

Virgilius Marcellus's Interpretation of *Dioſcorides*, with Commentaries of the ſame; printed at *Cologn* 1529, in *Folio*.

Z.

Giacomo Zanoni's Herbal, taken from the publick Phyſick-Garden at *Bologna*; printed there 1675, in *Folio*.



The Wormseed Plant

2

The seed call'd Choüan

3

Petroselinum Macedonicum.
Macedonian Parsley

4

The Sisilis. or
Hartwort of Marseilles

POMET's GENERAL HISTORY OF DRUGS:

With what has been farther obſerv'd by *Lemery*, *Tournefort*, *&c.* on the ſame Subjects.

BOOK I.

CHAP. I.

Of SEEDS.

1. *Of* Wormſeed.

Pomet. WORMSEED has its Name from its principal Virtue, which is to deſtroy all Kinds of Worms generated in human Bodies; particularly thoſe in Infants or young Children. It is likewiſe call'd *Santoline*, or *Xantoline*, *Semen Sanctum*, the Holy Seed, *Semen Santonicum*, *Semencine* and *Barbotine*. It is a ſmall Seed, which the *Perſians* trade in by their *Caravans* from *Aleppo*, *Alexandria* and *Smyrna*, and which is afterwards tranſported to *England*, *Holland* and *France*.

The Plant which bears the *Wormſeed*, has ſuch ſmall Leaves, that it is difficult to ſeparate them from the Seed; for this Reaſon, thoſe of the Kingdom of *Boutan* winnow it in proper Baſkets, to ſeparate the Leaves, which fly off, in a Kind of Powder. Some Authors affirm this *Wormſeed* to be the Seed of a Sort of Wormwood which is call'd *Santonique*, becauſe in grows in *Xaintonge*: But this is not worth diſputing about, ſince what is generally ſold we know grows in *Perſia*, and on the Borders of *Muſcovy*, as Letters which I have received upon ſeveral Occaſions aſſure me, and as you may be ſatisfy'd from Mr. *Tavernier*, in the Second Volume of his Travels, *Page* 384, in theſe Words:

As to what regards the *Semæncine*, or *Wormſeed*, it is not to be gather'd like other Seeds. The Herb which bears it is common enough, but muſt be ſuffer'd to ſtand 'till it is ripe; and the Misfortune is, that when it approaches to its Maturity the Wind ſhakes off a great Part of the Seed, which falls among the Weeds and is loſt; and this it is which makes it dear. They never dare touch it with their Hands for fear of ſpoiling it, and when they are to ſhew it they take it in a Baſon. When they gather what remains upon the Plant, this is the Management by which they do it; they take with them two Hand-Baſkets, and walking into the Places where it grows, they move one of the Baſkets from Right to Left, and the other from Left to Right, as if they were mowing the Herb, always laying hold of it by its Top, which is the Part were the Seed grows: The Seed thus falls into the Baſkets.

There is *Wormſeed* alſo growing in the Province of *Kerman*; but it is not ſo good as that of *Boutan*, and ſcarce any more is gather'd there than what is uſed upon the Spot.

This Seed is not only good againſt Worms in Children, but the *Northern* Nations uſe it like *Aniſeed* in *Comfits* and *Sugar-Plumbs*.

You ought to chuſe that which is well-fed or plump, of a greeniſh Caſt and well-taſted, and take care that it be very clean, and have nothing ſticking and clinging to the Seed; for that will increaſe the Price conſiderably. You muſt take care it be not too green, and that *Southernwood-ſeed* be not impoſed on you for this, tho' they are eaſily to be diſtinguiſh'd; for the *Wormſeed* is moderately large, long and greeniſh, and the Seed of *Southernwood* is light and yellowiſh, more reſembling a Chaff cut very ſmall than a Seed; add to this, that the *Wormſeed* is bitterer and more aromatick.

The *Wormſeed* is ſo well known and commonly uſed, that we need not ſpeak of its Virtues: Its Bitterneſs is the Reaſon that it is generally cover'd with Sugar; and this Way makes what we call *Wormſeed* Sugar-Plumbs.

When it is taken otherwiſe it ſhould be beat to Powder and taken in any convenient Liquor, or made into a Bolus from half a Scruple to a Dram, for a Doſe.

Lemery. Chuſe your *Wormſeed* always as new and freſh as you can, clean and round, of the ſtrongeſt Taſte and moſt fragrant Smell: It contains a great deal of Oil, with volatile and eſſential Salt in it: It is very proper for the Deſtruction of Worms, excites the Courſes of Women, ſuppreſſes Vapours, ſtrengthens the Stomach, cauſes a good Digeſtion, and adds a lively Colour and Complexion to the Face. The Doſe, from half a Scruple to a Dram, in Powder, to be taken in the Morning faſting, or in an Infuſion in Wine, or made into Confects, to be eat with roaſted Apples Evening and Morning. The chymical Oil is excellent to anoint the Stomach or Belly with for the ſame Purpoſes. A compound Powder may be made thus: Take *Wormſeed* two Drams; Powder of *Coraline* one Ounce; *Æthiops Mineral* half an Ounce: Mix them: Doſe, from half a Dram to a Dram, faſting.

[This is the Seed of a foreign Species of *Wormwood*, call'd *Alexandrian Wormwood*, orthe *Wormſeed* Plant. The *Abſinthium Santonicum Alexandrinum ſive Sementina & ſemen Sanctum.* Park. 102. *Abſinthium Santonicum Judaicum.* R. Hiſt. 1. 368. Hiſt. Ox. 3. 8. It is a Plant of about two Feet high, the Stalk is hard and woody, the Leaves are large and finely divided, of a greyiſh or aſh Colour rather than green; the Stalk divides into many Branches towards the Top, which are thick ſet with ſmall Leaves and numerous Cluſters of Seeds; theſe upper Leaves are thoſe ſmall ones which, as *Pomet* obſerves, it is hard to ſeparate from the Seeds.]

[The Seed is ſmall, light and chaffy, compoſed of a Number of thin brittle Membranes, ſet on a ſhort Pedicle, and eaſily falling into Powder, on being rubb'd between the Fingers.]

2. *Of the* Choüan *in* French, *or* Carmine-Seed.

Pomet. THIS is a little light Seed, of a yellowiſh green Colour, the Taſte ſomething biting; and much reſembling the *Wormſeed*, except that it is much larger and lighter.

This Plant grows low, and carries its Seed in little Bunches or Cluſters on its Top, in a Manner little different from the *Wormſeed*.

I have found it impoſſible to know poſitively the Place of Growth of the Plant which bears the *Chouan*; all that I have been able to learn of it has been from ſome Perſons of the Retinue of M. *de Guilleragues*, who went Embaſſador from the King of *France* into *Turky*, who at their Return brought a conſiderable Quantity of it to *Paris* with them.

If you would know how to chuſe the beſt Seed, you muſt take that which is greeniſh, the largeſt, and beſt clean'd or dreſs'd, and leaſt fill'd with Specks, like Holes in rotten Wood.

It is of no other Uſe, that I know of, in *France*, but to make *Carmine*, and for the Feather-Men who dye with it, but at preſent mind it very little.

Lemery. This Author agrees with the former in the Deſcription and Uſe of this Exotick; which he ſays is like *Wormſeed*, but in Taſte a little pungent; it grows upon a Shrub-Plant, plumb'd on the Tops like a Noſegay; it is brought from the *Levant*, and uſed for *Carmine*.

[This is the *Santonicum viride*, Offic. Dale's Pharm. 100, the green *Wormſeed* of the Shops; it is ſuppoſed to have the ſame Virtues with the former; but is ſo ſeldom imported that the Name of it is almoſt loſt. It is probably the Seed of ſome foreign *Wormwood*; but no Author has yet aſcertain'd the particular Species.]

3. *Of* Macedonian-Parſley.

Pomet. *Macedonian-Parſley* is a Plant which reſembles, in ſome meaſure, our Garden *Parſley*; but the Seed is a great deal

deal leſs, much longer and ſharper pointed; it grows in Cluſters like *Fennel-Seed*. This Plant receives its Name from the Kingdom of *Macedon*, where it grows naturally, and from whence the Seed is tranſported, which is almoſt the only Part of it that is uſed in Phyſick.

Make choice of the neweſt Seed, and ſuch as is clean, well fed, longiſh, and of a browniſh green Colour; let it be well-taſted and aromatick, which are the chief Diſtinctions of the Goodneſs of *Macedonian-Parſley*: There are ſome who very improperly uſe our common Parſley-Seed, and others again a Sort of black Seed from the large *Smallage*, which the Gardeners falſly call *Macedonian-Parſley*. *Andromachus*, Phyſician to *Nero*, General of the *Roman* Legions, in the Time of the War betwixt the *Romans* and *Hannibal*, invented a Treacle, which we now call *Venice-Treacle*, in which he put this Seed, by the Name of *Macedonian-Parſley*, as it is a powerful *Alexipharmack*, or Reſiſter of Poiſon or Peſtilence.

It may be taken early in the Morning, half a Dram in a Glaſs of Wine, or other Liquor proper to the Diſeaſe.

Lemery. Says it is the ſame Species of *Parſley* with ours; but the Leaves are much larger, and a little more indented; the Seed abundantly ſmaller, longer, ſharper pointed, and more aromatick. This Plant grows in *Macedon*, from whence the dried Seed is brought hither.

The Choice of it ought to be the ſame as before directed. It contains a great deal of exalted Oil and volatile Salt; it is aperitive, excites to Urine, provokes the Monthly Courſes, reſiſts Poiſon, and expels Wind; it is Lithontriptick, or a powerful Breaker of the Stone in the Kydnies; and apply'd in the Form of a Cataplaſm, eaſes Pain, and abates the Raging of the Gout, eſpecially from a cold Cauſe. This Seed may be uſed either in Powder, Decoction, Tincture, chymical or expreſs'd Oil, and in the diſtill'd Water it is opening, cleanſing, diuretick and ſudorifick, and therefore is uſed in the Compoſition of the great Treacle of *Andromachus*.

[This is the Seed of a Species of Parſley call'd *Petroſelinum Macedonicum verum*. Ger. 864. *Apium Macedonicum*. H. Ox. 3. 394. It is a Plant of about two Feet high, with Leaves like thoſe of the common Parſley, only that they are a little hairy and more notch'd on the Edges. The Stalk is divided into many Branches at the Top and beſet with Cluſters of white Flowers, which are follow'd by the Seeds before deſcrib'd. It is a common Plant in many warm Countries; but will not bear the Cold of our Climate.]

4. *Of* Seſeli *of* Marſeilles.

Pomet. THIS *Seſeli* takes its Denomination from *Marſeilles*, which is its native Climate, though it flouriſhes more in ſeveral other Parts of *Provence* and *Languedoc*. It is a Plant which paſſes for a Kind of *Fennel*, and is by many Authors call'd *Fœniculum tortuoſum*, or *Crooked Fennel*; but it has fewer Leaves than the common Fennel, and thoſe not ſo long, nor is the Stalk ſo ſtrait or high, but more naked, and the Branches leſs regular, ſpreading themſelves wider on the Sides near the Bottom. We uſe the Seed, which grows by Cluſters on the Tops, after the ſame Manner as *Dill*. When it comes to Maturity it looks very much like the wild *Fennel*.

This Seed ought to be of a moderate Size, longiſh, heavy, well clean'd and of a greeniſh Colour.

There are ſeveral other Sorts of *Seſeli*; as that of *Candy*, *Peloponneſus*, or the *Morea*, *Ethiophia*, *&c.* but as it is only the Seed of the *Seſeli* of *Marſeilles* that is in uſe, I ſhall not mention the others, but refer you to the Authors that treat of them. Some aſſign the ſame Virtues to this *Seſeli* of *Marſeilles* as was given to the *Parſley* of *Macedon*; and ſome Botaniſts call it the *Siler Montanum*, or *Seſeli* of the Mountains.

The Carriers who bring from *French Comté* the *Berne* and *Valteline* Cheeſes, and Sweetmeat Boxes, ſometimes bring us alſo, in little Bales, a Seed which they call *Seſeli*, larger and of a ſtronger Smell than that of *Marſeilles*, which they give their Cattle that bring their Goods to fatten them, that they may ſell the better at *Paris*.

Lemery. The *Latin* Authors call it by theſe Names, *Seſeli Maſſilienſe*, or *Seſeli* of *Maſſilia*; *Seſeli Maſſilienſe Fœniculi folio Dioſcoridis cenſetur*, *Fœniculum tortuoſum*, according to *Bauhin* and *Tournefort*; *Seſeli Maſſilienſe folio Fœniculi craſſiore*, *Ad Lobel*, or the *Maſſiliæ Seſeli* with the thicker Fennel Leaf; *Fœniculum Petræum*, or *Rock-Fennel*.

After he has given the ſame Deſcription of it as *Pomet*, he ſays, it grows in ſandy Places in the hot Countries, as in *Languedoc*, *Provence*, and about *Marſeilles*: The Seed is uſed in Phyſick, and brought to us dry; it ought to be choſe moderately large, freſh, and of a grateful Smell; then it affords a great deal of eſſential Oil and volatile Salt, is hot and dry, incides, opens, diſcuſſes; it is cephalick, neurotick, pectoral and nephritick; good againſt Epilepſies, Apoplexies, Megrims, Vertigo's, Lethargies, Cramps, Palſies, Convulſions, Coughs, Colds, Catarrhs, Obſtructions of the Lungs, Wheeſings, Shortneſs

of Breath, Dropsies, Cholick, Crudities in the Stomach, Wind, Obstruction of the Terms, Pain and Stoppages in the Reins and Bladder; and may be taken in Powder from a Dram or two, or infus'd in Wine, or boiled in Wine, Ale or Water; likewise a Tincture may be drawn from it in Spirit of Wine.

This is the Seed of the *Seseli Massilienſe*. R. Hist. 1. 414. *Libanotis Massilienſis Ferulæ folio*. Hist. Ox. 3. 310. It is a Plant of three or four Feet high, the Leaves are like *Fennel*, but shorter and of a paler Green; the Flowers grow in Clusters on the Tops of the Branches, and are white. The Seed is said to be a Specifick against the Poison of Hemlock.

5. *Of* Ameos, Bishop's-Weed, *or the* Ethiopian-Cummin.

Pomet. THE *French* call this *L'Ammi*, and *D'Ameos*. It is a Plant which has Leaves small and indented, and bears a Stem pretty high, with many Branches, which terminate in Tassels adorn'd with white Flowers, after which comes a little roundish Seed, small, and very much resembling Grains of Sand, from whence the Plant takes its Name.

The Seed is the only Part of the Plant that is in Use; it ought to be chose fresh or new, greenish, well-fed, of a little bitterish Taste and aromatick Smell: That which comes from *Alexandria* or *Crete* ought to be esteem'd before that which is cultivated in several Gardens in *France*, which has not that Taste between *Origanum* and *Thyme*, so easily observ'd in that of *Alexandria* and *Crete*, which is much the better for all Uses. It is incisive and aperitive. The Dose is from half a Dram to a Dram.

Lemery. It is call'd *Semen Ammeos*, or *Ammi ab Arena*; the Name being given to this Plant because the Seed is very like to Grains of Sand: It affords a great deal of essential Oil and volatile Salt, and is attenuating, cutting, aperitive, hysterick, carminative, cephalick, resists Poison, and is one of the four lesser hot Seeds; it expels Wind, is good against the Cholick and Pains of the Womb, and provokes the *Menses*; it is used in Powder from half a Dram to a Dram, in a Decoction with Wine or Water, or in a Tincture extracted with Spirit of Wine, from a Dram to two Drams.

[These are the Seeds of the *Ammi Odore Origani*. Hist. Ox. 3. 295. *Ammi creticum*. Ger. 881. They are brought from *Ægypt*, by the Way of *Alexandria*, to *Venice* and *Germany*, and thence into the other Parts of *Europe*. The Plant is about two Feet high, the Stalks are slender, branched and striated, the lower Leaves broad and jagged, but the upper much more finely divided; the Flowers stand in Umbels, and are very small and white.]

6. *Of* Thlaspi, *or* Treacle Mustard.

Pomet. THIS Plant is about a Foot high, and has Leaves something of a deep green Colour; the Stem is charg'd with a great many Branches, bearing white Flowers, after which grow flat Pods, resembling *Lentils*. The Seeds are of a yellow Colour, tending to red, which in course of Time change to a dark red, and the older they are, the darker they grow. This Seed is oblong, and a little picked at the Ends.

You ought to chuse that Seed which is clean and fresh, of the reddish Cast, sharp and biting; and to know that it grows in the hot Countries, such as *Languedoc* and *Provence*. No Body should go to buy this at the Seed Shops, any more than any other foreign Seed, because they frequently sell the Seeds of the common Garden Cress for those of the *Thlaspi*, at such Places, to those who do not understand the Difference. But there is another Sort of *Treacle-Mustard*, whose Stem, Leaves and Pods are much less, as well as the Seed: This is altogether yellow and smaller, comes up very near to it in Taste, but is abundantly short of it in Virtue, for which Reason it ought to be rejected. I shall pass by the other Sorts of the *Thlaspi* which are out of Use.

This is particularly recommended for the Cure of the *Sciatica*, Dissolving of the Stone, and Grumous Blood; given in Powder from half a Scruple to two Scruples, in the Morning fasting.

Lemery. The Root is pretty large and fibrous, woody, white, and a little acrid, or biting. This Plant grows in uncultivated, wild, stony or sandy Places, much expos'd to the Sun; likewise among Corn, on the Tops of Houses, and against the Walls; it affords a great deal of volatile Salt, and essential Oil. We bring the dried Seed from *Languedoc* and *Provence*, where it grows better than in the more temperate Climates.

We chuse the fairest Seed, which is most biting and piquant to the Taste, like Mustard. It is used in the Composition of several Medicines, and is incisive, attenuating, detersive, aperitive, proper to provoke Urine, and the Terms, to hasten the Birth, and bring away the After-birth., and is very serviceable to break inward Apostems.

[These are the Seeds of the *Thlaspi Dioscoridis*, Ger. 204. *Thlaspi Arvensis siliquis latis*, Hist. Ox.

5

The Ameos, or
Ethiopian Cummin

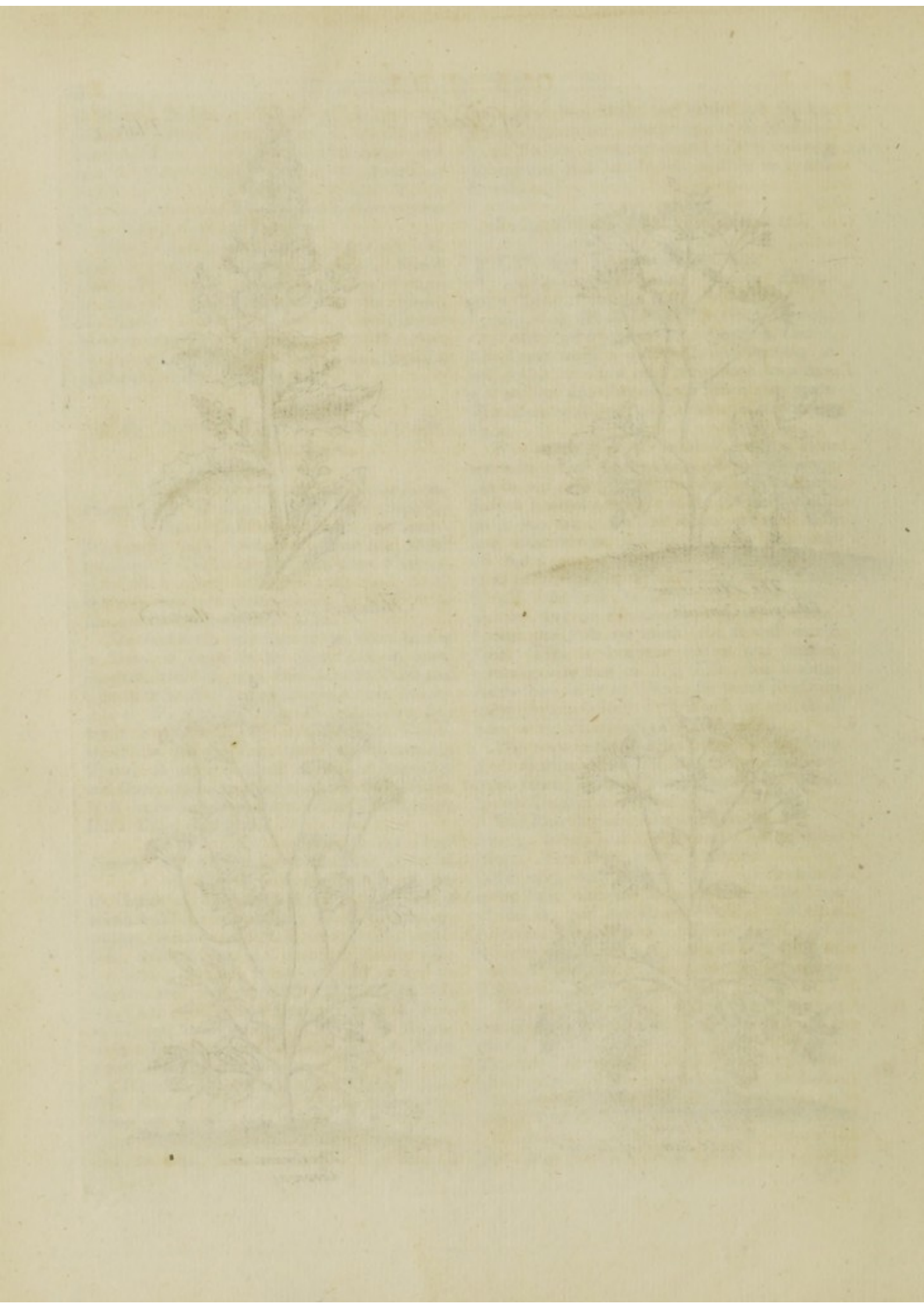
Thlaspi or Treacle Mustard

7

The Daucus, or
wild Carrot of Candia

8

The Carum, or
Caroway



Ox. 2. 293. It is a Plant of about eight Inches high, the Flowers are white and compos'd of four Leaves each; the Leaves are broad and oblong, the Seed Veſſels are broad and flat, the Seeds ſmall and dark-colour'd. It grows wild in *England*, but is not very common. The Seed is little us'd except as an Ingredient in the *Venice Treacle*.]

7. *Of* Daucus, *or* Wild-Carrot *of* Crete *or* Candia.

Pomet. THIS *Daucus* is a Plant very like a *Carrot*; it is a Foot and a half high, and bears on its Top ſeveral Bunches or Cluſters of white Flowers; the Seeds are of a pale green, hairy and whitiſh, ſomething like *Cummin-Seed*, tho' not altogether ſo long or big, nor of ſo ſtrong a Smell; but on the contrary, their Smell and Taſte are both agreeable and aromatick, eſpecially when one has held them ſome Time in ones Mouth.

This Seed being downy, frequently has little Animalcules and a Duſt hanging about it; this Fault encreaſes as the Seeds grow old, by the Particles of Matter that ſeparate from thoſe little Creatures; it ought to be choſen new, well fed, and the cleaneſt that can be found. Sometimes it is brought from *Germany* and the *Alps*; but this is not ſo good or uſeful as that which comes from *Crete*, which is only to be choſe.

It is ſingular for the *Stone*, and thoſe who are ſubject to *Wind-Cholicks:* It is ranged amongſt thoſe Medicines which are call'd Lithontripticks, and paſſes for a powerful *Carminative*, given in *Radiſh-Water*, to a Scruple, or in White-Wine, againſt the *Stone* or *Gravel*, early in the Morning; it may be likewiſe adminiſter'd in *Wind-Cholicks* at Bed-time in *Anniſeed*, *Fennel*, or *Rue-Water*, and ſome add to it a Scruple of Salt of *Worm-wood*.

Lemery. The Leaves of this Plant are ſomething like thoſe of *Fennel*, theRoot long, of the Thickneſs of a Finger, furniſh'd with Fibres, and taſting like a *Parſnip*: It grows in ſtony and mountainous Places; the Seed is brought over dry from *Candia*, and other hot Countries; that which is new, clean, well-taſted, and odoriferous, is the beſt; it affords a great deal of Oil and volatile Salt.

Both the common *Wild-Carrot* and that of *Crete*, have one and the ſame Virtues; but that of *Crete* is much the ſtrongeſt. They expel Wind, and are good againſt Pains of the Womb and Bowels, vehement Cholicks, Vapours and Hyſterick Fits; as alſo againſt old Coughs, Cold, Wheezings, Aſthma's, Diſury, and all Sorts of Obſtructions of Urine, as Sand, Gravel, Stone, and tartarous Mucilage in the Reins, Ureters, and Bladder; they are us'd in Powder, from a Scruple to a Dram, or more, in Decoctions, in Tinctures with the Spirits. Doſe from a Dram to three or four. An oily Tincture is made from them with Oil of *Turpentine*, againſt Cramps, Convulſions, Palſies, Pains and Aches from Cold.

[This is the Seed of a Myrrhis, call'd *Daucus Creticus* by the old Authors, and by the later, *Myrrhis Annua Semine ſtriato villoſo incano.* Tourn. 1 Inſt. 315. *Myrrhis tenuifolia annua cretica Semine albo pubeſcente.* Hiſt. Ox. 3. 302. The Leaves of this Plant are finely divided, and hairy, the Stalks ſlender, a Foot high; the Flowers white, ſtanding in Umbells. The Seed is accounted a good Alexipharmic, and is an Ingredient in the *Venice Treacle* and *Mithridate*.]

8. *Of* Carui, *or* Caraways.

Carui, which the *Latins* call *Carum*, and the *Greeks*, *Caron*, is a Plant that approaches near to the*Wild-Parſnip*; the Leaves are large, indented and divided into many ſmall Parts, among which are ſeveral Stalks about a Foot high, on the Tops of which grow Bunches, cover'd at firſt with white Flowers, which are afterwards turn'd into Seed, much like that of *Garden-Parſley*, but that this is of a darker Colour, flatter, and of a more biting and piquant Taſte. *Pomet.*

This Plant grows in moſt Gardens, but as the hot Countries are moſt agreeable and productive of Aromatick Plants, the *Caraways* that the People of *Paris* buy out of the Shops, are thoſe brought from *Provence* and *Languedoc*.

We ought to chuſe this Seed well fed, freſh, greeniſh, of a warm acrid Taſte, and aromatick Smell, and ſuch as has an agreeable Flavour when held in the Mouth. It is eſteem'd proper to make the Breath ſweet, and very good to promote Digeſtion, to allay or expel Wind, to ſtrengthen the Stomach, and provoke Urine. The *Germans* have ſuch a Regard for it, that they put it whole into their Pye-Cruſt, mix it in their Bread, and in a great Meaſure in all their Sauces. Several Perſons uſe the Leaves as a Pot Herb.

Lemery. The Root is long, fleſhy, pretty thick, white, ſometimes yellowiſh, but rarely, and of a *Parſnip* Taſte. This Plant grows in the fatteſt Land in the Gardens, but proſpers much the beſt in warm Soils; therefore contains in it a good deal of volatile Salt and Oil: It is inciſive, aperitive, carminative, moderately binding,

binding, comforts the Stomach, helps Digeſtion, ſtops Vomiting, and operates much like *Anniſeed*. *Caraways* are good againſt all cold Diſaffections of Stomach, Bowels or Head, Falling-ſickneſs, and the moſt inveterate Cholicks, ſtrengthen the Womb, and quicken the Eye-ſight. They are us'd in *Confects* to break Wind, *&c.* in Powder to provoke Urine, and in the Chymichal Oil to all the Intentions aforeſaid; beſides which they are very ſerviceable to bring away both Birth and After-Birth. Doſe from 12 to 16 Drops of the Chymical Oil.

[This is the Seed of the *Carum vulgare*. Park. 910. *Cuminum Pratenſe*, *Carui officinarum*. C. B. P. 158. a Plant of about two Feet high, the Root is large and white, the Stalks ſtriated and jointed, the Flowers in Umbells white and five leav'd. It is common in *Germany*, and I have ſeen it in ſome Meadows in *England*. The Seed is an Ingredient in many of our Compoſitions. It may be taken in Subſtance from half a Dram to a Dram in any Liquor, or in the Diſtill'd Oil from three Drops to ten.]

9. *Of* Saxifrage.

Pomet. *Saxifrage* is a Plant ſo like *Thyme*, that it is difficult to diſtinguiſh them. This grows plentifully in *Dauphiné*, *Provence*, and *Languedoc*, among Stones and upon Rocks, which has occaſion'd the Name of *Saxifrage* to be given to it, as alſo to many other Plants that grow in the like Places, as it ſignifies *Break-Stone*.

You muſt chuſe the neweſt Seed you can get, which is of a warm piquant Taſte and an agreeable Smell; the Virtue of breaking the Stone is attributed to it, given in Powder in a Morning early, in a Glaſs of the diſtill'd Water from the Plant, or any other *Diuretick* Water. Doſe half a Dram.

There are a great many other Kinds of *Saxifrage*, which ſeveral Authors take Notice of; but as this Seed is that which is commonly in Uſe among us, and which is generally ſold in the Shops, I ſhall ſpeak no farther concerning the reſt, which are treated of in many other Books, and particularly by *Dodonæus* and *Dalechamp*, who have written of them at large. Some will needs have it that all Plants which grow among Stones and Rocks are to be call'd *Saxifrages*.

Lemery. *Saxifrage*, in *Latin*, *Saxifraga*, is a Plant whoſe Leaves are almoſt round, indented on the Sides, being ſomething like *Ground-Ivy*, but a little thicker and whiter, and on the hinder Part a little longer and ſmaller. The Stalks are about a Foot high, bearing on their Tops little Flowers of five Leaves, diſpos'd like a Roſe, of a white Colour. When the Flower is off, it produces a Fruit almoſt round, which contains in two Partitions a very ſmall Sort of Seed. The Root has abundance of Fibres, the Tops are ſurrounded with little Tubercles, about the Size of *Coriander-Seed*, or ſomething bigger, of a Colour partly red and purple, and partly white, with a bitteriſh Taſte; theſe Tubercles are commonly call'd *Saxifrage-Seed*. This Plant grows in Places where Herbs are not propagated, as upon the Mountains, and in the Valleys; it flouriſhes in the Month of *May*, and is a little viſcous. The Leaves are larger, and the Stalks grow higher in ſome Places than others, but they are generally ſmall, allowing a good deal of eſſential Oil and Salt.

It is very aperitive, proper in Stone and Gravel, and to open Obſtructions, to provoke Urine and Women's Courſes, cut the tartarous Mucilage, and expel it; and is chiefly us'd in Powder, from half a Dram to two Drams, or in an Infuſion with White or Rheniſh Wine.

[The Difference between the Deſcriptions given by theſe two Authors, might create Confuſion; but it is to be obſerv'd, that they mean two ſeparate Plants, both of which are call'd *Saxifraga*, and both have been us'd in Phyſick: The Plant deſcrib'd by *Pomet* is the *Saxifraga Antiquorum*. Off. Dale. 231. *Saxifraga magna Mathioli*. Ger. Em. 605. That by *Lemery*, the *Saxifraga Alba vulgaris*. Park. 424. *Saxifraga Rotundifolia alba*. C. B. Pin. 309. and as this is order'd to be us'd in the College Catalogue, I have taken away the Figure before given by *Pomet*, and given one of this Plant.]

10. *Of* Cummin.

Pomet. *Cummin* is the Seed of a Plant which is like *Fennel*, and grows plentifully in the Iſle of *Malta*, where they ſow it as they do Corn here. In the Choice of it take that which is new, well fed, greeniſh, of a ſtrong diſagreeable Smell. Obſerve that it be not full of Holes or Worm-eaten, which it is very ſubject to be, which may be eaſily diſcover'd by the Eye, and by its being full of Duſt; and more certainly by the taking up a handful of it from the reſt; for the Seeds will be ſeen to be faſten'd together, and hang one from another by little Filaments, which are the Fibres of the Seed. Some uſe this Seed for Dropſical Tympanies, becauſe it is carminative: There is a great deal us'd to refreſh and invigorate Horſes, Oxen, and other domeſtick Cattle: They make an Oil of it by Expreſſion, as of *Anniſeed*, which is very good for the

8

Saxifrage

10

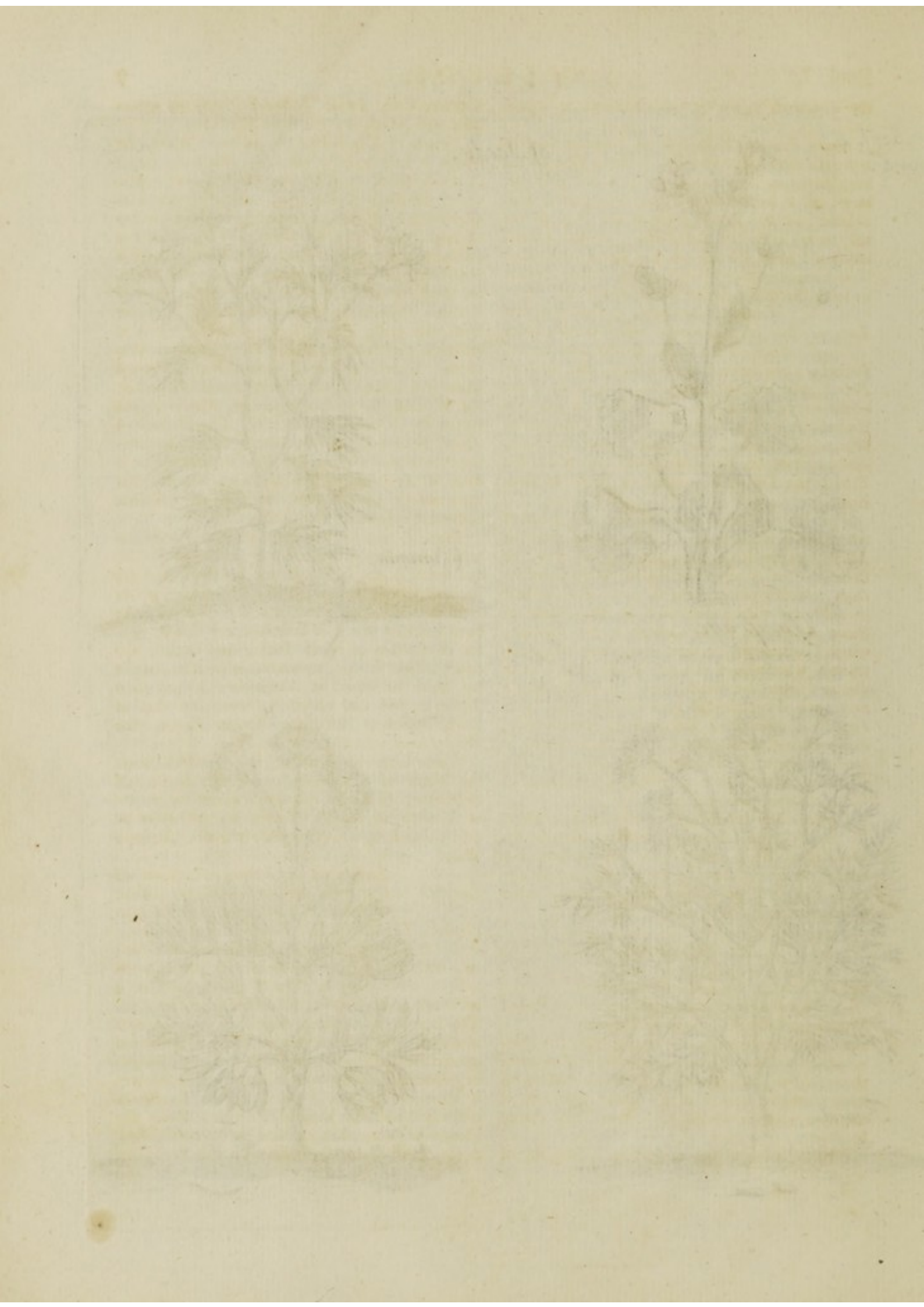
Cummin.

11

Fennel.

11

Sea- -Fennel.



the Rheumatiſm, tho' it yields but little in Quantity.

Many Perſons make uſe of *Cummin-Seed* to repleniſh their Dove-Houſes, becauſe Pigeons are very dainty in their Feed, tho' it is not us'd juſt as we ſell it in the Shops; but incorporated with a little Salt and Earth, ſuch as the Pigeons are apt to pick up in the Fields, or elſe Loam, moiſten'd with Urine, or the Brine of pickled Cod-Fiſh, or other like Matters, inſomuch that in ſome Places People are forbid to ſell it.

Lemery.

Cummin, *Cuminum*, or *Cyminum*, is a Sort of *Caraway*, which bears a Stem about a Foot high, divided into ſeveral Branches; the Leaves are cut ſmall, like thoſe of *Fennel*, but a great deal leſs, rang'd by Pairs lengthways on the Sides. The Flowers grow in Umbrello's on the Tops of the thick Branches, of a white Colour; after them come the Seed, join'd by two and two, oblong and furrow'd as the *Fennel*, but leſs, and pointed or ſharp at both Ends.

The Root is ſmall and longiſh, and periſhes when the Seed is gone: They call this Seed in *Malta*, where it is propagated, *Annis-Acre*, or *Cummin-Acre*, ſharp *Anniſeed*, or ſharp *Cumminſeed*; to diſtinguiſh it from the ſame *Anniſeed* that is cultivated there, and call'd by the Name of *Sweet Anniſe*, or *Sweet Cummin* by the *Maltois*; which Circumſtance makes ſeveral Botaniſts equivocate, who believe this to be the ſame Sort of *Cummin* with the ſweet Seed. This contains a great deal of volatile Salt, and eſſential Oil: It is digeſtive, diſſolving, attenuating, carminative, expels Wind, cures the Cholick, eaſes Pain, is profitable againſt Diſeaſes of the Nerves: The Chymical Oil is good againſt all Obſtructions of Urine, Stone, Gravel, *&c.*

[This is the Seed of the *Cuminum ſemine longiore.* C. B. P. 146. *Cuminum ſativum Dioſcoridis.* Ger. 907. It is one of the four greater hot Seeds: It gives Name to the *Emplaſtrum de Cymino*, and is a good Ingredient in many other Compoſitions.]

11. *Of* Fennel.

Pomet.

THIS is the Seed of a Plant which is known throughout the whole World, and therefore needs no Deſcription: I ſhall content myſelf to ſay, that the *Fennel* which we now ſell, is brought from *Languedoc* about *Niſmes*, where that Plant is cultivated with great Care, by reaſon of the great Quantity of the Seed which is carried into *France*, and chiefly to *Paris*.

Make Choice of the neweſt Seed, longiſh, of a green Caſt, ſweet Taſte, luſcious and agreeable, and which is freeſt from Mixture.

This is of Uſe in Phyſick, to expel Wind, for which it may be us'd inſtead of *Anniſeed*; but it is much more us'd by the Confectioners, who cover the Seeds with Sugar, and diſtinguiſh them afterwards by Numbers according to the Quantity of Sugar they have on them. They take the Cluſters of the green *Fennel*, which when cover'd with Sugar, they ſell to make the Breath ſweet, for the Green is reckon'd to be of the greateſt Virtue. The Apothecaries make a diſtill'd Water from the green *Fennel* freſh gather'd, which is eſteem'd excellent for taking away Inflammations of the Eyes; and they make after the ſame Manner a white Oil of a ſtrong aromatick Smell; but it yields ſo ſmall a Quantity, that it is not worth the Trouble to make it. The Dryneſs of *Fennel* Seed makes it ſo, that it is very troubleſome to make a green Oil by Expreſſion, as is done of *Anniſeed*. There are ſome who lay this Seed among their Olives, to give the Oil that comes from thence a fine Taſte.

There is yet another Sort of *Fennel* which is wild, and which grows every where in the Fields, and upon Walls, without any Sowing; but the Seed of this is almoſt round, leſs, flatter, more acrid in Taſte, and not ſo green as that we have been ſpeaking of; it is ſcarce of any Uſe by reaſon of its ſharp pungent Taſte, and becauſe the other *Fennel* is very common, eſpecially ſince it has been cultivated in *Languedoc*; but at ſuch Times as we had no other *Fennel* but that of *Italy*, which is call'd the *Florence Fennel*, the *Wild Fennel* was a little in Uſe.

There is another Kind of *Fennel*, which bears the Name of *Sea-Fennel*, which the *Latins* call *Crithmum*, or *Creta Marina*, which we pickle in Vinegar to ſell in Winter with *Girkins* or little *Cucumbers*, which are preſerv'd after the ſame Way.

Lemery.

Fœniculum or *Fennel*, is a Plant of which there are various Sorts; I ſhall only mention two which are uſed in Phyſick. The firſt is call'd *Fœniculum vulgare minus acriore & nigriore ſemine*; or common leſſer *Fennel*, with the ſharp black Seed. It ſhoots forth a Stalk of five or ſix Feet high, hollow, of a browniſh green Colour, fill'd with a ſpungy Pith. The Leaves are cut as it were into long Threads of a dark green, and agreeable Smell, a ſweet and aromatick Taſte. On the Tops are large Cluſters or Bunches, yellow and fragrant. The Flower is compos'd of five Leaves, in the Extremity terminating like the Cup of the Roſe. After the Flower is gone, the Cup bears in it two oblong Seeds, ſwallow-tail'd, hollow on the Back, flat

on

on the other Side, blackiſh, and of a ſharp Taſte. The Root is as thick as a Finger or Thumb, long, ſtrait, white, odoriferous, and of a ſweet aromatick Reliſh.

The ſecond Kind is call'd *Fœniculum dulce, majore & albo ſemine*; ſweet *Fennel*, with the larger white Seed. It differs from the former, in that the Stalk is uſually much leſs, the Leaves not ſo big, and the Seed thicker, white, ſweet, and leſs acrid. They cultivate both Sorts in dry ſandy Places. This of the latter kind, which is call'd *Sweet Fennel*, is more us'd in Phyſick, and is brought dry from *Languedoc*, where it is huſbanded with great Care: It is the ſame Sort as that which is ſometimes brought from *Italy*, which is call'd *Florence Fennel*. Your Choice of it ought to be the ſame as before directed. It yields largely eſſential Oil and volatile Salt; the Leaves, Branches and Root afford much Flegm, Oil, and fix'd Salt. The Leaves are good for Diſeaſes of the Eyes, which they cleanſe and ſtrengthen; they clear the Sight, encreaſe Milk in Nurſes, ſweeten the Acrimony in the Guts, and fortify the Stomach. The Root is aperitive, and uſed to purify the Blood, as one of the five opening Roots. The Seed is carminative, proper to expel Wind, to aſſiſt Digeſtion, eaſe old Coughs, open Obſtructions of the Lungs, and cauſe free-breathing.

[It is to be obſerv'd that *Pomet* here ſpeaks of the *Sweet Fennel*, not the common Kind, as might be thought from the Beginning of the Chapter; but his Deſcription of the Seed, as well as its Place of Growth and Uſes, make it plain afterwards, that it is the *Sweet Fennel-Seed* he is ſpeaking of. The common *Fennel-Seed* is the Seed of that ſo frequent in our Gardens; the *Sweet* is that of the *Fœniculum Dulce* of *Gerard*, *&c.* And the wild Kind, mention'd by *Pomet*, is the *Fœniculum ſylveſtre perenne Ferulæ Folio breviori*. Tour. 1 Inſt. 311. The Root of the common *Fennel* is one of the five opening Roots, and its Seed one of the greater Carminative Seeds.]

12. *Of* Anniſeed.

Anniſeed comes from a Plant that we know as well as *Fennel*, as there is hardly a Garden without it; but that which is ſold in the Shops, comes from ſeveral different Places, as *Malta*, *Alicant*, *&c.* becauſe it is abundantly ſweeter, larger, and of a more fragrant and aromatick Taſte and Smell, and leſs green than that which is produced in *France*. *Pomet.*

Make choice of *Anniſeed* that is of the ſame Year's Growth, large, clean, of a good Smell, and piquant Taſte, and beware of that which is any thing bitteriſh, which you can't diſtinguiſh but by your Taſte.

The Uſe of the *Green Anniſeed* is too common to admit of a long Diſcourſe; and the more, becauſe there are few Perſons who do not underſtand that it is proper to expel and allay Wind, and that it is a Corrector of *Sena*. The Confectioners make uſe of great Quantities of the dried Seed, which they cover with Sugar for Confects.

They draw from this Seed by Diſtillation, a Water, and a white Oil, which upon the leaſt Cold congeals, and liquifies or flows again upon the ſmalleſt Heat; this has a ſtrong penetrating Scent, and abounds with a great many Virtues; but its ſtrong Smell makes it but ſeldom uſed; the Apothecaries and Perfumers uſe it frequently in their *Pomatums*, inſtead of the Seed, as well to maintain the Colour, as to ſave Charges; for half an Ounce of the Oil will do more Service every Way than two Pounds of the Seed.

The Perfumers keep it by them to ſcent their Paſte, and to mix among a Variety of other Aromaticks, which is what we properly call a *Medley*. Some People uſe this Oil, but very improperly, to make their *Anniſeed-Water*, and the like. This Oil has a great many Virtues, and is an excellent Remedy to eaſe or allay the Gripes, eſpecially in Infants, by rubbing the Navel therewith, or putting a ſmall Drop or two among their Food. In a Word, it has all the ſame Virtues, and may be uſed to the ſame Intention with the Seed. There is likewiſe a green Oil drawn by Expreſſion, of a ſtrong Smell, and which has the ſame Virtues with the white, with this Difference, that it is not ſo powerful, becauſe a great deal more in Quantity is drawn this Way; but it is not ſo pure, as Mr. *Charas* obſerves in his *Royal Diſpenſatory*, to whom we are indebted for this Invention.

In regard to the white Oil, we have it from *Holland*, partly becauſe it coſts leſs, and partly becauſe it is whiter, clearer, and more fragrant than what is made here; whether this be purely from the Seed, or that they add ſomething unknown to us by way of Menſtruum, I do not pretend to ſay, but there may be People found here who can make it as good as in *Holland*; but I am ſatisfied it could not be made for the Price it is bought for. In regard to the Choice of it, it ought to be, as has already been obſerv'd, white, clear, and tranſparent, of a ſtrong Smell, eaſily congealing by a little Cold, and melting by a little Heat; and ſuch as when dropp'd on Water, ſwims like *Olive Oil*, and this Oil is call'd Eſſence, or Quinteſſence of *Anniſeed*. The Water that is drawn off in making the Oil, is uſeful on the

12

Aniseed.

13

Coriander.

14

Naven.

15

Collyflower.

ſame Occaſions as the Oil itſelf, but requires to be given in a much larger Doſe.

Lemery.

Aniſum, in *Engliſh Anniſeed*, is a very common Plant in our Gardens; the Stem or Stalk is about three Feet high, round, hairy, hollow, and full of Branches; the Leaves are long, cut deep, whitiſh, odoriferous, and ſomething like thoſe of *Parſley*; the Tops bear large Bunches, ſupplied with little white Flowers, much reſembling thoſe of *Burnet Saxifrage:* It has a little Seed, of a greeniſh grey Colour, ſcented, and ſweet in Taſte, with a pretty agreeable Acrimony. The Root is ſmall, and this Plant is cultivated in fat Land: The Seed is only uſed in Phyſick: The largeſt and beſt is brought from *Malta* and *Alicant*; it is much browner than that of *France*, becauſe it is a great deal drier.

This Seed yields a great deal of eſſential Oil and volatile Salt: It is cordial, ſtomachick, pectoral, carminative, digeſtive, produces Milk in Nurſes, and gives Eaſe in the Cholick; it provokes Urine, warms the Breaſt, opens Obſtructions of the Lungs, is prevalent againſt Coughs, Hoarſeneſs, and Shortneſs of Breath. This Seed is uſed to make common *Aqua Vitæ*, with *Iriſh Uſquebaugh*, *Daffy's Elixir Salutis*, and in the *Laxative Electuary*, or Confection with Sugar and *Amomum*, wherein the Seeds are ſteep'd in Liquors, in which *Scammony* is diſſolv'd, and ſometimes in an Infuſion of *Crocus Metallorum*. One Pound of *Anniſeed* will yield about an Ounce of chymical Oil by Diſtillation, two or three Drops of which are ſpecifical in windy Caſes, Gripes in Infants, to take away Pains and Noiſe in the Ears; outwardly the Stomach or Naval may be anointed therewith, and it may be dropp'd into the Ears, mix'd with a little Oil of bitter Almonds.

Le Febure is of Opinion, theſe Seeds ought to be diſtill'd, being green, without any previous Digeſtion or Putrefaction, becauſe this kind of Seed (ſaith he) abounds much with volatile Salt, of a middle Nature, ſo that the Water will not attract it to itſelf by length of Digeſtion; which will happen otherwiſe, if the Diſtillation be begun immediately after the Seed and Water are mix'd together. 'Tis true, ſaith he, that if Digeſtion precedes, the Water will be all ſpirituous, and of much more Efficacy than without, but without Digeſtion the Seed will yield much more eſſential Oil.

[This is the Seed of the *Aniſum vulgatius minus annuum*. Hiſt. Ox. 3. 297. *Apium Aniſum Dictum ſemine ſuave olente*. Tourn. Inſt. 305. The Plant flowers in *July*, and the Seed is ripe in *Auguſt*, the Root dying every Year, after it has perfected the Seed. The Seed is one of the four greater hot Seeds, and is an Ingredient in many of our Compoſitions.]

13. *Of* Coriander.

Pomet.

Coriander is the Seed of a Plant which is very common amongſt us, and which grows plentifully about *Paris*, eſpecially at *Auberville*, from whence all that we ſell in the Shops is brought to us.

We ought to chuſe ſuch Seed as is new or freſh, fair, dry, well fed, the largeſt and cleaneſt we can get: Care muſt be taken that it be kept in a Place well ſecured againſt Rats and Mice, both thoſe Creatures being very fond of it. It is but little uſed in Phyſick, but the Brewers employ it conſiderably, eſpecially in *Holland*, and in ſome Parts of *England*, to give their ſtrong Beer a good Reliſh. The Confectioners, after they have prepar'd the Seeds with Vinegar, cover them over with Sugar, which they call *Coriander-Confects*.

Lemery.

There are three Kinds of *Coriander*, the Greater, the Leſs, and the Wild; but the Seed of the firſt is only uſed, being brought to us out of the *Streights*; the firſt, which is call'd *Coriandrum majus*, or *Coriandrum vulgare*, bears a Stalk about a Foot and a half, or two Feet high, round, ſlender, and full of Pith: The lower Leaves are like thoſe of Parſley, but thoſe which put forth towards the Top of the Stalk, are much leſs, and abundantly more cut in; the Flowers are ſmall, diſpos'd in Bunches or Cluſters on the Tops of the Branches, of a whitiſh Fleſh-colour; each Flower is compos'd of five Leaves; when the Flower drops off, the Cup bears a Fruit made up of two round hollow Seeds: The Root is ſmall, ſtrait, ſingle, furniſh'd with Fibres, and the whole Plant (except the Seed) has a very diſagreeable Smell like that of a Bug.

The ſecond Kind of *Coriander*, is call'd the *Coriandrum Inodorum*, or *Coriandrum minus odorum*, the leſs-ſmelling *Coriander*. This differs from the other Sort mention'd before, by reaſon it is much leſs, and its Branches more crooked. The Smell is nothing near ſo great, and the Fruit is compos'd each of two Balls, which in ſome Meaſure look like ſmall Teſticles.

Both this and the former Kind are propagated in our Gardens, but we only preſerve the Seed for Phyſical Uſes, which has the Virtue of the Plant, and is uſed in Confects, pleaſant Liquors, and ſtout Beer. The greateſt Part of the *Coriander-Seed* now in Uſe comes from *Auberville* and other Places about *Paris:* It produces a good deal

of eſſential Oil and Salt, corroborates the Stomach, helps Digeſtion, makes the Breath ſweet, corrects Wind and flatulent Vapours, cloſes the Mouth of the Stomach, and reſiſts Infection.

[The three Kinds of *Coriander* mention'd by Botanical Authors are the *Coriandrum majus.* C. B. P. 158. The *Coriandrum minus odorum.* I. B. And the *Coriandrum Sylveſtre*, of the ſame Author; but the laſt is now found to be only a Variety of the former Plant; the firſt Species produces the Seeds we uſe, and they are ripe in *July* and *Auguſt*. They are an Ingredient in the *Lenitive Electuary*, and ſome other Compoſitions.]

14. *Of* Navew, Bunias, *or* Napus.

Pomet. THIS *Bunias* or *Navewſeed* is the Seed of a Kind of *Wild-Turnep*, which grows frequently amongſt Corn. The *Wild Navew* has generally a Number of Branches; the Flowers are yellow, except in here and there a Plant, which has them mix'd with white: The Leaves of all the Species are very near alike, only larger or ſmaller, according to the Fertility or Barrenneſs of the Soil that produces them. They likewiſe produce their Seed alike, in Huſks of an Inch or an Inch and an half long, more or leſs ſo, according to the Size of the Seed which they bear. As for the *Bunias*, or *Sweet Navew*, the Seeds of which we ſell, they are twice as large as thoſe of the other Sort, becauſe the Seed is bigger. This Seed is round, of a purpliſh Colour, acrid and biting to the Taſte, and in all other Things comes near to the common Turnep, excepting only its Alexipharmack Virtue, which is peculiar to it. The Species of this Plant, which grows plentifully almoſt every where, has a yellow Seed, which is leſs by half than the *Bunias* or *Sweet-Navew*, yet they are taken for one another. The chief Uſe of this Seed is for the Venice Treacle, which hardly makes it worth a Druggiſt's while to keep any Quantity of it. You ought to buy it of People you can depend upon, and always be carefull that you have not the common *Turnep-Seed* impos'd on you for it. Some Perſons aſſure me, that the true *Wild-Navew* is the *Briony*.

But M. *Tournefort* condemns thoſe who call *Briony-Seed* by that Name, and uſe it as ſuch.

Lemery. The *Napus*, *Bunias*, or in *French*, *Navet*, ſcarcely differs any Thing from the Turnep, but by a certain Bearing which the Gardeners and Labourers diſtinguiſh it by, and by the Figure of the Root, which all the World knows. There are two Kinds of it, the one cultivated and the other wild; the firſt is call'd *Napus* by *J. B.* and *Ray*; *Napus ſativa* by *Tournefort*; and *Bunias* or *Napus* by *Ad. Lob. Ger.* The Stalk riſes about a Foot and a half, or two Feet high, and ſpreads itſelf into Branches: The Leaves are oblong, deeply cut, rough and green: The Flowers are compos'd of four yellow Leaves, form'd like a Croſs, which are ſucceeded by a long Pod of about an Inch, divided into two Apartments fill'd with Seed, thick and round, of a reddiſh, or ſomething purpliſh Colour, ſharp and biting in Taſte: The Root is oblong, round, thicker at the Top, fleſhy, and much leſs towards the Bottom, of a white or yellowiſh Colour, ſometimes blackiſh on the outſide, and white within, of a ſweetiſh Taſte, and agreeably piquant: It is cultivated in moiſt Grounds for the Kitchen.

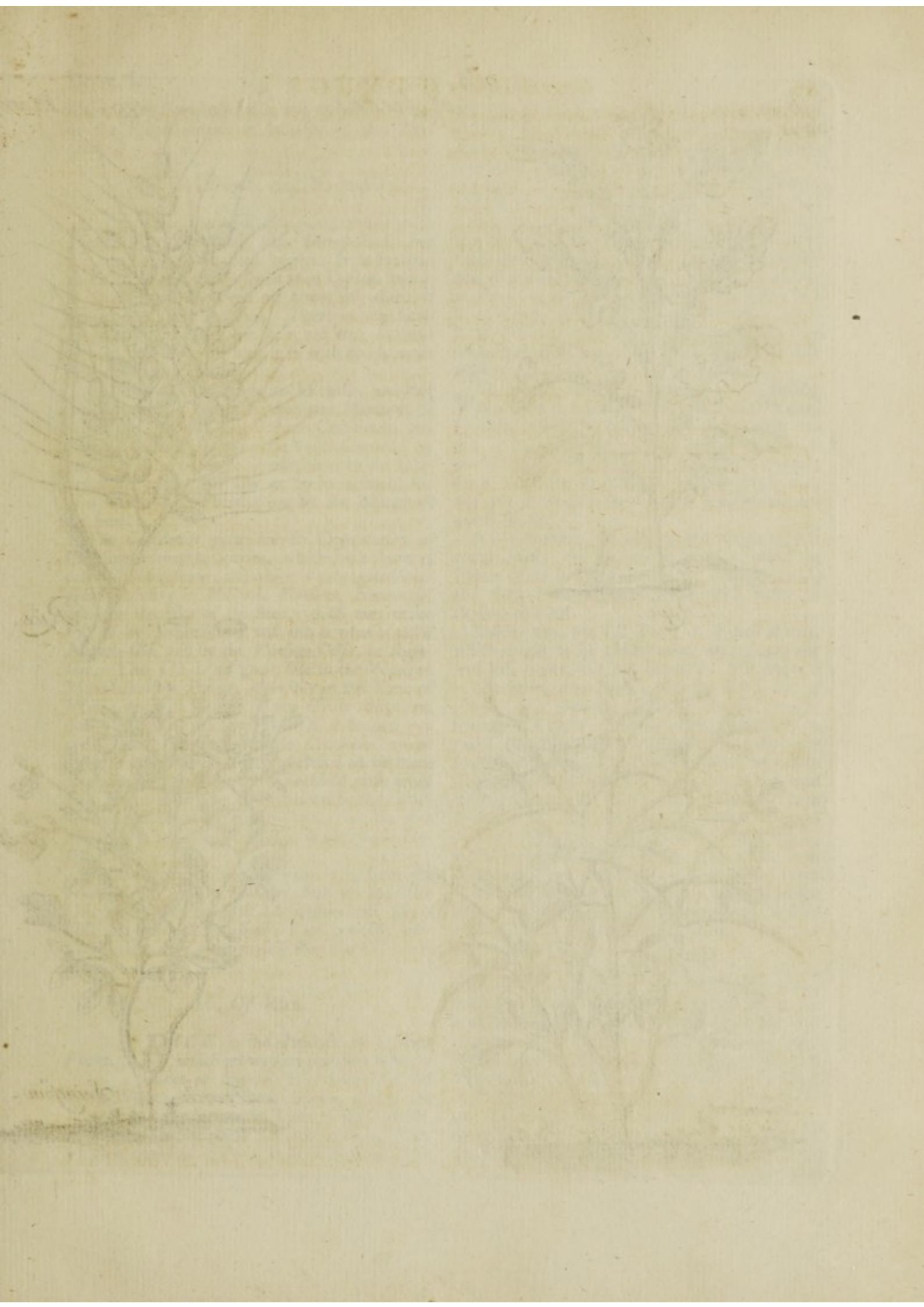
The ſecond Kind is call'd *Napus Sylveſtris* by *Tournefort*, and the *Bauhins*, *Bunias ſive Napus Sylveſtris noſtras*, Park. *Bunium* and *Napus Sylveſtris* Ad. *Bunias Sylveſtris Lobelii*, *Ger.* in *French*, *Wild-Navew*. It reſembles the cultivated *Navew*, except the Root, that is much leſs: The Flower is yellow, and ſometimes white: It grows among the Corn: The Seed is preferr'd in Phyſick to that of the domeſtick *Navew*: Both one and the other Sort yields a great deal of Flegm, Salt, and eſſential Oil.

The *Navew-Seed* is deterſive, aperitive, digeſtive, inciſive; It reſiſts Poyſon, and carries off the peccant Humours by Perſpiration; it provokes Urine, is proper in the Jaundice, in malignant Fevers, Small Pox, and is employed in making of Treacle. The Root is excellent for inveterate Coughs, Aſthma's, and Phthiſick, taken hot by Way of Decoction, and is externally applied to digeſt, reſolve, or allay Pains, apply'd in Form of a Poultis. The Seed, which is call'd *Navette*, is none of the *Navew-Seed*, as a great many believe, but is the Seed of a Kind of wild *Colly-Flower*, which they call in *Flanders Colſa*, or *Rape-Seed*, cultivated in *Normandy*, *Britanny*, *Holland* and *Flanders*. They make of this Seed, by Expreſſing, an Oil, which they call *Oil of Navette*: The Colour is yellow, the Smell not offenſive, and the Taſte is ſweet. It is commonly uſed for *Burns*, and ſerves the *Cap-makers*.

[The *Bunias* order'd to be uſed in the Shops is the *Napus Dulcis*. *Napus Sativa*. C. B. Pin. 95. *Bunias*. Ger. 185. The Seeds are blackiſh, and of a biting Taſte. And the Seeds of the *Napus Sylveſtris*. C. B. Pin. 85. *Bunias Sylveſtris Lobelio*. Ger. 181. are what we have the Oil from, which we call *Rape-Oil*, and the *French Navette-Oil*.]

[It has been a great Controverſy among the Learned, whether the Seeds of the *Napus dulcis*, or *Sylveſtris*, ſhould be uſed in the Venice-Treacle.

Galen



15

Rape.

16

Rice.

17

Fenugreek

18

French Saintfoin.

Galen differs from both Sects, and orders the Seeds of the *Pſeudo Bunias* to be uſed in that Medicine.]

15. *Of* Colliflower *and* Rape-Seed.

Pomet. *Collyflower-Seed* is a little round Seed, ſomething like *Turnep-Seed*, but that it is a little larger. It is brought to us by Way of *Marſeilles* from *Cyprus*, which is almoſt the only Place we know of where it produced in any Quantity. There is alſo ſome brought from *Genoa*, but it is not near ſo good as that from *Cyprus*, and it is with much more difficulty that it is rais'd.

The neweſt Seed ought to be choſe, and that which is true *Cyprus*, without any Mixture, of which the Importer ſhould ſhew Certificates and that it is true Seed, and of that Year's Growth, by reaſon it is of no little Conſequence to the Gardener and others that ſow it, to be diſappointed of a whole Year's Production by the Badneſs of the Seed.

The *Colliflower* gives me an Opportunity of ſpeaking of another Species, which ſome Authors call *Wild-Collyflower*, and which is propagated with great Induſtry in *Holland*, *Flanders*, *Normandy*, *&c.* for the ſake of the Seed, which they make Oil of by Expreſſion; and this is what is call'd *Navette-Oil*, and by the *Flemings Colſa*, or *Rape-Oil:* This Oil is of great Uſe to the Woollen Manufacture in *France*, eſpecially in the Time of War, when Whale or Train Oil is ſcarce and dear. The Goodneſs of this Oil is known to a great many Perſons, whoſe Occaſions oblige them to underſtand it; nevertheleſs I adviſe them to chuſe ſuch as is pure and unmix'd with other Oils; which may be eaſily known by the Gold-Colour and Goodneſs of the Scent; for the true *Rape-Oil* is ſweet, and on the contrary the *Linſeed* bitter.

[I have before obſerv'd, that it is from the Seeds of the *Napus Sylveſtris* that we have this Oil, which the People of *Lincolnſhire* call *Rape-Oil*, and the Seed *Cole-Seed:* I am perfectly certain of this, as I have myſelf ſeen the Oil made there.]

16. *Of* Rice.

Pomet. *RICE* is the Product of a Plant which grows very common in many Places of *Europe:* It commonly grows in the Water, and, as ſome obſerve, though the Water encreaſes during the Time of its Growth, it ſtill keeps its Ear above the Surface of it. That which is now ſold in *Paris* is brought from *Spain* and *Piedmont*. This a Seed of ſo great Uſe and Profit, that it may be call'd the *Manna of the Poor*, and throughout ſeveral entire Countries, they have ſcarce any thing elſe to ſubſiſt on.

Chuſe the neweſt Rice, well cleans'd, large, that is to ſay, plump or well fed, white, not duſty, nor ſmelling rancid: Thoſe who take notice of the Rice of *Piedmont*, eſteem it much more than that of *Spain*, which is commonly reddiſh and of a ſaltiſh Taſte. The Uſe of *Rice*, chiefly at *Paris*, is for the *Lent* Seaſon, when they boil it in Water, then in Milk, and ſometimes reduce it to Powder, that is to ſay Flour, which they uſe inſtead of Wheat Flour to thicken their Milk with.

To reduce *Rice* into Powder, pour boiling Water upon it, and then waſh it with cold Water, ſo often 'till the Water remains clear; after this put it in a Mortar to pound, and when it is powder'd ſet it to dry, and then ſearce it fine; for it will often appear very fine when it is wet, and yet as it dries ſhew that it is coarſe and requires ſifting.

It is reſtorative, nouriſhing and ſweetning; it conglutinates the Humours, and is uſeful in Fluxes of the Belly; it purifies the Maſs of Blood, and ſtops Hemorrhages. It is uſed either in Ptyſans or Food.

Beſides this, we ſell *Pearl* or *French Barley*, which ought to be choſen new, dry, plump and well fed, white, but not blanch'd: It is prepar'd at *Charenton*, near *Paris*; but the beſt is that of *Vitry*. We likewiſe ſell *Rice* that is brought from ſeveral Parts of the Country, but chiefly to make a Sort of Coffee of, which it taſtes very like when burnt. The Poor buy what we call in *England Groats*, which is made from Oats, and when ground at the Mill is call'd *Oatmeal*. There is *Millet* alſo ſhell'd and pick'd, which they prepare in the Foreſt of *Orleans:* Beſides other Pulſe, as the green and yellow *Peaſe*, which come from *Normandy*; and the *Beans* of *Picardy* and other Places. There are other Things alſo ſold in the Shops, which are made of Wheat Flour, as *Vermichelli*, both the white and yellow Sort, and *Starch*.

The *Vermichelli*, which the *Italians* invented, and call *Vermicelli*, is a Paſte made out of the fineſt Part of the Wheat Flour and Water, which is afterwards drove through ſmall Pipes like Syringes, to what Length or Thickneſs they pleaſe; ſo that from the Reſemblace of its Figure to ſmall Worms it is call'd *Vermicelli*. Some of this Kind of Paſte they make in the Shape of Ribands, of two Fingers Breadth, and this they call *Kagne*; other Parcels of it are form'd like a Quill, and thoſe they call *Macaron*; and ſome in ſmall Grains

like Muſtard-Seed, which they call *Semoule*, the Name by which they call the fine Flour they compoſe it of: And finally, ſome in the Shape of Beads, which they call *Patrez*. They colour this Paſte as they fanſy, with Saffron or other Things, and ſometimes make it up with the Yolk of an Egg, Sugar and Cheeſe. Of late Years this is made at *Paris*, and uſed in Soups and Broth, as in *Italy*, *Provence* and *Languedoc*.

The white *Vermicelli* ought to be new-made and as white as poſſible, and the Yellow of a fine golden Colour, the drieſt and the neweſt made which can be got.

Starch, which the *Latins* call *Amylum*, is made of the *Fæculæ* of Wheat Flour, which the Starch-makers form into Cakes and dry in an Oven, or by the Heat of the Sun. This uſed to be brought into *France* from *Flanders* and other Countries, but at preſent that which is made at *Paris* ſurpaſſes that of all other Places; and they tranſport from thence great Quantities into other Parts of *France*, and ſeveral neighbouring Countries.

We ought to chuſe *Starch* for being white, ſoft and moſt ſubject to crumble, likewiſe ſuch as has been dry'd in the Sun, and not in an Oven, which makes it of a greyiſh White: Its Uſe is ſo generally known that it needs no Deſcription.

Rice in *Engliſh*, is call'd *Ris* in *French*, and *Oryza* in *Latin*: This Plant bears its Stalk about three or four Feet high, much thicker and ſtronger than that of Wheat or other Corn: The Leaves are long, like the Reed, and fleſhy; the Flowers blow on the Top like Barley, but the Seed which follows is diſpoſed in Cluſters, each of which is enclos'd in a yellow Huſk, ending in a ſpiral Thread. This Seed is oblong, or rather oval, and white: The Plant is cultivated in moiſt or low Grounds in *Italy*, and the Seed brought dry from *Piedmont*, *Spain*, and ſeveral other Places: Its chief Uſe is for Food, but is ſometimes made uſe of in Phyſick: It nouriſhes well and ſtops Fluxes, therefore is good in Armies, Camps and Sieges, becauſe it is of light Carriage and excellent Suſtenance, and eaſily prepar'd: It encreaſes Blood and reſtores in Conſumptions: It is made into *Frumenty* by boiling in Milk, or, for want thereof, in Water; or into Cakes with Water or Milk, and ſo baked dry; and is excellent good in Broth, with any Kind of Fleſh. *Lemery.*

[Beſide the other Uſes of *Rice* there is an excellent ſpirituous Liquor made from it, which the People of *Peru* call *Acua*, and we, from a wrong Pronunciation of the Word, *Arrack*.]

[*Rice* is the decorticated Seed of the *Oryza*. Ger. Park. *&c.* It is cultivated in many Countries, and is excellent both in Food and in Medicine, in Fluxes of all Kinds.]

17. *Of* Fenugreek.

Fenugreek, which ſome call improperly *Senegrè*, and others *Bucera*, or *Aigoceros*, becauſe the Pods which encloſe the Seed, reſemble in ſome Manner a Goat's Horn, is a Plant which grows in ſeveral Parts of *France*. Its Stalks are round, hollow, of a darkiſh Colour, the Leaves ſmall, roundiſh and indented, growing three and three together, after the Nature of the *Trefoil*; the Flowers ſmall and white, which are ſucceeded by a large Pod, which is long and ſharp, repreſenting, as ſaid before, a wild Goat's Horn. The Seed bears the Name of the Plant, and is the only Part of it which is ſold by the Name of *Fenugreek*. This Seed ought to be freſh, of a lively yellow, towards a Gold Colour, but it becomes reddiſh and changes brown if long kept: It is about half as big as a Grain of Wheat, hard and ſolid, and is of ſomething like a triangular Shape, but a little cut in, almoſt all round, near the Middle, and of a ſtrong and very diſagreeable Smell. The Farmers about *Aubervilliers* ſow and cultivate this as they do *Coriander-Seed*: It is ſent to *Paris*, and from thence to *Holland* and other Parts. The Ancients, and ſome *Germans* at this Time, make a Decoction of this Seed, and eat it as they do other Pulſe, to remove and expel Wind; but I believe few or none will imitate them in this Practice, which is ſo diſagreeable to the Noſe and Palate: It is much better for Cattle, and eſpecially Horſes, to mix with their Oats to fatten them; But it is no good Nouriſhment for them, according to the Account of thoſe who have experienced it. *Pomet.*

It is principally uſed externally, as well in Decoctions as made into Powder and mix'd in Cataplaſms that are intended as Reſolvents and Emolients.

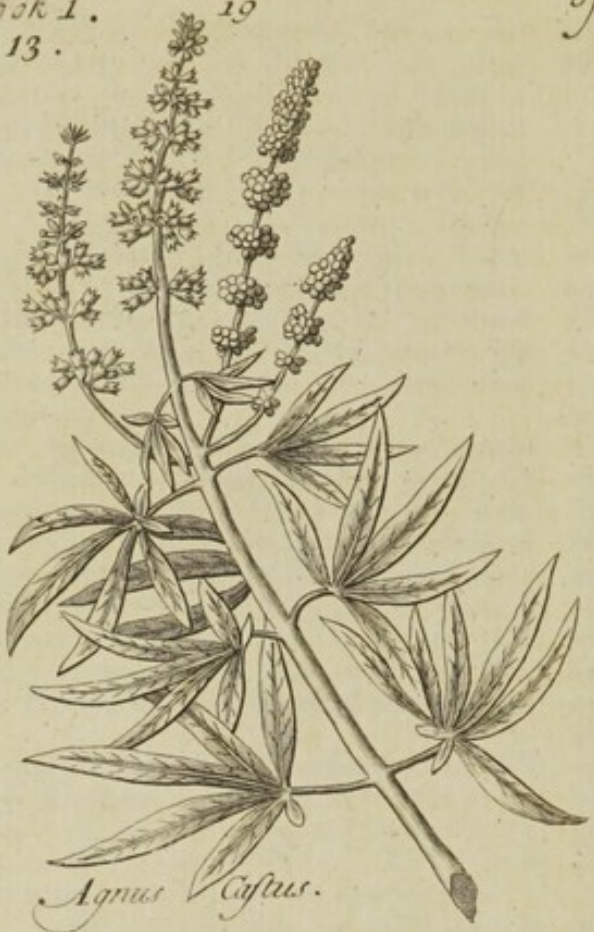
There is no farther Skill neceſſary in chuſing *Fenugreek*, than to ſee that it be new, well fed, and of a good yellow Colour.

There are two Sorts of this Plant, but their Difference only conſiſts in that the ſecond is ſomething leſs than the firſt, but the Virtues are equal, both of them being emollient, diſcuſſing, and anodyne; ſo that almoſt all Cataplaſms for thoſe purpoſes conſiſt in a part of the Mucilage of them. They are alſo uſed in emollient Clyſters, for that they blunt the Sharpneſs and Acrimony of the Humours, eſpecially in the Bowels. *Lemery.*

[The

# of Seeds.

19



Agnus Castus.

20

The Magalep or Hurtleberry

21

The French berry of Avignon.

22

True Myrtle.

[The Plant which produces this is the *Fœnum-græcum ſativum*. C. B. Pin. 348. Hiſt. Ox. 2. 166. The Stalks are ſingle, ſlender and hollow, the Leaves green on the upper Side, and aſh-colour'd beneath. The Pods long, ſlender, and ſwelling in the middle, each containing five, ſix or ſeven Seeds. It flowers in *July*, and ripens the Seeds in *Auguſt*, and then the Root periſhes. They enter into the Compoſition of many of the Shop Plaiſters and Ointments, and it may be added to the Account here given of their Virtues, that they mitigate the Pain of the Sciatica, and diſcuſs Tumours of the Breaſts.]

18. *Of* Luzerne, Burgundian Hay, *or* Trefoil.

THIS is a Species of *Trefoil*, or *Saintfoin*, to which ſome have given the Name of *Medica* or *Median Hay*, becauſe the *Greeks*, after the War with *Darius*, carried this Seed into *Greece*, and gave it the Name of its native Country, which was *Media*. This is a Domeſtick Plant, and very common in *Languedoc*, *Provence*, and *Dauphine*, all along the Banks of the *Rhone*, and in *Normandy*, from which Places the Seed is brought to *Paris*. This is a very luxuriant Plant, and produces abundantly, eſpecially in the warm Countries; the Branches do not run along the Ground, as in ſeveral other Trefoils, but it has a round Stalk, reaſonably thick, ſtrait, and ſtrong, adorn'd with ſeveral Shoots; towards the Top, ſpring a Quantity of Leaves ranged by three and three; and it grows about the height of a Foot and a half, and ſometimes two Foot. From among the Leaves a purple Violet Flower riſes, like that of the Melilot, and after that the Seed: This is almoſt round, but a little longiſh, and ſomething pointed, of a pale yellow Colour when it is new, afterwards it turns red, and almoſt brown when it grows old. It is ſomething leſs than the Seed of the Garden *Creſſe*, and the Taſte is ſomething like it, but that it is not quite ſo hot. *Pomet.*

Horſes, Mules, Oxen, and other domeſtick Cattle, love this exceedingly, but above all when it is green, if you wou'd permit them they wou'd then eat of it 'till they burſt; for which Reaſon the Farmers never dare give them a great deal of it at a Time. And tho' when dry it is very proper to fatten them, yet the Exceſs of it is always dangerous.

Parkinſon calls this *Fœnum Burgundiacum*, *ſive Medica legitima*, Ger. *Trifolium Burgundiacum*, in *French* it is *Luzerne*, and bears it Leaves diſpos'd three and three, like *Trefoil*, according to Mr. *Tournefort*: Its Root is very long, woody, moderately thick and ſtrait, and will bear the Froſt: It is not only cultivated in the warm Countries, as *Languedoc* or *Provence*, &c. but in the moderate Parts, about *Paris* and in *Normandy*. This Plant delights in a fat watery Soil, and may be mowed five or ſix times a Year: It is extraordinary to make Cattle fat, and Cows ſpring with Milk; contains a conſiderable deal of Oil, and a moderate Share of eſſential Salt; and is of ſome Service in Phyſick, to temper the Heat of the Blood, and other Fluids, and to provoke Urine, uſed as Tea, or in a Decoction with Water. *Lemery.*

[This is the Seed of the *Medica Major erectior floribus purpuraſcentibus*. J. B. 2. 382. *Medica ſativa ſiliqua contorta*, *magis Tortili* Hiſt. Ox. 3. 242. It is eſteem'd Cooling and Diuretick, but never kept with us in the Shops, or heard of in Preſcription.]

19. *Of* Agnus Caſtus, *or the Chaſte Tree.*

THIS *Agnus Caſtus*, which ſome call by the Name of *Vitex*, is a Plant which grows in Form of a Shrub, along by the Sides of Rivers and in Gardens; its Flowers are like thoſe of the *Olive-Tree*, but that they are ſomething longer: Its Trunk and Branches are woody, which end in ſeveral long Boughs, fine, pliable, and intermix'd with Leaves, Flowers and Fruit in its Seaſon, which appears white at firſt, but becomes inſenſibly red. Some People call theſe Little Seeds Small Pepper, or Wild Pepper, as well becauſe their round Figure renders them like Pepper, as becauſe their Taſte is a little biting and aromatick. *Pomet.*

This Plant bears the Name of the *Vitex*, becauſe its Branches are pliable, like thoſe of the Ozier or Willow: And the Name of *Agnus Caſtus*, becauſe the *Athenian* Ladies who were willing to preſerve their Chaſtity, in the *Theſmophoræ*, the Celebration of certain Rights to the Goddeſs *Ceres*, made their Beds of the Leaves of this Shrub, on which they lay: But it is by way of Ridicule that the Name of *Agnus Caſtus* is now given to this Seed, ſince it is commonly made uſe of in the Cure of Venereal Caſes, the common Conſequences of Peoples having violated their Chaſtity. However the Seed ought to be choſen new, large, well-fed, and ſuch as grew in the hot Countries, which is much better than that of colder Climates.

The Seed of this Shrub is round and grey, almoſt like Pepper, having ſomething of the Taſte and Smell, *Lemery.*

and

and therefore is often called by the Name. It delights in wild uncultivated Places, near the Banks of Rivers, Ponds, and Brooks in the hot Countries, where it proſpers beſt, and from whence the Seed ought to be choſe, as much better than what grows in the Northern Parts: Take that which is freſh, large, and well fed; it is hot, attenuating, and diſcuſſing, provokes to Urine, and excites the Monthly Courſes; it ſoftens the Hardneſs of the Spleen, expels Wind, and may be given in Powder, or a Decoction; and is likewiſe uſed externally by way of Poultis, *&c.*

[This is the Seed of the *Vitex ſive Agnus Caſtus.* Ger. 1201. *Vitex follis anguſtioribus cannabis modo diſpoſitis.* C. B. P. 475. It is common in *Italy*, *Sicily*, *&c.* the Leaves are very beautifully divided as it were into Fingers of a Hand, the Flower white, the Fruit round and naked. It flowers in *Auguſt:* Authors do not ſeem well agreed about its Virtues. It has been however a Medicine in great Eſteem, and a principal Ingredient in many Compoſitions, but is now grown quite out of Uſe.]

20. *Of the* Wild Cherry, *call'd* Mahalep.

Pomet. THIS Fruit, which ſome have named *Mahalep*, is the Kernel of a ſmall Berry, almoſt like a Cherry-ſtone, which grows upon a kind of a Shrub, which ſome Authors believe to be a kind of a *Phillirea.* The Leaves are large, ending in a Point, and ſomething reſembling thoſe of the Cherry-tree, among which the Fruit ariſes, covered with a ſmall green Coat, extreamly thin.

This is brought to us from ſeveral Parts, but eſpecially *England*; and the beſt Choice to be made of it, is, by taking the freſheſt, largeſt, and that which is leaſt fill'd with little Shells, and taking Care that it has no ill Smell; for there is ſome of it that ſmells ſo ſtrongly, like Buggs, that it is hardly to be uſed. The Uſe of them is for the Perfumers, who, after they have broke 'em, mix them with common Water, Roſe, or other diſtill'd Water, to waſh their Soap with, in order to make Waſh-balls.

Lemery. Mr. *Tournefort* calls this *Mahalep Ceraſus ſylveſtris amara:* By others, it is called *Phamæceraſus*, and *Vaccinium Plinii.* It is a kind of Wild Cherry, or a ſmall Tree almoſt like the common Cherry: The Wood is of a greyiſh Caſt, inclinable to red, agreeable to the Eye, firm, and of a ſweet Flavour, covered with a brown, or a blackiſh blue Bark: The Leaves are like the black *Poplar*, but much leſs: The Flowers reſemble the ordinary Cherry, white, and each compoſed of five Leaves, in Form of a Roſe, of a good Smell. When the Flower falls, the Fruit ſucceeds, which is round, black, and of the ſame Shape with the Cherry, containing a Nut, or Stone in it, which yields a Kernel like the bitter Almond. Some People call this Fruit *Vaccinium*, and pretend it is that which *Virgil* ſpeaks of in this Verſe

Alba liguſtra cadunt, Vaccinia nigra leguntur

The Root is long, thick, and ſpreads itſelf into a great many Branches: The Fruit yields a good deal of Oil and volatile Salt: It attenuates, is emollient, ſudorifick, and drying. The Uſe of it is for external Application, but is little in Practice. [The Tree which produces theſe is the Rock Cherry, the *Macaleb Geſneri* Ger. 1211. *Ceraſus Sylveſtris Amara Mahaleb putata.* J. B. 1. 227. It grows in ſtony Places, on Mountains, and flowers in *May.*]

21. *Of the* Avignon, *or* French *Berry for dying, call'd* Box-Thorn.

Pomet. THE *Avignon*, which ſome call the *Yellow Berry*, is the Fruit of a Shrub which Authors call *Lycium* from *Lycia*, where it grows plentifully, as it does likewiſe in *Cappadocia:* And it is ſometimes call'd *Pyracantha.*

The Shrub which bears this Berry, grows in large Quantities about *Avignon*, and all the ſtony Places in the Country of *Venaiſſin*, and likewiſe in ſeveral Parts of *Dauphiny*, *Provence* and *Languedoc.* 'Tis a thorny Shrub, whoſe Branches are about two or three Foot long, the Bark grey, and the Root yellow and woody, the Leaves ſmall, thick and diſpoſed like thoſe of the Myrtle, but of the Size of the Box; the Berry is about the Bigneſs of a Wheat Grain, ſometimes conſiſting of three, ſometimes of four Angles, and ſometimes made into the Form of a Heart. The Colour is green, turning towards a yellow, of an aſtringent and very bitter Taſte.

The Uſe of it is chiefly for the Dyers to ſtain a yellow Colour with: But the *Dutch* boil this in Water with *Roman* or *Engliſh* Allum, and the white Chalk they adulterate the Ceruſs with, and make it into a Kind of Paſte which they form into twiſted Cakes, and when they are dry ſend them into other Countries under the Name of *Stil de Grain*; which to have its requiſite Qualities ought to be of a golden yellow, tender, friable, and with as little Dirt in it as poſſible. It is uſed for Painting in Oil Colours and Miniature.

By

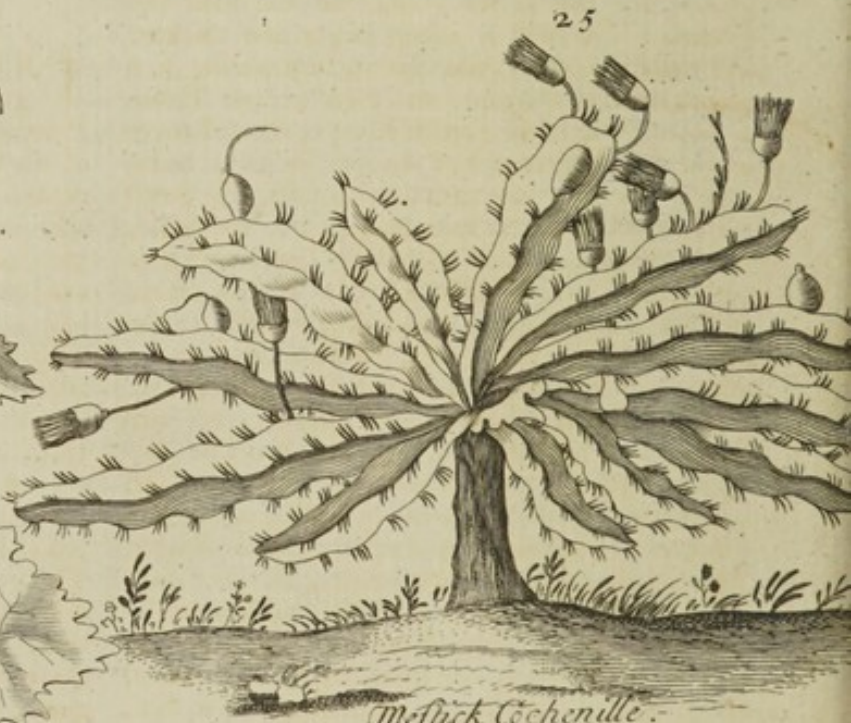
Myrtle of ye Shops.

Staves-acre.

24

Musk Seed.

25



Mosluck Cochenille.

By ſome this is call'd *Lycium Buxi folio*, by others, *Lycium Alpinum*, and *Pixacantha*, or the yellow Berry; it is always tranſported dry, for the Uſe of the Dyers, who ought to chuſe the freſheſt, largeſt, and beſt dried. All the Parts of this Plant are aſtringent, digeſtive and reſolving. *Dioſcorides* recommends an Extract made of the Roots and Branches of this which he calls *Caté* or *Lycium*: He aſſigns to this an aſtringent deterſive Quality, proper to dry up a gleeting, or watering of the Eyes, to diſcuſs and waſte away Cataracts, for curing Ulcers in the Gums, for the Bloody-flux and Hemorrhages, whether internally, or externally applied. *Lemery.*

[Theſe are the Fruit of the *Lycium ſive Pyracantha*. Ger. 1151. *Lycium Buxifoliis rotundioribus ſyriacum vel perſicum*. Breyn Prod. 2. 64. It is common in the hot Countries. What we once uſed in Phyſick was a Rob or inſpiſſated Juice from the Leaves and Branches which *Dioſcorides* gives the Method of making; but this while in uſe was generally adulterated, or made from the Berries of the Woodbine, Privet, Sloe, or ſome other Shrub: It is now grown wholly out of Uſe.]

22. *Of* Myrtle Berries.

THE *Myrtle Berries* are Seeds of certain Shrubs call'd *Myrtles*, which Authors have divided into ſeveral kinds, but I ſhall confine myſelf to two ſorts, which are commonly known and cultivated about *Paris*; the one is the Male, and the other the Female: The firſt is much larger and thicker, and the Leaves of a pale Green, terminating in a point, ſmooth, fragrant, and three or four Times as big as thoſe of the Female Myrtle, whoſe Leaves are of a dark green, and known by their being rang'd very near one another; beſides, the Smell is much ſtronger and finer than that of the Male, and the Branches more yielding: The Flowers of both kinds are roſe-faſhioned, of a white Colour, tending a little to red, and ariſing directly in the middle betwixt two Leaves, to which the Berries afterwards ſucceed, which at firſt are green, but grow inſenſibly black, juicy, ſmooth, and are filled with a whitiſh Seed, encloſed in a Coat. *Pomet.*

Theſe Berries are made uſe of internally and externally. The Apothecaries make a Syrup and Oil from them, but they are little uſed in *France*. The *Germans* dye Blue with them, as the *French Berry* is uſed for yellow; but the *Engliſh* employ the Myrtle Leaves and Branches to the ſame, as they do the *Sumach*, for colouring their Leather, Skins, *&c.* The Berries which are now ſold, are of a black Colour, firſt well dried in the Sun, and then kept carefully for Uſe.

The *Myrtle* is a ſmall Tree or Shrub that is always green and fragrant, of which there are a great many ſorts which are known by the Size of the Leaf, and the Colour of the Fruit. Mr. *Tournefort* ſays, that when the Flower is gone the Berry comes in the Cup, of an oblong, oval Form, repreſenting a ſort of a Crown when the Mouth of the Cup is turned downwards. This Plant is cultivated in our Gardens and Green-houſes here, but is an Inhabitant of the hot Countries, where the Smell is much encreas'd; it contains a great deal of exalted Oil, Flegm, and ſome ſmall Salt. The Leaves and Flowers have an aſtringent Quality, and are us'd for cleanſing the Skin, for contracting the Fleſh, ſtrengthening the Fibres, *&c.* from thence a Water is made for the Ladies to waſh with. The Berries have a binding deterſive Power, and the chymical Oil from thence is excellent for the Hair, and uſed in Pomatums, and moſt other external Beautifiers of the Face and Skin. *Lemery.*

[Theſe are the Berries of the *Myrtus bætica Sylveſtris*. Ger. Em. 1412. *Myrtus communis Italica*. C. B. Pin. 468. They have been frequently ſubject to be adulterated with the Berries of the *Vitis Idæa Anguloſa* J. B. Which as *Buxbaum* obſerves have thence got the Name of *Myrtilli*. They are rough and aſtringent, are not much in Uſe inwardly, but are in the Compoſition of ſeveral of the ſtrengthening Plaiſters.]

23. *Of* Staveſacre.

THIS is the Seed of a Plant which grows commonly in many Parts of *Provence* and *Languedoc*. The Leaves of the *Staveſacre* are large and green, deeply indented and thick; the Flower is of a Sky-blue, and grows in a Huſk, which afterwards contains the Seed, and is of a blackiſh Colour at Top, very rough on the outſide, and of a whitiſh yellow within; the Taſte biting bitter, and very diſagreeable. Chuſe ſuch Seed as is new, clean, and come off of good Ground. The Uſe of it is chiefly to deſtroy Vermin, eſpecially thoſe of Children, to raiſe Bliſters, or allay the Anguiſh of of the Tooth-ach, when it has been boil'd in Vinegar. It is alſo uſed to cleanſe, and conſume proud Fleſh in old Ulcers; but it is a dangerous Thing to tamper with, and I wou'd adviſe ſuch as don't throughly underſtand it, to let it alone, as there is great Hazard attends the uſing it, and there are other Remedies enough to do the ſame good, without the Danger. *Pomet.*

It

It is call'd *Staphisagria*, *Herba Pedicularis*, by Mr. *Tournefort*, *Delphinium Platani Folio*, *Staphis agria dictum*, or in *English* Louse-Herb. It raises its Stalk about a Foot and a half, or two Foot high, upright, round and blackish. Mr. *Tournefort* says, the Flowers are compos'd of many unequal Leaves, and follow'd by a kind of rough three-corner'd Seed: If taken inwardly, which is but seldom, it purges and vomits: It is us'd in its Powder, tho' rarely. 2*dly*, As a Masticatory for the Tooth-ach. 3*dly*, A Gargarism to purge Flegm. 4*thly*, An Errhine to bring forth Flegm and Water by the Nostrils. 5*thly*, To mix it with an Ointment with Lard to cleanse Wounds. 6*thly*, A Mixture with Oil of Almonds, to kill Lice in Childrens Heads, which is its chief Use: So also with Vinegar. It is of a churlish Nature, and not fit to take inwardly.

Lemery.

[The Herb which bears it, is the *Staphis agria* Ger. 398. The *Aconitum urens Ricini fere foliis, flore cæruleo magno Staphis agria dicta* Pluk almag. 357. The Seeds are a strong Purge taken in the Quantity of ten, or twelve Grains, but few People care to use them; and our *Quincy* ranks them with the *Nux Vomica Coeculus Indi*, &c. and says they are all much of the same Nature.]

24. *Of* Amber, *or* Musk-Seed.

THIS is a small Seed, of the Size of a Pin's-head, of a greyish sad brown Colour, in form of a Kidney, of a Musk or Amber Smell, especially when it is new, which gives it the Name. This Plant which grows strait is adorn'd with a green Velvet Leaf, like that of the Marsh-Mallow, whence it is call'd *Alcea Indica Villosa*, which signifies *Indian Velvet Mallow*: It bears yellow Flowers in form of Bells, which are succeeded by triangular Husks, brown on the outside, and white within, of a Finger's Length, in which the Seed is enclos'd. Chuse that which is fresh, clean, dry, and of a good Scent: It contains a large Quantity of exalted Oil and volatile Salt; such as comes from *Martinico*, is abundantly more fragrant than that which grows in any other of the *Caribee* Islands. This Plant grows likewise in *Ægypt*, where it is call'd Musk-seed and *Abel*-musk. The Perfumers use this all over *Italy*, and the Bead-makers in making their Beads.

Pomet.

This Seed is something like the *Millet*, of a bitterish Taste, and is brought dry to us from *Martinico* and *Ægypt*; it comes from a kind of *Ketmia*, and is call'd by *Tournefort*, *Ketmia Ægyptiaca Semine Moschato*. This Plant carries its Stalk a Foot and a half high; the Leaves are of an unequal Size, but cut and indented very deep. The *Ægyptians* use this internally as a Cordial, to fortify the Heart, Stomach and Head, and to provoke Lust: It gives a grateful Scent to the Breath after Eating, but is not proper for such as are subject to the Vapours.

Lemery.

[The Plant which bears it is the *Alcea Ægyptiaca villosa* C. B. Pin. 317. *Althea Ægyptiaca Moschata Abel Mosch dicta*. Hist. Ox. 2. 533. And it is from another Plant of this Class that the *Indians* make the Bang with which they intoxicate themselves, as Dr. *Paul Herman* affirms, who was upon the Spot, and saw what he relates.]

25. *Of* Cochenille.

THE *Cochenille*, call'd *Mestich*, is the Seed of a Plant about two or three Feet high, adorn'd with Leaves two Fingers thick, of a beautiful Green, and very prickly; among which grow Husks in form of a Heart, of a green, tending to a yellow Colour, in which are enclosed a Quantity of small Seeds of the size of a great Pin's-head, in shape sometimes flat, sometimes triangular, but always rough, of a greyish silver Colour to the Eye, and as red as Blood within. The Plant which bears them is call'd *Opuntium*.

Pomet.

We bring this Seed from *Peru* and other Places of *New-Spain*, as the Gulf of *Mexico*, from whence it is brought by the *Spanish Galeons*, or Plate-Fleet to *Cadiz*; as *Ipecacuana*, the *Cortex*, *Sarsa Parilla*, and other Drugs are; and from thence transported to *England*, *Holland*, or *France*.

The *Mestich Cochenille* is a Thing of that prodigious Consequence to the *Spaniards*, that they would undergo any Punishment, rather than yield that it should be propagated in *France*.

There are very few Persons but what believe that this *Cochenille* is a little Animal or Insect; and I was of the same Opinion, 'till convinced of the Truth of the contrary, by two Letters of the *Sieur Francis Rousseans*, a Native of *Auxerre*, dwelling at *Leoganna*, near *St. Domingo*, who writes to me thus:

" The *Cochenille*, Monsieur, which you are de-
" sirous to know by the Plant, grows about two
" or three Foot high, furnish'd with Leaves of
" two Fingers Thickness, of a fine green Colour,
" full of Thorns on all Sides; the Seed is small,
" and contain'd in Husks form'd like Hearts,
" turning to a Yellow when they grow ripe.
" What is brought to *Spain*, comes from all those
" Parts call'd the *Salt-Sea*, for the little we have
" about *Leoganna*, is not worth speaking of."

We

25

Cardasse Cochenille.

The Kermes Insect on the Ilex.

27

The Raisin. Amomum.

27

Rose of Jericho.

We may see this is quite contrary to what is reported by Monsieur *de Furetiere*, who confounds the scarlet Grain, which is *Kermes*, with the *Cochenille*; and, at the End of his Discourse, observes that it is a greyish Worm, or Insect, which comes from the *Indies*, and which they traffick considerably in; so that from *Tlascala*, a City in *Mexico*, they deal for more than two hundred thousand Crowns a Year. And, after him, the Reverend Father *Plumier*, a Minime Friar, told me, the 15th of *September* 1692, from his own Mouth, and certify'd under his Hand as follows:

" The *Cochenille*, says he, surnamed *Mestich*, " is a small Insect like a Bug, which is found upon " many different Sorts of Plants, as well in *New* " *Spain* as the *American Isles*: These little Ani- " mals are so common in the Countries there- " about, that they make a Sort of Crop of them.

" All Kinds of Plants are not equally proper to " supply these little Animals with Aliment capable " to produce a thorough Redness; therefore the " Inhabitants of those Parts feed their small Cattle " upon the *Opontium*, the Juice of which is red, " which they feed on, and which contributes very " considerably to strike the Colour deep, which " the Dyers seek after; and, as the Ants delight " exceedingly in these little Insects, the *Spaniards* " take care to fill those Places full of Water, by " Ditches, where the Plants grow, whereof we " have been speaking, to prevent the Ants from " going thither.

" The chief Plant on which we find the *Co-* " *chenille*, is that which the *Americans* call *Ra-* " *quette*, or *Cardasse*; and the Botanists *Opontium* " *majus spinosum fructu sanguineo*; which signifies " the large *Indian* prickly Fig, whose Fruit is as " red as Blood.

" This Plant is wonderful in its Kind, in this, " that it is wholly compos'd of a Quantity of " large, thick Leaves, which are of an oval Fi- " gure, a glorious Green, cover'd with long " Thorns, very sharp, of a yellow Colour; and " at the End of the Leaves grow large Flowers, " of a pale Rose Complexion, follow'd by a fine " red Fruit. These little Insects, of which they " make the *Cochenille* brought to us, are of a Sil- " ver-grey, but of that particular Kind, that they " multiply after a prodigious Manner, so that a " Hundred will produce Millions.'

On the 30th of *January*, 1693, the said Father *Plumier* brought me a Letter writ by himself, to this Purpose:

Father Plumier's *Declaration concerning* Cochenille.

" The *Cochenille* which is brought from *New* " *Spain*, or the Continent of *America*, is an In- " sect of the Size and Form of a *Bug*, which clings " to several Sorts of Trees, but more particularly " to the *Acacia*, or to certain Trees, which the " People of the *French* Islands call *Cherry Trees*. " It is a very fruitful Animal, and carries between " the Thighs, and on its Breast, an infinite Num- " ber of Eggs, which are almost invisible, yet pro- " duce an innumerable Quantity of very small red " Insects, which the Ants are very fond of eating. " When the old ones are crush'd, they yield a red " Juice inclinable to Scarlet, mix'd however " throughout with a little Tinge of Yellow; so " that those which are bred upon the Trees, do " not produce so fine and lively a Colour: But " the *Indians*, to render the Juice of a beautiful " Colour, breed these Insects upon certain Plants, " which are call'd in *Latin Opontium*, and which " the *French* call *Raquettes*. These produce a " thick Fruit, like our Figs, full of an admirable " fine red Juice, of which the *Cochenilles* feed; " which is the Occasion that the *Cochineals* cul- " tivated on these Plants have a finer and higher " colour'd Juice than those which live on any " others. When I discover'd these Insects in the " Isle of *St. Domingo*, I shew'd them to two *In-* " *dian* Slaves, that were Natives of the Country " where they breed, and they assur'd me both, that " these were those they made *Cochenille* of.

" Being on my Return from my Voyage to " *St. Domingo*, I was desirous to set myself right " about this Insect, from the Authors who have " writ of *America*; and here follows what I found " in the *Sieur de Laet*'s Description of the *West* " *Indies*. *Book* V. *Chap.* 3.

" The *Cochineal* Grain comes from several Pro- " vinces of *New Spain*, taken from the Tree " call'd *Tuna*, which bears very thick Leaves, on " which it grows in Places more expos'd to the " Sun, or cover'd from the *North-East* Wind. It " is a very little Animal, living as an Insect much " like a Bug; for when it first clings to the Tree, " it is less than a Flea, and comes from an Egg " the Size of a Mite, call'd, in *Latin*, *Acarus*: " They fill the Tree, and spread over the whole " Garden, and are gather'd for Use once or twice " a Year. These Plants are dispos'd in Order, as " they do the Vines in a Vineyard; and the " younger they are, the more plentifully they bear, " and afford a better Grain; but it is necessary to " preserve them from being destroy'd by other In- " sects, and no less from Pullen, which will eat " them.

" *Note*, This *Tuna* is nothing else but the said " *Opontium*, of which I spoke before; there are " several Sorts of it, but the Choice for cultiva- " ting *Cochineal* ought to be made of such whose " Fruit produces the finest red Juice."

However, not being able to bring myſelf to agree to what Mr. *De Furetiere*, the Reverend Father *Plumier* and *Laet* have writ, I find myſelf more and more obliged to believe that *Cochineal* is the Seed or Grain of a Plant, becauſe the *Sieur Rouſſeau* takes Notice to me, at the End of his firſt Letter, in order to juſtify what he ſays, That he would ſend me the Plant, which he hop'd to do, with God's Aſſiſtance: And in his ſecond Letter, dated the 25th of *May*, in the ſame Year, he writes thus:

SIR,

" IN relation to the *Cochineal*, about which I " have been ſpeaking, I muſt tell you a pleaſant " Story, of a certain *Minime* Father, who calls " himſelf a Botaniſt. He is about 45 or 50 Years " old, of a blackiſh Complexion, whom one might " naturally judge a Man of Knowledge, if he " never ſpoke. He ſaw ſeveral *Acacia*'s, which " are very prickly or thorny Shrubs, and what they " call *Cardaſſes*, which are a Sort of Plant that " bears Leaves of two Fingers Thickneſs, made a " little like the *Raquettes*, which produces Fruit " of the Shape of a Fig, of a Taſte a little acrid, " and which makes the Urine red: Certain Ani- " mals that frequent theſe Trees, he affirm'd, " were the *Cochineal*, and made a great deal of " Laughter among the Inhabitants of *St. Domin-* " *go*. This loſt the Credit the good Father had " there, eſpecially with Mr. *De Cuſſi*, who had " his Share, among the reſt, in the Diverſion " they had from what the good Father ſaid. He de- " parted for *France* ſometime after, where I know " he arriv'd with the ſame Error concerning *Co-* " *chineal*, that he had been in at *St. Domingo*."

The *Sieur Rouſſeau* inform'd me again, that he had found upon the *Acacia*'s, a Species of little Creatures of the Size of a Bug, which they call'd *Vermillion*; theſe are a little thicker, but they are of no Uſe, becauſe they cannot dry them; 'tis apparent, as we may rationally conjecture, that this was the pretended *Cochenille* of Father *Plumier*.

Beſides the Letters of the *Sieur Rouſſeau*, there are other Things which deſerve our Credit; as, that we cannot diſcover the Feet, Wings, Head, or any other Part of an Animal in the *Cochineal*, which we have; and that it has in it all the Marks of a true Seed. And if theſe Proofs are not ſufficient, we may look into the Judgment of *Ximenes* and *William Piſo*, in his Hiſtory of the Plants of *Braſil*; where, after he has given a long Deſcription of the Species of the *Indian* Fig, which is call'd *Jamacan*; he ſays it is the ſame Plant that in *New Spain* produces and bears the *Cochineal*.

We ought to make Choice of the *Meſteck Cochineal*, of a good Sort; that is, ſuch as is plump, large, well fed, clean, dry, of a Silver ſhining Colour on the Outſide, and when it is chew'd in the Mouth, that tinges the Spittle of a bright red Colour; and reject that which is lean, dirty, and light; and take particular Care, leſt there be ſmall Stones among it, which is a very common Caſe, eſpecially when it is dear.

The *Cochineal*, when dry, is of good Uſe in Medicine; but is abundantly more uſed by the Dyers, as their principal Baſis for the Scarlet Colour. Some People uſe it to colour Sugar, adding a little Cream of Tartar in fine Powder, or ſome other Acid.

Of Carmine.

Carmine is a very precious and rich Commodity, which is made of *Meſteck Cochineal*. 'Tis a Flower or Powder of a moſt beautiful red Gloſs, and that feels like Velvet, which is made by means of a Water, in which the Seeds of *Chouan*, and the *Autour Bark*, a Bark brought from the *Levant*, and having ſomething the Appearance of Cinnamon, but of an inſipid Taſte, have been infus'd; and which, when prepar'd and dry'd, is call'd *Carmine*; which, to have the requiſite Qualities, ought to be an impalpable Powder, of a high Colour, and ſuch as has been as properly and faithfully made as poſſible: But as its great Price is the Occaſion of wicked Peoples ſophiſticating it, one ought never to buy it but of ſuch Merchants as are above ſuch Frauds, or above ſelling the ſecond Sort for the firſt, which is extremely finer. Some are for *Carmine* of *Rocou*; but it gives a Tinge more of an Orange Colour. The Uſe of *Carmine* is for Miniature, and making the fineſt red Draperies.

Of fine Lake, *and other Sorts.*

The fine *Lake* is that which takes its Name from *Venice*; becauſe what has been ſold among us hitherto, is brought from thence: But at preſent ſeveral Perſons in *Paris* make it to anſwer effectually; ſo that a great many Painters prefer it to that of *Venice*. This *Lake* is a hard Paſte, made from the Bone of the *Cuttle Fiſh*, which is colour'd with a Tincture drawn from *Meſteck Cochineal*; of the Wood of *Braſil*, of *Fernambucco*, burnt *Engliſh* Allum, *Arſenick*, and a *Lixivium* of the *Natrum* of *Egypt*, or white Tartar; by means of Cloth they ſtrain it, and proceed as in the making of Indigo: From thence reduce it into a Paſte, of which they make Troches, and dry them for Service. The Uſe of this *Lake* is both for Miniature and Painting in Oil.

Of

Of the Dove Lake.

This is made likewiſe with *Engliſh* Allum, and form'd into Paſtiles of the Thickneſs of one's Finger, and ſo dry'd. That of *Venice* is abundantly finer than that of *Holland* or *Paris*, becauſe the White that the *Venetians* uſe, is much finer and properer to give a lively Colour than the White of of *Holland* or *France*. The Uſe of this *Lake* is likewiſe for Painting. There is a third Sort call'd *Liquid-Lake*, of which I ſhall ſpeak in the Chapter of *Fernambucco-Braſil*.

Of fine Turneſol *in Linen.*

The fine *Turneſol* of *Conſtantinople* is made of Holland, or fine Cambrick, which has been dy'd with *Cochineal*, by means of ſome Acids. This is us'd for tinging of Liquors, as *Aqua Vitæ*, or the like. The *Turks*, and others in the *Levant*, call this *Turneſol Linen*, the red *Bizerere*.

Of Turneſol *in* Cotton, *or that of* Portugal, *vulgarly called* Spaniſh-Wool.

The *Portugueſe* bring this to us in Cotton, which is of the Figure, Thickneſs and Size of a Crown-piece; they uſe it to colour their Gellies, but it is much leſs us'd than the Turneſol in Linen; it ought to be of a fine Red, the dryeſt and cleaneſt that can be had; and theſe are all we have from *Meſteck Cochineal*.

The other Sorts of *Cochineal* are the *Campechy*, the *Tetrachalle*, and the Wild.

The *Campechy-Cochineal* is no other than the Siftings of the *Meſteck*; the *Tetrachalle* nothing but the earthy or droſſy Part of the *Campechy*; and the Wild or Seed *Cochineal*, that which we find upon the Roots of the great *Pimpernel*, call'd by the *Botaniſts*, *Pimpinella Sanguiſorba*.

[*Cochineal* is the *Cochinilla de Laet.* 229. *Cochenilla Hiſpanis Breyn. Hiſt. Coec.* 6. *Nepalnochezth ſeu Coecus Indicus in Tunis quibuſdam naſcens Hern.* 79. It is a ſmall Inſect, brought us dry'd from *Mexico*, the only Place in the World where it is propagated for Uſe.]

There is not, perhaps, any Drug about which there have been more Diſputes among Authors than this: It was at firſt long believ'd to be a Vegetable Production; and when that Error was got over, and the World was perfectly convinced that it belong'd to the Animal Kingdom, there were yet a Number of miſtaken Opinions about its Nature and Origin. It was a long Time believ'd to be of the Beetle Kind, and to reſemble what we call the *Lady Cow*; nay, ſome have been ſo hardy to affirm, that it was that very Creature: And an Author of ſome Credit, in Conformity to this Opinion, gave Figures of it in the different States of an Hexapode Worm, Aurelia, and perfect Beetle; Changes neceſſary to ſupport that Account of its Nature, but ſuch as the Creature never knows. The accurate and indefatigable Mr. *Lewenhoeck* came neareſt the finding its true Production, in his Examination of its Eggs, in which he always diſcover'd a ſix-footed Animal: But we never were truly acquainted with its Nature and Origin, 'till the accurate Mr. *De Reaumur*, in his Memoirs, *Pour ſervir a L'Hiſtoire des Inſectes*, undertook to give the Hiſtory of it. That excellent Author has referr'd it to a Claſs of Animals unknown 'till his Diſcoveries, and, by him, call'd *Progallinſects*.

Its general Hiſtory from him, and from the Accounts of intelligent People, who have ſeen it in *Mexico*, which agree very well with his Opinions, is then, in few Words, that it is a ſix-legg'd, viviparous Inſect, of which the Female is only us'd, which is produced from the Egg in its perfect Form, and has no Transformation, as it is call'd, afterwards. It is very different from what the Accounts of all the older Authors have ſaid of it, and like no other Inſect, but thoſe of the ſame Claſs. It has no Wings, nor any Uſe for any; its whole Life, except a few Weeks after it is hatch'd, being ſpent in one Place, where it is fix'd to the Vegetable it feeds on: The Male is ſuppos'd to be a ſmall Fly, but is wholly unknown among us, the Female only being what we call *Cochineal*.

The great *Plumier*, therefore, whom this nameleſs Author attempts to ridicule, was perfectly in the right, and has the Honour to have been the firſt who ſpoke with any Degree of Propriety of this Drug; for his comparing it to a Bug, is much more juſt, than the later Opinion of making it a kind of *Lady Cow*, to which it has not the leaſt Reſemblance.

[What our Author calls the wild *Cochineal*, is the *Coecus Radicum*, *Breyn. Coecus tinctorius Polonicus quibuſdam Progallinſecte des Racines Reaum.* T. 4. p. 116. It is an Inſect of the ſame Claſs with the *Cochineal*, which remains the greateſt Part of its Life fix'd to the Root of the *Polygonum Polonicum Cocciferum*, I. B. 3. 378. *Knawel incanum flore majore perenne R. Hiſt.* 1. 213. *Knawel folio et flore candicante Rupp florgen.* 26. It is alſo found on the other Plants, and in other Places beſides *Poland*; but there, and on that Plant, moſt abundantly.]

26 *Of the Scarlet Grain, or* Alkermes.

Pomet. THE *Scarlet Grain*, which the *Latins* call *Grana Tinctorum*, the *Greeks*, *Coccus Infectorius*, and the *Arabs*, *Kermen* or *Kermes*, is the Seed, or rather Excrement of a little Shrub, whose Leaves are prickly, almost like those of Holly, except that they are much less. They are found in great Quantities in *Portugal*, *Spain*, *Provence*, and *Languedoc*.

I shall not stay to describe the Shrub which bears this Grain, all Sorts of Authors having made mention of it: I shall only observe, that what we call the *Grain*, that is, the *Kermes*, is fasten'd to both the upper and under Side of the Leaves of this Shrub: And when it is a good Year, it is one of the principal Riches of the Countries where it grows, especially for the poor People, throughout all *Provence* and *Languedoc*; where it costs them nothing but the Trouble of gathering, and they sell it by the Pound to the Apothecaries; who, from the Pulp, make a Syrup they call *Alkermes*, and the Remainder which is left in the Sieve or Strainer, after it is cleans'd, they sell again to the Dyers, for as much as it cost them at first. Those which they would transport, or send to other Places, they dry, as well for physical Use as the Dyers, who use great Quantities of it; for which Purpose they chuse the largest and most weighty, and that which is new, that is to say, of that Year, with its outer Rind, the reddest and cleanest that may be; for when it begins to grow old, an Insect breeds in it which eats through the outer Rind, and hollows the Grain in such Sort, that it is all Worm-eaten, very light, and has nothing remaining of what it was but a simple Skin, which greatly diminishes its Virtues. That of *Languedoc* passes for the best, being commonly large, and of a very lively Red; which is contrary to that of *Portugal*, which is less esteem'd, as being smaller, leaner, and of a blackish Red.

The *Alkermes*, or *Scarlet Grain*, is reckoned very cordial, and proper to comfort Women in Child-bed, giving half a Dram of it in Powder, in an Egg, and not *Cochineal*, as many order, because they believe these two Drugs to have the same Virtues. It is also us'd in Dying. The *Spaniards*, *&c.* who gather this, wet it with Vinegar, to kill certain little Worms that are in it, and then dry it.

It is proper here to remark the Impropriety with which this Drug is call'd *Grain*, or *Seed*; it being no other than small Bladders, which are form'd on the Leaves and Bark of a little Shrub, well known in the Places before nam'd; for Proof of which I shall declare what the first Physician inform'd me of by Letter, *December* 22, 1694: The *Kermes* is not a Seed, but the Shell of a little Worm, which produces it by pricking the Bark of the Ilex or Holm Oak, on which it is frequent, and incloses itself in the Juice that flows out at the Wound, as the Worms which are the Occasion of Galls.

The Fruit of this *Ilex* is not the *Kermes*, but an *Acorn*, like those of the other Ilexes; and this is inconteſtible: So that the *Kermes* should not be called a *Seed*, but a *Shell* or *Bladder*.

Of the Scarlet Pastel.

As to the *Scarlet Pastel*, which is the Powder that is found in the Grain when new, it ought to be of a very fine Red, of an agreeable Smell, and ought not to be made up with Vinegar at all, as that commonly is which comes from *Portugal*, which is done to encrease its Weight, as well as to give it a fine Colour. This Cheat is easy to discover, because it will be moist, and yield a strong and very disagreeable Smell. This *Pastel*, which is the most noble Part of the Seed, is never us'd at all in Physick, for want of Knowledge of it; but very much by the Dyers for their high Colour.

Of Syrup of Alkermes.

The Syrup of *Alkermes* is the Pulp of the fresh *Kermes*, and the Powder Sugar of *Brasil*, or the small Loaf-Sugar reduced to Powder, and mix'd together; afterwards they melt it over a gentle Fire, then put it into little Barrels made of white Wood, such as we receive it in. Great Quantities of it are made, as well at *Nismes* as *Montpellier*, which they send to most Parts of *Europe*.

Of the Confection of Alkermes.

The Syrup of *Kermes* is very little us'd in Physick; but when it is incorporated into a Composition made of the Rennet Apple, Rose-Water, Raw Silk, and White Sugar, Powder of Oriental Pearl prepar'd, Yellow Sanders, fine Cinnamon, Azure Stone prepar'd, Leaf Gold, a thin Electuary is made of it, which we call Confection of *Alkermes*. Some add Musk and Ambergrease; but this ought never to be done unless by the Advice of a Physician, as these Perfumes are what many Women cannot bear. As to the Manner of preparing this Confection, those that are desirous to make it, may consult the Dispensatories that treat of it; but we have it ready made from *Montpellier*, as the best, because of the Newness of the Juice, which they have there at Command, and which they transport to other distant Parts.

But

But there are a great many Frauds impos'd upon the World, particularly in *France*, under the ſpecious Name of *Confection of* Alkermes *from* Montpellier; therefore 'tis better for all Druggiſts, Apothecaries, and the like, to buy the Juice or Syrup uncompounded, to prevent their being otherwiſe deceiv'd.

Monſieur *Charas*, in his Diſpenſatory, *p.* 314, attributes mighty Virtues to the true Confection of *Alkermes*, and ſays, that the ſaid Confection is, without doubt, one of the beſt Cordials that was ever diſcover'd in the *Galenical* Phyſick; for it recruits and refreſhes the vital and animal Spirits, allays the Palpitation of the Heart and Syncope, very much ſtrengthens the Brain, and other noble Parts, and is an Enemy to Corruption, preſerves the natural Heat, drives away Melancholy and Sadneſs, and maintains the Body and Spirits in a good Condition. It may be taken by itſelf, or in any other Liquor, from a Scruple to a Dram or two.

Lemery.

The *Kermes*, *Coccum Infectorium*, *Granum & Coccus Baphica*, has a thick Shell or Huſk, like the Juniper-Berry is round, ſmooth, ſhining, of a fine red, fill'd with a Juice of the ſame Colour, of a vinous Smell, the Taſte a little bitter, but agreeable. The Tree which produces it is a little Shrub, whoſe Leaves are like the Holly, but leſs, and more indented on their Sides with prickly Thorns: The Branches bear Abundance of Shells as well Flowers, which afterwards turn into Fruit, which grows in ſeparate Places. The Fruit is oval, and thick, cover'd at the Top with a black Cap: The Skin of it is of the Nature almoſt of Leather; it contains a Kernel which is divided into two Halves. This Shrub grows in the hot Countries, as was ſaid before.

The Origin of the *Kermes*, proceeds from a Kind of little Worm in the *Holme*, or green Oak, on which they feed; it produces a Cod which is fill'd with Juice, and which is very red when it is brought to us. This little Inſect is incloſ'd in the Cod. We have had a very curious Diſcovery of this, from Mr. *Fagon*, chief Phyſician to the King; and it is confirm'd by a Circumſtance, which is apparent when the *Kermes* is dry'd, for then it is fill'd with a vaſt Quantity of Worms and Flies, almoſt imperceptible, which convert all the internal Subſtance of the Berry into little Inſects, and leave nothing but a light Huſk or Skin behind. 'Tis eaſy to appprehend that theſe little Worms, *&c.* come from the Eggs which the firſt Worms which enter'd the Cod produc'd. To remedy this Accident, which ſo much concerns the good Effect of the *Kermes*, every one ought to let the Cods lie ſome Time in Vinegar before they are dry'd, by which Means the acid Liquor will deſtroy thoſe little Worms.

[*Kermes* is the *Chermes ſeu Coccus infectorius.* Park. 1395. *Chermes*, *Grana Tinctorum*, *Coccus baphica*, *Coccus Inſectorum.* Mont. Ex. 9. *Kermes ſive Chermes.* Ind. Med. 43. It is an Inſect brought to us from *Provence* and *Languedoc*, where it is found on the *Ilex Coccigera*, or Scarlet Oak. The *Ilex Aquifolia ſive Coccigera*. Park. 1394. *Ilex aculeata Cocci glandifera.* C. B. Pin. 428. Tourn. Inſt. 583.

There have been almoſt as many and as various Opinions about the Nature of this Drug, as of the former: It has been gueſs'd by many to be a Vegetable, and by many others to be an Animal Subſtance; and not only Mr. *Fagon*, but ſince him the Count *Marſigli* has alſo endeavour'd to prove it to be a Vegetable Excreſcence.

The firſt who open'd a Way to the true Diſcovery of what it was, were Meſſ. *De la Hire* and *Sedileau*, in the Accounts they gave of the Green-Houſe Bug, as we call it; an Inſect of the ſame Kind very common on Orange-Trees: Mr. *Ceſtori* after them gave alſo very great Light into it; but the true and accurate Account of its Nature and Origin we owe to the ſame celebrated Mr. *De Reaumur*, who, from the Obſervations of other eminent Naturaliſts, and his own Experiments, determines it to be of a Claſs of Inſects little underſtood before his Time, and which he calls *Gallinſects*.

The Male of this Species is alſo a ſmall Fly, but the Female without Wings, and fix'd as the Cochineal to the Tree it feeds on. It is wonderfully prolifick, often containing not leſs than two thouſand Eggs, every one of which produces an Inſect in its perfect Form, and the Females ſubject to no Kind of Transformation afterwards.

The Confection was originally a Compoſition of *Meſue*, but has undergone many Alterations ſince. Our College Diſpenſatory has order'd it in a more ſimple and eaſy, and at the ſame Time a much better Way than any of the former; which is as follows: Take Roſe-Water two Pound, Juice of *Kermes* three Pound, fine Sugar one Pound; boil theſe almoſt to the Conſiſtence of Honey, and then ſtir in the Powders of Cinnamon and *Lignum Aloes*, of each ſix Drams.]

27. *Of* Amomum *in* Berry, *and the Roſe of* Jericho.

THE *Amomum Racemoſum*, or that in Cluſters, or the Raiſin *Amomum*, is a Kind of Fruit we receive by the Way of *Holland* or *Marſeilles*: It grows in ſeveral

Pomet.

ſeveral Parts of the *Eaſt-Indies*; we ſeldom ſee it in Bunches, but much oftner in the ſingle Pod.

It grows upon a Shrub whoſe Leaves are of a pale Green, longiſh and narrow; it is, in ſome Sort, like a Muſcat Grape in Colour, Size and Figure, but it is much fuller of Seed, and has leſs Juice in it.

It is alſo particular in this, that all the Pods being without Stalks, are ſtrongly ſtuck, and as it were glued againſt a long Nerve, which they encircle round to its End almoſt, and which ſerves them for Baſis and Support, like the Grains of Pepper: The Top is terminated by a Kind of Button, and it is generally divided into Cells.

On Opening theſe Pods we find them full of ſquare purple Seeds, join'd and, as it were, glued to one another, making altogether a round Figure, conformable to that of the Pod, and which are cover'd with a white Film very delicate, and divided into great Heaps by a like Membrane, but in ſuch a Manner as makes it eaſy to ſeparate them: Their Taſte is ſharp and biting, and their Smell extremely piercing and aromatick.

Chuſe the freſheſt Seed you can get, with the roundeſt Huſk, and of the moſt lively fair Colour, heavy, and well fill'd. Caſt away what is light and open, containing a black wither'd Seed; but eſteem thoſe that are well fill'd with Seed, large, plump, of a warm picquant Taſte, very aromatick, and the moſt reſembling the Cardamoms: It contains a great Quantity of volatile Salt and exalted Oil.

The chief Uſe of the *Amomum* is for Treacle, ſuch as that of *Venice*, *London*, *&c.* for which make uſe of the cleaneſt and beſt fed Seed. It is alſo uſed to incide, digeſt, reſiſt Poiſon, expel Wind, ſtrengthen the Stomach, give an Appetite, and promote the *Menſes*.

Several Perſons do not know this Drug but under the Name of the great *Cardamom*, which is no other but the *Grain of Paradiſe*, of which I ſhall take Notice in the following Chapter. There are other Seeds which bear the Name of the *Amomum*, as that of *Pliny*, which is a red Fruit, and altogether like that which is within the Fruit of the *Alkeking*, which grows on a Shrub which is very common. There is another Sort which the *Dutch* and *Engliſh* call *Amomi*, and we *Jamaica-Pepper*, which is the Fruit of an *Indian* Tree, as will be ſeen in its proper Place. I muſt advertiſe you, that when you meet with the Name of *Amomum*, or *Amomi*, in Authors, you ought to uſe no other than this cluſter'd *Amomum*.

Lemery. All Perſons that deliver any Receipts concerning *Amomum*, mean the *Amomum Racemoſum*, or cluſter'd *Amomum*, which the Deſcription before is given of; but there are ſeveral other little Seeds call'd by that Name, as the *Amomum falſum*, *ſeu Pſeudoamomum*, or the Baſtard-*Amomum*: It is a little black Fruit of the Nature of the Gooſeberry or the Juniper Berry, which grows upon a Gooſeberry Buſh, call'd *Groſſularia non ſpinoſa*, *fructu nigro*, or the Gooſeberry without Pickles, with black Fruit, or the black Gooſeberry. 'Tis of little or no Uſe in Phyſick, any more than the *Amomum* of *Pliny*.

The ſmall Spice which the *Dutch* and *Portugueſe* call *Amomum*, and the *French Pepper of Thevet*, is round, and as big, or bigger, than Pepper; of a reddiſh Colour, appearing at one End like a ſmall Crown, of a Taſte and Smell like a Clove, a little pungent and aromatick; it has likewiſe the Virtue of the Clove, but is ſcarcer. Some call it the ſmall round Clove, as is deſcrib'd by *Bauhin*, *p.* 194, with the Name of *Amomum quorundam odore Caryophilli*.

[This is the *Amomum Racemoſum*, C. B. Pin. 413. *Amomum novum Cardamomi vulgaris facie*, *ſive Indicus racemus*. J. B. 2. 195. It is brought to us from the *Eaſt-Indies*.

The Deſcriptions of Simples among the old Authors, particularly the *Arabians*, are ſo ſhort and imperfect, that notwithſtanding the Perfection that the Knowledge of Botany is now arriv'd at, it is not known what was the true *Amomum* of the Antients, almoſt every Author having had a different Opinion about it. However, if this be not the very *Amomum* of the Antients, it at leaſt comes the neareſt it of all others, and ought to be uſed wherever *Amomum* is preſcribed.]

28. *Of the Great* Cardamome.

THE great *Cardamome*, which the *French* call *Maniguette*, or Grains of Paradiſe, is a triangular Seed of a reddiſh Colour without, and white within, of an acrid picquant Taſte, like that of Pepper; which is the Reaſon that the Hawkers frequently ſell it for Pepper. *Pomet.*

The Plant which bears this Seed, has green Leaves, among which comes a Fruit, or rather a Huſk, of the Size and Figure of a Fig, of a fine red Colour, in which are enclos'd theſe Grains of Paradiſe: It is call'd *Maniguette*, or *Melaguette*, from a City of *Africk*, call'd *Melega*, from whence they uſed to bring it into *France*; but at preſent it is brought from ſeveral Countries, by the Way of *St. Malo*, and other Places.

It ought to be choſen of a high Colour, freſh, well fed, and of an acrid piercing Taſte.

[The

28

The Grain of Paradise.

29

The true great Cardamome.

29

The Lesser Cardamom.

30

Nigella Romana.

[The *Grana Paradiſi* are the *Cardamomum Arabum majus*. Ger. 1358. *Cardamomi genus maximum, Grana Paradiſi ſeu Melleguetta*, &c. J. B. 2. 204. They are brought to us from *Guinea*, and are of a Taſte between *Cardamom-Seeds* and Pepper. They ought to be diſtinguiſh'd from the true *Cardamomum majus*, and it is a great Error to uſe them in the Place of it. The true *Cardamomum majus*, is the *Cardamomum cum ſiliquis longis*. J. B. 2. 205. *Cardamomum majus Officinarum*. C. B. P. 413. This is brought us from *Java*, but is very ſeldom ſeen in the Shops. The Huſks are ſometimes as long as ones Finger, and full of an angular brown aromatick Seed; and this is what is deſcribed by *Pomet* in the Beginning of the following Chapter.]

29. *Of the true Great* Cardamome, *and the Small* Cardamome.

THE true great *Cardamome* is a reddiſh, ſharp, angular Seed, encloſed in a Pod of the Length of a Child's Finger, made triangular; it grows upon a Plant, which ſome have aſſur'd me is very luxuriant. and whoſe Leaves are like thoſe of the Trefoil, ending in a Point, and much indented; it grows in ſeveral Parts of *India*: Theſe Pods are very rarely brought into *France*, and are of very little Uſe, becauſe the little or ſmalleſt *Cardamome* is more enquired for, as well by Foreigners as ourſelves, as having much more Virtue in it than the true great Sort. However, as it is ſometimes met with, I ſhall obſerve that it ought to be choſe new, and ſuch as comes neareſt the Taſte, *&c.* of the ſmaller *Cardamome*.

The ſmall *Cardamome*, which is what is moſt common among us, and brought from *Holland*, is a little Huſk or Pod of a triangular Figure, on the Outſide of a light grey, ſtrip'd and adorn'd with a ſmall Tail of the ſame Colour. When open'd, you'll find a Quantity of ſmall Seed in it of the Figure and Taſte of the *Amomum*, of which I have been ſpeaking of before.

The Plant which bears the ſmall *Cardamome* is as yet unknown to me, notwithſtanding the diligent Enquiries I have made; but in all Appearance, it is like the true great Sort, and has no other Difference, but what the Diverſity of Places where it grows gives it. It is brought to us by the *Dutch* and *Engliſh*, from the Kingdom of *Viſapour*, where it is very ſcarce, and only uſed at the Tables of the Great, being the beſt Spice of that Country. Chuſe the freſheſt, well fed, weighty and leaſt fill'd with empty Huſks and little Straws, well dried and ſound: It is beſt not to open the Huſks 'till the Time of uſing the Seed, becauſe it keeps much beſt in them: When they are to be uſed, ſeparate them from the Huſks, and chuſe the moſt compact, beſt fed, higheſt colour'd, and moſt aromatick: This we chiefly uſe in Medicine, but the *Dutch* uſe it much for chewing.

His Deſcription of the great and leſſer *Cardamome* differs nothing from *Pomet*: *Lemery*. But the third or leaſt Sort is call'd ſimply *Cardamome* for its Excellence, becauſe it is better and moſt uſed of any of the three. It is brought to us in little triangular Huſks or Pods, of an Aſh Colour, tending to white; they ſtick or adhere together by little Fibres, but are eaſily divided from their curious Coverings; the Seed is then of a purpliſh Colour, and of an acrid, biting, aromatick Taſte. All the *Cardamomes* contain in them a great deal of volatile Salt, and eſſential Oil.

They are proper, particularly the leaſt, to attenuate and refine the groſs Humours, to expel Wind, fortify the Head and Stomach, aſſiſt Digeſtion, excite Seed, provoke Urine and the Terms, reſiſt malignant Vapours, and to chew in the Mouth to procure Spittle. It is call'd *Cardamome*, or ſweet *Naſturtium*, becauſe it has a Smell much like the *Naſturtium*, or Creſſe, from whence it is deriv'd.

They are uſed from half a Dram to a Dram in Powder, or you may make a Decoction of them in Wine or Water. Cardamome-Water is made of them, being ſweeten'd with double refin'd Sugar; 'tis a very good Stomachick Water, helps Digeſtion, and is an Antidote againſt the Plague, or any malignant Diſeaſe. A Tincture drawn from it in Tincture of Salt of Tartar, is excellent againſt the Stone, Strangury or Stoppage of Urine. Doſe from two Drams to half an Ounce.

[This is the *Cardamomum ſimpliciter in Officinis dictum*. C. B. Pin. 414. *Cardamomum cum ſiliquis ſeu thecis brevibus*. J. B. 2. 205. It is brought to us chiefly from *Malabar*. The Plant which produces the true great *Cardamome* is common in the Woods of *Java*; it grows to the Height of ſeven Feet; the Stalk is ſtrong, and envelop'd by the Leaves, as the Stalks of ſome culmeferous Plants, but not jointed like them: The Flowers grow on the Tops of the Stalk and Branches, and are like the Flowers of our Hyacinths, white, with a purple Border round the Edge. The Leaves bruiſed yield a pleaſant Smell, and are hoary underneath.

That which bears the leſſer *Cardamome* has a Stalk jointed like the Reed, and beſet with Leaves not unlike thoſe of the ſame Plant. It is two,

two, or at the utmoſt three Feet high; the Flowers are of a whitiſh yellow, and four-leav'd; after which come the Pods, which are the *Cardamomum minus* of the Shops. Theſe Flowers and Pods do not grow, as in the larger Kind, on the Tops of the Branches, but upon particular ſeparate Stalks, that ariſe from the Root without Leaves, and that periſh as ſoon as the Seed is ripe.]

30. *Of the* Nigella Romana.

Pomet. THE *Nigella Romana* Seed is the Seed of a Plant about two Feet high, having little green Leaves indented and ſnipp'd deep, among which come white blueiſh Flowers, and then Huſks or Pods, in which are contain'd a longiſh Seed of a grey Colour, piquant Taſte, a ſtrong and aromatick Smell.

Chuſe the neweſt, plumpeſt Seed, of a fine bright yellow, of the moſt aromatick Smell as well as Taſte, that you can poſſibly meet with: That which comes from *Italy* is the beſt, and more eſteem'd than that which grows among our Corn. The Uſe of this Seed is to kill Worms, correct Wind; and ſome Perſons affirm it to be a very good Antidote; they reckon it likewiſe very uſeful to create Milk in Nurſes.

[This is the Seed of the *Gith Officin. nigella Flore minore ſimplici candido.* C. B. Pin. 145. *Melanthium Calyce et Flore minore Semine nigro.* J. B. 3. 208. It is a Plant of a Foot high; the Leaves are finely divided, the Flower and Seed Veſſel both large for the Size of the Plant, and the Seed Veſſel is divided into five Cells. It is very little uſed in Phyſick.]

There are ſeveral other Sorts of Seed, which I ſhall forbear to mention, becauſe we ſeldom meet with them, as the *Menſe*, *Meſſe*, or *Mungo*, which the *Indians* uſe the Plant of to feed their Horſes with, and the Seed in Phyſick to cure Fevers, as we may ſee in the *Indian* Hiſtory of *Garcias ab Horto*. There is another Sort, the *Biſnague*, as yet very ſcarce, which the *Turks* uſe, as ſeveral Perſons of Quality in *France* do, to clean their Teeth. Another Kind there is, call'd *China Aniſe*, or *Badian*, which ſerves the Eaſtern People, in Imitation of the *Chineſe*, to prepare their *Tea* and their *Sorbec*.

This Seed is entirely like that of the *Coloquintida*, except that it is of a dun Colour, as that it ſhines and is of an agreeable Smell: It is contain'd in ſmall Pods, thick and hard. 'Tis with this Seed, and the Root *Niſi*, that the *Chineſe* make their Drink of *Tea* and *Sorbec* more agreeable than in *France*: The Quantity is two Drams of *Niſi*, four Ounces of boiling Water, half an Ounce of *Tea*, and a Dram of *China Anniſeed*.

There are a great many other Seeds worth the Druggiſt's Knowledge, as well as others; but they being ſo common, it would be counted ſuperfluous to name them, as Lettuce, Violet, Succory, Poppy, Mallows, Turnep, Radiſh, Holy-oak, Fleawort, *&c.*

There are other Seeds commonly in Uſe, and as commonly known, as the four cold Seeds, *Citruls*, or Water-Melons, Gourd, Melons, and Cucumber, which are chiefly uſed for Emulſions, and ſometimes to expreſs a cooling Oil from them for the Skin, and other Things of the like Nature, that tend to the Ornament of the Complection, *&c.* The Method of making all Sorts of Oil by Expreſſion, is ſo univerſally known, it would be loſt Labour to expatiate upon it, there being no more in it than blanching the Seed, beating it in a Mortar, and preſſing the Oil from it cold: After the ſame Way is made the Oil of Ben, White Pine, Poppy, ſweet or bitter Almonds, Piſtacia Nuts, *&c.*

Authors have alſo given the Name of a Seed to a Sort of Plant which has neither Leaves or Root, which is what we call *Dodder of Thyme*, whoſe Deſcription you will find in the Chapter of *Epithymum*.

31. *Of the* Sago of the Indies.

SAGON, or *Sago*, is a round Seed, whitiſh, but a little tending to grey; it is unequal in Shape and Size, and is not bigger than the Head of a large Pin.

This Seed is but little known in *France*; its Taſte is Stiptick, tending to inſipid, and not unlike *Piedmont* Rice, or cleans'd Millet. The *Indians* boil it 'till it is converted to a Jelly, with which they nouriſh themſelves for a Time, and believe it has the Virtue to re-eſtabliſh their Health and prolong their Days.

It has been long in Diſpute what Part of the Tree or Plant which produc'd it, the *Sago* really was, and many others as well as *Pomet* have taken it for a Seed; but later Diſcoveries have made it certain, that it is prepar'd from the *Fæcula* of the Pith of a Species of *Indian Palm*. The *Palma Indica candice in annulos protubantes diſtincto, fructu pruniformi.* R. Hiſt. 2. 1630. *Zagu, ſeu Arbor farinifera.* Jonſ. Dendr. 144. It is prepar'd by taking out the Pith, and beating it in large Mortars; and afterwards mixing Water with it, and ſtraining the Liquor, the *Fæculæ* of which they form into Cakes for their own Uſe, eating them as Bread when their Rice is ſcarce; and Part of it they granulate and dry, to ſend into *Europe*.

The End of the firſt Book of SEEDS.

BOOK

# of Roots

Ipecacuanha.

Contrayerva.

The two kinds of Contrayerva

Dorstenia Dentariâ radice Sphondylii fôlio placenta ovali.

Dorstenia dentaria radice fôlio minus lacin
Placentâ Quadrangulari et undulatâ.

BOOK the Second.

Of ROOTS.

PREFACE.

I *Underſtand, by the Root, that Part of a Plant which is in the Earth, and which draws in the Nutrition, and communicates it to other Parts produc'd from thence, as the Stalk, the Leaves, the Seed,* &c. *The Roots which we commonly ſell, are not only many in Number, but very different in Figure and Virtue. Our Herbariſts ſupply us with many, which require no other Preparation than to be cleans'd and dry'd, which is ſometimes well, and ſometimes ill done, according to the Capacities of ehe Herb-Dealers; ſuch as* Enula Campana *Roots,* Marſh-mallows, Avens, *and the like. We have others brought from foreign Countries, from ſome of which the Heart, or inner hard Subſtance, is taken out, becauſe it is ſtringy, hard, and uſeleſs, as* Turbith, Baſtard Turbith, White Dictamny, *&c. as is practis'd here upon ſeveral Roots, as* Cinquefoil, *&c. We have others brought to us cut into Slices, as* Jalap, Mechoacan; *in little Bits, as the* Leſſer Galingal; *in larger Pieces, as* Rhubarb *and* Rhaponic; *in the entire Root, as* Angelica; *ſome adorn'd with their Leaves, as the* Virginia Snake-Root; *others are brought in long, ſtringy Fibres, as* Sarſaparilla; *and laſt of all, ſome are waſh'd and cleans'd from their outward Skins, as* Florentine Orris, *and the like.*

There is no leſs Difficulty in the Knowledge of Roots than of Seeds, as well by reaſon of their different Kinds, as the ſeveral Marks which many of them have in common. 'Tis for this Reaſon we ought to be very circumſpect in our Choice, and know the main Diſtinctions of every one, to make an exact Judgment of them, which is difficult to be done without Practice, and where a Man does not make it his continual Buſineſs. Thoſe who want Roots, ought not to go about hunting for the beſt Bargains, but apply themſelves to Merchants in whoſe Probity they can put their Confidence, eſpecially when the Price is any thing conſiderable.

Thoſe Perſons who value not their Conſcience, make no Scruple at all to ſell one Thing for another, and aſk as much for an Ounce of the Root they deceive you with, as they would ſell a Pound of it for under its own Name; as ſome People ſell Tormentil *for* Contrayerva. *It is not to a Perſon's Advantage to load himſelf with a great Quantity of theſe Goods, eſpecially ſuch as there is not a large Demand for, as well becauſe of the Waſte in keeping them, as becauſe many are ſubject to be Worm-eaten, as* Angelica, *the* Acorus Verus, *&c. and to ſpoil, as* Rhubarb, *and the like.*

1. *Of* Ipecacuanha, *or* Ipecacuana.

Pomet. THE *Ipecacuana*, call'd *Beguquella*, likewiſe *Specacuanha Cagoſango*, *Beculo*, *Beloculo*, or the Golden Mine Root, is a little Root about the Thickneſs of the Barrel of a middling Quill, which the *Dutch* and *Portugueze* bring us from many Parts of *America*, and which is found no where but where there are Gold Mines, which has been the Occaſion of one of its Names. This is gather'd by thoſe that are condemn'd to the

Mines; and that which makes it the ſcarcer, is, that the moſt induſtrious Labourer cannot get above a Dozen Pound of it in a Year; and if it were not that it is exchang'd for other Merchandizes, it would be much dearer than it is. The *Dutch* and others bring us three Sorts of *Ipecacuana*, to wit, the brown, which is the firſt and beſt Sort, and conſequently the deareſt; the ſecond, which is grey, inclining a little to red, and white within, is leſs ſtrong than the brown; the third is the white, of which I ſhall ſpeak afterwards.

Theſe Plants call'd *Ipecacuana*, as well the brown as the grey, are of a ſmall Height, partly creeping, partly riſing about half a Foot high; the Leaves of them are like thoſe of the *Pellitory* of the *Wall*, in the Middle of them grow white Flowers of five Leaves apiece, ſupported by little Heads with a Sort of brown Berries, which when they are ripe, are of a reddiſh brown Colour, and of the Size of a wild Cherry: Theſe Berries contain a white Pulp full of Juice, in which are encloſed two Seeds, hard and yellowiſh, approaching to the Figure of a *Lentile*.

This Root ought to be choſe freſh, new and well fed, wrinkled, hard to be broke, reſinous in its Subſtance, and having a Nerve in the Middle; take care that it be not mix'd with the Stalk, Filaments, or Threads, which thoſe that ſell it oftentimes throw amongſt it; and that it be of an acrid, bitter and diſagreeable Taſte. Some Friends that I have at *Liſbon*, in *Holland*, and at *Marſeilles*, have aſſured me, that the beſt *Ipecacuana* is the brown, which is chiefly that which comes from the Gold Mines, and that the other two Sorts are brought from the lowermoſt Parts of the Mountains thereabouts and other moiſt Places.

The Uſe of the ſaid Root, is for the Cure of Dyſenteries; ſeveral People will have it that this Root is alexiterial; but notwithſtanding that, I would not adviſe any Body to make uſe of it, but with great Precautions, and by the Advice of underſtanding People, becauſe it works with Violence, whether given in Infuſion or Subſtance. The common Doſe is from half a Dram to a Dram in Powder, taken in any proper Liquid in the Morning faſting, and giving proper Liquids two Hours afterwards.

This Root vomits before it acts as an Aſtringent, which is different from the Operation of other Aſtringents.

Of the White Ipecacuana.

The *White Ipecacuana* differs from the other two, in that the Root is white, and altogether made like the white *Behen*, or the white *Dictamny* Root, and the Leaves reſemble thoſe of the round Garden-Sorrel. The *Spaniards* and *Portugueſe* prefer this *White Ipecacuana* before the two foregoing Sorts, eſpecially for their Women with Child, and little Infants, by reaſon it works with leſs Violence, and is commonly given in Subſtance from half a Dram to a Dram, and in Infuſion to two Drams.

In the Month of *January* 1690, there was a Theſis in the Phyſick Schools of *Paris*, concerning the *Braſil Root*, or *Ipecacuana*; in which it was obſerv'd, that the *Americans* had it in very great Eſteem, as well becauſe they believ'd it was a very powerful Antidote, as becauſe it was very uſeful for the Cure of many tedious and troubleſome Diſeaſes; but, above all, for the Cure of *Dyſenteries*, and other Fluxes of the Lower Belly.

Some will have it, that M. *Helvetius*, a *Dutch* Phyſician, brought the *Ipecacuana* into Uſe among the *French*; but I can aſſure you to the contrary, becauſe above twenty Years before that I ſaw it at *Paris*; for a Proof of which I remember there was a Quantity in the Shop of M. *Claquenelle*, Apothecary, which fell into the Hands of M. *Poulain*, his Son-in-Law, who was likewiſe an Apothecary, and he afterwards introduc'd it again into Practice, by the Direction of *Helvetius*.

The *Ipecacuanha*, or *Specacuanha*, is a ſmall Root, of the Thickneſs of a Quill of a moderate Size, which is brought to us dry from ſeveral Parts of *America*. There are three Species or Sorts of it, the brown, the grey, and the white. The brown is the ſtrongeſt and moſt valued of all; it is the compacteſt, crooked, wrinkled in Curls, ſtringy in the middle, difficult to break, of a ſmart Taſte, and bitter: It grows in *Braſil*, &c. as ſaid before by *Pomet*. *Lemery.*

The Root of the grey *Ipecacuanha* differs from the former both in Colour and Virtue, for it has leſs Efficacy. This is brought from *Peru*, by the way of *Cadiz*, and the *Spaniards* call it *Bexugillo*.

The third or white Sort is different from the two others, not only in Colour, but in Figure; for it is neither crooked nor uneven. Some Authors ſay it is ſmall as *Penny-royal*, and that the Leaf is ſoft and woolly, and that the Flower is white: Others will have the Leaf like round *Sorrel*. It grows low, and in moiſt Places. The way to chuſe any of the three Kinds, is to take the largeſt and beſt grown.

This Root is both purgative and aſtringent; it works upwards and downwards, according as the Humours are more or leſs ſoluble; ſtrengthens and corroborates the Fibres of the *Viſcera*, by means of its earthy Parts. It is one of the beſt

Reme-

Remedies, and moſt certain, for the Cure of the *Dyſentery* or Bloody-Flux: It ſtops likewiſe other Scourings of the Guts, but not with that equal Succeſs. The Doſe beaten into fine Powder, is from 20 to 30 Grains of the brown, from 30 to 40 Grains of the grey, and ſo to a Dram of the white Root. The firſt who brought this into Uſe in *France*, was Monſieur *Le Gras*, a Phyſician, (who had made three Voyages to *America*) in the Year 1672. It was ſhewn afterwards by the Abbot *Bourdelot*; and, in one of my Courſes of Chymiſtry, I had ſome given me by a *Druggiſt*, but without any Knowledge or Inſtruction into its Qualities at that Time.

[It is the Root of the *Herba Paris Braſiliana polycoccos*. R. Hiſt. 1. 669. *Periclymeno Accedens Planta Braſiliana floſculis congeſtis albis*. H. Ox. 3. 535. It is but very lately that it has been known in Phyſick among us. M. *Le Gras*, in 1672, firſt brought it into *France*, and Mr. *Cleaquenelle* gave it but with very ill Succeſs, which was owing to his giving it in too large a Doſe. The elder *Helvetius* afterwards uſed it ſucceſsfully, of whom the *French* King purchaſed the Secret, and all that related to the Uſe of it, and communicated it to the World. It is the beſt Vomit ever known in Medicine, never fatigues the Stomach, and is beſide the beſt Medicine known in *Dyſenteries*, in which if the firſt and ſecond Doſe do not produce the expected good Effects, it ought to be continued every Day in Doſes of three or four Grains each, to act as an Alterative. When given as a Vomit the general Doſe is half a Dram, and it operates ſo well in Subſtance, being only powder'd, that all Preparations of it are needleſs.

The *Pſeudo Ipecacuanna* is the Root of a Species of *Apocynum*.] See Page 155.

2. *Of the* Contrayerva *Root.*

Pomet. THE *Contrayerva* is the Root of a Plant which has green creeping Leaves, full of ſmall Fibres, of the Figure of a Heart, in the middle of which ariſes a Stalk wholly naked, about a Finger's Thickneſs. It is brought to us from *New Spain*.

Chuſe ſuch Roots as are freſh, well fed, adorn'd with long Filaments, or fibrous Strings, that are knotty and ponderous, of a yellowiſh red on the Outſide, and of an Aſh-colour'd white within, and a ſweet aromatick Taſte.

It is an *Alexipharmack*, very powerful for reſiſting ſeveral ſorts of Poiſons; and is therefore call'd by the *Spaniards Contrayerva*, which ſignifies in their Language a Counter-Poiſon.

There grows alſo in *Peru* a Root very like it, which is call'd *Radix Drakena*, from Sir *Francis Drake*, who brought it firſt into *England*. Notwithſtanding that the Roots of the *Contrayerva* are an Antidote, the Leaves are a mortal Poiſon.

It is a good *Sudorifick* taken in Powder from four Grains to fifteen, in any proper Liquor, and this Doſe may be repeated three or four Times if it be found neceſſary. It is good in Pains of the Head, and in Rheumatiſms and the Sciatica.

Several People make Uſe of this Root reduced to Powder, and mix'd with double the Quantity of Jeſuits Powder, or the Bark, to turn off the Fits of an Ague or intermitting Fever; and others again, mix the ſame with *Ipecacuanha*, to cure a Looſneſs or Bloody-Flux.

We ſell alſo the Root of a Plant which grows plentifully throughout all *France*, for white *Contrayerva*: It likewiſe grows in every Garden, and is known every where by the Name of *Aſclepias* or *Hirundinaria*. This is very white, and is called, by every Body in *France*, *White Contrayerva*, becauſe it is pretended this has the ſame Virtues. There is a Compoſition of ſeveral Drugs in Mr. *Charas*'s and other Diſpenſatories which is call'd the *Contrayerva Stone*, by Reaſon this Root is the Baſis of the whole. It ought to be choſen new, well grown, and of a piercing aromatick Taſte.

Bauhin makes the *Contrayerva* a Species of *Cyperus*, and calls it *Long Cyperus* with the *ſweet Root*. You ought to chuſe that which is ſound, new, aromatick, and ſharp in Taſte. It is an excellent *Alexipharmack*, reſiſts Poiſon, and cures the biting of Vipers, other Serpents, or any venomous Beaſt; and is good againſt Calentures, Meaſles, Small-pox, Spotted Fever, Plague, or any malignant and peſtilential Diſeaſe. *Schroder* ſays it is good in the Plague, even when the Tokens appear: It reſiſts Melancholy, chears the Spirits, and makes the Heart merry. It may be given either in Powder, from half a Dram to a Dram, or in any cordial Draught or Bole. *Lemery.*

[The Name of *Contrayerva* has been at different Times given to many different Roots, ſuppoſed to have the Virtues of reſiſting Poiſons. But what we have now in *England* under that Name are the Roots of the two Species of the *Doreſtenia* of *Plumier*; which have both the ſame Shape and Virtues, and are gather'd and ſent over indifferently to us.

The one is the *Doreſtenia Dentariæ radice Sphondylii folio placenta Ovali*. Act Phil. Lond. No. 241. And the other the *Doreſtenia Dentariâ Radice, folio minus laciniato, placenta quadrangulari, et undulata*. Ibid.

Doctor *Houſton* gather'd the firſt in *New Spain*, near *Old Vera Cruz*; and the other on the high Rocky Grounds about *Campechy*.

The Roots are in great Eſteem in Fevers of all Kinds that can be reliev'd by encreaſing the Diſcharges through the cutaneous Pores, and for throwing out the Small Pox.]

3. *Of* Virginia Snake-Root.

Pomet. THIS *Snake-Root*, which is called by ſome *Dittany*, by others, *Contrayerva of Virginia*, &c. is a Plant which grows there, and in ſeveral other Parts of the *Northern America*, and which is uſed ſucceſsfully by the *Engliſh* againſt all ſorts of Poiſons, and the biting of venomous Creatures; and is alſo very proper againſt all epidemical Diſeaſes. Monſieur *D'Aquin*, firſt Phyſician, made choice of this Root, as one of the principal Ingredients in the new Reformation of *Venice-Treacle*, ſet down in Monſieur *Charas*'s Royal Galenical and Chymical *Pharmacopœia*. As to the Goodneſs of this, you ought to chuſe ſuch as is freſh and new, thick and well fed, of a ſtrong Smell, very much like *Spike* or *Lavender*.

Lemery. There are ſeveral kinds of this Root, as the greateſt, the leſs, and the leaſt, together with *Parkinſon*'s *Polyrrhizos Virginiana*: The leaſt only is that which is ſold in our Shops, which is a ſmall fibrous or ſtringy Root, of a kind of Aſh-Colour, with a ſpicy or aromatical Smell, and a ſtrong, hot, bitter Taſte, and is brought to us from *Virginia*, *Maryland*, *New Jerſey*, *Penſylvania*, and *Carolina*; but that which comes from *Carolina*, *St. Auguſtine*, and other the moſt ſouthern Places of the *Floridan* Continent, is much the better, inaſmuch as thoſe Climes are hotter: That which is clear in Colour, clean and freeſt from Duſt and Sand, and very ſtrong in the Scent, is the beſt. It is one of the greateſt *Alexitericks* in the World: It is known to cure the Biting of the Rattle-Snake upon the Spot, which, without this Remedy, is, for the moſt Part, preſent Death. The Power, Malignity, and Volatility of the Poiſon, is not ſo ſwift and great, but the Subtilty, piercing Qualities, and *Alexipharmack* Virtues of this Medicine yet exceeds it, diſappointing all the ill Effects of the viperine Poiſon, if given in due Time. And, without doubt, if it will cure the Biting of the Rattle-Snake, the moſt malignant and dangerous of all Serpents, it will cure the Bitings of all other Serpents, as well as other poiſonous and venomous Beaſts whatſoever, and alſo the Biting of mad Dogs, and Wounds made with poiſon'd Arrows; for which Things it is to be eſteem'd as one of the moſt valuable Drugs yet diſcover'd.

It is a known, and often approv'd Remedy againſt the Malignity of the *Meaſles*, *Small-Pox*, *Spotted-Fever*, and the very *Plague* itſelf; as alſo againſt all manner of *Burning* and *Peſtilential Fevers*, not only preventing the Infection before it has ſpread itſelf, but curing the Diſeaſe after the Infection has ſeiz'd; for which Purpoſe, there is no Vegetable, or any other Remedy that I know of, equal to it, in the whole Courſe of Medicine. The Experience of this Part of the World may juſtly recommend the Virtues of this Simple every where, as good againſt Faintings, Swoonings, Sickneſs, and all Diſaffections from the Heart. It is uſed in a Decoction by the *Indians*. We commonly give it in Powder from ſix Grains to a Scruple; or in an Infuſion in Wine, Brandy, or Water, from a ſpoonful to four, *&c.*

[This is the Root of a Species of *Birthwort*. The *Ariſtolochia polyrrhizos auriculatis foliis Virginiana*. Hiſt. Ox. 3. 510. Tourn. Inſt. 162. This Plant produces the Root we firſt receiv'd; and therefore is eſteem'd the true and genuine Snake Root: But beſide it there are the Roots of two other Species of the *Ariſtolochia* ſent over and uſed in common with it, *viz.* thoſe of the *Ariſtolochia violæ fruticoræ foliis Virginiana cujus radix ſerpentaria dicitur*. Raii Hiſt. 3. 394. And of the *Ariſtolochia piſtolochia ſeu Serpentaria Virginiana caule noloſo*. R. Hiſt. 3. 394. both which are of much the ſame Shape and Virtues. Theſe Plants have Semifiſtular Flowers.]

4. *Of the ſeveral Sorts of* Rhubarb.

Pomet. THE *Rhubarb* of the *Levant* is the Root of a Plant, of which I know not poſitively the true Place where it grows, any more than its Figure. For this Reaſon I was oblig'd to take the Impreſſion which is repreſented by *Dodonæus*, it not being poſſible otherwiſe to get the Figure of the Leaves, and the Manner how they are diſpoſed. For the Flowers, I have had a good Quantity of them preſented to me by a Friend.

Dalechamp, in the 558th Page of his Second Volume of the *Hiſtory of Plants*, makes a large Diſcourſe of the *Rhubarb*, and of the Place from whence it is brought to us; but he, and other Authors that write about it, ſpeak ſo variouſly, there is nothing to be depended on; ſo that I ſhall only give you an Account of what was writ to me from *Marſeilles* the 25th of *July* 1692. "The *Rhubarb* comes from *Perſia*, ſome ſay it "grows there; but others will have it that it "comes

The true Rhubarb

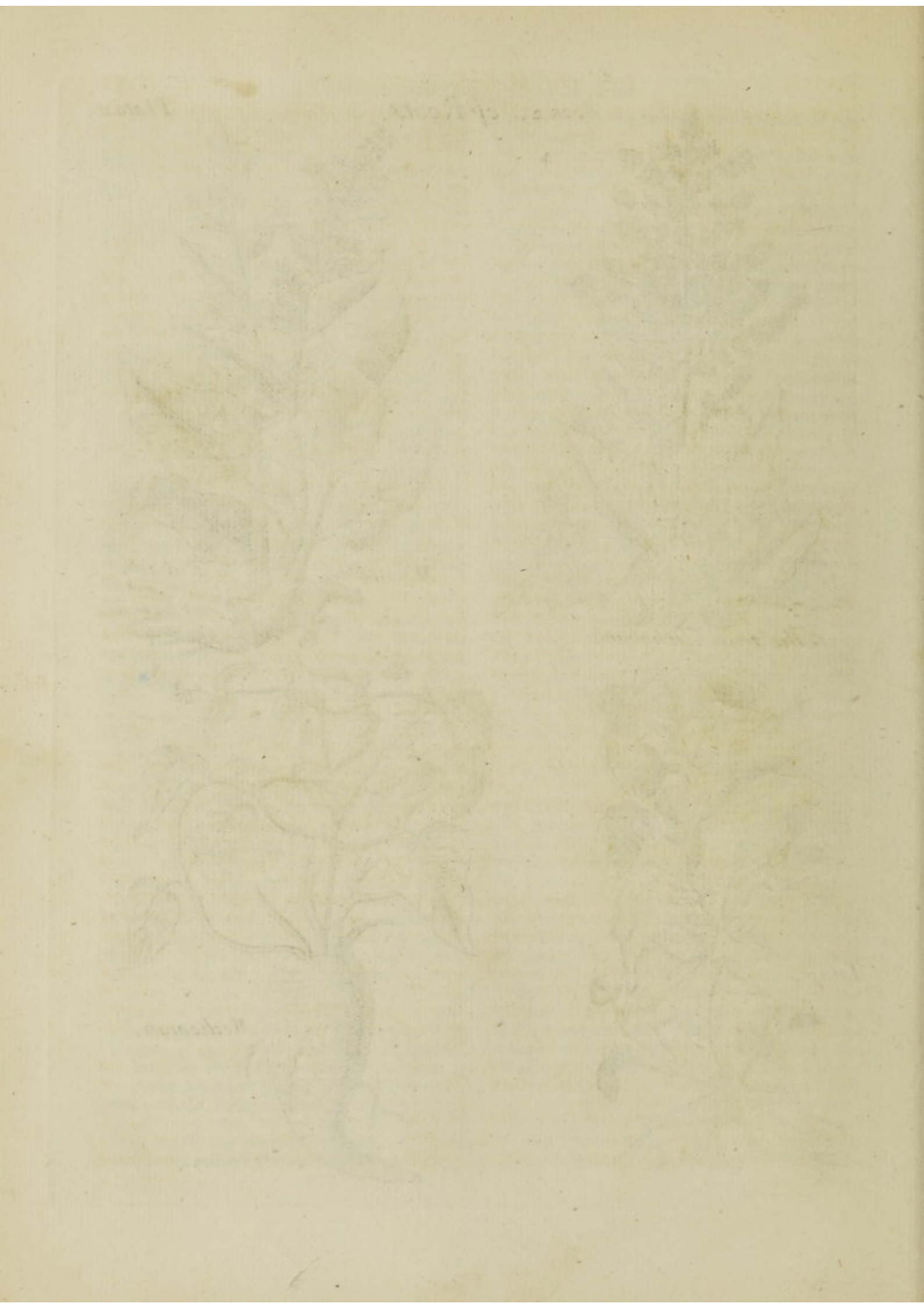
Mountain Rubarb.

5

Ialap.

6

Mechoacan.



" comes from the Confines of *Muſcovy*; the " moſt common Opinion however is, that it " grows in *Perſia*. Mr. *Tavernier*, aſſures us, " in his Book of Travels, that the beſt *Rhubarb* " grows in, and is brought from the Kingdom of " *Boutan*.

This Root, newly drawn from the Earth, is thick, fibrous, blackiſh on the Outſide, and of a reddiſh Colour marbled within: It bears large Leaves, from whence ariſe little Flowers, reſembling Stars; after which follow the Seed. Chuſe your *Rhubarb* new, and that which is in ſmall, even Pieces, pretty firm and ponderous, of an aſtringent Taſte, and bitter, the Smell not diſguſtful, but rather aromatick, and of a yellow Colour, bright on the Outſide, and of the Colour of a *Nutmeg* within, and ſuch as, when infuſed in Water, will produce a Tincture like that of *Saffron*, and, when bruiſed in a Mortar, the Colour within is of a lively reddiſh Caſt; but the principal Caution is that you do not buy old *Rhubarb*, made to look well with Powders, which we need not mention, which may be eaſily found out in the handling of it, as the yellow Powder will ſtick to your Fingers.

Great Virtues are aſſign'd to *Rhubarb*, eſpecially for ſtrengthening the Stomach, and purging the Gall gently, principally if aſſiſted with any other Purgative. It is eſteem'd likewiſe very ſerviceable for ſtopping of Bloody-Fluxes, and other Looſeneſſes, either chew'd in the Mouth, or groſly bruis'd, and infuſed in any proper Vehicle: It is alſo given to Children to deſtroy Worms; and, in ſhort, is an admirable kindly and ſalubrious Medicine, as well in Age as Youth, and the full Vigour of Years; in all which Difference of Age or Circumſtance, duly proportion'd and apply'd, it works friendly to Nature, and efficacious to the Diſeaſe.

Of the American Rhubarb.

Within theſe few Years we have had ſeveral Plants of *Rhubarb* introduced into our Gardens, which Monſieur *de Toiſy*, Vice-Roy of the Iſlands, brought from the *Weſt-Indies* into *France*.

There are ſome Places where this *Rhubarb* grows ſo large, and comes ſo near the true *Perſian Rhubarb*, that it is very difficult to diſtinguiſh it. I can alſo affirm, that I have myſelf pull'd up out of the Earth, near the Bridge at *Lyons*, on the River Side, ſeveral Roots of this *Rhubarb*; which being ſcrap'd and dry'd, ſcarce differ'd at all from the true *Rhubarb*.

Several Perſons take this *Rhubarb* for the *Rhapontic*, becauſe of their great Likeneſs, and among others *Proſper Alpinus*, who brought it from the *Indies* to *Padua*. The great Difference between *Rhubarb* and *Rhapontic* is, that the *Rhubarb* is generally in roundiſh Pieces, and has its internal Lines croſſways; and on the contrary the *Rhapontic* is in long Pieces, and has its Lines reddiſh, and running lengthways; and as this Difference is known but to few People, thoſe who ſend us the *Rhubarb*, frequently put *Rhapontic* among it, which is the Cauſe that the true *Rhapontic*, that is that of the *Levant*, is ſo ſcarce; and whoever wants *Rhapontic*, muſt look for it among *Rhubarb*, for we receive no *Rhubarb* without more or leſs of this among it; but beſide the Marks before given to know the *Rhapontic* from the *Rhubarb* by, the ſureſt of all, is to taſte them; for the true *Rhubarb* gives no Viſcoſity in the Mouth, and the *Rhapontic* does.

Monks Rhubarb, *or that of the Mountains.*

The Scarcity of the *Levant Rhapontic* has given Occaſion to ſome ill People to ſell the Roots of the round-leav'd *Hippolapathum*, a Plant frequently cultivated in Gardens, or of another *Hippolapathum*, with large but not round Leaves, found on ſome Mountains, in the Place of it, to People who do not underſtand the Difference; tho' the Diſtinction is eaſy; for the *Levant Rhapontic* is yellow without, and reddiſh and marbled within, whereas this *Hippolapathum* is black and rough without, and yellow without any marbling within.

Rhabarbarum, *Rheum*, in *Engliſh* *Rhubarb*, is a thick fungous Root, which is brought to us dry'd from *Perſia* and *China*, where it grows, and ſometimes from *Turkey*, which laſt is thought by the *Engliſh* Merchants to be the beſt of all, being a ſort of middle-ſiz'd Pieces, ſmooth, freſh colour'd, and of a mix'd yellow Oaker Colour, of a lively ſtrong Smell, firm in cutting, but not very hard, or cruſty; being chew'd, 'tis of a bitteriſh ſub-aſtringent Taſte, giving the Spittle a freſh yellowiſh Colour, and a good Flavour, not very heavy, nor yet ſpungy, or hollow, or rotten within. The next Sort of *Rhubarb* is that which is ſuppoſed to be brought from *Tartary*, *Muſcovy*, and *Ruſſia*, which is generally large and heavy, and more cruſty, though many times very freſh and well ſcented, but nothing near ſo good as that brought from the *Levant*. *Lemery.*

There are ſeveral Kinds of *Rhubarb*, as the *True*, the *Pontick*, and the *Baſtard*: The *True* is that we have already deſcrib'd by the Name of *Rhabarbarum*; the Word *Rha* ſome will have to come from the Name of a River in *Pontus* now call'd *Volga*; others from the *Arabian* Word *Raiwand*;

Rainvard; others ſay it came from *Barbarum*, a City of *India*, above the River *Indus*, and that *Rha Indicum* and *Barbaricum* were all one. It is brought from *China* to *Turkey*, and ſo to *Venice* by Land; this laſts longer than what our Merchants bring by Sea, which corrupts ſooner. It is a moſt admirable Purge, expelling ſharp, griping, clammy, and tartarous Humours from the Stomach and Bowels, it cures the griping of the Guts, Cholick and ſharp Fluxes to a Miracle, ſo that it may be allow'd to be one of the beſt Specificks in the World: It cures all ſorts of Fluxes whatever by carrying off the Cauſe, and therefore is good againſt the Bloody-Flux, Dropſy, Jaundice, green Sickneſs, Rickets, Melancholy, and other the like Diſeaſes. It is given in Powder from a Scruple or two to a Dram, and a Dram and half, or in an Infuſion from a Dram to two Drams, corrected with Cinnamon, and other Aromaticks; it may be quicken'd with *Scammony*, *Jalap*, *&c.* *Schroder* makes an *Extract* of it with Endive, Succory or Agrimony Water, acuated with ſome Drops of Oil of *Tartar per Deliquium*. Doſe of this from a Scruple to a Dram. Likewiſe you have a Syrup of *Succory* with *Rhubarb*; *Schroder* ſays, *Rhubarb* is the moſt uſed of all Purges, and without Danger in all Ages, it may be ſafely given to Children, and Women with Child, and is beſt without Correctors, only two or three Drops of any of the eſſential Oils, as Anniſeed, or the like.

Of Pontick Rhubarb.

Some Authors will have this to be the ſame with the former, ſaving only the Climate and Place of Growth, which may ſomething change its Form and Goodneſs; others will have it to be the longer and ſlender Part of the *Indian*, becauſe it is very like in Colour, Form and Virtue to the true *Rhubarb*; but not of ſo ſolid and firm a Subſtance as the true, which is bitter in Taſte, and of an aromatick Smell, being aſtringent and corroborating after Purging. This comes from *Ruſſia* and *Muſcovy*; as alſo from the *Straights* out of *Pontus* and *Turkey*. It is of a freſh Colour, inclining to yellow and red, but that is the beſt which comes neareſt to the true *Rhubarb*, which is the Mark of Diſtinction you ought to chuſe it by. The Virtues and Preparations are the ſame as the former, only this will admit of near a double Doſe to the other.

Of Baſtard Rhubarb.

There are four ſeveral Kinds of this; 1ſt, *Hippolapathum rotundifolium*, or *Baſtard Rhubarb*, which is the great common round leafed Dock, whoſe Root is greater than the *Patience* or *Monks Rhubarb*, and without many Branches or Fibres thereat, yellow on the Outſide, and ſomewhat a pale yellow within, with ſome diſcolour'd Veins therein, like to the true *Rhubarb*, but much leſs than it, eſpecially when dry, it then quite loſing its freſh Colour, which the true always holdeth. 2dly, *Rhabarbarum Monachorum*, *Patientia*, *Monks Rhubarb*, or *Patience*; this is the great Garden Dock, bearing the Name of *Rhubarb* for ſome purging Quality therein; this Root is long, large and yellow, like the wild Dock, but a little redder, and when dried, ſhews a leſſer Stock of diſcolour'd Veins than the former.

3dly, *Rhabarbarum Americanum*, or *Rhamericanum*, *Weſt Indian Rhubarb*. This is called by them *Rhubarb*, being very like to the *Eaſt Indian* Kind, 'tis roundiſh, browniſh on the Outſide, and reddiſh within, which being broke, has ſome Whiteneſs mix'd with it; and being chew'd colours the Spittle yellow, like Saffron, and is bitteriſh withal. The *Baſtard Rhubarb* has almoſt worn out the Uſe of the *Monks Rhubarb*, it is now grown ſo common and plentiful; and it is indeed much the better of the two, though their Natures and Properties are much the ſame; the *Baſtard Rhubarb* works more effectually, a Decoction thereof, or Infuſion in Vinegar, eaſes Pains in the Ear, gargling with it relieves the Tooth-ach, and the internal Uſe of it is good in the Jaundice, King's-Evil, to provoke Urine, expel Sand and Gravel, open Obſtructions of the Spleen and Liver, and cure Fluxes of all ſorts. Note, this *Rhubarb* is to be uſed in double the Quantity to the true *Indian*. 4thly, *Rhabarbarum Album*, or *Mechoacan*, of which I ſhall treat in its proper Place.

[The Plant which affords us the true *Rhubarb*, has been but lately known, and is the *Lapathum Bardanæ folio undulato Glabro, pro Rhabarbaro vero miſſum*. Rand. We have two Sorts of *Rhubarb* common in the Shops; the one *Oriental*, brought from *China*, which is heavy, and mark'd with yellow and reddiſh Veins, of a bitter aſtringent Taſte, an agreeable Smell, and a bright yellow Colour, and which when wetted ſtains the Hands with a Saffron Colour: This is eſteem'd the moſt excellent. The other is brought from *Muſcovy*; it is heavy and of a duſkier yellow, tho' of late that of *Muſcovy* has been better cured, and much imported.

[*Rhubarb* was unknown to *Dioſcorides* and *Galen*, and it is an Error to confound the *Rhæum* of thoſe Authors with our *Rhubard*; for it had a leſs purgative Virtue, and wanted the nice Characteriſtics

racteriſtics of *Rhubarb*, and was the *Rhapontic*, which is the Root of the *Rhaponticum Thracium*. Bocc. Muſ. 127. *Rhaponticum folio Lapathi majoris glabro, Rha & Rheum Dioſcoridis*. C. B. Pin. 116. This is frequent in the Gardens of the Curious, and flowers in *May*. The Root is a weaker Purge, but a more powerful Aſtringent than *Rhubarb*. Nothing has been more diſputed among Botaniſts, than whether the *Rhapontic* of the Antients and our *Rhubarb* are not the ſame: But it is very evident that this Plant is the true *Rhapontic* of *Dioſcorides*, and that it is altogether different from our *Rhubarb*.]

5. *Of* Jalap.

Pomet. JALAP is a grey reſinous Root of a Plant of four or five Feet high, the Leaves of which nearly reſemble thoſe of the *Ivy*, but that they are not ſo thick; the Seed is of the Bigneſs of a ſmall Pea, of a blackiſh Colour and not unlike the *Myrtle* Berry, but that it is not ſo large: According to what the Sieur *Rouſſeau* has written to me, and what I have heard from Father *Plumier*, the *Jalap* we ſell is the Root of this Plant, which is of late brought us from *New Spain*, and which Mr. *Tournefort* has nam'd *Solanum Maxicanum magno Flore, Semine rugoſo, Jalap exiſtimatum*, which ſignifies the *Nightſhade* of *America*, with the large Flower and wrinkled Seed, which is believed to be the *Jalap*.

Father *Plumier* will have the ſaid *Nightſhade* to be a *Belle de Nuit*, becauſe it entirely reſembles our Species of *Belle de Nuit*, which we call in *Latin Mirabilis Peruviana*. This Plant is very common in our Gardens, and deſcrib'd by Mr. *Evelyn* by the ſame Name, and becauſe it only flowers in the Night it is call'd *Belle de Nuit*, or the Beauty of the Night..

We ought to chuſe the *Jalap* in large Slices, ſuch as will hardly be broke by one's Hands, but eaſily by a Hammer; of a blackiſh Grey without, and of a ſhining Black within, reſinous, of an acrid Taſte, aud take Care that it is not mix'd with *Bryony* Roots or the like. It contains a great deal of Oil and Salt.

The *Jalap* ſold in the Shops is brought from the *Weſt-Indies*, but great Quantities of it come from the *Madeiras*, where it grows very common, without Culture. It is reckon'd an excellent Purger of ſerous and watry Humours, but muſt be given with Caution, according to the Age and Strength of the Patient, becauſe it works very vigorouſly, if given in Subſtance; the ordinary Doſe is from a Scruple to a Dram; but that is too large a Quantity for *Engliſh* Conſtitutions; for if it be good it will operate ſufficiently from half a Scruple to two Scruples, which will anſwer in the ſtrongeſt Conſtitutions.

The Reſin or Magiſtery of *Jalap* is made with Spirit of Wine, and precipitated with Water: It is a liquid Reſin, white and gluey, almoſt like Turpentine, which, after it is dried in the Shade, looks like common Reſin. It has a Smell like *Scammony*, and, if rightly prepar'd, when thoroughly dry, is tranſparent, and ſo brittle that it will crumble betwixt the Fingers. This is more valuable than the *Jalap* itſelf, by reaſon it is much more efficacious, and can be eaſier adminiſter'd. The Doſe is about five or ſix Grains, either by itſelf taken in the Yolk of an Egg, or added in Bolus, Pills, or the like, to make other Phyſick work quicker and briſker. After the Reſin, you may make an Extract, (by pouring on freſh Spirits of Wine) which will be of a brown Colour, and of the Conſiſtence of Honey: This has the ſame Effect with the former, but in a leſs Degree.

Jalap, Jalapium, Gialapa, Gelapo, &c. is a grey Root, full of Reſin, which is brought from the *Weſt-Indies*, cut into thin Slices and dried. The Plant which grows from it when in the Ground is, according to Father *Plumier* and Monſieur *Tournefort*, a ſpecies of the *Belle de Nuit*, which the latter calls *Jalap officinarum fructu rugoſo*, the *Jalap* of the Shops with the wrinkled Fruit. The Stalk grows four or five Feethigh; the Leaves are very like thoſe of *Ivy*, but they are not ſo thick; the Flower is red as Scarlet, and ſometimes changes to yellow and white, very agreeable to the Eye. This Flower blows in the Night, and cloſes again at the Approach of the Sun, and therefore is call'd *Belle de Nuit*, or the Night Beauty. It purges all Humours very well, but chiefly the watry, and therefore is uſeful in Dropſies, Gout, Rheumatiſms, and for Obſtructions. All the Names belonging to this Root are taken from the *Indians*. There are two Sorts of this *Jalap*, to wit, a whitiſh, and a blackiſh or dark brown, which being broke ſhines a little. This blackiſh Sort is much to be preferr'd, being more reſinous, and heavier than the other; the whitiſh has little Reſin in it, and therefore not ſo good, and ſtill leſs ſo, if worm-eaten. It was unknown to the Ancients, it not being long ſince we had it from the *Weſt-Indies*.

[*Jalap* is the Root of the *Convolvulus Americanus Jalapium dictus*. R. Hiſt. 1. 724. *Bryonia Mechoacana nigricans*. C. B. Pin. It was unknown in *Europe* 'till ſince the Diſcovery of *America*. It is one of the beſt Purgatives we now have. The Reſin muſt be given in very ſmall Doſes, from five to twelve Grains at moſt; and even

even in ſuch, if not well diſſolv'd, it ſticks to the Folds of the Inteſtines and raiſes great Heats and Diſorders.]

6. *Of* Mechoacan.

Mechoacan, likewiſe call'd *white Rhubarb*, *Scammony*, or *Briony* of *America*, is a light Root, white both on the Outſide and within, which is brought to us in Pieces from the Province of *Mechaocan* in *New Spain*, from which it takes its Name. There is likewiſe a great deal of *Mechaocan*, according to the Sieur *Rouſſeau*, in the Iſland of St. *Domingo*, inſomuch that a Ship might be loaded with it from thence in a little Time. This Root, when in the Earth, ſends forth Stalks that bear ſmall Leaves like a Heart, of a whitiſh green, among which grow little Berries, which are green at firſt, and turn red by Degrees as they ripen. The *Mechoacan* is a winding Creeper, and differs little from Briony, only in the Figure of the Leaves and in Taſte. The Root cut and dried cannot be diſtinguiſhed from that of the Briony, but that the *Mechoacan* is of a Taſte and Smell that is almoſt inſipid, whereas the Briony has an intolerable Bitterneſs. We chuſe the faireſt Pieces of the *Mechoacan* that are white within and without, dry and ponderous, of an almoſt inſipid Taſte, and throw aſide that which is dirty, thin and parch'd, and take Care there be no *Briony* mix'd among it, which is a common Cheat when *Mechoacan* is dear; but may be eaſily diſcover'd, in that the *Mechoacan* has its Lines thicker placed together and is of a ſweet Taſte, whereas the *Briony* is extremely bitter. It contains a great deal of Oil and eſſential Salt.

The *Mechoacan* being powder'd fine, is a gentle Purgative, and may be given in double the Quantity to *Jalap*. It is one of the beſt Medicines we have for purging watry Humours, and is to be preferr'd to *Jalap*, becauſe it acts not with that Violence, and therefore may be adminiſter'd both to Old and Young with Safety, in Cachexia's, Scurvies, Jaundice, or Obſtructions, in Powder, with any proper Liquor, or infus'd in Wine. It is a good Hydragogue, purging watry Humours from all Parts of the Body, chiefly from the Head, Nerves, Breaſt and Lungs; it prevails againſt Catarrhs and the Venereal Diſeaſe, purges Slime from the Stomach, and is good to be given to Children againſt the Rickets, Kings-Evil, running Scabs and Scald Heads. You may make a compound Extract of it thus: Take *Mechoacan* three Ounces, Ginger two, white Turbith one, Polypody of the Oak half an Ounce; make a Tincture with Spirit of Wine, after due Digeſtion, decant or ſtrain it off clear, and add two Drams of Manna, Spirit of Vitriol five Drops, Oil of Cinnamon three, mix and make an Extract, whereof from half a Scruple to a Scruple is a good Doſe.

Mechoacan, or *Rhabarbarum Album Indicum*, is a white light Root, which we have brought to us, cut in Pieces and dried, from *New-Spain*, and other Parts of *America*. This Plant is a Species of the *Winding-Briony*, which M. *Tournefort* calls *Brionia Americana repens folio anguloſo*, the creeping *Briony* of *America*, with a pointed Leaf, which is large, thin and whitiſh. The Flowers produce ſmall green Berries, which grow redder as they ripen; they contain in them a ſharp-pointed Seed, but are of no Uſe in Phyſick, nor any other Part but the Root. *Lemery.*

[It is the Root of the *Convolvolus Americanus Mechoacan Dictus*. Tourn. Inſt. 84. R. Hiſt. 1. 723. *Brionia Mechoacana Alba*, C. B. Pin. 297. It was in great Eſteem among the Antients, particularly in Arthritic Pains; but ſince the Diſcovery of *Jalap* it is quite diſregarded.]

Of White Briony, *or the* White Vine.

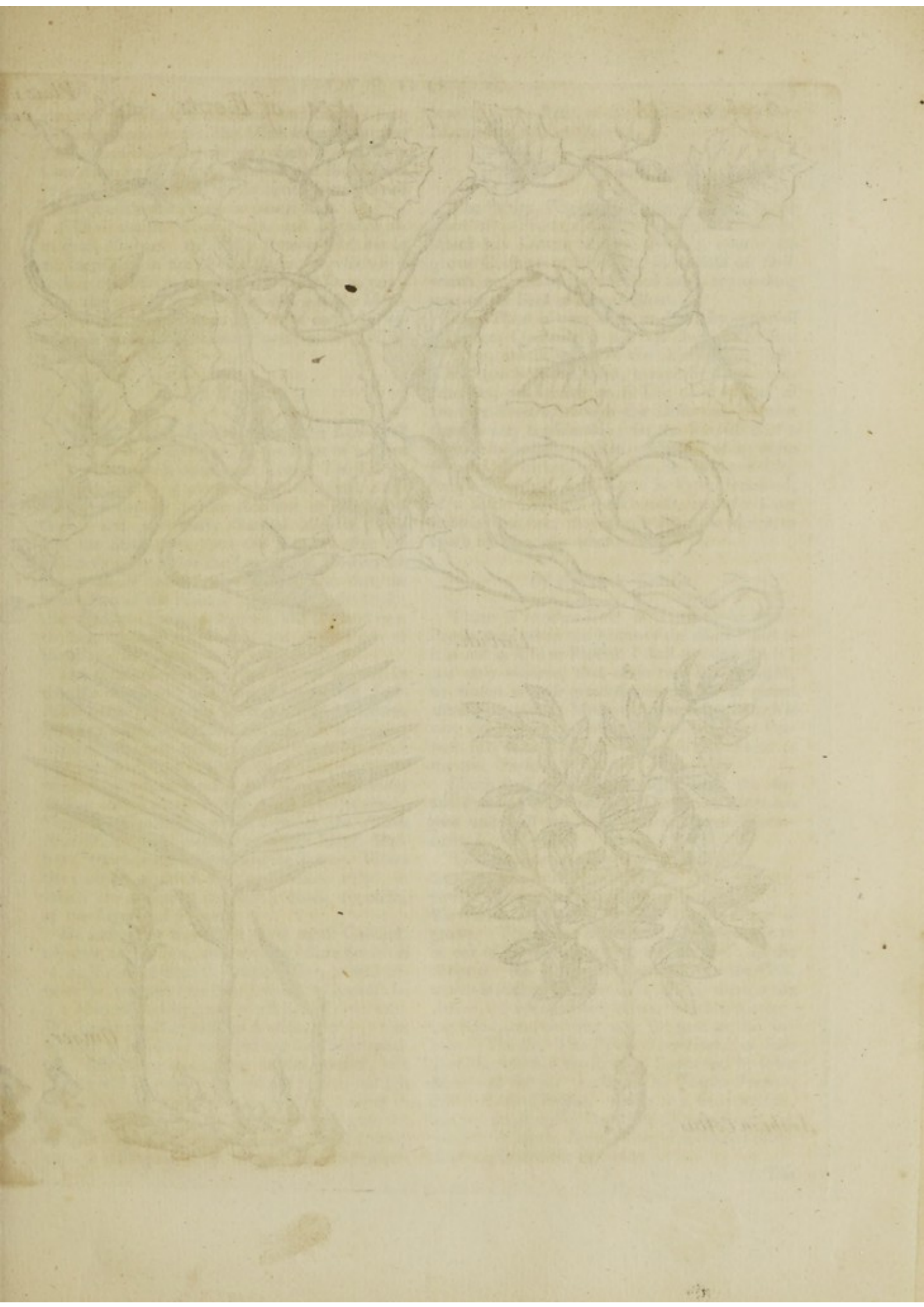
The *Briony*, or wild Vine, is a Plant which is ſo well known that it is needleſs to deſcribe it; beſides that, all Botannical Authors mention it, and that there is hardly a Garden or Hedge in the Country but what is full of it. The Root of this Plant is ſo violent, when freſh, that the Peaſants call it the *Mad Nep*, which, if they happen to eat through Inadvertence, it makes them frantick, and ſometimes they run the Riſque of Death itſelf: But being dried, it is of ſome Uſe in Phyſick, as it has a Place in ſome Compoſitions.

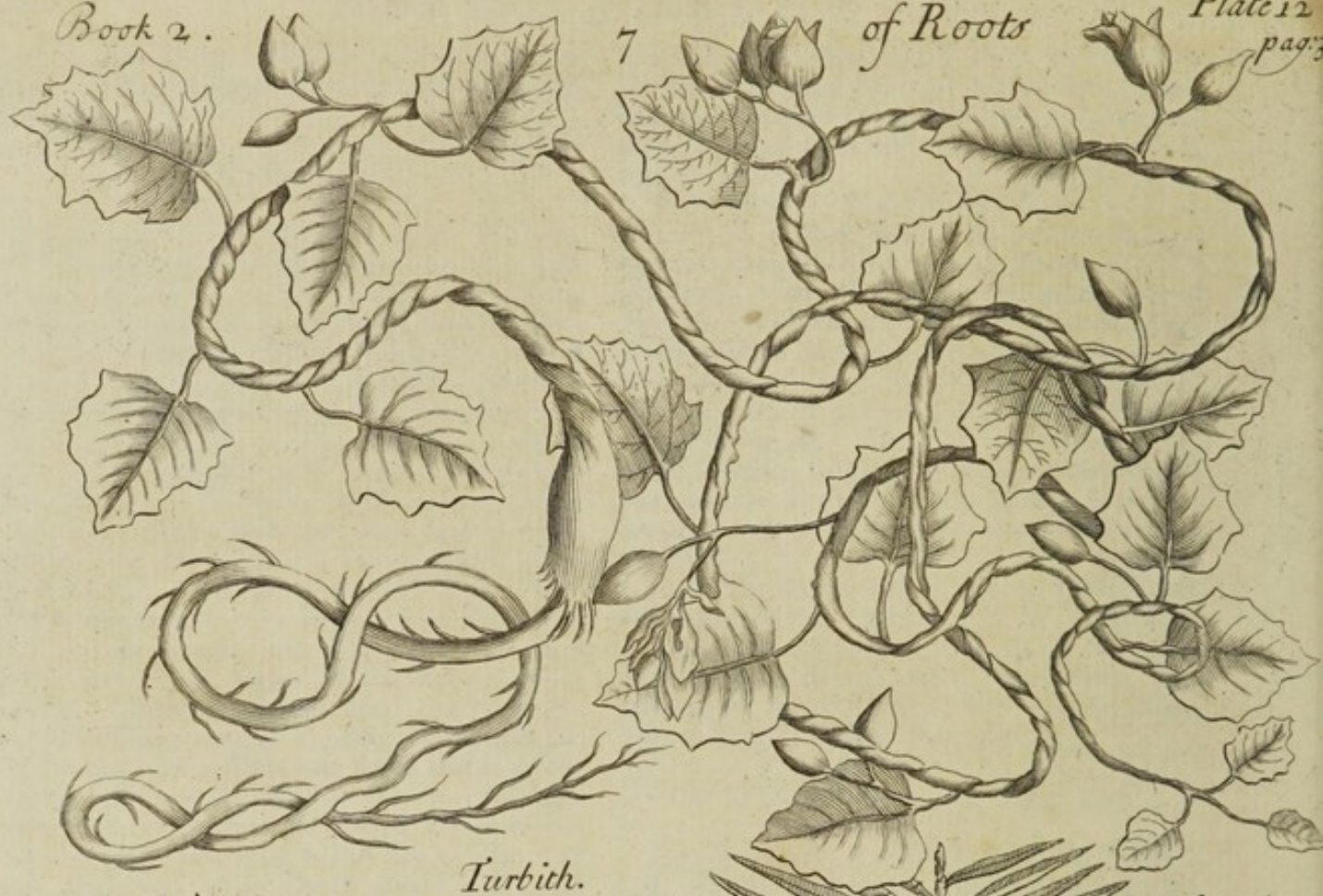
The Sieur *Mathurin Sebille*, the moſt famous Botaniſt we have had at Paris for many Ages, aſſur'd me that the true wild Turnep was the *Briony*, and that the Seed which was contain'd in the little dry Berries, was what ought to be put into the Compoſition of the *Venice-Treacle*. Some believe the *Briony* to be an excellent Remedy to cure the Biting of Serpents, and other venomous Creatures.

[The Fæculæ of *Briony*, when dried, are like Starch; but as this is found a Medicine of little Uſe, there is hardly any of it now made.]

Of Black Briony, *or the* Black Vine.

There is yet another kind of *Briony*, call'd the *Black Vine*, to which ſome have given the Name of our *Lady's Seal*. But as we never ſell either of theſe two Roots, I did not think in requiſite to give





Turbith.

8

Arabian Costus.

9

Ginger.

give you the Figures of them, and make a long Diſcourſe upon them: But I ſhall inform you that the Root of this *Black Briony*, apply'd freſh upon Contuſions or Wounds, prevents the Blood from coagulating and leaving a livid Spot, from whence it has obtain'd the Name of *Bruiſe Root*.

[Theſe are the *Brionia Alba* and *Nigra* of almoſt all Authors; the *White* is never uſed but as an Ingredient in the *Briony* Water, in which it is reckon'd to aſſiſt as a powerful Uterine Detergent: And the *Black*, though certainly a noble Medicine, is, through the Careleſneſs of enquiring into the Virtues of our own Plants, entirely diſregarded.]

7. *Of* Turbith.

Pomet. THE *Turbith*, which the *Latins* call *Turpethum*, is the Root of a Plant creeping upon other Trees: The Leaves and Flowers of it are like thoſe of Marſh-Mallows; according to the Account of many Authors, and particularly *Garicas Abhorto*, who ſays the Stalk runs upon the Ground after the Manner of Ivy; that the Leaves and Flowers are like thoſe of the Marſh-Mallow, and that the better Part of the Plant is what we call the Stalk; that it has no Taſte while freſh, and is found near the Sea, in *Cambaya*, *Surat*, and other Parts of the *Eaſt-Indies*.

Dr. *Paul Herman* ſays that he has ſeen it in the Iſle of *Ceylon*, and other Parts of the *Eaſt-Indies*; that it is a great Creeper; that the Leaves are like the Marſh-Mallow Leaves, but ſomething whiter, and, as it were, thorny; the Flowers are of a pale Red, like in Shape to thoſe of the Bind-weeds, for which Reaſon he calls it *Convolvulus Indicus alatus maximus folio ibiſco nonnihil ſimile, Turbith officinarum*; which ſignifies the *Indian Bind-Weed*, with great Leaves like Marſh-Mallows, which is call'd *Turbith* in the Shops. When the Flowers are fallen off, there remains a Pod, in which are contain'd four black Seeds, roundiſh, of the Bigneſs of Pepper.

He adds, that this Plant loves moiſt Ground, adjacent to the Sea, and we may aſſure ourſelves of the Truth of what this Author ſays, as well becauſe he was upon the Spot himſelf, as becauſe he is a Man of Probity, and worthy our Confidence. We ought to chuſe ſuch as is well clean'd; that is, ſuch as is ſplit in two and has the Heart taken out, difficult to break, grey on the Outſide, and greyiſh within, ponderous, and not rotton, but full of Reſin; and reject ſuch as is white, ſubject to break, and Worm-eaten. Many People uſe the *Thapſia* for the *Turbith*; but they may be eaſily enough diſtinguiſh'd by what I ſhall ſay afterwards. The Reſin of this is made after the ſame Manner as that of *Jalap*.

Of the White Thapſia.

The white *Thapſia*, or grey *Turbith*, is the Root of a Plant mention'd by ſeveral Authors, which has Leaves like the *Fennel*; after which grow Cluſters of Flowers, like thoſe of *Dill*, which are yellow, and the Seed large, approaching near to the Seed of *Fennel-Giant*.

This Plant is very little in Uſe, by reaſon of its violent Operation; and the Juice or Milk is ſo ſharp, that it will take the Skin off the Face. The Root is ſeldom uſed, except by ſome Apothecaries, who make an ill Uſe of it inſtead of the true *Turbith*, though the Difference betwixt them is very conſiderable; for the *Turbith* is of a Grey, inclinable to Red without, of a white greyiſh Caſt within, very heavy, and hard to break; on the contrary, the *Thapſia* is light, wrinkled, of a ſilver Grey on the Outſide, and of a Taſte ſo biting and hot, that it will bliſter the Mouth to touch it, eſpecially when new.

Of the Black Thapſia.

There is another Kind of *Thapſia*, to which People have given the Name of the *Black*; but as it is not in Uſe in Phyſick I ſhall not deſcribe it; and only obſerve, that theſe two Roots ought, by reaſon of their great Acrimony, to be placed among the violent Medicines, the Uſe of which is very dangerous, that Apothecaries and other Perſons may take Care how they uſe this inſtead of the true *Turbith*.

[Both theſe Roots are brought from the *Alps* and *Pyrenian* Mountains. They muſt be choſen new and well fed, and ſuch as are not Worm-eaten.]

There are ſeveral Sorts of *Turbith*; as, firſt, the true *Turbith*, call'd *Turpethum Alexandrinum*, and *Verum*, alſo *Turpethum Arabum*, from the Places where it grows. This is the beſt Kind, and is brought to us out of *Turky*, being large and gummy. In the Shops are the Bark and Root without the Pith, which is ſticky. In the next Place, there is the *Indian*, of which *Pomet* ſpeaks, which is a creeping Kind, and nothing near ſo good as the former. Thirdly, The *Pſeudo-Turpethum*, or falſe *Turbith*, which is the Root of *Scammony*, by ſome Men ſold for it. Laſtly, The *Thapſia Turbith*, call'd *Radix-Thapſiæ*, which is a little whitiſh, and not much unlike the white *Dittany* Roots, or ſmalleſt *Winter's Bark*, brought to us out of the *Eaſt-Indies* and the *Streights*. *Lemery.*

The true *Turbith* purges Phlegm and groſs clammy Humours, and therefore is profitable in all chronick Diſeaſes, as Gout, Dropſy, Jaundice, Leproſy, and the like: Being given alone, it is apt to cauſe loathing and vomiting, and therefore is corrected with Ginger, Cardamoms, Grains of Paradiſe, *&c.* It is given in Powder from two Scruples to four, but not to Children or Child-bearing Women: In Infuſion, from a Dram to three for a Doſe, and the Extract may be made like that of *Jalap*. The *Indian Turbith* purges a little, but nothing to be compar'd to the former, and therefore is but little in Uſe. The *Pſeudo-Turpethum*, or *Scammony Turbith*, is a great Root, and in Bigneſs equal to the great *Briony*, as alſo in Tenderneſs; the outward Bark is of a duſky Colour, and it is white within; and the inner Pith being taken out, it ſeems, in all Mens Judgments to be the ſame with the beſt allow'd *Turbith* of the Shops; but herein it differs from the true *Turbith*, for that is more brittle, and will more eaſily be broken: The Pith alſo in this *Scammony Root* is no leſs gummy, and full of milky Juice, than the true *Turpeth*.

The *Thapſia Turbith*, or *Radix Thapſiæ*, is a thick Root, black without, white within, and full of a milky Juice, of a moſt bitter, ſharp and loathſome Taſte and Smell; ſo that it ſeems to be poſſeſs'd of a poiſonous Quality. The *French* take this Root for a Kind of *Turbith*, calling it *Turpethum Cineritium*; but 'tis ſaid that ſome of them have now left the Uſe thereof, for that in purging it mightily hurts the principal Parts, cauſing often cruel Gripings in the Bowels, with Convulſions, and other ill Symptoms. It grows in *Sicily*, *Apulia*, and the Iſland of *Thapſia*, whence, as ſome think, came the Name.

Turpeth is the Root of the *Convolvulus, indicus alatus maximus foliis Ibiſco non nihil ſimilibus anguloſis.* R. Hiſt. 2. 1882. Horm. Hort. Lugd. Bat. 117.

[*Turpethum Repens foliis althææ vel indicum.* C. B. Pin. 149. *Turpethum verum ſeu Album Cleyeri.* It is much of the Nature of *Mecoachan*, but more efficacious, and yields a greater Quantity of Reſin. The Doſe is from half a Dram to a Dram, in Powder; and from a Dram to half an Ounce, in Infuſion; but it is ſeldom given alone.]

8. *Of the* Arabian Coſtus.

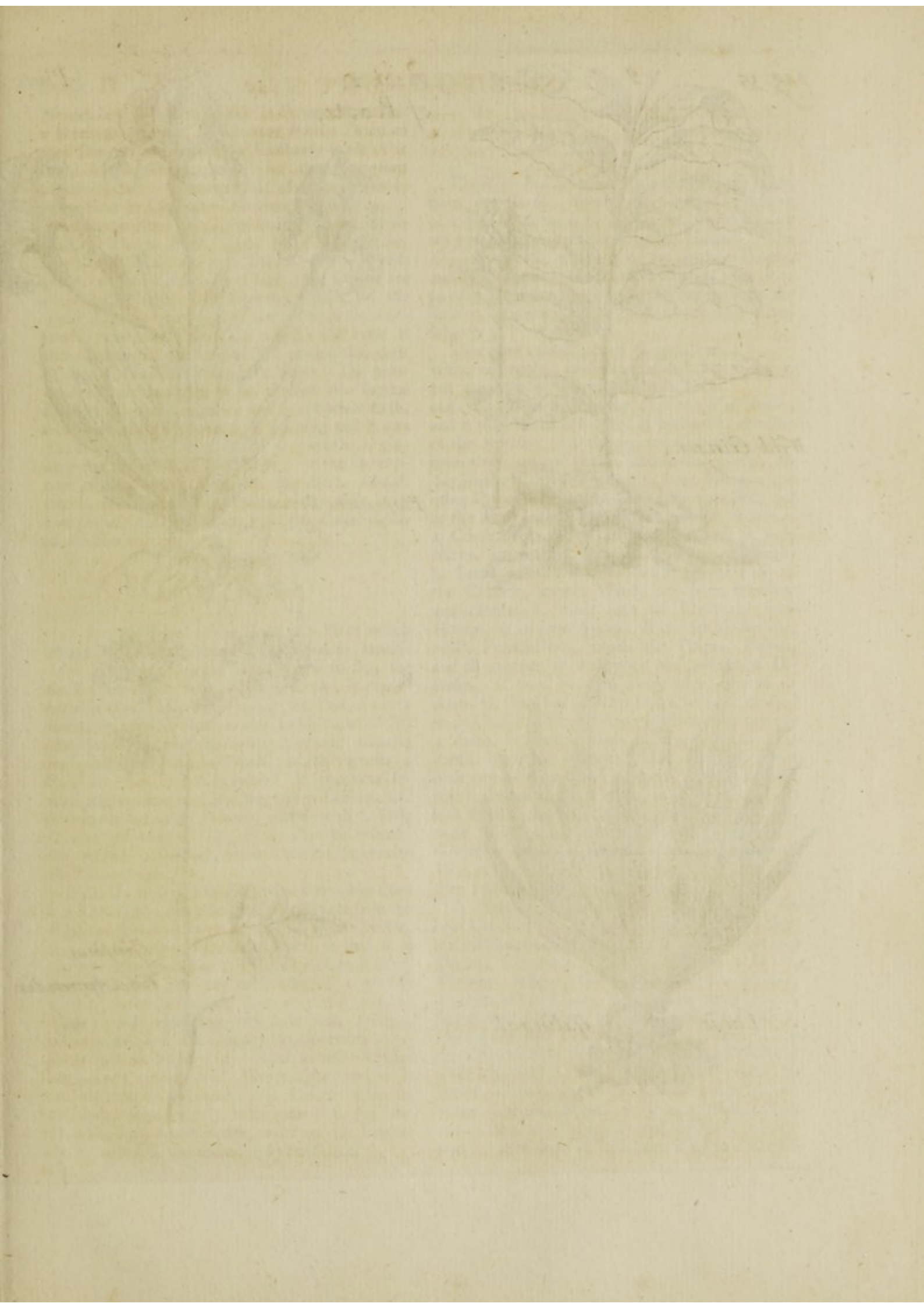
THERE are three Kinds of *Coſtus*, which are, the *Arabian*, the *Sweet*, and the *Bitter*; but we ſeldom receive any but the *Arabian*, which is the Root of a Shrub like the *Elder*, which grows plentifully in *Arabia-Felix*, from whence it has its Name. Chuſe the faireſt heavy Roots, of an Aſhen Grey without, and inclinable to Red within, not eaſy to break, of a ſtrong Smell, aromatick Taſte, together with a little Bitterneſs. It is aperitive, ſtomachick and antiſcorbutick; taken in Powder from half a Dram to a Dram, and is alſo uſed in the *Venice Treacle*. *Pomet.*

Of the Sweet Coſtus.

The *Sweet Coſtus* is a ſmall Root, very like in Colour, Size and Figure to the *Turmerick*: But ſince this at preſent is ſuch a Rarity that it is hardly any where to be found, and the Plant it is the Root of is unknown to us, as well as that of the *Bitter Coſtus*, I have not here given the Figure of either of them.

The *Bitter Coſtus*, which ſome call by the Name of *Coſtus Indicus*, is a thick Root, very hard, ſmooth, ſhining, and rather looks like a Piece of ſolid Oak than a Root. This *Coſtus* is not ſo ſcarce as the other aforemention'd, being ſometimes ſeen in the old Shops. We have from *Italy* ſometimes the Roots of the *Agriocynera* ſent us for this; others uſe in the Place of it the *Cortex Winteranus*, and others *Zedoary*, or the Roots of the *Mentha Hortenſis Corymbifera*, and others *Elecampane*; but to avoid all theſe Abuſes, we may very well uſe the *Coſtus Arabica*, as it is the beſt of the three, and ought to have only the Name of *Coſtus*, as we may aſſure ourſelves that the Difference in the Sorts of *Coſtus* were only occaſion'd by the different Places they were brought from, as Mr. *Charas* has very judiciouſly remark'd, who takes all the *Coſtuſes* to be the Roots of the ſame Plant, only growing in different Parts of the World; and that it might be that the *Coſtus* growing in different Parts of the ſame Country might receive ſome Difference of Form and Figure, as well as Colour and Taſte, according to the Difference of the Earth from which it drew its Nouriſhment, as we ſee in Corn, Vines, *&c.* ſo that the *Arabian Coſtus* only ought to be uſed in all Compoſitions.

Some are of Opinion there are not two ſeveral Species, but only one of this *Coſtus*, the neweſt being ſweet, and call'd *Coſtus Dulcis*; the ſame, when it grows old grows bitter, and then is call'd *Coſtus Amarus*: that which is good is outwardly of an Aſh-colour, inwardly white; and it is freſh, thick, well ſcented, aromatick in Smell and Taſte, and not rotten: It is ſtomachick, hepatick, hyſterick, attenuating, aperitive, diſcuſſing, good againſt the Cholick and Palſy, and moſt Diſeaſes of the Nerves *Lemery.*



Wild Ginger.

Florentine Orrice.

11

Large Galingal.

Ginseng
Vide Appendix

Nerves and Womb. Doſe in Powder from half a Dram to a Dram, in Tincture from a Dram to two Drams. There is an Electuary made of it call'd *Caryocoſtinum*, uſeful for the Intentions aforeſaid, and a chymical Oil, which is profitable to be given in Clyſters in all uterine Caſes.

[It is the Root of *Coſtus Indicus Violæ Martis Odere.* Herm. Muſ. Zeyl. 58. *Tſiana Cua.* Hort. Ind. Mal. xi. 15. Tab. 8.———Which grows to ſix or ſeven Feet high; the Leaves are of a lively Green, but ſomething paler on the under Side than the upper; the Flowers are four-leav'd, white and ſhap'd like a Bell; the Fruit is three-corner'd, and divided into three Cells, containing a Number of triangular Seeds: The principal Occaſion of its being divided into ſeveral Species, is, that it is white and ſweet while freſh, and contracts a Bitterneſs in keeping and grows darker colour'd. It evidently is from the Beginning but one and the ſame Root; for the Deſcription of the *Tſiana Cua*, in the *Hort. Malab.* which, according to *Commeline*, is the true *Arabian Coſtus*, exactly agrees with the *Sweet Coſtus* of our Shops.]

9. *Of* Ginger.

Pomet. GInger is the Root of a Plant which the Botaniſts call *Arundo humilis clavata radice acri*; that is to ſay, the ſmall Club Reed with the ſharp Root: It repreſents in Shape a Sort of Foot at the End of every Root, for which Reaſon the Inhabitants of *St. Chriſtopher*'s, and the other Leeward Iſlands, have call'd it *Patte* in *French*, which ſignifies a Paw or Foot, or *Gingembre*. It produces ſeveral Reeds, bearing large long green Leaves, and afterwards a reddiſh Flower, mix'd with a little Green, the whole Head of the Flower reſembling a Club; from whence it is call'd *Ginger with the Club Flower.*

This Root was brought to us heretofore from the *Eaſt-Indies*, but that which is cultivated in the *Weſtern Iſlands* is more uſed, and much better, becauſe they dry it with more Care, ſo that it is not parch'd and wither'd. Chuſe ſuch as is new, dry, well fed, not eaſy to break, of a greyiſh Colour, reſinous within, and of a hot piquant Taſte; and reject that which is ſoft, ſpungy, white within and without, and worm-eaten. *Ginger* is hot and drying; it is uſed in the *Theriaca* and other Compoſitions. Great Quantities of it are uſed by the Hawkers and Chandlers in the Country, who mix it with their Pepper; the *French* reduce it to Powder, and then call it *white Spice*, which ſerves there for ſeveral Uſes.

Of Candied Ginger.

The *Weſt-Indians* candy their *Ginger* freſh taken from the Earth; likewiſe they make a Preſerve of it green, as the *Eaſt-Indians* do; from whence we have great Quantities of green Ginger. The *Engliſh*, *Dutch*, and moſt of the northern People, make uſe of this to warm the Stomach, as well as to aſſiſt Digeſtion, and to preſerve them from the Scurvy, to which thoſe Nations are very often ſubject.

Lemery. There are two Kinds of *Ginger*, the white or mealy, and the hard black; but the firſt is reckon'd by much the beſt. It grows both in the *Eaſt* and *Weſt Indies*, and is very much cultivated at preſent in the Iſles of the *Antilles*; but the greateſt Quantities come from the *Leeward Iſlands*, *Barbadoes*, *Nevis*, *St. Chriſtopher*'s, *&c.* as likewiſe from *Jamaica* and other Places thereabouts. We have now little out of the *Eaſt-Indies*, but what is brought thence is a Confection, call'd *Green Ginger:* It is very warm, attenuating, inciding, aperitive, and highly ſtomachick and alexipharmack; gives Eaſe in the Cholick, expels Wind, and is an excellent anti-aſthmatick, made into an Electuary with Honey, or its own Syrup: It creates an Apetite, reſiſts Putrefaction, expels the Plague, Poiſon, and all manner of malignant and peſtilential Diſeaſes. It may be uſed in Powder, grated or pounded, from half a Dram to a Dram, or candied to an Ounce. *Green Ginger*, which they prepare in *India*, is likewiſe made in *England* and other Parts, after this Manner: Let the freſh Root ſoak two or three Days in warm Water, keeping it in a *Balneo* all the Time; ſo it will grow ſoft and ſwell; then boil it up, either ſlit or whole, with refin'd Sugar, to a Syrup. The *candied Ginger* is made by ſteeping the Roots in warm Water, then cutting them into long Pieces, dry them, after which candy them.

A laxative Confection of *Ginger*, uſeful for cold Conſtitutions, to purge off watry and phlegmatick Humours, is made thus: Take Ginger two Drams, Cinnamon, Cloves, of each a Dram, Nutmeg, Saffron, Galingal, of each a Scruple, Turbith half a Dram, *Diagridium* three Drams, Sugar four Ounces, mix and make a Confect. Doſe from two Drams to half an Ounce. Another Confection to revive and fortify a cold and weak Stomach: Take Ginger in Powder ſix Drams, Cinnamon two Drams, Nutmegs, Cloves, Mace, Saffron, of each a Dram, Piſtachia Nuts one Ounce, fine Sugar a Pound, diſſolv'd in Roſe-water; then mix all and beat it up to a Conſiſ-

tence, of which take the Quantity of a Wallnut twice a Day.

[The Plant of which this is the Root is the *Iris Latifolia Tuberosa Zingiber dicta flore albo.* Hist. Ox. 2, 350. *Zinziber angustiore folio fœmina utriusque Indiæ Alumna.* Pluk. Alm. 317. The Leaves of this Plant are long, slender and of a pale Green; the Flowers are monopetalous, but divided into four Segments; the Seeds shap'd like a Kidney, and fastned to the Style with very slender Fibres. It is purgative, if taken in any Quantity when fresh dug out of the Earth; when dry it is aromatick and attenuant: It is found excellent in warming the Stomach and keeping the Gout from that Part.]

Of Zerumbeth *and* Zedoary.

These are two Roots of different Colour and Figure, which come notwithstanding from the same Plant, which has Leaves like those of *Ginger*, for which Reason some call call it *Wild Ginger*. Both these Roots are brought us from the *East-Indies* and the Isle of *St. Lawrence*, where they grow in abundance.

The *Zerumbeth* is the round Part of the Root, which we receive cut in Pieces like *Jalap*. It ought to be grey without and white within, hard to break, not carious, of a warm aromatick Taste; the *Zedoary*, the long Part of the Root, serving as a Foot to the *Zerumbeth*; it ought to be about the Length and Thickness of one's little Finger, of a whitish red Cast without, and white within, well fed, heavy, and not apt to break, not worm-eaten, of a warm aromatick Taste, like that of *Rosemary*. The *Zerumbeth* is of little Use in Physick; on the other hand, the *Zedoary* is esteem'd a good Cordial, and of great Efficacy against all Venom and Contagion.

[This is the Root of the *Zedoaria Zeylarina Camphoram redolens.* Herm. Cat. Hort. Lugd. Bat. 636. *Zedoaria longa seu Zedoaria Officinarum.* Com. Cat. Hort. Amst. 371. *Mathiolus* thinks the *Zedoary* of *Avicenna* to be the *Anthora* of the Moderns; and *Dodonæus* takes the *Officinal Zedoary* to be the *Zerumbeth* of *Avicenna* and *Serapion*. The Ancients had many Compositions of this Root, which are now rejected.

The *Zedoaria Longa* and *Rotunda*, as we call them, are certainly both the Roots of the same Plant; but the *Zerumbeth* is a distinct Thing, the Root of a different Plant, the *Zinziber Latifolium Sylvestre.* Herm. Cat. 636. *Kua* Hort. Malab. xi. 13. Tab. 7. It grows in *Malabar*; but the round *Zedoary* being confounded with it, makes it never seen in our Shops.]

10. *Of* Florentine Orrice.

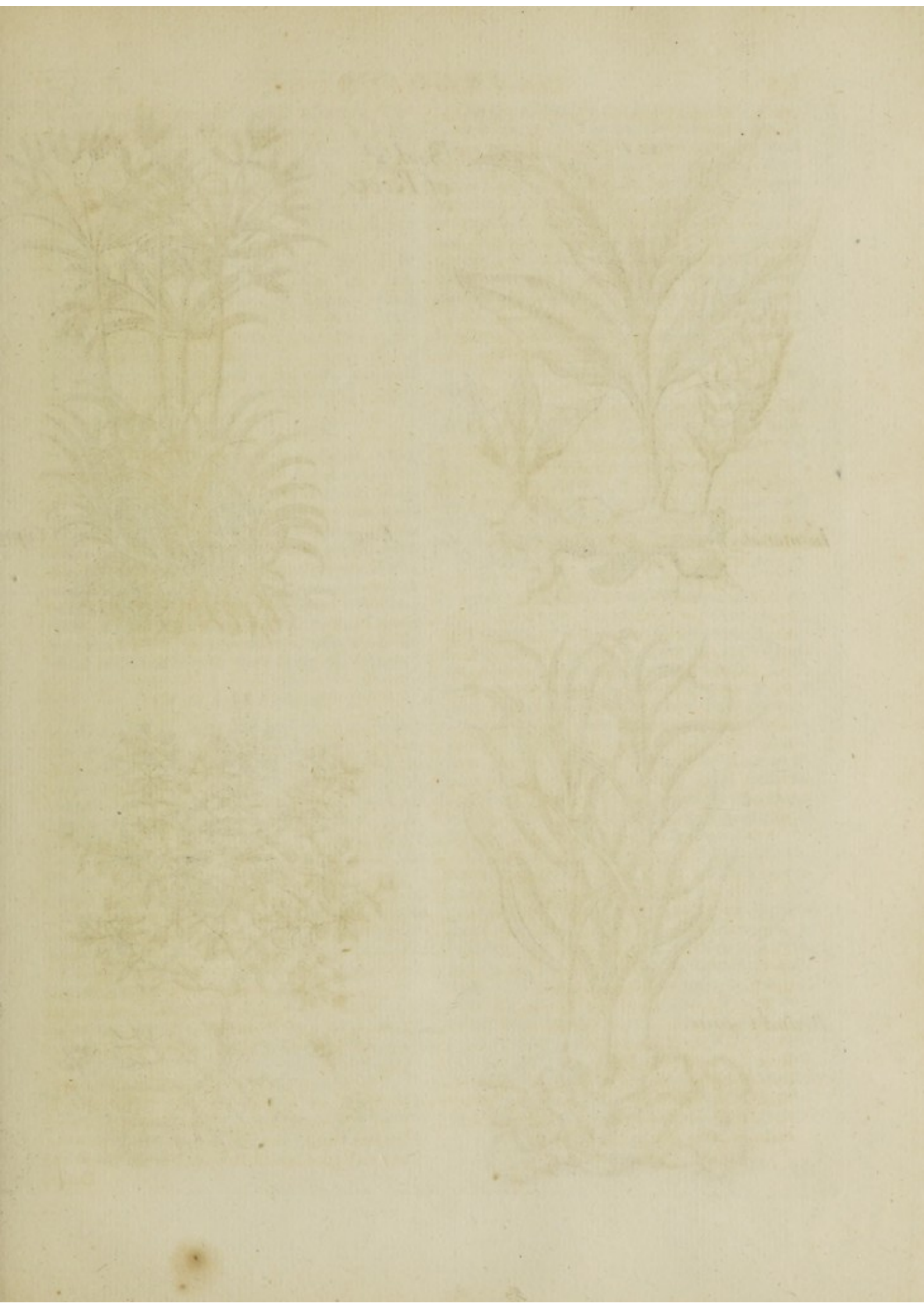
Florentine Orrice is the Root of a Plant, whose Leaves are long, narrow, and of a fine beautiful Green; after which grow white Flowers, as I have been assur'd by Mr. *Morin*, Physician to Madam the Dutchess of *Guise*, a Man of great Probity and large Experience in Simples. *Pomet.*

This Plant is known in *France* by the Name of *Flower-Flag*, *Flower de Lys*, *&c.* It grows almost every where by the Walls, Water-sides, and in the Gardens, and is of several Sorts, which many Authors have taken Notice of. And as to the Name *Iris*, they say it was given to them for the various Colours of their Flowers, which in some measure resemble the Rainbow, call'd by some *Iris*; but 'tis a gross Error to say that the *Florentine Iris* is the same with ours, for they are very different. Chuse such of this Root as is large, well fed, of a Piece, clean, white within and without, difficult to break, of a sweet Smell like the *Violet*; but cast by such as is dirty, dry, and of no Smell; likewise such as is soft or worm-eaten.

The Dyers, Perfumers and Confectioners use this in their several Trades, to give a grateful Scent to their several Cloths, Perfumes, Comfits and the like. It has a great many other Qualities in Medicine; it is a *Hydragogue*, incisive, aperitive and cephalick: It is employ'd in several *Galenical* Compositions, and is a mighty Favourite with the Fair Sex. There is a green Colour made of our common *Iris*, to which they give the Name of *Verditer*, which is used by the Painters in Miniature. This *Verditer* is made several Ways, as is describ'd in a little Treatise of Miniature, which those who desire to make this, as well as *Carmine*, and other fine Paints, may have recourse to.

This *Orrice*, call'd *Iris Alba Florentina*, or *Iris major Alba*, *Illyrica vulgo*, *vel potius Florentina*, is a white Root, *Lemery.* the Thickness of a Thumb, oblong, which is brought to us from *Florence*, where it grows without Culture; the Stalk is like that of the *Flower-de-Luce*, but the Leaves grow erect, and the Flowers are white. This Root, when in the Ground, is deck'd with several Fibres, which are cut off with the Outside, which is reddish, and then it is dried.

The *Illyrick* Sort of *Orrice* is reckon'd the best, but the Roots of both are used. That brought from *Florence* is plump, round, and of a delicate fragrant Smell, like *Raspberries*. It is pectoral, and very good against Stoppages in the Breast and Lungs,



12.

Book 2d. of Roots.

Turmerick.

12

Long Cyprus

12

Round Cyprus.

13

Spurge.

Lungs, prevails againſt Coughs, Aſthma's, Obſtructions of the Terms, Gripings of the Belly, Pain in the Stomach, Wind, ſtinking Breath. It is uſed outwardly in ſweet Powder for the Hair, and in Damaſk Powder and Cypreſs Powder. It may be given in Powder, Tincture, Extract, Species, or the like Form, from a Dram to two Drams.

[This is the Root of the *Iris Flore Albo*. I. B. 11. 719. *Iris Alba Florentina*. Ger. 47. It is a good Medicine to attenuate the Lympha which ſtuffs up the Bronchia and Glands of the Inteſtines: It is often join'd with Hydragogues in beginning Dropſies, to ſcower the Glands of the Meſentery; it is alſo good in Aſthmas, and is an Ingredient in many of our Compoſitions.]

11. *Of* Great Galingal.

Pomet. THE great or large *Galingal*, which ſome call amiſs the *Acorus verus*, is the Root of a Plant or Reed, whoſe Leaves are like the *Orrice*, and which grows plentifully in the Iſle of *Java* and in *China*. Make choice of the largeſt, heavieſt Root, reddiſh without and whitiſh within, of a warm piquant Taſte, and afterwards a little bitter, but throw away that which is almoſt inſipid, which it never is 'till very old. This Root is of no other Uſe, that I know of, but for the Vinegar-makers, who uſe it inſtead of the leſs Sort for the making of Vinegar.

Of the Small Galingal.

The ſmall *Galingal* is a reddiſh Root within and without, of a piquant Taſte, and very aromatick, which comes to us cut in Pieces from the *Indies* and *China*. This Root bears its Branches almoſt like a Shrub, and the Leaves much reſemble thoſe of *Myrtle*. Chuſe ſuch Roots as are beſt fed, of the higheſt Colour, and when chew'd of a bitter aromatick Taſte; and take care there be no Pieces of the great *Galingal* mix'd, which is eaſily known, becauſe the ſmall *Galingal* is no thicker than a Man's Little Finger, of a more lively Colour and hotter Taſte than the larger *Galingal*. The ſmaller Sort is much more uſed in Phyſick than the greater, becauſe it abounds with more Virtue.

Lemery. There are two Sorts of *Galingal*, brought to us from the *Indies*; the firſt is call'd the Great, and is a ſolid, heavy Root, cover'd with a reddiſh Bark, white within, of an acrid, and ſomething bitter Taſte. 'Tis a Sort of Species of the Reed, the Leaves like Orrice, the Flower white, without Smell, the Seed ſmall, and the Whole of little or no Uſe in Phyſick.

The ſecond Sort is the Little *Galingal*, whoſe Root is about the Thickneſs of a Finger, cut in Pieces on purpoſe to dry, that it may be fitted for Sale. It is hard, reddiſh without and white within, and of a Taſte and Smell much ſtronger and more aromatick than the Large *Galingal*. It is cephalick, ſtomachick, neurotick, hyſterick, and antiſpaſmatick, ſharp taſted, attenuating, opening, diſcuſſive and prevalent againſt moſt Diſeaſes of the Head, Brain, Nerves, Womb, Stomach and Bowels. It is good againſt Megrim, Head-ach, Palſy, Cramps, Convulſions, Obſtructions, Cholick, Indigeſtions, Want of Apetite, Cachexia, Scurvy, *&c.* You may uſe it in Powder, Tincture, Extract, or candied like Ginger.

[Theſe Roots are the *Galanga Major* and *Minor* of all Authors. The Greater grows naturally in *Malabar*, the Smaller in *China*; the Larger is the Root of the *Banchale Indorum* of *Herman*; the Smaller, of the *Lagondi Indorum* of the ſame Author. The Smaller, which is moſt in Uſe, is an admirable Ingredient in Bitters, and in all Compoſitions that anſwer the Intentions of a Cordial or Cephalick.]

12. *Of* Turmerick.

Pomet. *TUrmerick*, which ſome call *Curcuma*, and others *Saffron*, or *Cypreſs* of *India*, *Malabar*, or *Babylon*, is a Root which is yellow quite through, and produces very large green Leaves; the ſaid Root ſends forth Flowers, which grow like Ears of Corn, as may be ſeen by the Figure, which I have caus'd to be engrav'd from that in *Herman*. This little Root is almoſt like *Ginger*: It is brought to us from ſeveral Parts of *India*, by the Company of Merchants trading thither, and likewiſe great Quantities of it come from the Iſle of St. *Lawrence*.

Chuſe your *Turmerick* large, freſh, reſinous, hard to break, and the heavieſt and leaſt worm-eaten or duſty, or inclinable to be rotten, that you can get. There are a great many Perſons about *Paris* who aſk for the *Red Turmerick*, as believing there are two Sorts, when in reality it is nothing but the Age of it that turns it brown; when it is powder'd it ſhews more or leſs red, according as it is older or newer. This Root is chiefly uſed by the Dyers, Glovers, and Perfumers: The Founders employ it to tinge their Metals, and the Button-makers to rub their Wood with, when they would make an Imitation of Gold. The *Indians* uſe it to tinge and give a yellow Colour to their Bread, or other Things, as we do Saffron.

[It

[It is the Root of the *Cannacorus Radice Crocea, ſive Curcuma Officinarum.* Tourn. Inſt. 367. *Curcuma radice longa.* Herm. Cat. 208. The Leaves of this Plant are like thoſe of the *Cannacorus*, but the Flowers on a ſeparate Stalk, four Leav'd; the Seed-Veſſels ſmall, membranaccous, and trieapſular, the Seeds round and of a duſky Brown.

There are two Kinds of this Root, as of *Zedoary*, the long and the round, the long is moſt uſed in Phyſick. Its particular Uſe is in the Jaundice: The Doſe is from twelve Grains to half a Dram.]

Of Round Cypreſs.

The *Cypreſs*, commonly call'd *Round Cypreſs*, or *Engliſh* or *Flemiſh Cypreſs*, is a Root full of little Knots or Specks, of a brown Colour without, and grey within, of a little Sharpneſs in Taſte, and almoſt without Smell when it is newly taken out of the Ground. This Root grows in the Water, and along Banks and River Sides, bearing triangular Stalks, ſolid and ſmooth; and long upright Leaves; the Flowers are ſmall, reddiſh, and come by Ears or Taſſels on the Top of the Stalks. Make a Decoction of this Root, bruis'd in White Wine, and after it is ſtrain'd, drink the Wine as hot as poſſible. 'Tis an approv'd Remedy to cure the Cholick.

Of Long Cypreſs.

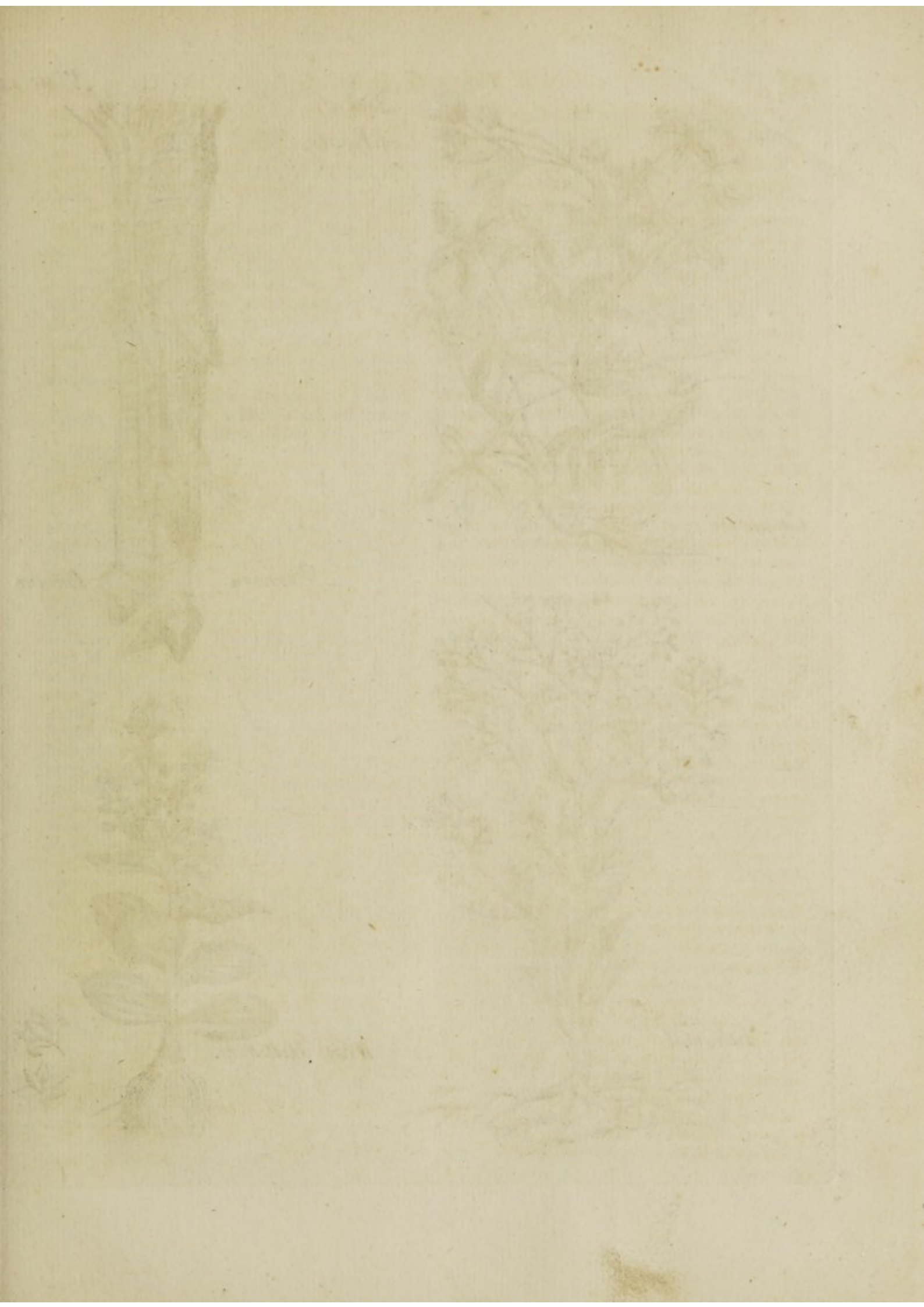
Long Cypreſs, call'd by ſome *Wild Galingal*, is a knotty Root, wrapp'd round with fibrous Strings, not eaſy to break, of a brown Colour without, and grey within, of a pleaſant Scent, eſpecially when freſh, and well dried. This Root grows by Rivulets, and other watry Places, as Ditches, and the like; it bears green Leaves, which are like thoſe of the Leek; the Stalk and Flower very much reſemble the round Cypreſs: It is of Uſe in Phyſick, as a Cordial, Diuretick and Cephalick, a Reſiſter of Poiſons, and Expeller of Wind: The Doſe is from half a Dram to a Dram in Powder, and from two Drams to half an Ounce in Infuſion. But it is of much more Uſe to Perfumers and Glovers.

Terra Merita, or the *Curcumma* of *Lemery*. the Shops is a ſmall Root, about the Size of that of Ginger, hard, as if it was petrified, yellow without and within; it grows in many Parts of the *Eaſt-Indies*, from whence it is brought to us dried. The Plant is call'd *Cyperus Indicus*, and *Crocus Indicus*, or *Indian Saffron*. The Leaves are like the White Hellebore, but not ſo much ribb'd, but ſmooth. The Flower is of a fine beautiful Purple, which is ſucceeded by a Fruit which is hairy, like the Green Cheſnut, and which contains a Seed made round like a Pea, which is very good to eat, when it is boil'd with Meat. The Root is yellow, like Saffron, and the *Indians* uſe it to colour their Rice, and ſeveral other Sorts of Proviſions: It contains a good deal of Oil in it, as well as fixed and eſſential Salt. This *Turmerick* is aperitive, deterſive, proper to relieve Obſtructions of the Liver and Spleen, to provoke Urine, and Women's Courſes, and good in the Yellow Jaundice, Stone and Gravel, either in Powder or Decoction.

Cyperus, in *French Souchet*, in *Engliſh Wild Galingal*, is a Plant whereof there are ſeveral Kinds; but I ſhall only ſpeak of two; and firſt of M. *Tournefort's Cyperus rotundus vulgaris*, or the common Sort, which is call'd the round Sort, whoſe Leaves are long, with the three corner'd Stalk, and Flowers on the Top like a Plume or Noſegay; after the Flowers are gone, on the Head of every Stem, comes a triangular, hard, black Seed: The Root is as thick as an Olive, of an oblong Figure, grey Colour, weak Smell, ſweet Taſte, and a little aſtringement.

The ſecond Kind is by M. *Tournefort* call'd *Cyperus odoratus radice longa, ſive Cyperus Officinarum:* The ſweet-ſcented *Cyperus* with the long Root, or that of the Shops. It bears Leaves like thoſe of the Reed, and reſembling in ſome Manner the Leek, but much longer, much ſlenderer, much harder: The Stalk grows two Feet high, ſtrait without Knots, triangular, full of white Pith, bearing on their Tops large reddiſh Cluſters, with a Seed like the former Sort, as the Virtues are in like Manner: Both long and round, being uſed to one and the ſame End and Intentions; the round is eſteem'd the beſt, but ſome think the long to be full as good. They cure a ſtinking Breath, being chewed in the Mouth; boil'd in Oil, and bruiſed, laid to the Reins or Groin, they provoke Urine; they are ſtomachick, hepatick, uterine, and nephritick; help a weak Stomach, cauſe a good Appetite and Digeſtion, expel Wind in the Bowels, and corroborate all the internal Parts; may be given in Powder, Tincture or Decoction. Doſe from half a Dram to a Dram.

[Theſe are the Roots of the *Cyperus longus* and *rotundus* of moſt Authors. The long is of our own Growth, tho' not very common; the round we have from the *Eaſt-Indies*, inſtead of which ſometimes the Roots of the *Cyperus rotundus noſtras & vulgaris*. C. B. Pin. are uſed, but they are leſs aromatick, and of leſs Efficacy; they are recommended as good in nervous Caſes, but are but little uſed at Preſent.]



13

Cinquefoil.

14

Pariera Brava

14

Tithymal.

15

White Hellebore.

13. *Of* Spurge.

Pomet. *ESULA* or *Spurge* is the Bark of a small red Root, which produces narrow green Leaves, full of Milk. This Plant grows every where in *France* neglected, and the Roots which are sold come from *Provence* or *Languedoc*. Chuse such as is new, the fairest red Root without and within; which being held in the Mouth, affords a very disagreeable Taste, attended with great Acrimony. This small Root is very little used in Physick; but there is an Extract made of it which is appropriated to hydropick Cases.

Lemery. The *Esula* or *Spurge*, is a Kind of *Tithymal*, or a Plant which bears many Stems, of about a Foot high, carrying straight narrow Leaves, like those of the Pine, fill'd with Milk; the Flowers are small and grassy, the Root little and red. This grows in Fields, Lanes or Gardens, and abounds with an essential, fix'd, acrid Salt, as well as Oil. 'Tis rarely used in Medicine, because it purges violently, except in some desperate Cases, as Dropsies, Lethargies, Phrensies, *&c.* There are several Sorts of this Plant, all which have the like Qualities, but that which bears Leaves like the Pine is esteem'd the best. It is a sharp, fiery, corroding Medicine, and reckon'd so dangerous as not to be used without correcting, which is chiefly done by steeping it in Vinegar, or by adding *Bdellium*, *Tragacanth*, or Mucilage of Fleabane-Seed to it. There is the greater and less Sort, both which grow in most Parts of *Europe*. They purge Phlegm downwards, for which they have been accounted wonderful Secrets in some deplorable and suppos'd incurable Cases. There is an Extract to be made of it, which some have used as a Kind of *Panchymagogon*, or general Purger.

[This is the Root of the *Esula Rivini & Officinarum Ray Tithymalus foliis Pini forte Dioscoridis Pityusa*. Tourn. Inst. 86. It is cultivated in the Gardens of the curious, but is grown quite out of Use as a Medicine.]

Of Cinquefoil, *or* Fiveleav'd-Grass.

Pomet. The Root aforegoing has given me occasion to mention another Root, in Figure and Colour very like the *Spurge*, which the *Greeks* call *Pentaphyllum*, the *Latins Quinquefolium*, and we *Cinquefoil*, by reason this small Root produces its Leaves by five and five on a Stem.

It is very common on the Banks of Ditches, and by Way-sides. It is very little used in Medicine, and would not have been mention'd here but as it is an Ingredient in the Theriaca Andromachi.

Lemery. *Cinquefoil* is so well known it needs no Description. It grows in sandy Places, in Fields and Hedges, and flowers in *May* and *June*. The Root, which is dry, binding, and antefebrifick, is used in the Shops, and given from a Dram to two Drams in Powder, in all Respects as you give the *Cortex*, to cure Quotidian, Tertian, and Quartan Agues. It stops Fluxes of the Bowels, Catarrhs, or Defluctions upon the Lungs, Coughs, Colds, Gout, Whites or Gonorrhœa in Men and Women, Sharpness of Urine, *&c.* An Infusion of it in White Wine, is profitable for the Rickets in Children, Obstructions in young People, either of the Spleen, Liver, or Menses, and to cure the Jaundice. Dose four or six Ounces; it may be likewise taken like an Infusion of the Bark, and to the same Purpose.

[It is the Root of the *Pentaphyllum vulgatissimum*. Park. 398. *Quinquefolium vulgare*. Ger. It is very common, and Flowers in *June* and *July*. *Schroder* runs through most Chronical Distempers in its Commendation; but the present Practice entirely neglects it.]

14. *Of* Spurge Flax.

Pomet. *Spurge Flax*, which is call'd *Thymelæa*, is a light Root, of a different Thickness and Length, reddish without, and whitish within, woody and fibrous; of a sweet Taste at first, but after it has been chew'd in the Mouth a little Time it is caustick, and burns like Fire, especially when it is fresh.

This Plant produces green Leaves, thick and clammy, in Shape like those of Flax, with Fruit of the Size of Pepper, green at first, and of a beautiful Red when ripe, which the *Latins* call *Coccus Gnidius*, or *Granum Gnidium*, the *Scarlet Berry*. The whole Plant is very little in Use, except the Root, which is put into the Bottom of the Ear, which must be bor'd for that Purpose, to draw sharp Humours from the Head which fall on the Eyes. That which comes from *Languedoc* is to be preferr'd to that brought from *Burgundy*.

It is be chosen new, well fed, and the least worm-eaten that may be.

Lemery. The *Thymelæa foliis lini*, of Monsieur *Tournefort*, or *Thymelen*, with Linseed Leaves, is a little Shrub whose Trunk is about the Thickness of a Thumb, divided into several Twigs or Branches of about a Foot and a half high, with fine small Leaves, like those of Linseed,

Linſeed, but larger, greener, and more viſcous; the Flowers grow on the Tops of the Branches, collected together in ſeveral little white Cluſters: After that comes a round fleſhy Berry, like that of Myrtle, full of Juice, which is red when ripe, and call'd *Granum Gnidium*. This Fruit contains an oblong Seed, cover'd with a black ſhining Skin, very brittle, having a white Pith, of a hot fiery Taſte. The Root is long, thick, hard, woody, grey, or reddiſh on the Outſide, white within, ſweetiſh at firſt taſting, but very cauſtick and biting afterwards, aboundiug with a great deal of acrid Salt, and fix'd Oil.

[This is the *Thymelæa monſpeliaca*. I. B. 591. *Thymelæa foliis Lini*. C. B. Pin. 463. It is cultivated in the Gardens of the curious. The Fruit of this Plant is now univerſally allow'd to be the *Granum Gnidium* of the Shops, though *Cordus* and *Schroder* have both affirm'd that the *Grana Gnidia* are the Berries of the Mezereon; but the Diſpute is not of Conſequence enough to be worth enquiring into here, as both the one and the other are now altogether out of Uſe.]

Of the Pareira Brava.

The *Pareira Brava*, which the *Indians* call *Botua*, is a Root we have of late Years receiv'd from *Brazil*. It is in Figure very like the Root of the *Thymelæa*, but that it is blacker and cloſer in its Texture: While it is in the Earth it ſends up Branches like thoſe of the Vine. *Pomet.*

It muſt be choſen freſh, ſuch as is truly from *Brazil*, and not adulterated nor worm-eaten. The firſt who brought it to *Paris* was Monſieur *Amelot*, Embaſſador in *Portugal*, and after him M. *Tournefort*, who gave me a Piece, the Figure whereof is here repreſented.

M. *Amelot*, M. *Thevard*, of the Faculty of Phyſick, and ſome others, have recommended it as a Specifick for the Cure of the Stone, to be taken in Powder in a Morning faſting, in White-Wine. For Choice of this, M. *Thevard* thinks that of *Mexico* to be much better than that which comes from *Portugal*: And in a Letter which I receiv'd from *Liſbon* the 16th of *October*, 1692, it is obſerv'd, "That the *Pareira Brava*, which comes "from the *Indies* and *Brazil*, is a Root ſo com- "mon, that almoſt all the Apothecaries there "keep it, but not many in great Quantities. "It is ſold at ten Teſtons, which is about five "Livres *French* Money, a Pound.

[This is the Root of the *Convolocilus Braſilianus flore ſectra petalo monoecus*. Rai. Hiſt. 2. 1331. *Pareyra*, *Ambutua*, *Butua*, *vera Brutua*. Ind. Med. 89. This Root is brought to us in Pieces of different Sizes; the Bark is brown and rough, when cut the inner Fibres appear circular: The Taſte is ſweetiſh, with a Mixture of Bitterneſs. It is ſaid to grow in *Brazil*, becauſe we have it from the *Portugueze*; but it has been ſent alſo from the Coaſt of *Malabar*. It is unqueſtionably a noble Medicine in the Nephritick Cholick. It ſeems to act by diſſolving the ſlimy Matter contain'd in the Kidneys and Bladder; it is alſo good in Hepatick Cholicks, ariſing from an Obſtruction of the Orifice of the Gall Bladder. The *Portugueze* eſteem it as an Antidote and Alexipharmick, and uſe it powder'd for Quinceys, and Diſeaſes of the Thorax.]

[There is another Species of it, call'd *White Pareira Brava*, harder than the former, and yellowiſh within; ſaid alſo to come from *Brazil*, but it has never yet been uſed.]

15. *Of* White Hellebore.

WHITE Hellebore, call'd in *Latin* *Veratrum Album*, is a Plant which grows on the Mountains of *Dauphine* and *Burgundy*, whoſe Root is white, with many long fibrous Strings of the ſame Colour; the Leaves of the Plant are large, green at firſt, and of a yellowiſh Red afterwards, the Stalks, which are hollow, bear a great many little Flowers like Stars. We ought to chuſe ſuch Roots as are faireſt, full of Filaments or Fibres, yellow without, and white within, of an acrid ungrateful Taſte; ſome value thoſe Roots which are cleanſed from the Fibres, which I do not diſapprove, eſpecially when it is to be powder'd. *Pomet.*

Of Black Hellebore.

This is a dark, brown Root, full of ſmall Fibres, black on the Surface, and grey within, from whence ariſe green Stalks, adorn'd with Leaves of the ſame Colour, indented, and Carnation colour'd Flowers like a Roſe. Make your Choice as before directed: This is of much greater Uſe for internal Medicine than the laſt. This is brought us from the *Alps* and from the hot Countries.

The *Veratrum flore ſubviridi*, of *Tournefort*, or the *White Hellebore*, riſes on a Stalk of two or three Feet high, round, ſtraight, hollow, ſurrounded at the Bottom with abundance of Leaves like Gentian, but much larger, more ſtringy, ſtriped and plaited lengthways, ſoft and a little hairy; the Leaves, which are pretty high on the Stalk, are at a great Diſtance from one another. The Flowers grow on the Top, rang'd like long Ears, of a whitiſh green *Lemery.*

Book 2d.

15

Black Hellebore.

16

Roman Wolfs-bane.

17

ra or Panther's-bane.

17

Anthora or Healing Wolfs-bane

green Colour, each of which is compos'd of ſeveral Leaves, diſpoſed like a Roſe, to which a Fruit ſucceeds, in which are contain'd longiſh white Seeds, almoſt like Corn. The Root is a thick, white Head, furniſh'd with a great many long Fibres of the ſame Colour.

The other Sort is the *Hellebore*, call'd by M. *Tourneſort*, *Veratrum flore atro rubente*; it differs from the former, in that the Leaves are much narrower, folding about the Stalks, and that the Flowers are of a brown, or dark red Colour. Both one and the other Kind grow in mountainous and wild Places, eſpecially in the hot Countries. No Part is uſed in Phyſick but the Root, which is brought dried from *Dauphine* or *Burgundy*; it contains a deal of volatile Salt and eſſential Oil in it.

The *Black* as well as *White Hellebore*, purges upwards and downwards, and is ſaid to cure all Diſeaſes proceeding from Melancholy, as Diſaffections from the *Hypochondria*, *Elephantiaſis*, *Herpes*, *Cancers*, *Quartans*, and all Diſeaſes of the Head and Brain, as Epilepſies, Apoplexies, Lethargies, and Madneſs, for which all Authors have held it a Specifick. It enters into the Compoſition of *Matthews*'s excellent Pill, and may be given in Powder, alone, to a Scruple: It likewiſe mixes well with the larger purgative Compoſitions.

[Theſe are the Roots of the *Helleborus albus* and *niger*, of moſt Authors. They are both common in the Gardens of the Curious.

The *White* is uſed as a Sternutatory, and mix'd in Ointments to cure the Itch: It is never now given inwardly; *Boerhaave* very juſtly obſerved, That it is a Medicine much fitter for Horſes than for Men.

The *Black* has been in great Eſteem among the Antients in the moſt obſtinate Chronic Caſes. It does not operate much by Stool, but is a powerful Alterative: It almoſt infallible in Obſtructions of the Menſes, and may be often given in ſuch Caſes where Steel cannot without Danger; for tho' Steel and the *Hellebore* both promote the Menſes, they do it different Ways; one by encreaſing the Blood's Velocity and giving it a greater Momentum in the Uterine Arteries, and the other by dividing it and rendering it more fluid.]

16. *Of* Roman Wolfsbane.

Pomet. THE *Doronicum Romanum*, which we call *Roman Wolfsbane*, is a little Root, yellow without and white within, of a ſweetiſh aſtringent Taſte, attended with a little Viſcoſity. We have this Root brought to us cleanſed from its Strings, from the Mountains of *Swiſſerland*, *Germany*, *Provence* and *Languedoc*: The Root, when it grows, is of the Figure of a Scorpion's Tail, from whence ariſe large Leaves, ſomething reſembling wild Cucumber, or Plantain; this is the Reaſon why it is call'd *Aconitum pardalianches Plantaginis folio*, or *Panther's-bane* with the Plantain-leaf. Chuſe the faireſt Root, and not ſuch as is inclinable to be worm-eaten, well taſted, and when bruiſed, of a good white Colour: It is believ'd that this being chew'd in the Mouth, becomes an Antidote for Men, tho', on the contrary, it is a mortal Poiſon to all Quadrupeds. It is cephalick, cordial and alexipharmack, reſiſts Poiſon, is good againſt the biting of venomous Creatures, and cures the Palpitation of the Heart.

Lemery. The *Doronicum Romanum* of *Geſner*, or that which *Tourneſort* calls the *Doronicum radice Scorpii*, the *Wolf's-bane* with the *Scorpion Root*, is a Plant which bears large Leaves, Swallow-tail'd, green, woolly, and very like the Cucumber, but much leſs and ſofter; the Stalk is above a Foot high, ſomething lanuginous, round, divided at the Top into ſeveral ſmall Branches, which bear yellow radiant Flowers, like thoſe of the *Chryſanthemum*, or *Sun-flower*; thoſe are ſucceeded by little, thin black Seeds, each one having a ſpiral Head; every Root reſembling a Scorpion. This Plant grows on the Mountains of *Swiſſerland*, near *Geneva*, and in ſeveral Parts of *France*, *Germany*, *&c.* from whence theſe Roots are brought dried to us. It is a proper Counter-poiſon, good to fortify the Spirits, and drive away malignant Diſeaſes by Perſpiration, and to expel Wind, in hypocondriack, cholicky Diſaffections.

[This is the Root of the *Doronicum majus officinarum*. Ger. 630. *Aconitum Pardalianches*. Mont. 35. It is kept in the Gardens of the Curious, and flowers in *July*. It is ſaid to be an Alexipharmack, *&c.* but is never uſed in the preſent Practice; nor indeed is it fit it ſhould be 'till we are more certain of its Effects; ſome Authors calling it a Good Medicine, and others a Poiſon, which indeed is the moſt probable. The *Doronicum Plantaginis folio*, is another Species, call'd alſo the *Doronicum minus off.* but as neither are very likely to be uſed, the Diſtinction is of no Conſequence here.]

17. *Of the* Greater Thora, *or* Panthers-Bane.

Pomet. THIS is a Kind of Plant which grows no where but on the high Mountains, and is call'd *Thora Major*,

Wolf or *Panthers-Bane:* It is a Root divided into Lumps, or Clods, like the *Ranunculus*. The Leaves are almoſt round, indented about, and ſupported by tender Pedicles; the Stalks are not above ſeven or eight Inches high, branched at top, and adorn'd with certain yellow Flowers, compoſed of four Leaves, among which ſtands a ſmall Cluſter of Seeds, like thoſe of the *Ranunculus*; and when the Flower is gone the Seeds grow to the Shape of thoſe of the common *Ranunculus*. The Juice of this Plant is uſed to poiſon Fleſh with, for the Deſtruction of the Wolf, the Fox, and other ravenous Beaſts.

This Plant is call'd *Thora*, which ſignifies Corruption, becauſe it is venomous: According to *Tournefort*, it is the *Ranunculus Cyclaminis Folio, Aſphodeli radice*. This is a Kind of *Ranunculus*, or a Plant which from the Root produces two or three Leaves that are almoſt round, like thoſe of the *Cyclamen*, but near as big again, indented on the Sides, fibrous. tied by Stalks, which bear them about half a Foot high, or more: The Flowers grow on the Top like a Roſe; the Seed is Swallow-tail'd and flat; the Root is like the *Aſphodel*, and yields a great deal of acrid corroſive Salt and Oil. *Lemery.*

[This is the Root of the *Thora Valdenſis*. Ger. Emac. 966. *Thora folio Cyclaminis*. J. B. 3. 650. It is kept in the Gardens of the Curious, but is not uſed in Phyſick, being eſteem'd a Poiſon.]

Of the Anthora, *or* Healing Wolfs-bane.

The *Anthora*, according to Monſieur *Tournefort*, is a Species of the *Aconite*, though this is a Counter-poiſon to ſuch as eat the Root of the poiſonous *Aconite*, or deadly *Wolfs-bane*. It is for this Reaſon *Bauhinus* calls it *Aconitum Salutiferum*, the *Healing Aconite*, or *Anthora*. This is compoſed of two ſhort wedge-like Roots, very bitter, white and fleſhy within, but brown on the Outſide, and deck'd with abundance of Fibres. The Stalk ariſes about two Feet high, ſurrounded with Leaves reſembling thoſe of the *Larkſpur*; the Flowers grow about the Stalk like an Ear of Corn, they are yellowiſh, and like a Head cover'd with a Helmet; the Seeds are black, wrinkled, and grow in Sheaths, or membranous Cells, five or ſix of them together. The Root of this is a good Antidote: The Peaſants who gather this on the *Alps* and *Pyrenees*, uſe it with Succeſs againſt the biting of mad Dogs, and to cure the Cholick; they take it for a ſovereign Remedy for thoſe who eat the *Thora*, or deadly *Aconite*. *Pomet.*

The *Aconitum Salutiferum*, is call'd *Anthora*, *quaſi Antithora*; becauſe this is reckon'd a Counter-poiſon to that call'd the *Thora*, which is a Sort of *Ranunculus*, or *Crowfoot*. This *Anthora* is of the Species of the *Aconite*, or deadly *Wolfs-bane*, as deſcribed fully before by *Pomet*. The Root is uſeful in Phyſick, as being alexipharmack, cardiack, ſtomachick, and good againſt the Wind-Cholick: It contains a great deal of volatile Salt and eſſential Oil. *Lemery.*

[This is the Root of the *Anthora ſive Aconitum Salutiferum*. Ger. 820. *Antithora flore luteo aconiti*. I. B. 3. 660. It is cultivated in the Gardens of the Curious, and flowers in *June*. The Root is of a duſky Brown without and whitiſh within, of an acrid Taſte and unpleaſant Smell; it is accounted a Cardiack and Reſiſter of Poiſon, and is an Ingredient in the famous *Orvietan*, and is thought to have the ſame Virtues with the *Contrayerva*; but is at preſent very little uſed.

18. *Of* Angelica.

Angelica is a Plant which grows plentifully in *Bohemia*, *Spain*, *Italy*, *France*, *England*, and moſt Parts of *Europe*, and is ſo well known, it would be needleſs to deſcribe it. The Seed is much us'd to make *Angelica Comfits*, and the Stalk makes a very good Sweetmeat candied. The Root is ſeven or eight Inches long, of an odoriferous Smell, and aromatick Taſte, flexible, and, if new and freſh, breaks white within. It grows in all our *Engliſh* Gardens; yet notwithſtanding ſome is brought us from *Spain* and *Germany*. Take Care of buying the Roots of *Meum*, or *Spignel*, which are ſometimes offer'd to Sale inſtead of it to ignorant Perſons. It is cordial, bezoartick, and alexipharmack, heats, dries, opens, attenuates, and cauſes Sweat, reſiſts Poiſon, and cures the Bitings of venomous Creatures. A Spirit of it chears the Heart, and revives the Spirits to a Miracle. The chymical Oil operates more powerfully than any of the former, to all Intentions. Beſides which, it provokes the Terms, expels the Birth, reſiſts Poiſon, helps Suffocation of the Womb, cures Palſies, Apoplexies, Convulſions, Cramps, and Rheumatiſms. It ought to be choſen in fair large Roots of a duſky Colour without, and white within, and not Worm-eaten, of an agreeable aromatick Taſte, with a little Bitterneſs. *Pomet.*

This Root, whoſe Plant is ſo vulgarly known, grows beſt in a fat Soil, where the Ground is full of Moiſture. *Lemery.*

It is brought ready dried to us from ſeveral Parts, but

18

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19.

Plate 17.

Angelica.

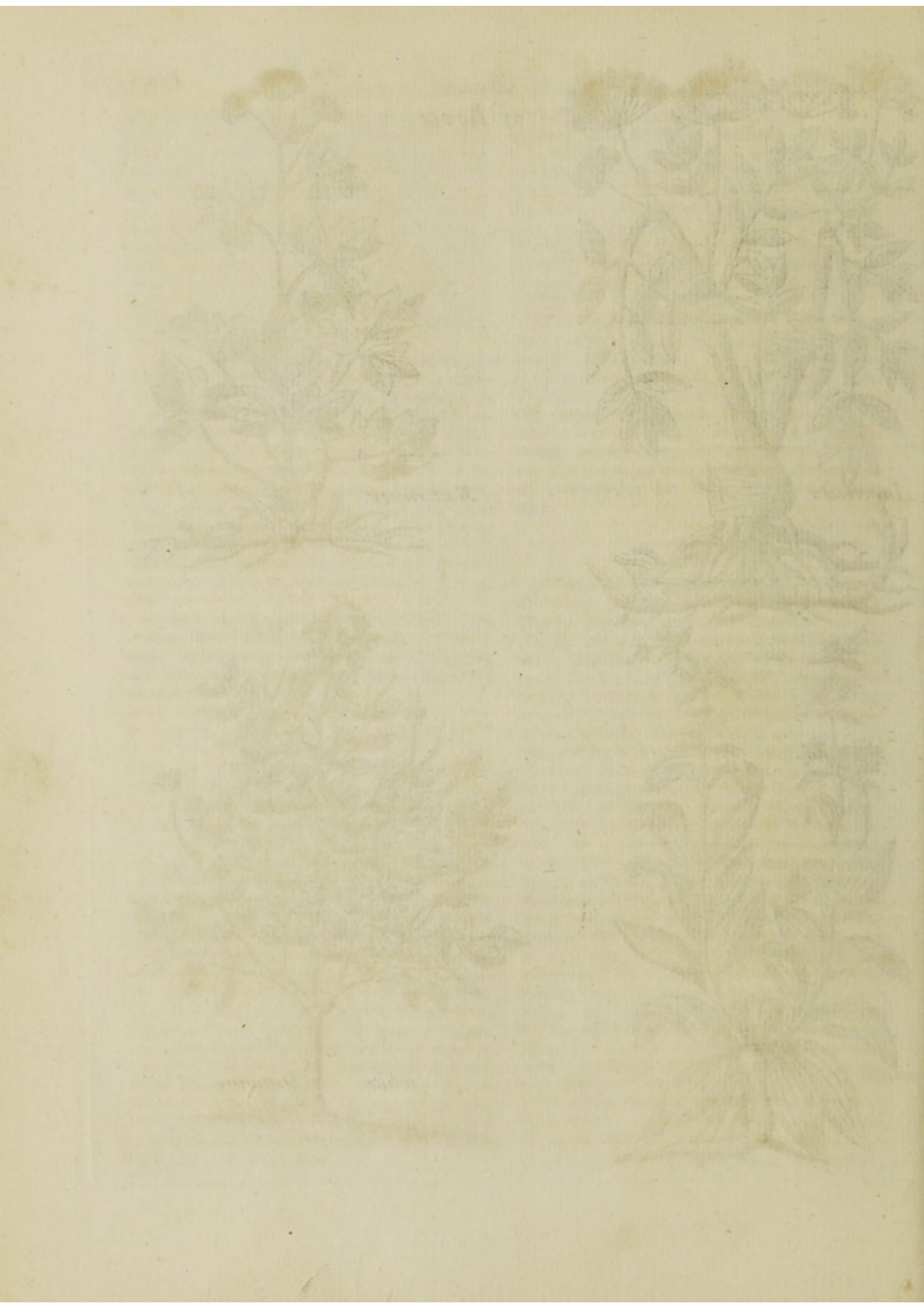
Masterwort.

20.

nlian

21.

white Dittanny.



but the beſt is that from *Bohemia*, and then what is brought from *England*; of a ſweet Smell, and aromatick Taſte, that overcomes the bitter, being loaded with a highly exalted Oil and volatile Salt. It is cordial, ſtomachick, cephalick, aperitive, ſudorifick, vulnerary, reſiſts Poiſon, is us'd in the Plague and malignant Fevers, and for the Biting of mad Dogs.

[This is the Root of the *Angelica Sativa*, of moſt Authors; it is cultivated in Gardens, and flowers in *June:* It is a warm, fragrant, and aromatick Root, much eſteem'd as a Carminative and Cordial, and is an Ingredient in many Compoſitions.

19. *Of* Maſterwort.

Pomet. *IMperatoria*, *Magiſtrantia*, or *Maſterwort* in *Engliſh*, is the Root of a Plant which has large, green, indented Leaves, after which grow Cluſters of white Flowers, ſucceeded by a ſmall Seed, like that of the *Angelica*. Chuſe ſuch Roots as are fair and freſh, hard to break, of a brown Colour outwardly, and greeniſh within, of a ſtrong Smell, and aromatick Taſte: Thoſe that grow in *Auvergne*, and other mountainous Parts, are preferr'd to thoſe of the Garden. The ſame Virtues are aſcrib'd to this as to *Angelica*. Its Name of *Imperatoria* was given it partly for its excellent Qualities, and partly becauſe an Emperor made the firſt diſcovery of them.

Lemery. *Maſter-wort*, *Imperial-wort*, or the *Imperatoria major* of *Tournefort*, is a Plant whoſe Leaves are large, rang'd three and three along the Side of the Stalk, ending in a ſingle Leaf; they are ſtiff, hard, and divided each into three Parts, indented on one Part lightly, on the other deep. They riſe among the Branches all along, which mount about two Foot high, dividing themſelves into Wings, which carry upon their Tops Cluſters of Flowers of five Leaves form'd into a Roſe, ſucceeded by little Seeds, which are flat and almoſt oval, little larger than thoſe of Dill; ſtreak'd lightly behind, and of a white Colour. The Root is ſometimes of the Thickneſs of one's Thumb, wrinkled, hard, and entangled in Fibres, fill'd with a white, aromatick Subſtance of an acrid piquant Taſte, hot in the Mouth, and a little bitter.

This Root being hot and dry, attenuates, opens, digeſts, ſtrengthens, is ſudorifick and alexipharmack, is uſed againſt Poiſons, malignant and peſtilential Diſeaſes; cauſes Expectoration, cures a ſtinking Breath; relieves Diſeaſes of the Head, as Vertigoes, Apoplexies, Palſies. A Decoction of it in Wine, us'd as a Gargle, cures the Toothach, drys up Rheum and Catarrhs, and is good to bathe with in the Gout: A Saline Tincture is much better than the Decoction to cure the Itch, and dry up ſcabby and ſcald Heads: An Ointment of it made with Hogs Lard and Turpentine, heals old Sores, Ulcers, and all foul, leprous, and malignant Scabs.

[It is the Root of the *Imperatoria major*, C. B. Pin. 156. *Imperatoria ſive Aſtrantia Vulgaris*, Park. 942. It is a good Medicine in many Caſes, particularly Jaundice, Cachexies, and Dropſies; becauſe it promotes the Secretions by Urine, as well as by the Skin, but is not ſo much uſed in the preſent Practice as it deſerves.

20. *Of* Gentian.

Pomet. *GEntian* is a Plant ſo called from King *Gentius*, who firſt diſcover'd its Virtues. It grows plentifully about *Chabli* in *Burgundy*, and other moiſt Places in ſeveral Parts of *France*, eſpecially about the *Pyrenees* and *Alps*.

The Root, which is the only Part of the Plant that is ſold, is ſometims as thick as one's Arm, divided into ſeveral Roots, of a Thumb, or Finger's Thickneſs, yellowiſh, and of an intolerable Bitterneſs; the Leaves in ſome manner reſemble thoſe of Plantain, and grow two and two upon every Joint of the Stalk; they are ſmooth, green, pale, and ridg'd Lengthways with Nerves, which ſtand pretty high, particularly on the Underſide. The Stalks are ſtrait, ſtrong, of two or three Feet high, deck'd with yellow Flowers in *June*, which are diſpos'd in Rings, in the Joinings on of the Leaves. Each Flower is of one Piece, divided into five Parts, very narrow, and ſharp pointed: The Style, which is in the Middle, produces a Capſula, in which are encloſed ſeveral round Seeds, but very flat, which are ripe in *July*.

Chuſe ſuch as is of a middling Size, freſh, well dried, becauſe it waſtes conſiderably in drying, and that which is freeſt from ſmall ſtringy Roots and Dirt; it is much recommended, being powder'd and mix'd with the *Theriaca*, for the Bite of Mad Dogs. Take Care alſo that it be not dried in an Oven, which you may eaſily diſtinguiſh, becauſe ſuch will be black within; but, on the contrary, that which is dried in the Air, will be of a Gold-colour'd Yellow. This Root is reckon'd uſeful to reſiſt Poiſons and the Plague; and therefore is properly mix'd in the great Compoſitions: It is ſudorifick, and given with Succeſs in Intermitting Fevers; for which it has receiv'd the Name of the *European Kinquina*, the ſame Name as is given to the *Peruvian*, or *Jeſuits Bark*.

This is the *Gentian* deſcrib'd by *Lemery*. *Ray*, in his Hiſtory of Plants, call'd *Gentiana vulgaris major Ellebori albi Folio:* The larger common Gentian, with the white Hellebore Leaf. The Plant is ſufficiently deſcrib'd before, the Root is wrinkled when dry'd, and ſhrunk much from its former Size. It grows generally every where in the warm Countries, but more particularly on the Mountains of the *Alps*, the *Pyrenees*, and in *Burgundy*, abounding conſiderably in Oil and eſſential Salt. The whole Root is eſteem'd better than that which is ſlit; and it is likewiſe brought in good Quantities out of *Germany*. It is hot and dry, pectoral, alexipharmick, antiſcorbutick, opens Obſtructions of the Lungs, reſiſts Poiſon, and is good againſt all Diſeaſes proceeding from Putrefaction, as Meaſles, Small-pox, Plague or Peſtilence: It cures the Scurvy, and is beneficial againſt Cachexies, Dropſies, Jaundice, Ulcers of the Bladder, Sharpneſs of Urine, *&c.* May be given either in Tincture, Infuſion, Decoction, or Powder. Doſe, a Dram of the Powder.

[It is the Root of the *Gentiana major lutea*, C. B. Pin. 187. *Gentiana vulgaris major Ellebori albi Folio*, I. B. 3. 520.—It is cultivated in the Gardens of the Curious, and flowers in *June*. The Root ought to be gather'd in *September*. It is extremely bitter, but leaves rather an agreeable than a nauſeous Guſt behind it. It deſervedly ſtands at the Head of the Stomachick Claſs; and is the beſt Ingredient we know of in Bitters. It is recommended in many other Intentions, but is only uſed in this in the preſent Practice.]

21. *Of White* Dittany.

WHITE *Dittany*, or *Fraxinella*, is a Plant whoſe Roots are white, ſmaller than the little Finger, ſomething bitteriſh, of a pretty ſtrong Smell: The Stalks are two Feet high, reddiſh, with Leaves like the Aſh, and charg'd at the Top, with large Flowers in Spikes of a whitiſh Red mix'd with Purple, compos'd of five Leaves, ſharp pointed, and with long crooked Strings or Filaments: In the Middle of which Flower is produced a Head divided into five Capſules, in which grow black ſhining oval Seeds, pointed at the Ends. Chuſe the plumpeſt Root, white within and without, and leaſt burden'd with ſmall Fibres, and the cleaneſt that can be had. This Plant flouriſhes in the Foreſts of *Provence* and *Languedoc*. The Root is reckon'd alexiterial, uterine, and diuretick: It kills Worms, cures malignant Diſeaſes and Calentures. *Swelfer*, *Charas*, and moſt of the modern Authors, ſubſtitute the Powder of this Root for the *Farina Orobi*, to make the Troches of Squills for the *Venice* Treacle. *Pomet.*

[This is the Root of the *Dictamnus albus vulgo ſive Fraxinella*, C. B. Pin. 222. *Fraxinella vulgaris*, Park. 417. It is cultivated in Gardens, and flowers in *July*. This is, in all Probability, one of the two *Tragiums* mention'd by *Dioſcorides*; the other of which is a Species of the *Stæchas*.

This Root has had many Virtues attributed to it, but at preſent is only known as an Ingredient in ſeveral of our Compoſitions.]

22. *Of the White* Carline Thiſtle.

THE White *Carline*, call'd by ſome the White *Chamæleon*, or little *Chardon*, is a Plant, the Roots whereof are not much thicker than a Man's Thumb, brown on the Outſide, and white within, from one to two Foot long, of a ſtrong Scent, and agreeable Taſte enough. The Leaves hang quite round it, lying to the Ground, of a pale Green, wav'd, and deeply indented, on each Side furniſh'd with Prickles or little Thorns. The Flower grows like the Leaves, cloſe to the Root, without Stalk, five or ſix Inches broad, flat, and like a little Baſon, edg'd with ſome narrow-pointed Leaves. The Seeds come after the Flowers; they are long, and bear a white Down at the End. Chuſe your Root new, well fed, and dry, of a ſweet Taſte, and aromatick Smell, and take care that no other Root be impos'd upon you inſtead of this, which is often done, eſpecially when it is dear. It is one of the beſt Medicines againſt the Plague, and it is commonly receiv'd in the Catholick Countries that it was diſcover'd by an Angel to the Emperor *Charlemain*, for the Cure of his Soldiers, who were ſeiz'd with the Plague in their Camp; from which it took the Name of *Carline*, from *Carolus*.

The black *Carline*, or black *Chamæleon Thiſtle*, is like that we have deſcrib'd; but that this riſes to a Stalk, and the Leaves are of a more obſcure Green. *Mathiolus* ſpeaks of another Species, whoſe Flowers are Purple; but that is a Plant very ſcarce, and of no Uſe at all. The Virtues of the ordinary *Carline* are to reſiſt Poiſon, provoke Sweat, to paſs by Urine, and to open Obſtructions; they are likewiſe ſerviceable in the Plague, Dropſy, Hypocondriack Paſſions, and the like. This Plant grows in the *Alps* and *Pyrenees*, and the Hills of *Auvergne*. Both the Kinds are ſo common, that the Peaſants eat the Roots and Heads as Artichoaks, when they are young and tender.

Carlina, in *French Carline*, or *Chamæleon*, is a Plant, whereof there are two Sorts: The firſt is called *Carlina* *Lemery.*

acaulos

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22

Carline Thiſtle.

Black Carline Thiſtle.

23

Great Valerian.

Smal Valerian.

acaulos magno flore, the prickly *Carline* with the large Flower: This bears from the Root large jagged Leaves, hanging to the Ground, *&c.* as before deſcrib'd. When the Flower is paſt, there ſucceed oblong Seeds, each of which are furniſh'd with a Quantity of white Hairs, which repreſent a Bruſh: Theſe Seeds are ſeparated from one another by Leaves folded into a Gutter. The Root ſhoots direct into the Ground, ſometimes two Foot deep, the Thickneſs of an Inch, of a dark Colour without, white within, of a ſtrong aromatick Smell, and agreeable Taſte.

The ſecond Sort of *Carline Thiſtle* is the *Chamæleon niger vulgaris*, the common black *Carline*. This differs from the former, in that the Head is not ſo large, nor ſo much ſpread. It grows for the moſt Part only at the Top of the Stalk, which is rais'd among the Leaves about a Foot high. The Flower is commonly white, and very rarely red. The Root is not ſo big, or half ſo well fed as the white *Carline*; and both of them grow in the hilly Countries, as aforeſaid. They take the Roots out of the Earth in Spring-time, to dry for keeping, which are afterwards uſed in Phyſick. The firſt Kind is to be preferr'd for that Uſe, as being fuller of volatile and eſſential Parts.

[The firſt of theſe is the Root of the *Carlina ſeu Chamæleon albus Dioſcoridis*, Ger. 995. *Carlina humilis*, Park. 968. The other of the *Carlina cauleſcens flore magno albente*, Tourn. Inſt. 500. *Carlina cauleſcens magno flore*, C. B. Pin. 380. The Root of the firſt is moſt commended for its Virtues; but the preſent Practice takes no Notice of either of them.]

23. *Of the large* Valerian.

Pomet. THE great or large *Valerian*, which *Johannes Bauhinus* calls *Valeriana major odorata Radice*, the great *Valerian* with the ſcented Root, is a Plant, the Roots of which are about an Inch thick, brown on the Outſide, wrinkled in Rings deck'd with Fibres on the Sides, of a ſtrong aromatick Smell, and very diſagreeable; the Stalk is three Foot high, hollow, ſtrait, and adorn'd at each Joint with two Leaves, oppoſite to each other; thoſe which riſe firſt from the Root are whole, the others cut on each Side. The Flowers are white, and ſcented like *Jaſmine*; they grow in Cluſters on the Tops of the Branches, and are ſmall Pipes, divided into five Parts, which leave behind them flat long Seeds, charg'd with a white hairy Tuft.

The little *Valerian* has ſmall Roots, of a good Smell: The Leaves which grow firſt are almoſt round and ſharp at the End; the Stalk is a Foot and ſome Inches high, charged at each Joint with two Leaves, cut in at the Side: Their Flowers are Purple, and reſemble thoſe of the great *Valerian*, but they are very ſmall: Their Seed is the ſame. In Relation to the Choice of theſe two Roots, take the neweſt and beſt dry'd, and leaſt charg'd with Fibres that is poſſible. They are both us'd as Counter-Poiſons, againſt the Plague, for the Cure of the *Aſthma*, *Dropſy*, *&c.* Some Authors call theſe Roots by the Name of *Pontick Phu*.

Lemery. *Valeriana*, or *Valerian*, is a Plant, of which there are three Sorts us'd in Phyſick: The firſt is call'd *Valeriana hortenſis*, or *Valeriana major odorata Radice*, by *Bauhinus* and *Ray*; by *Tournefort*, *Valeriana hortenſis*, *Phu folio oluſatri*. This bears the Stalk three Foot high, ſlender, round, hollow, and full of Branches, adorn'd from Joint to Joint with two Leave oppoſites to each other, as before in *Pomet*. The Flowers are white inclinable to Purple, and ſweet ſcented. This Plant, which grows in our Gardens, is the beſt, and moſt to be valu'd of any of the *Valerians*.

The ſecond Sort is call'd *Valeriana vulgaris*, or *Valeriana ſylveſtris major*, by *Tournefort*, the great wild *Valerian*; and by *Ray*, *Valeriana ſylveſtris magna aquatica*, the great watry wild *Valerian*. This bears the Stalks a Man's Height, ſtrait, ſlender, and hollow like a Reed, a little hairy. The Leaves are like thoſe of the foregoing Kind, but more divided, greener, indented on their Edges, a little hairy without: The Flowers are diſpoſed as the great *Valerian*, of a whitiſh Colour, tending to Purple, which are ſucceeded by Seeds garniſh'd with Plumes. The Root is fibrous, white, creeping, of an aromatick Taſte and Smell. This Plant grows in wet and woody Grounds.

The third Sort is call'd *Valeriana ſylveſtris minor*, or *Valeriana minor pratenſis ſive aquatica*, the ſmall, wild, or water *Valerian*. This bears a Stalk above a Foot high, angular, ſlender, branch'd, hollow, carrying the Leaves by two and two, jagged towards their Edges. The Flowers and Seed are like the former, but much leſs; the Roots ſlender, crawling, and white, having a great many Fibres, of an agreeable aromatick Taſte. Theſe are dry'd in the Sun, to be made fit for Uſe, and are cardiack, ſudorifick, vulnerary, aperitive, proper to reſiſt Poiſon, to fortify the Brain and Stomach, to deſtroy Worms, provoke the monthly Courſes, aſſiſt Perſpiration, and expel Wind.

[The firſt of theſe is the Root of the *Valeriana major hortenſis*, Mor. Umb. 52. *Valeriana major odorata radice*, I. B. 3. 209. The ſecond of the *Valeriana minor*, Ger. 916. *Valeriana ſylveſtris minor*, Park. 122. And the other, mention'd by *Lemery*, of the *Valeriana ſylveſtris magna aquatica*, I. B. 3. 209. The firſt of theſe is an ingredient

Ingredient in the *Theriaca*, and other Compoſitions; the other two are little regarded.

But the *Valeriana ſylveſtris*, now ſo much and ſo deſervedly in Eſteem, is the Root of a Species different from all theſe, and is much more valuable than them all: The Plant which produces it is the *Valeriana ſylveſtris major foliis anguſtoribus*, Mor. Umb.]

24. *Of* Spignel.

Pomet. *MEUM* or *Spignel*, which the Antients ſurnam'd *Athamanticum*, from the Hill *Athamas* in *Theſſaly*, where the beſt was ſaid to grow, is a Root of the Thickneſs of a little Finger, black without, white within, long, and accompanied with a few ſmall Roots, acrid, a little bitter, and of an aromatick Smell. The Leaves are like thoſe of Fennel, but much leſs, more divided, and abundantly finer. The Stalks are a Foot high, charged with ſome Cluſters of white Flowers, compos'd of five ſmall Leaves; after each of which come two brown Seeds, like Fennel Seeds, but bigger and more furrow'd; which has made ſome believe that *Spignel* was a Species of Fennel or Dill, and ſo call it crooked Dill, or Fennel. This Root is very alexiterial, for which Reaſon it enters into the Compoſition of *Venice-Treacle*: It is likewiſe ſudorifick and diuretick: The Doſe of the Powder is a Dram. It is brought to us from the Mountains of *Auvergne*, *Burgundy*, the *Alps* and *Pyrenees*. Chuſe ſuch as is new, of a good Smell, and as little Worm-eaten and duſty as may be.

Lemery. *Meum Foliis Anethi*, or the *Fœniculum Alpinum perenne capillaceo folio, odore medicato* of M. *Tournefort*, is a Plant which raiſes its Stalk a Foot high, hollow within, and full of Branches: The Leaves are like Fennel, but much leſs, more ſlaſh'd, and almoſt as fine as Hair: The Flowers grow in Bunches on the Tops of the Branches, like Dill; and when the Flowers are gone, a Swallow-tail'd furrow'd Seed ſucceeds. The Head of this Root is full of long Threads, like Eryngo. You ought to chuſe the longeſt, roundeſt, well fed and entire, of a blackiſh Colour outwardly, and white within, the Smell aromatick, and the Taſte ſharp and a little bitter; it contains an exalted Oil, and a volatile or eſſential Salt.

[This is the Root of the *Meum vulgatius*, Park. 888. *Meum Foliis Anethi*, C. B. Pin. 148. It grows in Meadows and Paſtures, and flowers in *June*. It is eſteem'd an Alexipharmick, and has a Place in ſome Compoſitions, but otherwiſe is little uſed. There is another Species of it call'd *Mutellina* in the Shops, which is the *Meum Alpinum umbella purpuraſcente*, C. B. Pin. 148. It is ſuppos'd to have the ſame Virtues with the former, but is now never uſed.]

25. *Of* Tormentil *and* Biſtort.

Pomet. THE *Tormentil* uſed in Phyſick, which *C. Bauhinus* calls *Tormentilla ſylveſtris*, *Wild Tormentil*, is a Plant, whereof the Root is lumpiſh, of an Inch thick, brown or reddiſh without, aſtringent and fibrous. The Leaves are like Cinquefoil, ſmooth, ſhining, ſix or ſeven at a Joint. The Stalks are low, ſhort, branch'd, charg'd with ſeveral Flowers, of four yellow Leaves each; after which comes a Cluſter of ſmall Seeds.

The beſt *Tormentil* Roots come from graſſy, wet Places about the *Alps* and *Pyrenees*. They uſe theſe in alexipharmick Compoſitions, as ſudorifick. They are likewiſe uſed for the Bloody-Flux. Chuſe the neweſt and beſt dry'd, from the hot Countries, which are better than what grow in our Gardens.

Biſtort is a Plant that has a Root an Inch thick, crooked, and roll'd upon itſelf, with annular Foldings, brown without, and fleſh-colour'd within, trimm'd with many hairy Fibres, and of an aſtringent Taſte. The Leaves are like thoſe of Wild Patience, of a lively green without, and a Sea-green on the Inſide. This Plant is in Flower towards the End of *May*, adorn'd with ſeveral Leaves along the Stalk, ſmaller than thoſe which riſe firſt from the Root. The Flowers are of a Fleſh Colour, crowded together in a Spike, but very ſhort and very thick; after which comes a three-corner'd Seed. This Species is call'd by *C. Bauhinus*, *Biſtorta major radice minus intorta*, the larger *Biſtort* with the leſs winding or crooked Root.

Lemery. *Tormentil* is a Plant of two Kinds: The firſt is call'd *Tormentilla*, by *Ray*; *Tormentilla ſylveſtris*, by *Tournefort*; *Heptaphyllum*, by *Fuchſius*, by reaſon it bears ſeven Leaves on a Stalk, as the Cinquefoil does five. The Flowers are compos'd each of four yellow Leaves, in Form of a Roſe, ſupported by a Cup cut and divided into eight Parts, four larger and four ſmaller placed interchangeably. The Root is knotty and unequal, and delights to grow in Woods and ſhady Places, or others well ſupply'd with Moiſture.

The ſecond Sort is call'd *Tormentilla Alpina major*, or *Tormentilla Alpina vulgaris major*, by *Tournefort*, the common larger *Alpine Tormentil*: This differs from the former, in that the Leaves are larger, and the Root thicker, more plump, redder,

# of Roots.

24.

Spignel.

25.

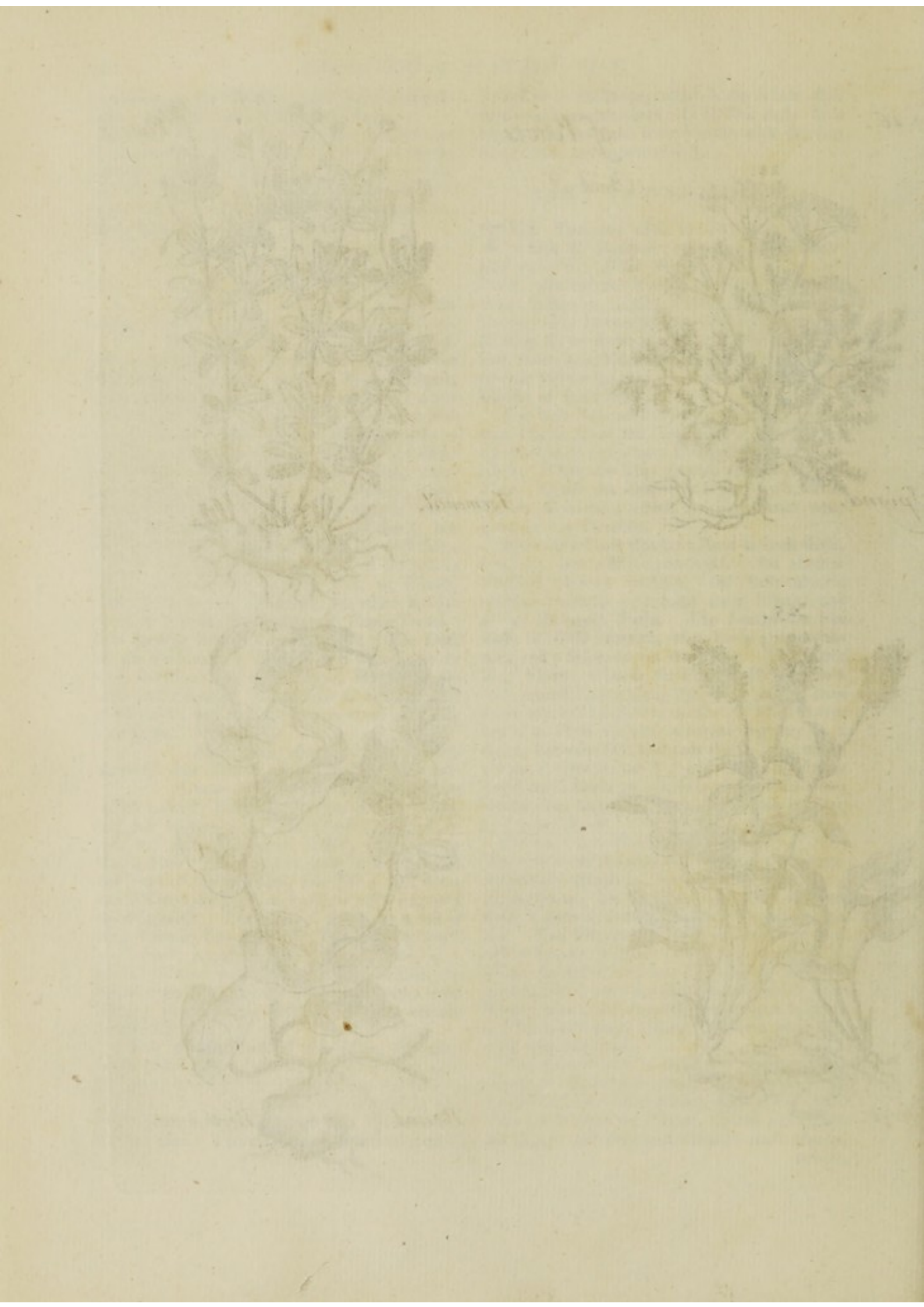
Tormentil.

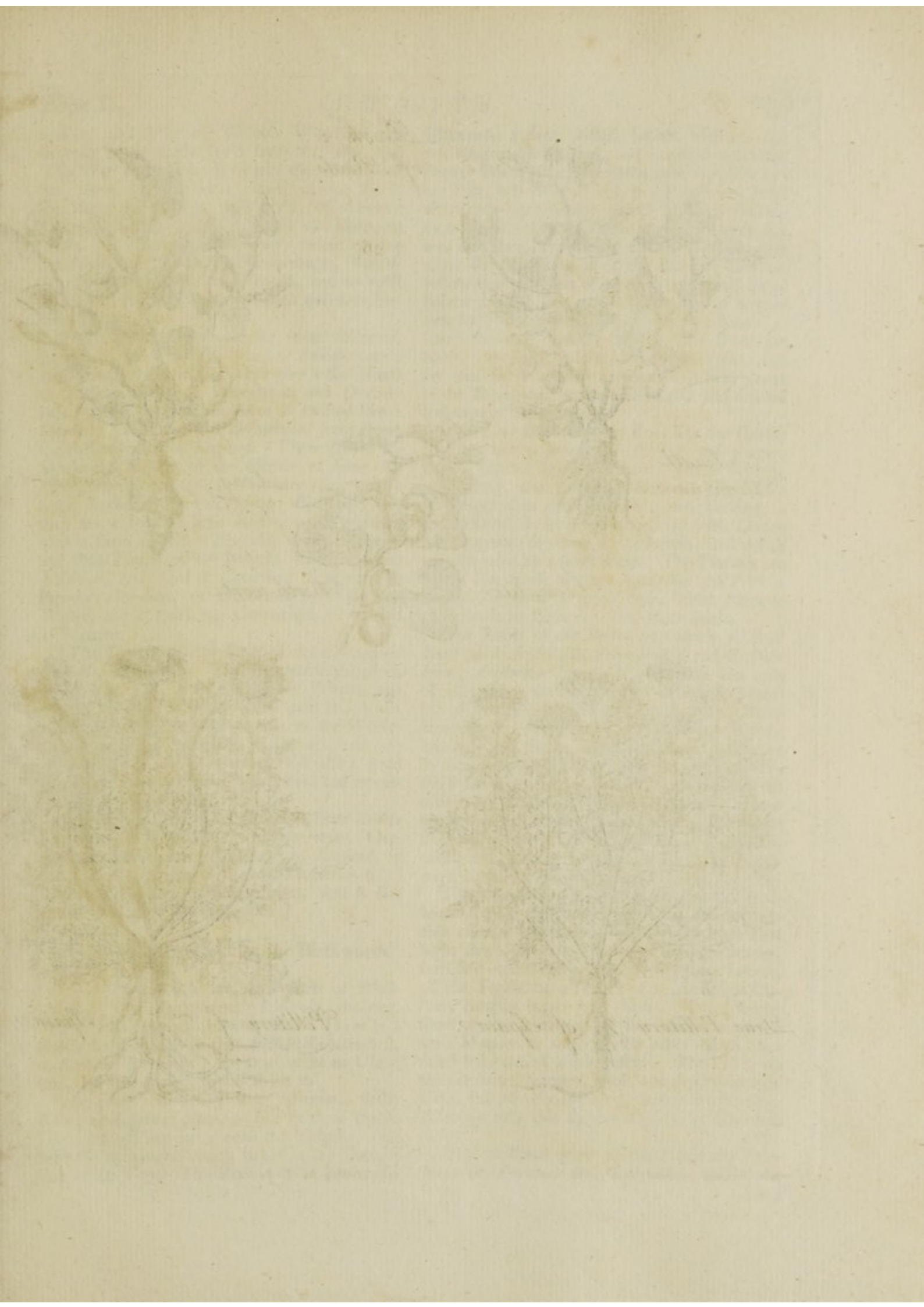
25.

Wort.

26.

Round Birth-wort.





Book 2.
of Roots.

26

Small Birth-wort.

Clematile Birth-wort.

Long Birth-wort.

27

True Pellitory of Spain.

Pellitory of Spain.

J. Buckingham Sculp

redder, and fuller of Virtue. We have this brought to us ready dry'd from the *Alps*, &c. The Way to chuſe it, is to take the neweſt, beſt fed, about an Inch thick, clean, of one Piece, free from the Strings, well dry'd, of a brown Colour, reddiſh within, and of an aſtringent Taſte. It is binding, vulnerary, proper to ſtop Looſeneſſes of the Belly, Hemorrhages, Vomiting, Whites or Reds in Women, and to reſiſt Infection: It is mix'd with cardiack and alexipharmick Medicines.

Biſtort, as if you ſhould ſay twice diſtorted, becauſe the Root of this Plant is commonly turn'd and wound about itſelf: They give it the Name of *Biſtort*, *Colubrina*, *Serpentaria*, and *Dracunculus*, by reaſon that this Root is twiſted like a Serpent: 'Tis alſo call'd *Britannica*, from growing ſo frequently in *England*. There grow, towards the Bottom of the Flower of ſome *Biſtorts*, ſeveral Knots or Excreſcencies, which ſome Authors have call'd *Fungi Biſtortæ*; but they are a Sort of little Roots, which produce each of them a Plant. It is cold, dry, aſtringent, and ſtops Fluxes of the Bowels, Vomiting, and Abortion, and dries up Catarrhs. It is given in Powder, Infuſion, or Decoction in Wine and Water, and is good in a Gonorrhea, or Whites in Women.

[The *Tormentil* is the Root of the *Tormentilla vulgaris*, Park. 394. The *Tormentilla ſylveſtris*, C. B. Pin. 326. It is common in Woods, and flowers in *June*. 'Tis an Aſtringent and Alexipharmack; it is a good Addition to the White-Drink, which it changes to a fine red, and encreaſes very much its Virtue; it is alſo a good Ingredient in many other both officinal and extemporaneous Compoſitions.

The *Biſtort* is the Root of the *Biſtorta Radice minus intorta*, C. B. 192. *Biſtorta major*, Ger. 322. It grows in many Places in *England*, in damp Meadows. It is a good Medicine in all Kinds of Fluxes and Hemorrhages, and is ſaid alſo to be a good Alexipharmick.]

26. *Of the* Ariſtolochias, *or* Birthworts.

Pomet. THERE are three Sorts of *Birthworts* generally ſold, *viz.* the long, the round, and the ſmall: There is a fourth Sort, which is the *Ariſtolochia clematitis*, or *Saracens Birthwort*; but as we make no Uſe of that, we ſhall not ſay much about it.

The round *Birthwort* is a tuberous, fleſhy Root, of different Sizes, to two or three Inches Diameter. They are uneven and irregular, that is to ſay, commonly much larger at the Bottom than at the Top. This Root is of an intolerable Bitterneſs, yellow within, brown without, but not diſagreeable in Smell, and furniſh'd with ſome ſlender Fibres: Several Stalks ariſe from the upper Part, which ſpring above a Foot high, beſet alternately with almoſt round Leaves, ſticking to and embracing the Stalk at the Bottom, cut into two Ears, or Swallow-tail'd: The Flowers grow at the ſetting on of the Leaves; they are yellow ſtreak'd Pipes of an Inch and a half long, hollow and flat like an Ox's Tongue, of a very deep red, which almoſt comes up to a Soot-Colour; they are without Smell. The Seeds are black, very ſmall and flat, almoſt triangular, and are encloſed in a ſmall membranous Fruit, green in the Beginning, brown when ripe, and divided lengthways into ſix Cells.

The *Long Birthwort* is a Root like the Horſe-Radiſh, but a great deal thicker and longer, fleſhy, brittle, brown without, yellow within, very bitter, and ſomething fibrous: The Stalks are longer than thoſe of the round, bending to the Ground, beſet interchangeably, with Leaves not altogether ſo round as the former, and which are ſupported by a ſmall Stem. The Flowers are nearly like thoſe of the round, but the Fruit is of the Figure of a ſmall Pear, which likewiſe contains in its Cells very flat, black Seeds.

The Roots of the *Birthwort*, which *J. Bauhinus* call'd *Ariſtolochia Polyrrhizos*; and *C. Bauhinus*, *Ariſtochia Piſtolochia dicta*, are the leaſt of all. They are compoſed of an infinite Number of ſmall yellow Fibres, ſticking to the ſame Head, hairy, very bitter, and of a good ſtrong Smell. The Stalks are weak, ſlender, bending to the Ground, interchangeably deck'd with very ſmall Leaves, which are paler than thoſe of the others, in Form of a Heart revers'd, and ſupported by very ſlender Stalks, bearing alſo Flowers like the round Kind, but much leſs, yellowiſh, mix'd with a ſooty Colour. This is the *Birthwort* we ſell for the ſmall Sort.

The *Clematite*, or *Saracen Birthwort*, has fibrous Roots, very bitter, and of a Smell agreeable enough: The Stalks are two or three Feet high, ſtrait, firm, and ſtronger than the former, furniſh'd interchangeably with very large Leaves, of the Figure of a Heart, of a pale green Colour, hanging upon long Stalks. The Flowers ſtand at the joining on of the Leaves, after the ſame Manner as thoſe of the other Kinds, but much leſs, and of a pale yellow. The Fruit, on the contrary, is larger, oval, and divided into ſix Cells, full of very flat Seed, which is triangular. *Bauhinus* calls this Species *Ariſtolochia Clematitis recta*.

All theſe Kinds grow in the Fields and Vineyards of *Provence* and *Languedoc*, except the

Small

Small Birthwort, which loves the Woods, the Olive-yards, the dry and rocky Hills of the ſame Countries; it is alſo more aromatick and ſtronger. Meſſieurs *Rondelet* and *Charas*, with good Reaſon, preferr'd this *Birthwort* to the *Saracen* Kind, for *Venice-Treacle*. All the Sorts open Obſtructions, and are purgative. They are uſed every Day with Succeſs, in Decoctions, Injections, Lotions, deterſive and vulnerary Draughts, and the like.

The *Birthworts* ought to be choſen dry and well fed, eſpecially the Round and the Long; heavy, yellow within, grey and ſmooth without; and the ſmall one, which has little Uſe, except for the *Theriaca*, ſhould be in fair Roots, ſomething like thoſe of Black Hellebore, well fed and new.

Lemery.

Ariſtolochia, or *Birthwort*, is a Plant, of which there are four Sorts generally uſed in Phyſick: The firſt is call'd *Round Birthwort*, which is diſtinguiſh'd into two Sorts, one call'd *Ariſtolochia rotunda vera*, or *Ariſtolochia rotunda flore ex purpura nigro*, the *Birthwort* with the black purple Flower. It bears ſeveral Stalks, weak and pliant like the Vine Branch, about a Foot and a half high. The Root is tuberous, round, pretty thick, fleſhy, fibrous, grey on the Outſide, and yellow within, diſagreeable to the Smell, and of a bitter Taſte.

The ſecond Kind of *Birthwort*, call'd round, is the *Ariſtolochia rotunda flore ex albo purpuraſcente*, the round *Birthwort* with the white purpliſh Flower. This differs from the other, in that the Stalks are more numerous, but ſhorter; and the Leaves much larger, oblong, and hanging upon longer Stalks; that the Flower is of a white Colour, inclining to purple, brown on the Inſide; and that the Fruit is longer, more like a Pear; the Seed leſs, of a red Colour; and the Bark of the Root yellow. This Plant grows among the Corn in the Fields.

The next Sort of *Birthwort*, call'd Long, is of two Kinds; the firſt call'd *Ariſtolochia longa vera*, or *Ariſtolochia altera, radice pollicis craſſitudine*, or the other Kind of *Birthwort*, with a Root the Bigneſs of one's Thumb. It bears ſeveral winding Stalks about a Foot and a half high, leaning to the Earth, carrying ſoft Leaves, leſs Swallow-tail'd than thoſe of the round, terminating in a Point, and hanging upon their Stalks. The Flowers are like the Round; the Fruit in Form of a ſmall Pear, producing a flat Seed: The Root is near a Foot long, ſometimes the Thickneſs of a Man's Wriſt, and ſometimes an Inch. The Colour, Smell and Taſte, like the others. This grows in the Fields among Corn, in the Hedges and Vineyards.

The ſecond King of *Long Birthwort* is call'd *Ariſtolochia longa altera*, or *Hiſpanica*, the other *Long* or *Spaniſh Birthwort*. This differs from the former only in that the Flower is not ſo purpliſh within, and the Root is much ſhorter. This grows plentifully in *Spain*, in the Kingdom of *Valencia*, and other warm Places among the Vines. Both the Round and Long contain a great deal of eſſential Salt, Oil, and Phlegm. They all reſiſt Poiſon, Peſtilence, and the Gangrene. Both Root and Leaf are uſeful in external Remedies.

The third Sort, or Species of *Birthwort*, is call'd the *Saracen Birthwort*, or *Clematite*, of which there are two Kinds: Firſt, the *Ariſtolochia Clematitis recta*: This bears ſtraight, firm Stalks, of two Feet high, where there interchangeably hang, upon long Stalks or Tails, Leaves of the Figure of Ivy, but of a pale green: The Flowers grow in great Numbers upon the Necks of the Leaves, like the former Kinds, but leſs, and of a pale yellow Colour: The Fruit, on the other Hand, is larger, fill'd with black flat Seed: The Root is little, fibrous, winding on all Sides, grey, of an agreeable Smell enough, bitter in Taſte, and pungent. This Plant grows in the Fields, Woods, Hedges, or Lanes, in the hot Countries.

The ſecond Sort is call'd *Ariſtolochia Clematitis Serpens*, or *Altera Hiſpanica*: It bears a ſmall Vine-like Stem, of three or four Feet high, hollow, winding, and clinging to other Shrubs, or neighbouring Plants, like the Hop or *Bindweed*: The Leaves are large, pointed, green, and united above, and purple and white underneath, join'd by long Stalks: The Flower and Fruit are like the *Clematite*; but the Flower is yellow, or of dark purple, lin'd within with a fine Wool. The Root is longiſh, and compoſed of many ſerpentine Fibres, of a pale Colour, acrid Taſte, a little aſtringent, but not grateful. The whole Plant is ſweet, and grows chiefly in *Spain*, in Buſhes in the Olive-Grounds.

The fourth is call'd the *Small Birthwort*, of which there two Sorts; the firſt, *Ariſtolochia tenuis*, or *Ariſtolochia Polyrrhizos, ſive Piſtolochia Plinii*, it being the beſt to aſſiſt the Birth, or bring away the After-Birth, *Dioſcorides* repreſenting it to be the propereſt for that Purpoſe. This is the leaſt of all the *Birthworts*: It produces ſeveral ſmall Stalks, or Boughs, which ſpread themſelves upon the Ground. The Leaves are form'd like the Ivy, but little and pale, faſten'd by ſlender Tails or Stalks. The Flowers are like thoſe of the other Kinds, but a great deal ſmaller, ſometimes black, ſometimes of a yellowiſh green; the Fruit like a ſmall Pear:

The

The Roots are very fine, ſtringy, join'd together by a little Head, in Shape of a Beard, or Head of Hair.

The ſecond Sort of this is call'd *Ariſtolochia*, or *Piſtolochia altera:* It bears Vine-like Stalks of a Foot in Height, that have corner'd, hollow, pliant Branches, lying on the Ground, of a dark green Colour: The Leaves like the other Sort, but ſharper at the Ends, ty'd to long Stalks: The Flower and Fruit like the *Long Birthwort*; but the Flower is not of ſuch a browniſh red, and the Fruit much leſs: The Roots are fine, with ſlender Fibres, ſweet ſmelling, like the former Species, and grow in the hot Countries. All the Kinds of *Birthwort* are deterſive and vulnerary, good to provoke Urine and Sweat, to attenuate the groſs Humours, and aſſiſt Perſpiration.

[The *Round Birthwort* is the Root of the *Ariſtolochia rotunda flore ex purpura nigro*, C. B. Pin. 307. The *Long*, of the *Ariſtolochia longa vera*, C. B. Pin. 307. The *Small*, of the *Ariſtolochia Piſtolochia dicta*, C. B. Pin. 307. *Piſtolochia vulgatior*, Park. 293. and the *Clematite*, or *Saracens*, of the *Ariſtolochia Clematitis recta*, C. B. Pin. 307. *Ariſtolochia Saracenica*, Ger. Em. 847. Theſe are all kept in the Gardens of the Curious here. They are all poſſeſs'd of much the ſame Virtues; but the Long has them in the greateſt Degree. It is eſteem'd a Cleanſer of the Womb, a Forwarder of the Menſes and of Delivery: It is alſo accounted an Alexipharmick, and has therefore a Place in the *Theriaca*. Externally uſed it is detergent and ſuppurative.]

27. *Of* Pellitory *of* Spain.

Pomet. *PEllitory* of *Spain* is a Root of a moderate Length, the Thickneſs of a little Finger, greyiſh without, white within, furniſh'd with ſome ſmall Fibres, of an acrid burning Taſte. It produces little green Leaves, and the Flowers of a Carnation Colour, like our Daiſies. Chuſe ſuch as is new, well fed, dry, difficult to break, and of a Taſte and Colour as ſaid before.

The *Pellitory* we have, is brought by *Marſeilles* from *Tunis*, where it grows common: It is much in uſe for eaſing the Tooth-ach, being held in the Mouth; and is of ſeveral Uſes in Phyſick. The Name of *Pyrethrum* is taken from its burning Quality; though ſome will have it come from *Pyrrhus*, King of *Epire*, who firſt diſcover'd its Uſe.

There is alſo another Sort of *Pellitory*, which the *French* call *Alexander's Foot*, and which is the tufted *Pellitory:* This is a little Root half a Foot long, of a browniſh grey without, and white within, ſomething fibrous, at the Top of which grows a Sort of Tuft or Beard, like that of Spignell, of an acrid biting Taſte, approaching to that of *Pellitory*, upon which Account it is call'd *Wild Pellitory*; and ſome uſe to ſell it for true *Pellitory*, but it is eaſy to diſtinguiſh, this being ſmaller, longer, and carry'd about in Bundles. The Leaves of the Plant are very little, of a greeniſh yellow; and the Flowers, which grow in Umbells, are of a pale red. This is brought to us from *Holland*, and other Parts. Both this and the other ought to be choſen new, and in large Roots. They uſe this, as well as the other Kind, to make Vinegar in *France*; but this is of little Uſe in Phyſick.

Lemery. *Pyrethrum*, in *Engliſh Pellitory*, or the Spitting Root, is brought dry'd to us from foreign Countries; but we have two Sorts: The firſt, and the beſt, is in Pieces, about the Thickneſs of one's little Finger, round and wrinkled, of a greyiſh Colour without, and white within, deck'd with a few Fibres, of an acrid, burning Taſte, and grows in the Kingdom of *Tunis*.

The Plant which bears this, is call'd *Pyrethrum Flore Bellidis*, the *Pellitory* with the Daiſy Flower. Its Leaves are ſlaſh'd like thoſe of the Fennel, but much leſs, and green, reſembling thoſe of the Carrot: They riſe from ſmall Stalks, which on their Tops ſupport large radiant Flowers, of a Carnation Colour, like the Daiſy: After them ſucceed ſmall oblong Seeds.

The ſecond Sort is a Root about half a Foot long, much ſlenderer than the former, of a browniſh grey without, white within, furniſh'd with Fibres. This Root has an acrid burning Taſte, like the former, and is brought to us in Bundles from *Holland*. Some call it *Wild Pellitory*. The Plant which it bears is call'd *Pyrethrum Umbelliferum*, and by the *French*, *Alexander's Foot*. It grows a Foot high; the Leaves are ſmall, cut fine as the other *Pellitory*, but of a yellowiſh green; the Flowers grow on the Tops, diſpos'd in Cluſters, of a pale red. Both the Sorts of *Pellitory* contain a great deal of acrid Salt and Oil, but the firſt is more powerful than the ſecond. There is alſo a *Pſeudo-pyrethrum*, which is call'd *Ptarmica*, or *Sneeſe-wort*, which grows in Meadows, or untill'd Grounds. The Roots are chiefly kept in the Shops; being hot and dry, it is inciding, attenuating, and violently ſudorifick; uſed chiefly againſt viſcous Flegm in the Lungs, which it expels by Spitting and Urine: It is good againſt moſt Diſeaſes of the Brain and Nerves; expels Wind, and prevails againſt Apoplexies, Lethargies, Vertigo's, Palſies, benumb'd Members,

Cholicks: It ſtimulates the Fibres, and is ſaid to cure Quartan Agues. A Gargle of it cures the Thruſh, and cold Rheum in the Teeth or Gums.

[The firſt *Pyrethrum* mention'd here, is the Root of the *Pyrethrum Flore Bellidis*, C. B. Pin. 148. *Pyrethrum Corymbiferum Flore Bellidis*, H. Ox. 3. 33. And the other of the *Pyrethrum Umbelliferum*, C. B. Pin. 148. *Pyrethrum Umbelliferum Mathioli*, J. B. 3. 20. It is a Diſpute among Botanical Writers, which of theſe is the true *Pyrethrum*. *Dioſcorides*'s Deſcription agrees ſo well with the umbelliferous Kind, that many determine that to be the true; and thoſe who are of Opinion that the Daiſy-flower'd one, is the true, reconcile it to *Dioſcorides*'s Deſcription by the Alteration of a Word in the *Greek*, which they ſay has been an Error of the Preſs, and that the Word ανθεμου is the true Reading, inſtead of ακεφου. Their Virtues are much alike, but the firſt is the ſtronger.

28. *Of* White *and* Red Behen, *or* Ben.

Pomet. THE *White Ben* is a Root like the Pellitory, grey without, and ſomething whiter within; the Taſte almoſt inſipid, but being held long in the Mouth, it leaves a Bitterneſs diſagreeable enough. This Root is brought to us from the ſame Places that the *Red Ben* is; and the Leaves are much the ſame, except that this has, at the Bottom of each Leaf, four ſmall ones of the ſame Form and Colour, that grow oppoſite to each other; in the Middle of which riſes a high Stalk, adorn'd with ſome few Leaves, and a Budding of Scales, which, when blown, produces a little yellow Flower. Chuſe your Root plump, not rotten, or eaſy to break, but the freſheſt you can poſſibly get. It is appropriated to the ſame Intentions with the *Red Ben*.

The *Red Ben* is a Root brought to us cut in Pieces like Jalap, from *Mount Libanus*, and other Places of *Syria*, which, in the Ground, is of the Shape of a Wild Parſnip, deck'd with Fibres, of a brown Colour outwardly, and red within; from whence ariſe green long Leaves, like thoſe of the *Limonium* or Sea Lavender; for which Reaſon ſome will have it to be a Species of that Plant; from the Midſt of which grow Stalks adorn'd with red Flowers, which are rang'd two and two together, of the Shape of *Jamaica-Pepper*. Chuſe ſuch as is dry, of a high Colour, aſtringent, aromatick, and new as it can be. It is not much uſed in Medicine, and thoſe who ſhould uſe it, generally ſubſtitute the Roots of Angelica, Zedoary, Borrage, or Buglos, in its Place. It is reckon'd cordial, and a Reſiſter of Poiſon.

[There has been much Diſpute about what were the *Behen Album* and *Rubrum* of the Antients: The *Album* has been by ſome judg'd to be the *Lychnis Sylveſtris quæ Behen Album vulgo*, C. B. Pin. 205. by others the *Serratulæ affinis Capitulo ſquammoſo luteo ut et flore*, C. B. Pin. 235. and by others, the *Jacea orientalis patula, Carthami facie flore luteo magno*, Tourn. Cor. 32. The ſecond of theſe is the Plant deſcrib'd by *Pomet*, but the laſt in all Probability is the true *Behen Album* of the *Arabians*. The *Behen Rubrum* is in all Appearance the Root of a Species of the *Limonium*, and the Root of the common *Limonium* is generally order'd in its Place; neither of them, however, are now much uſed in Medicine.]

29. *Of* Alkanet.

Pomet. *ALKANET* is a Root of a moderate Size and Length, of a deep red Colour on the Outſide, and white within, which produces green rough Leaves, like the *Buglos*: For which Reaſon ſome call it *Wild Buglos*: In the Middle of which ariſes a ſtraight Stalk, adorn'd with little Leaves and Flowers, in Form of a Star, of a faint pale Blue. Chuſe your *Alkanet* new, pliant, but yet of a deep red without, white within, with little blue Heads, and which, being rubb'd a little, wet or dry, upon the Nail, or on the Hand, makes a beautiful Vermillion.

As the Colour of the ſaid Root lies in the Superficies, thoſe who uſe it for colouring of their Wax, Ointments or Oils, prefer the Small to the Groſs; and if it is clean, it produces a very fine red. The *Alkanet* grows in *Provence*, from whence it is brought to us by the Way of *Marſeilles*, and *Niſmes* in *Languedoc*. This Root is very uſeful in Phyſick, as well as for the Purpoſes aforeſaid: It is aſtringent and deterſive, ſtays Looſeneſſes, and is uſed for cleanſing and drying old Ulcers.

There is another *Alkanet* of the *Levant*, or *Conſtantinople*, which is a Root of a ſurprizing Nature, as well from its Size and Thickneſs, as it grows ſometimes larger than the Arm, as for its Figure, for it looks to be nothing but a Maſs of large long Leaves, twiſted like a Roll of Tobacco; and of a great Variety of Colours, the firſt being an obſcure Red, which is ſucceeded by a very fine Violet Colour; at the Top of which is a Kind of Mouldineſs, which is white and blueiſh, and, as it were, its Flower. In the Middle of the ſaid Root is found a Heart, which is a little Bark, thin and long, like Cinnamon,

of

28.

Red Behn.

White Behn.

29.

Orchanette of ye Levant.

Common Orchanette.

J. Beckington Sculp.

of a very fine red without, and white within. This *Alkanet* is very little in Uſe, but yet gives a better Colour than the common.

Anchuſa puniceis floribus, or *Bugloſſum radice rubra, ſive Anchuſa vulgatior*, by *Tournefort*; in *French*, *Orcanette*, is a Species of *Buglos*, a Plant which bears ſeveral Stalks above a Foot high, bending to the Ground. The Leaves are like thoſe of the *Wild Buglos*. The Flowers grow on the Top of the Branches; and, when they fall, are ſucceeded by Cups, which contain Seeds ſhaped like a Viper's Head, of an Aſh-Colour: The Root is an Inch thick; the Bark red, and whitiſh towards the Heart. This Plant grows in ſandy Places in *Languedoc* and *Provence*. The Root is dried in the Sun, to be fit for the Druggiſt's Uſe. It makes a good Dye for Pomatums, and the like; and yields a great deal of Oil, with a little Salt: It is aſtringent, ſtops Fluxes of the Belly, being made into a Decoction. They uſe it outwardly for deterging, and drying up of old Ulcers. *Lemery.*

We have brought to us oftentimes from the *Levant*, a Kind of *Orcanette*, call'd *Orcanette* of *Conſtantinople*: This is a Sort of Root as thick and large as a Man's Arm, but of a particular Shape; for it produces a Maſs of large Leaves twiſted like a Tobacco-Roll: In Appearance the whole looks as if it was artificial.

[The *Alkanet* of the Shops is the Root of the *Anchuſa puniceis floribus*. C. B. Pin. 255. *Anchuſa minor purpurea*. Park. 517. It is not much uſed in Medicine. Some to prevent the Loading the *Lucatellus*'s Balſam with the Powder of *Sanders wood*, give it its red Colour by firſt boiling this Root in the Oil, as others do, according to the *Edinburgh* Diſpenſatory, with the *Sanguis Draconis*.

There is alſo another Species of *Alkanet*, the *Anchuſa lutea* of the Shops, which is the Root of the *Sympligtum Echii folio ampliori flore luteo*. Tourn. Inſt. 138. But it is leſs uſed than the other. The *Levant Alkanet* is artificial.]

30. *Of* Madder.

THE *Madder*, which is call'd *Rubia tinctorum*, is the Root of a Plant well known. 'Tis of this Root the *Dutch* make ſuch great Advantages, by the Quantity of it they ſell in different Countries, and particularly in *France*. *Pomet.*

The *Madder* comes to us in three ſorts. The firſt Sort is brought in the Root juſt as it comes out of the Ground, without any other Preparation than that of being dry'd. The ſecond Sort is the Root *Madder*, freed from the Bark and the Heart, and ground by a Mill into a groſs Powder, as we buy it. The third Sort is the Root *Madder* in the groſs, ground to Powder. But the ſecond Kind is the beſt; which to have all its Perfection ought to be, when new taken out of the Bale, of a pale red, and to grow to a very fine red in keeping. That of *Zealand* is eſteem'd the beſt. It is uſed by the Dyers, and in Phyſick. It is hot, deſicative and vulnerary, good in Obſtructions of the Liver and Spleen, in the Jaundice, and Suppreſſions of Urine.

Madder is a Plant whereof there are two Sorts; one call'd *Rubia tinctorum ſativa*, according to *Tournefort*; *ſive hortenſis*, according to *Parkinſon*, that is, the Garden or cultivated *Madder*. The other is *Rubia ſylveſtris* or *Erratica*. The firſt Kind bears long four-ſquar'd Stalks, knotty and rough, from whence ſhoot out at every Joint five or ſix oblong narrow Leaves, which ſurround the Stalk in the Shape of a Star or Wheel. The Flowers grow on the Tops of the Branches, faſten'd by little Stems: They are in ſmall Cups cut into five or ſix Parts, diſpoſed like a Star, of a yellow greeniſh Colour; and when the Flower is gone, the Cup brings forth a Fruit of two black Fruits, ty'd together full of Juice; each of which contains a Seed almoſt round, encloſed in a Membrane or Pellicle. The Roots are numerous, long, and divided into ſeveral Branches; about the Thickneſs of a Gooſe-Quill, red throughout, woody, and of an aſtringent Taſte. They cultivate this Plant in rich Ground, in many Parts of *Europe*, and gather the Root in *May* and *June*, to dry it for keeping and Tranſportation. *Lemery.*

The ſecond Sort, call'd *Rubia Erratica*, or *Wild Madder*, is much leſs, and rougher than the former: The Flowers are ſmall and yellow: It bears the Fruit in Summer and Autumn, which laſts the ſame in Winter. It grows in the Hedges about *Montpellier*; the Root is only uſed in Phyſick, eſpecially that of the Garden Kind: It contains a good deal of eſſential Salt and Oil. Both the Sorts are aperitive by Urine, and a little aſtringent for the Belly: They provoke the Terms, open Obſtructions, and are uſed ſucceſsfully in the *Jaundice*, and may be given in Powder, Tincture, or Decoction, to the Purpoſes aforeſaid.

[This is the Root of the *Rubia Tinctorum ſativa*. C. B. Pin. 333. *Rubia major ſativa ſive hortenſis* 274. It is cultivated in Gardens and Fields, and flowers in *June*. The Root is of a ſweetiſh Taſte, mix'd with ſome Bitterneſs. It is commonly uſed in Decoctions, Diet Drinks, and medicated Ales for Obſtructions of the *Viſcera*.]

31. *Of* Salſaparilla

Pomet. *Salſaparilla* is the long Filaments, or fibrous Parts of a Root, the Plant whereof runs upon Walls, Hedges, Trees, *&c.* with long, ſtrait, pointed Leaves, of a deep green Colour, fill'd with Fibres: At the Bottom of the Leaves grow little Filaments, which catch hold of Trees, as the Vine does: On the Tops of the Branches ariſe little white Flowers like Stars, from whence comes a ſmall red Fruit, of a ſharpiſh Taſte. This Plant grows plentifully in *New Spain*, and in *Peru*, and in the *Eaſt-Indies* as well as the *Weſt*, and delights in wet and marſhy Grounds.

Some will needs have it, that this *Salſaparilla*, is a Plant which is very common in *France*, and call'd *Smilax aſpera major*, the large prickly *Bindweed*, or *Smilax*. There are two Sorts of *Salſaparilla* ſold, *viz.* the *Indian Salſaparilla* of *Spain*, and the bigger *Salſaparilla* of *Marignan*, or *Marahan*. The fineſt and beſt of the two, is that of *Spain*, which to be in its Perfection ought to be in long ſtringy Roots, the Thickneſs of a Gooſe-Quill, greyiſh without, and white with two reddiſh Streaks within, eaſy to ſplit in two, and when it is ſplit free from Duſt or Wormholes, and ſuch as being boil'd, tinges the Water of a reddiſh Colour. Reject ſuch as is moiſt, extremely ſmall, full of Fibres; and likewiſe a Sort of *Salſaparilla*, from *Holland*, in little Bunches, cut at both Ends. Some will have it that the *Salſaparilla*, reddiſh on the Outſide, and ty'd up in long Bunches, which comes by the Way of *Marſeilles*, is not ſo good as the other; but, for my Part, I can affirm, I never could find any Difference betwixt that and the true *Spaniſh Salſaparilla*: The large *Baſtard Salſaparilla*, or that of *Marignan*, ought abſolutely to be rejected; this ſome call falſely *Muſcovy Salſaparilla*, but it is fitter for lighting of Fires than to be uſed in Phyſick. The Uſe of this Root is for *Ptiſans*, or Diet-drinks, for curing the *Venereal Diſeaſe*, and making ſuch lean as are too fat. The Doſe in Decoction is from half an Ounce to an Ounce.

Lemery. *Sarſaparilla*, or *Salſaparilla*, is a very long Root, like a ſmall Cord, which is brought from *New Spain* in Collars, or long Bundles of fibrous Branches, the Thickneſs of a writing Quill. This is the *Smilax*, or *Bindweed*, call'd *Smilax Aſpera Peruana, ſive Salſaparilla*. The Stalk is long, ſerpentine, woody, prickly, yielding, and climbing like the Vine upon every Shrub or Tree. The Flowers, which are of a white Colour, at laſt produce Berries, which are round and fleſhy like ſmall Cherries, green at firſt, a little reddiſh afterwards, and at laſt black, which contain in them one or two ſtony Nuts, of a whitiſh yellow, in which is a Seed, or white hard Kernel. The beſt *Salſaparilla*, is that which is round, full, apt to break when beat together, mealy, and white within; that which is ſhrivell'd, lean, tough, and not mealy, being nothing near ſo good. There is ſome which comes from *Jamaica*, but that is tough, not mealy, and ſo not of equal Value with the *Spaniſh*. Our Merchants bring another Sort, which they call *Marignan Salſaparilla*, which is larger and groſſer than that of *Peru*, and nothing nigh ſo good. It is call'd *Salſaparilla*, which is as much as to ſay, in the *Indian* Tongue, a Plant made up of the *Vine* and *Bramble*. This Root is ſudorifick, alexipharmick, and a great Alcali. Its chief Uſe is againſt the *French* Pox and its Symptoms, the King's-Evil, Rheumatiſms, Catarrhs, Gouts, and all Diſeaſes proceeding from them, taken in a Powder from a Dram to two Drams.

[It is the Root of the *Smilax aſpera Peruviana ſive Sarſaparilla*. C. B. Pin. 296. *Smilax Peruviana Salſaparilla*. Ger. 709. It was formerly uſed in *America* for Venereal Diſeaſes, and from thence grew in Uſe here in the ſame Intentions, tho' its Virtues are at preſent very much ſuſpected; it is but in a few of the Officinal Compoſitions, but pretty much in extemporaneous Preſcription, and conſtantly taken by many People as a Kind of Tea.]

32. *Of* China Root.

Pomet. THE *China* is a knotty crumpled Root, reddiſh without and within; which, from the Ground, ſends forth Stalks that climb upon other Plants, from whence grow large green Leaves, in the Shape of a Heart; the Stalk is furniſh'd all along with little Prickles like Thorns.

The *China* which we ſell, is brought to us from ſeveral Parts of the *Eaſt-Indies* and *China*, both by the Way of *Holland*, *England*, and *Marſeilles*, ſometimes juſt as it is taken out of the Ground, but oftener cleanſed in Part from its outer Skin, and with its Ends cut off, to make it ſell the better.

Chuſe ſuch as is heavy, reſinous, difficult to cut, cleanſed of its outer Skin, of a reddiſh Colour, and take Care that it has not been Worm-eaten, and the Holes ſtop'd with Bole, or ſuch other Matter, as is very frequently the Caſe. The *China* is much in Uſe to make ſudorifick Ptiſans, and

Book 2. of Roots.

Spanish Salsaparilla

Madder

China Root

Bastard Salsaparilla

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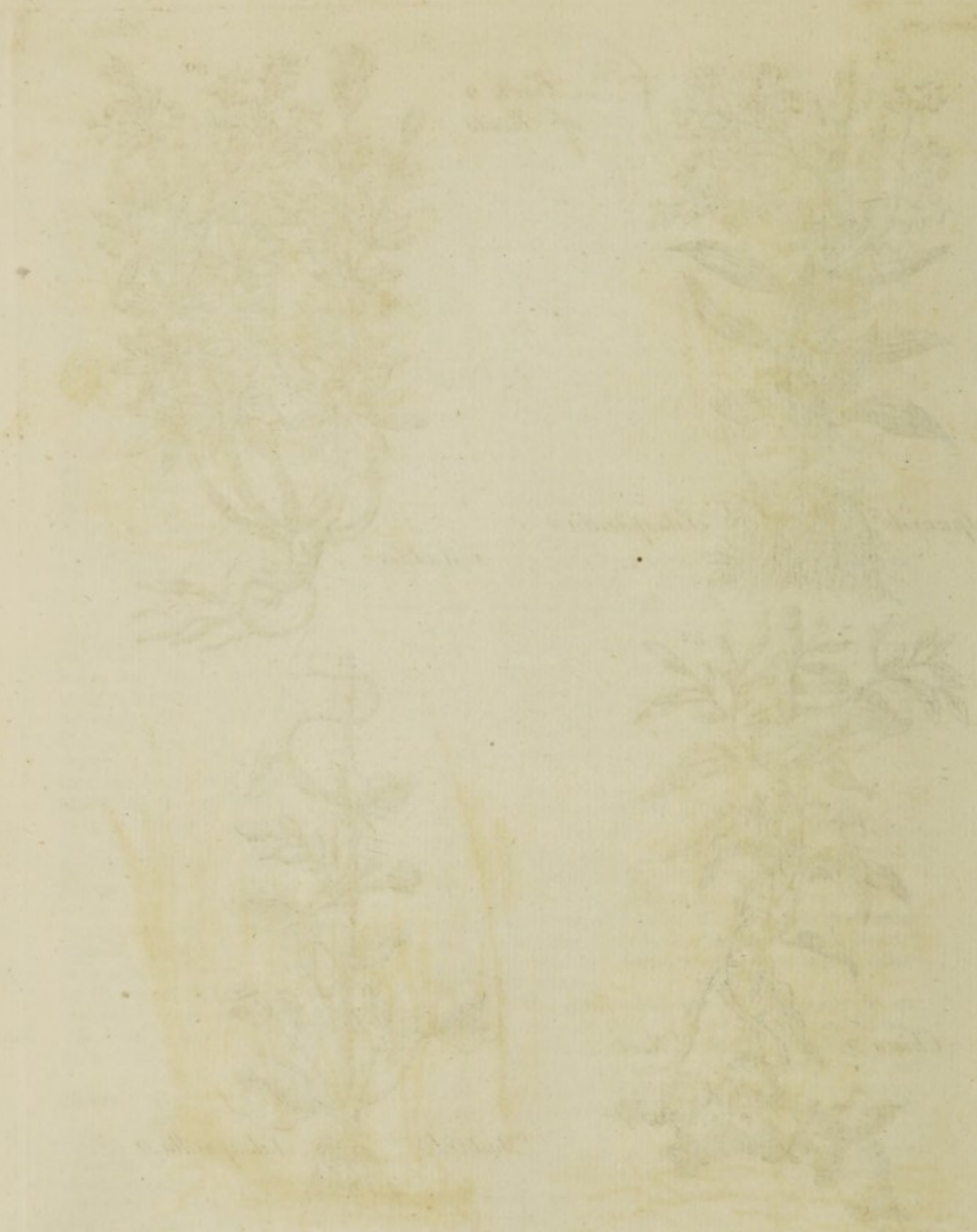
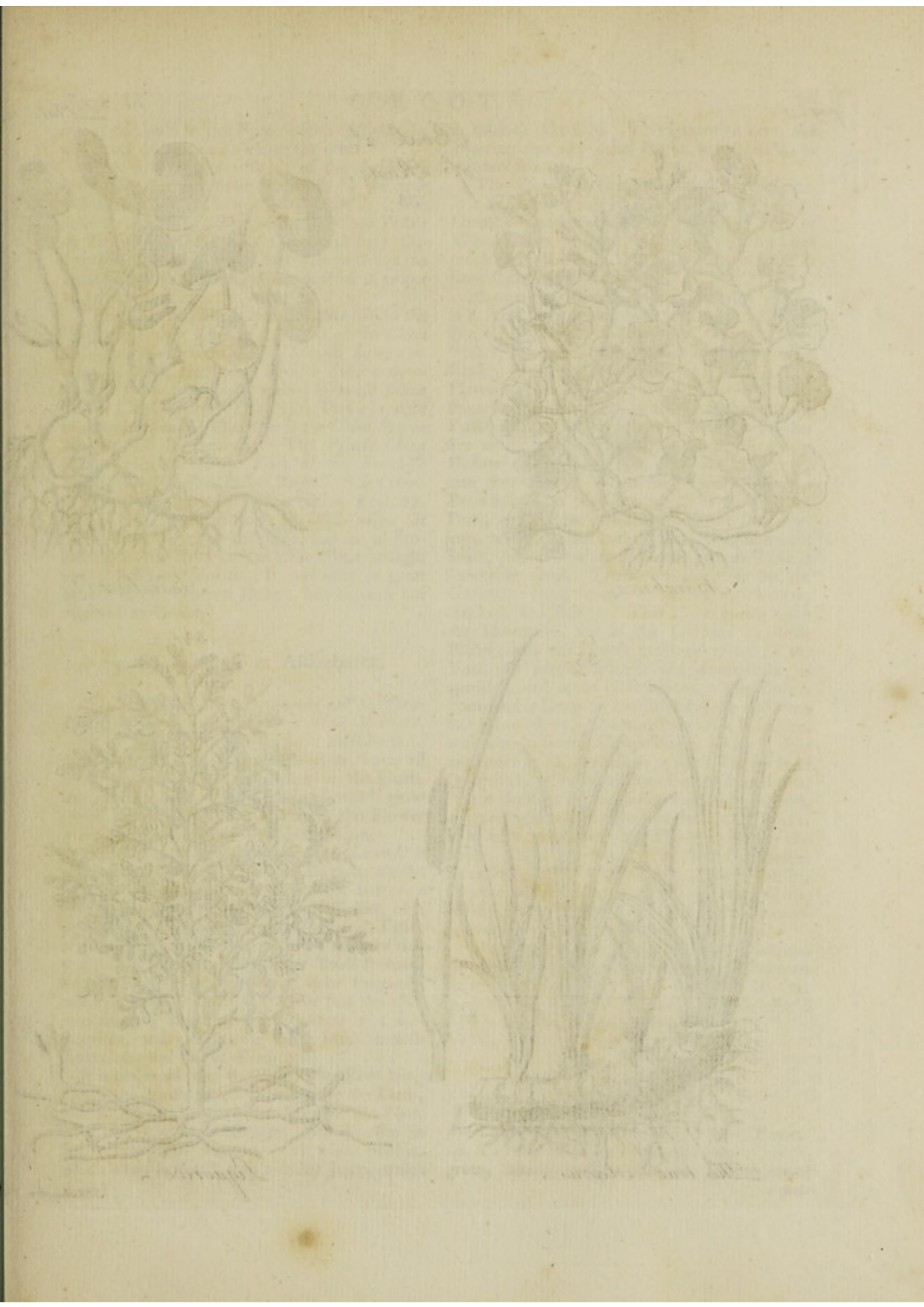




Book 2d.
of Roots.

Plate

33.

Asarabacca

Asarabacca

35.

The true Acorus.

34.

Liquorice

J. Beckington

and is employ'd to that Purpoſe with *Salſaparilla*, one being ſeldom uſed without the other.

There grows in the Iſlands of the *Antilles*, a large Root, which ſome affirm to be the true *China*; but as that is not yet confirm'd, I ſhall refer the Reader to a Book of the Reverend Father *du Tertre*, who has made a fine and large Deſcription thereof; but as that Account has no Relation to our Buſineſs, I do not think it proper to ſay more of it.

[There are two Kinds of *China Root* ſold in the Shops; the true Kind is the Root of the *China Orientalis ſeu Smilax aſpera Chinenſis Lampatam dicta* in MSS. Herman. *Sankira Smilax minus Spinoſa fructu rubicundo, radice Virtuoſa China Dicta.* Kœmp. Amœn Exot. 781. This is brought to us from *China*. The other is the *China Spuria Nodoſa*. C. B. Pin. 297. The *Pſeudo China* Park. 1579. It is the Root of the *Kaboloſſa Riribunnawel Smilax Indica Spinoſa folio Cinnamomi, Pſeudo China quibuſdam.* Mus. Zeyl. 22. This is brought to us from the *Weſt-Indies*. It differs but little from the other, and in all Probability is the Root of the ſame Plant brought into a different Climate. It was once in great Eſteem in the Venereal Diſeaſe, but has now loſt much of its Credit.]

33. *Of* Aſarum, *or* Aſſarabacca.

THIS Root commonly call'd *Aſſara-bacca Cabaret*, or Wild *Spiknard*, grows very frequently in moſt Parts of the *Levant*, in *Canada*, and likewiſe in *France* all about *Lyons*. This Root, when in the Earth, ſends forth Stalks, on the Tops of which grow green thick Leaves, like a Heart, the Flower is roſe-faſhion'd, and of a reddiſh Colour. *Pomet.*

Chuſe the true *Aſarum* from the *Levant*, if you can poſſibly get it, and ſuch Roots as are the moſt beautiful, not fibrous or broken, but of a grey Colour on the Outſide and Within, of a penetrating quick Smell, and of an acrid Taſte, attended with a little Bitterneſs. Take care that you do not take the *Azarina*, or ſmall *Spiknard* for it, which is brought to us from *Burgundy*, and may be eaſily diſtinguiſh'd, in that the *Aſarum* has grey Roots of the Thickneſs of a writing-Pen, and the *Azarina* is in little blackiſh Roots, dry and full of Filaments.

It is obſervable that this Plant has its Root lying upon, and hardly at all entering into the Earth, but at a Foot Depth under ſome of the Roots there are knobby Subſtances, like Truffles in Shape, yellowiſh without, and white within, which when ſqueez'd emit a milky Juice, which is cauſtick like Fire. This I mention here, not knowing that any other Perſon has obſerv'd, or written about it.

The *Aſarum* is but little uſed in Medicine. It is an Emetick infuſed in the Quantity of two Drams, or ſomething more, in half a Pint of White Wine, or given in Powder. It is a Diuretick alſo, boil'd in Water, and has a Place in ſome Galenical Compoſitions.

Azarum, or *Aſarum*, wild *Spiknard*, is a ſmall Plant which bears its Leaves like thoſe of the Ground-Ivy, but ſmaller, rounder, tenderer, ſmooth, and of a ſhining green, faſten'd upon long Stalks. The Flowers grow near the Root, ſupported upon ſhort Stems, which ariſe at the bottom of the Stalks of the Leaves: Each of the Flowers has five or ſix purple Supporters, which raiſe up the Hollow of the Cup, that is divided commonly into three Parts. When the Flower is gone, a Fruit follows in the Cup, which is cut into ſix Parts, and divided each lengthway into ſix Lodgings, which contain in them little, longiſh brown Seeds, full of a white Subſtance, whoſe Taſte is ſomething acrid. The Roots are cloſe by the Ground, ſmall corner'd, creeping, knotty, crooked, and ſtringy. This Plant grows upon the Mountains, and in the Gardens or ſhady Places; and the Leaves continue green all the Year. It purges upwards and downwards; is aperitive, and opens Obſtructions. The Doſe is from half a Dram to two in Infuſion, and from half a Scruple to a Dram in Powder. It is likewiſe uſed in ſeveral Compoſitions, where it does not vomit at all, becauſe it is mix'd but in ſmall Quantities, with abundance of other Ingredients. *Lemery.*

[It is the Root of the *Aſarum Vulgare*. Park. 266. *Aſarum vulgare Rotundifolium*. Hiſt. Ox. 3. 511. It is kept in Gardens and Flowers early in the Spring. Much has been ſaid in its Praiſe in many Intentions, but it is now ſeldom given inwardly; its principal Uſe is in a ſort of Snuff made of the dry'd Leaves reduced to Powder, which powerfully drains mucous Humours from the Head.

The other Species is the *Aſarum Virginianum ſeu Serpentaria nigra*, the *Aſarum Virginianum folio cordato Cyclaminis more Maculato*. H. Ox. 3. 511. The Roots of this are ſometimes offer'd to ſale for the true Snake Root.]

34. *Of* Liquorice.

Liquorice, which the *Latins* have call'd *Glychyrriza*, *Liquiritia*, *Radix dulcis*, is a Plant which has clammy Leaves, green, ſhining, and roundiſh; the Flowers are of a pur- *Pomet.*

a purple Colour, from whence come the Husks, wherein the Seed is contain'd.

The *Liquorice* sold at *Paris*, is brought thither by Bales, from several Parts of *Spain*, but chiefly from *Bayonne* and *Saragossa* Side of the Country, where that Plant grows in abundance. Chuse your *Liquorice* fresh, smooth, of about two Fingers thick, reddish without, of a Gold-Colour within, easy to cut, and of a sweet agreeable Taste. That of *Saragossa* is the best, and is to be preferr'd to that of *Bayonne*, which is greyish without, less, earthy, and of little Esteem. It must be carefully preserv'd lest it spoil, for when one Piece of it begins to taint, the whole Parcel is in Danger. As to dry *Liquorice*, chuse such as is yellow and dry, and take Care that it is not the Refuse of the Bales, which is commonly black, spoil'd, and of no Value. The Use of *Liquorice* is too well known for me to need to describe it. I shall however observe that *Liquorice Powder* taken with an equal Quantity of Flower of Brimstone, from two Ounces to four, according to the Size of the Horse, twice a Day for eight Days, is a good Remedy to prevent broken Windedness when it is first perceived, and will prevent the Malady from appearing for some Days, which those who buy Horses ought to be upon their Guard about.

During the Use of this Remedy, the Horse must be kept at Rest, and have as little Hay as possible.

Of Black Liquorice *Juice.*

They make of *Liquorice* and warm Water, a strong yellow Tincture, which afterwards is evaporated over the Fire, to a solid Consistence, till it becomes black, and is what we call black *Liquorish* Juice, which comes to us ready made from *Holland*, *Spain*, and *Marseilles*, in Cakes of different Sizes, which sometimes weigh four Ounces, or half a Pound. The Liquorish Juice which has the most Virtue, is black without, and of a shining Blackness within, easy to break, and of a grateful Taste enough; reject such as is soft, reddish, and, when broke, is dirty or gravelly, and has a burnt Taste. The Juice is very useful to cure those who are afflicted with Fluxes of Rheum, Coughs, Asthma's, *&c.* chewing it in the Mouth like *Tobacco*, or dissolving it in any convenient Liquor. We sell besides, other Kinds of Liquorish Juices, as those of *Blois*, both white and yellow, and those of *Rheims* or of *Paris*, which are cut into flat Pastiles, or made round like a small Wax-Candle. The white Juice of Liquorish, as 'tis call'd, made at *Paris*, is a Composition of Liquorish Powder, Sugar, Almonds, and *Orrice* Powder; but as there are various Methods of making up these Kinds of Lozenges, either with Gums, Sugars, or Variety of Drugs, I shall pass them by, and only say, that I think the black Juice, singly, to have more Virtue than any of the Compositions.

There are several other Roots sold in the Shops, besides what I have mention'd, which grow in the Gardens, and other Places about *Paris*, as the *Enula Campana*; the *Pæony*, male and female; the greater and lesser *Arum*, or *Wake Robin*; the *Dog-grass*, or *Quick-grass*; and several others, which the Herb-sellers furnish us with, as we have Occasion.

Glycyrrhiza vulgaris,, or, according to *Tournefort*, the *Glycyrrhiza siliquosa*, *vel Germanica*, is a Plant which bears several Stalks three or four Foot high: The Leaves are longish, viscous, green, shining, disposed into Wings like the *Acacia*, ranged in Pairs along the Side, terminating in a single Leaf, of a smart Taste, tending to an acrid. The Flowers are of the leguminous Kind, and purple-colour'd, succeeded by short Husks, which enclose Seeds that are ordinarily of the Shape of a little Kidney. The Roots are large and long, dividing themselves into several Branches, some as thick as one's Thumb, and others as the Finger. *Lemery.*

There is another Sort of Liquorish which is call'd, *Glycyrrhiza Echinata*, or *Glycyrrhiza capite Echinato*, the prickly Liquorish, or that with the *Chesnut Head*: It bears its Branches a Man's Height, carrying long Leaves, sharp at the Ends, and made like the Mastick Tree, green, a little glutinous, and disposed as the former Species. The Flowers are small, bluish; after which grows Fruit composed of several Husks, which are longish and bristled at the Points, standing one against another, and join'd together almost at the Bottom. The Roots are long, and as thick as an Arm, growing straight in the Ground, without any Division at all. This grows chiefly in *Italy*, and is of no Kind of Use, because the other Sort is so much the better both in Taste and Virtue.

Liquorish is brought to us out of *Spain*, and many other Countries of *Europe*, but the best is that which grows in *England*. The best is large, thick, substantial, and of a good Length, being of a brightish yellow within. The *Spanish* is much like the *English*, save that it dries faster, and is more wrinkled in its Bark. That which comes from *Brandenburgh* is a good Kind, and being dried will keep good two Years. It is one of the best Pectora's in the World, opens Obstructions of the Breast and Lungs; easeth griping of the Bowels and Cholick, and is good to mix with

with Catharticks. It cures Ulcers of Kidneys and Bladder, allays Sharpneſs of Urine, and piſſing of Blood; is ſingularly uſeful againſt Coughs, Colds, Aſthma's, Wheezing, Difficulty of Breathing, and other Diſeaſes of thoſe Parts.

[This is the Root of the *Glycyrrhiza ſiliquoſa vel Germanica*. C. B. Pin. 352. *Glycyrrhiza vulgaris*. Ger. Em. 1302. It is cultivated in Fields and Gardens, and flowers in *June*; its chief Place of Growth with us is about *Pontefract* in *Yorkſhire*, tho' of late there is a great deal cultivated near *London*. We have two Sorts of the Liquorice Juice in the Shops, the one call'd *Spaniſh*, which is made near *Tortoſa* in *Catalonia*; the other is made here of the ſtringy Parts of the Root, and mix'd with the Pulp of Prunes; but they are eaſily diſtinguiſh'd, as that from abroad is of a much finer Colour and Conſiſtence, and harder and more brittle.]

35. *Of* Hermodactyls.

THE *Hermodactyls* are ſmall bulbous Roots, of the Shape of a Heart, generally of the Bigneſs of a middling Nut, but flat; of a reddiſh Grey without, and White within; heavy and compact, and almoſt of an inſipid Taſte, while they are freſh; but light, and ſubject to be worm-eaten when old: They are brought dry'd from *Egypt* and *Syria*. *Pomet.*

The Plant has Leaves like the Leek, of a fine Green; among which riſes a Stalk, which carries on its Top a ſmall pear-faſhion'd Fruit. Chuſe ſuch as are freſh, large, well-fed, reddiſh without, and white within, the drieſt and leaſt full of Duſt that can be got. It is a Commodity of which it is beſt to lay in no great Store, it being ſo ready to decay, or worm-eat, as I mention'd before. They are much us'd in Phyſick, in ſeveral *Galenical* Compoſitions.

The *Hermodactyl* is a tuberous or bulbous Root, as thick as a little Walnut, being of the Shape of a Heart, red without, and white within, of a ſpungy light Subſtance, without Fibres, eaſy to break, and crumble into Powder like Meal, of a ſweetiſh Taſte, a little glutinous. It is brought dry from *Egypt* and *Syria*. The common Opinion is, that it is a ſort of *Colchicum*, call'd by *Caſp. Bauhinus*, *Colchicum radice ſiccata alba*; and by *Lobel*, the *Hermodactyl* of the Shops that is not poiſonous, *Lemery.*

There are others that believe it is a kind of tuberous Orrice, called by *Caſp. Bauhinus*, *Iris tuberoſa folio anguloſo*, the tuberous Orrice with the corner'd Leaf, and by *Manthiolus*, *Hermodactylus verus*: So that we ought to ſuſpend our Judgment on this Affair, and wait 'till it is decided by more Travellers that can give a better Light into this Buſineſs, and ſufficiently clear up our Doubts. It is a ſingular Purge, expelling tough Flegm, and clammy Humours, from the Joints and extreme Parts of the Body; and is accounted a Specifick againſt the Gout in the Hands and Feet, given in Powder, from half a Dram to a Dram; and in Infuſion, from two Drams to half an Ounce. The *Hermodactyl* Pills are good againſt Palſies, Tremblings, Convulſions, Colicks, Gouts, *&c.* being given from two Scruples to four.

[It is very much diſputed yet, among the beſt Authors, what the *Hermodactyls* are the Root of; the moſt probable Conjecture is, that the Plant which produces them, is the *Colchicum Chionenſe floribus Fritillariæ Inſtar teſſulatis foliis undulatis*. Hiſt. Ox. 341. *Colchicum variegatum Meliagridis Facie. Cornut.*

They were commonly us'd as a Purge among the Antients; but their Action is very ſlow, tedious, and fatiguing; they are beſt corrected with Aromaticks, and are now ſometimes mix'd with Jalap, and given in Rheumatiſms, and are an Ingredient in the *Electuarium Caryocoſtinum* of the Shops.

The Women of *Egypt* eat them roaſted to make them fat.]

36. *Of the true* Acorus.

THE true *Acorus*, which is improperly call'd *Calamus Aromaticus*, is a knotty Root, reddiſh without, and white within, adorn'd with long Filaments, or fibrous Strings, of a light Subſtance, and eaſily ſubject to be worm-eaten. There ariſe from the ſaid Root green Leaves, long and narrow; the Fruit is about three Inches long, of the Size and Shape of long Pepper. *Pomet.*

Chuſe your *Acorus* new, well-fed, clean'd from the Fibres, hard to break, of an acrid Taſte, accompanied with an agreeable Bittterneſs, of a ſweet Smell, and very Aromatick; 'tis for this Reaſon it is more known by the Name of *Calamus Aromaticus*, though altogether improper, than that of the *Acorus*. This Root, which is commonly of the Thickneſs of a little Finger, and about half a Foot long; is brought to us from ſeveral Parts of *Poland*, and of *Tartary*, and likewiſe from the Iſle of *Java*, where it is call'd *Diringo*. The *Acorus* is of Uſe in Phyſick; it is warm, diuretick, ſtomachick, cordial, and a Reſiſter of Poiſon, and is one of the Ingredigents of the Treacle, without any other Preparation but being well pick'd and clean'd, and freed from Dirt, or any thing elſe that may ſtick to the Root;

Root; but its principal Uſe is for the Perfumers. There is another Sort of *Acorus*, call'd the falſe *Acorus*, and in *Latin*, *Acorus adulterinus*, which is a Species of Flag-flower, with yellow Flowers, common in watry Places: It is attenuant, reſolvent, ſtrengthening, and proper to ſtay Fluxes of the Belly and Hemorrhages, but is little us'd.

Lemery. The true *Acorus*, or *Calamus Aromaticus* of the Shops, is a Root the Length of one's Hand, a Finger's Thickneſs, full of little Knots and Strings, of a fine light Subſtance, reddiſh without, and white within, ſcented, acrid, and commonly call'd, but falſely, *Calamus Aromaticus*. It is brought from *Lithuania*, *Tartary*, &c. The Leaves of the Root are long, almoſt like the *Orrice*. There is falſe *Acorus*, which is called, in *Latin*, *Acorus adulterinus*, *ſeu gladiolus luteus*; which is a Species of the Flag Flower: Theſe grow in marſhy and other watry Places. Sometimes this Root is uſed in Phyſick, but rarely. Both Sorts contain in them a good deal of exalted Oil, mix'd with volatile Salt. The true Sort is bitter, and of a ſharp Taſte, ſtomatick, heating and drying, of thin and ſubtil Parts, attenuating, inciding, and aperitive; it opens Obſtructions of the Liver, Spleen, and Womb, relieves in the Cholick, and provokes the Terms. It may be given in Powder, the candied Root, Oil or Extract, from a Scruple to half a Dram; or in the *Electuary Diacorum*, which you may ſee in the *London Diſpenſatory*.

[This is the Root of the *Acorus verus ſive Calamus aromaticus Officinarum*, C. B. Pin. 34. *Acorus verus Officinis falſo Calamus*, Ger. Emac. 62. It grows in wet Places, and produces its Spike in *July*.

The beſt Judges in Botany are agreed, that this is not the true *Calamus aromaticus* of the Antients, but the *Acorus verus* of *Dioſcorides*.]

37. *Of the true aromatick Reed, or* Calamus Aromaticus.

Pomet. THE true *Calamus*, or rather the bitter *Calamus*, is a Reed the Thickneſs of a Quill, of two or three Foot high, compos'd of Joints, from whence grow green Leaves, and little Cluſters of yellow Flowers. This little Reed grows in ſeveral Parts of the *Levant*, from whence it is convey'd to *Marſeilles*, ſometimes whole, but generally in ſmall Bundles of about half a Foot long. Chuſe the largeſt which is freſh, cleans'd from the ſmall Roots and the Branches, and made up in Bundles; it ought to be of a browniſh Red without, and whitiſh within, furniſh'd with a white Pith; for when it is ſtale the ſaid Pith will turn yellow, and fall into a Duſt, as if Worms had eaten it: It ought alſo to break into Splinters, and, when you put it into your Mouth, to have an intoleraable Bitterneſs. It is chiefly us'd for *Venice Treacle*.

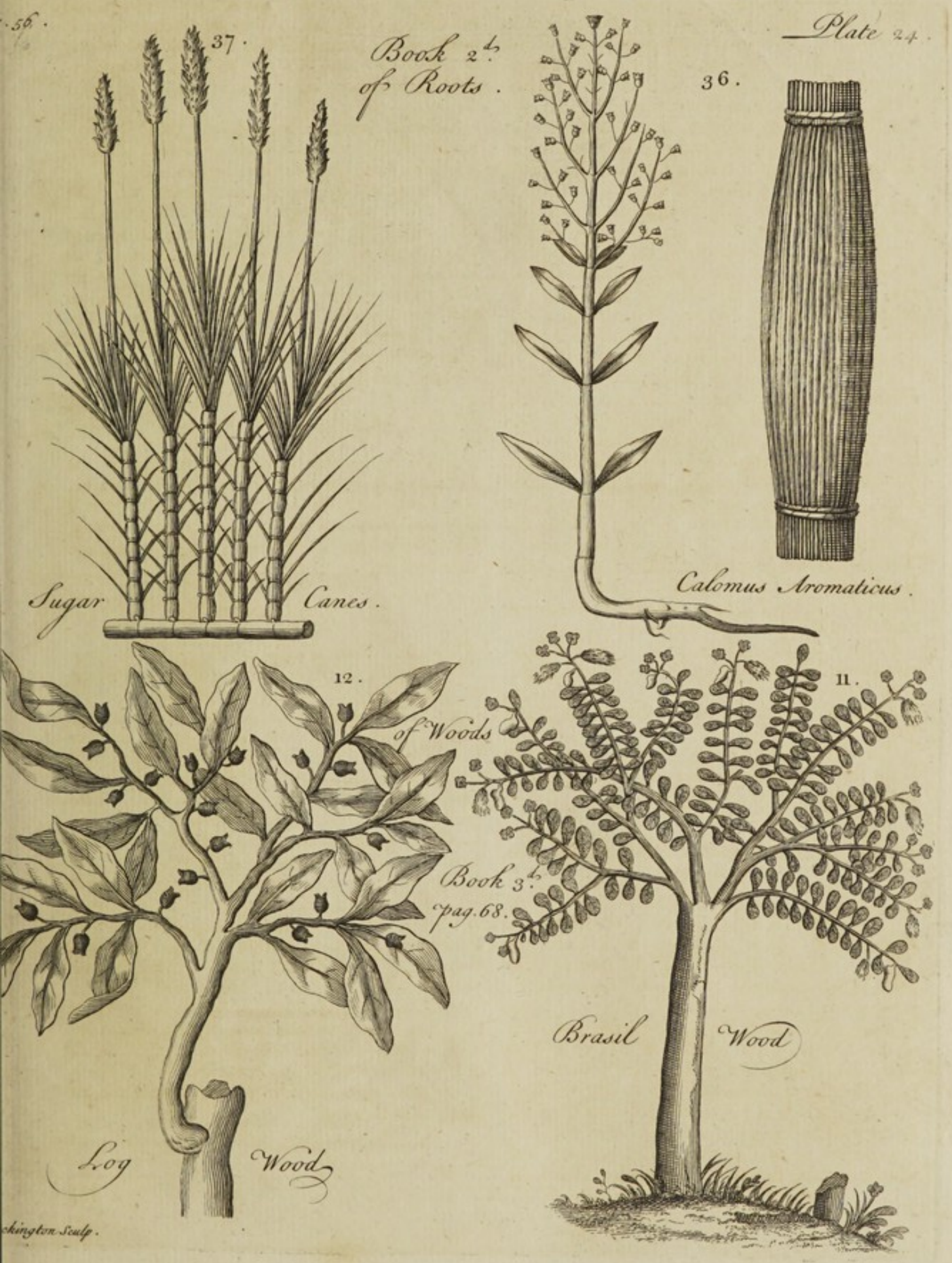
Lemery. *Calamus verus*, *ſeu amarus*, the true or bitter *Calamus*, is a kind of Reed which we bring dry from the *Eaſt-Indies* in little Bales. It grows about three Foot high; the Stalk is reddiſh without, and full of a white Pith within; it is divided by Joints, on each of which grow two long green Leaves, ſharp at the Ends; the Flowers riſe on the Tops, diſpos'd in Cluſters or yellow Plumes. It is ſweet ſcented and fragrant, but ſomewhat bitteriſh in Taſte, breaks white, and is a little knotty. This is us'd againſt Diſeaſes of the Head, Brain, Nerves, Womb, and Joints. There is prepar'd from it, as from the *Acorus*, the Confect, the Spirit, the Oil, the Extract, and the *Electuary Diacorum*.

[This is the true *Calamus Aromaticus* of the Antients; it is the Stalk of the *Caſſabel Darrira*, Alp. Exol. It grows in *Egypt*, and has four leav'd Flowers, ſucceeded by long pointed Seed-Veſſels, full of very ſmall black Seed; but its Virtues are unknown among us at preſent.

38. *Of the* Sugar-Cane.

Pomet. *Sugar-Canes* are Reeds which grow plentifully in ſeveral Parts of the *Weſt-Indies*, in *Braſil*, and the *Antilles* Iſles. Theſe Canes, or Reeds, being in the Ground, ſhoot out from every Joint, another Cane, of five or ſix Foot high, which is furniſh'd with long, green, narrow, ſharp Leaves. In the Midway of the Height of every Cane, there grows a Stalk, terminated in a Point, at the Top of which ſtands a kind of Flower, of a Silver Colour, and in the Shape of a Plume.

The *Indians* prepare the Ground, digging about half a Foot deep, with their Spades, in Furrows, in each of which they place a Cane of about three Foot long, and lay two other Canes, one at each End, for a Foot Length under it; and ſo continue to plant, 'till the Ground is full. At the End of ſix or ſeven Months, which is the Time that they begin to raiſe their Stalks, they take care to cut for the Preſervation of the Sugar, otherwiſe there would be a great deal loſt. Theſe Stalks are what the Savages very much uſe to make their Bows of.


37.
Book 2d. of Roots.
36.
Sugar Canes.
Calomus Aromaticus.
12.
of Woods
Book 3d. pag. 68.
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Log Wood
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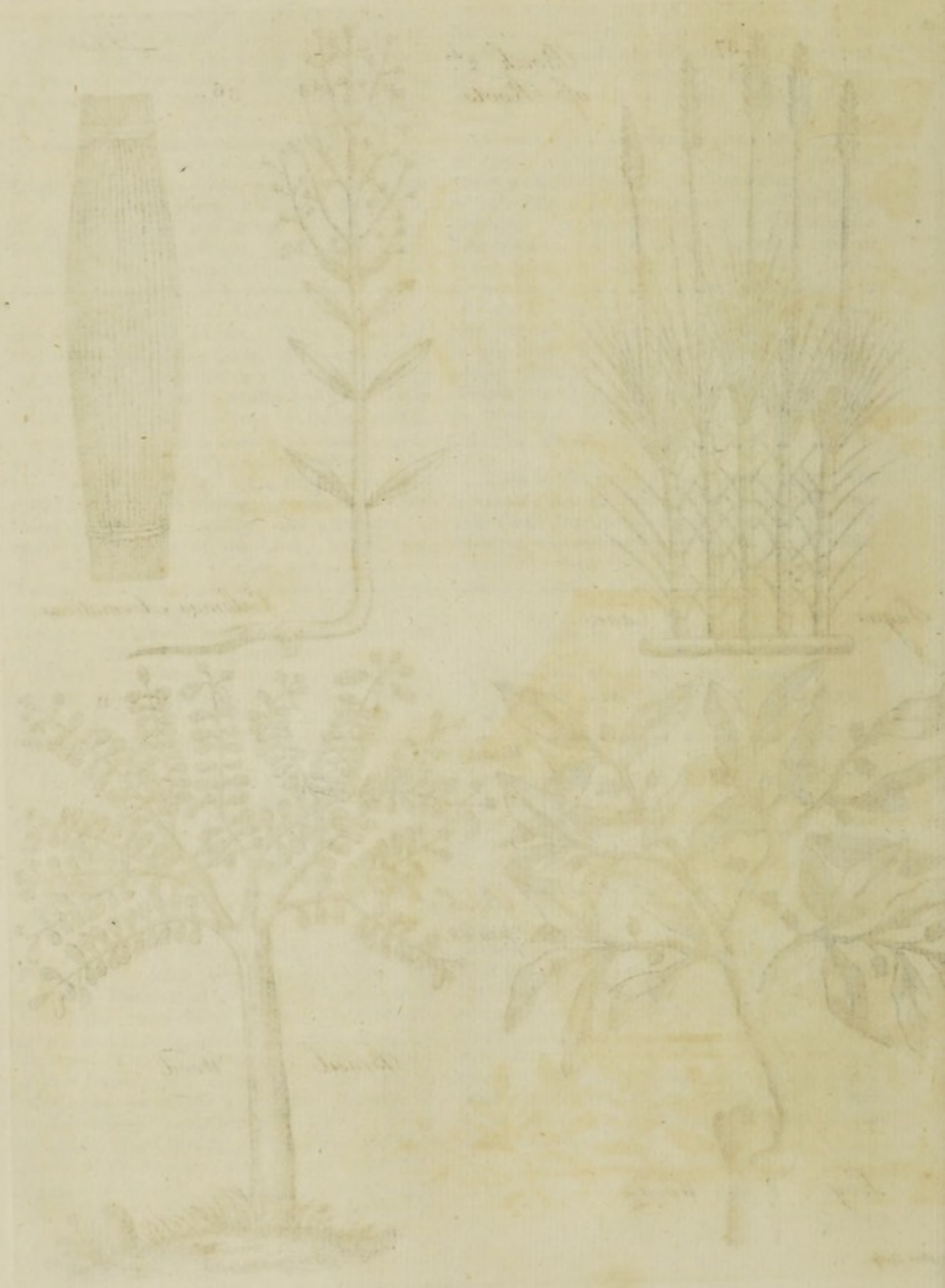
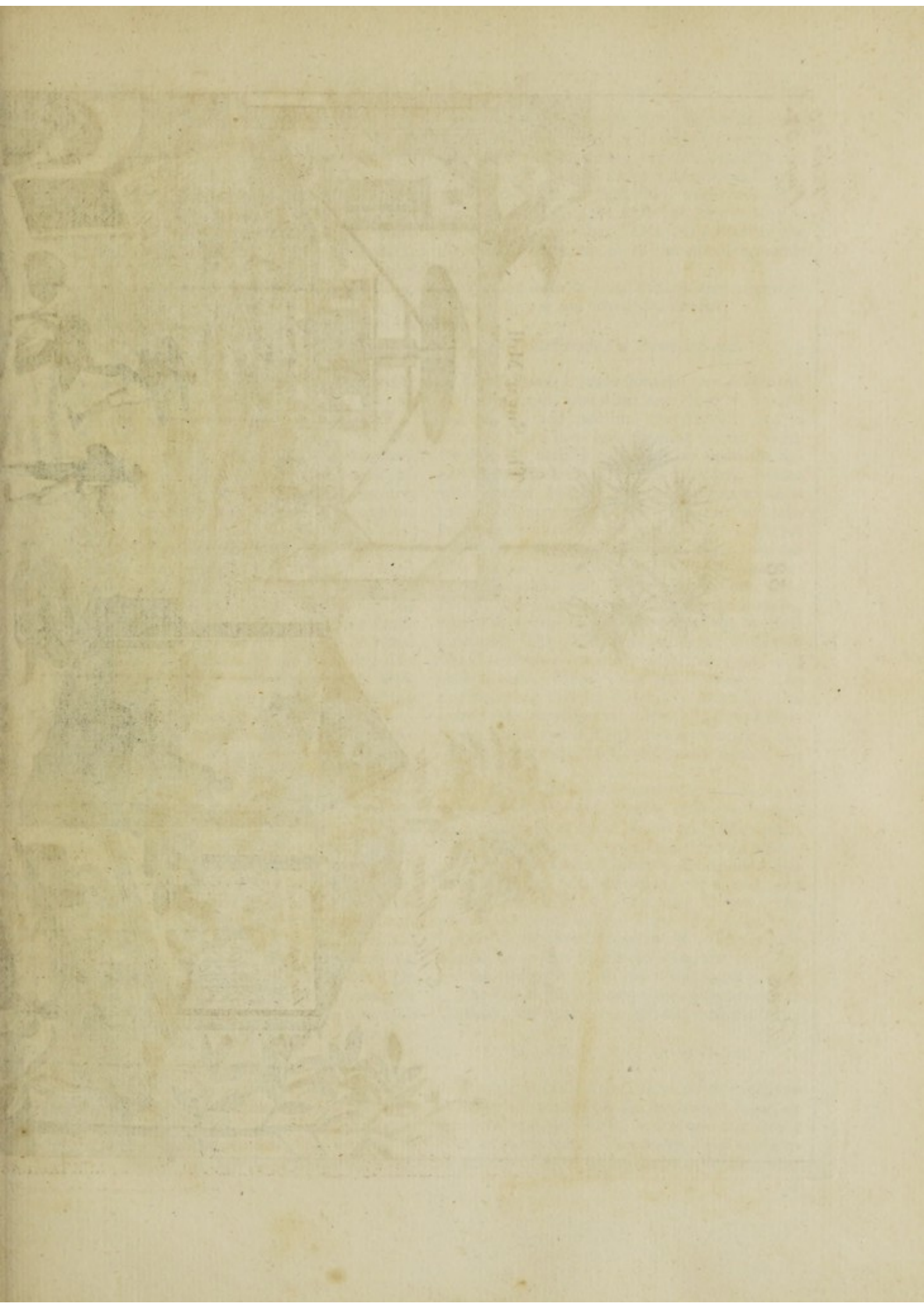
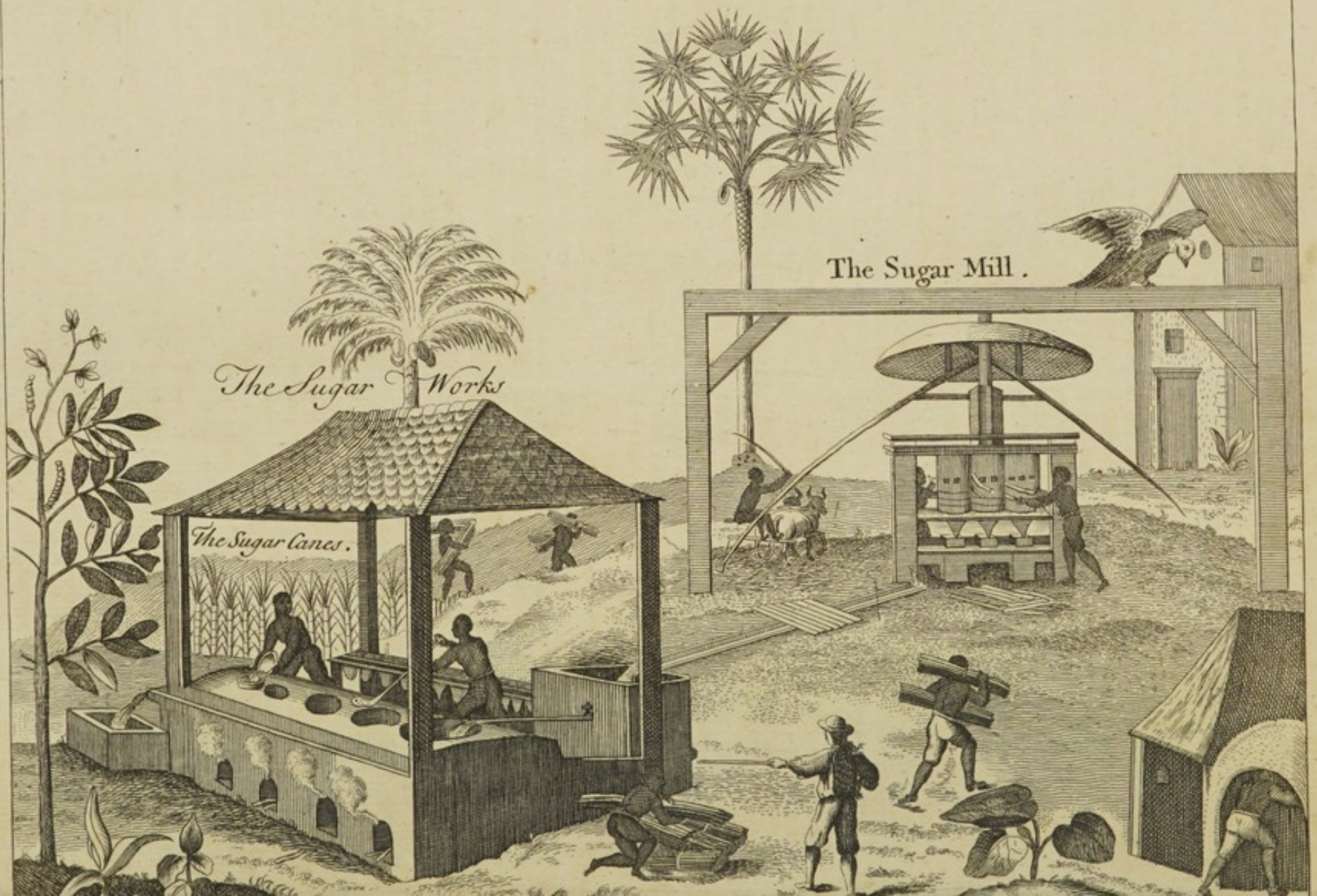





The Sugar Mill.
The Sugar Works
The Sugar Canes.

39. *The Manner in which* Sugar *is drawn from the* Canes.

Pomet. THE *Americans* having cut their Canes above the firſt Joint, and freed them from their Leaves, make them into Bundles, and carry them to the Mill, which is compos'd of three Rollers of an equal Size, and equally arm'd with Plates of Iron, where the Canes are to paſs. The Roller in the Middle is rais'd much higher than the reſt, to the End that the two Poles, which are affix'd croſs-ways at the Top, and to which the Beaſts are yoak'd, may turn about freely, without being hinder'd by the Machine. The great Roller in the Middle is ſurrounded with a Cog, full of Teeth, which bite upon the Sides of the two other Rollers adjoining to it, which makes them turn about, grind and bruiſe the Canes, which paſs quite round the great Roller, and come out dry, and ſqueez'd from all their Juice. If by Accident the *Indian*, or whoever feeds the Mill with Canes, ſhould happen to have his Fingers catch'd in the Mill, they muſt immediately cut off his Arm, leſt the whole Body ſhould be drawn in and ground to Pieces: Therefore as ſoon as they ſee any one have his Finger or Hand catch'd, the Perſon ſtanding by cuts off his Arm with a Hanger, and he is afterwards cur'd, and kept for other Service. The Juice falling into a Veſſel which is below the Mill, and being drawn off, runs by a little Channel into the firſt Boiler, which holds about two Hogſheads, where it is heated by a ſmall Fire, and ſet a boiling, in order to make a very thick Scum ariſe: The *Weſt-Indians* keep this Scum to feed their Cattle with. This Liquor being well ſcum'd is put into a ſecond *Boiler*, where they make it boil again, throwing in, from Time to Time, warm Water, in which they have beat up ſome Eggs: Having been thus purified, they paſs it through Strainers; and, after it has has done running, put it into a third Boiler, which is of Braſs or Copper, and then again, upon another refining, into a fourth Boiler; and when it begins to cool, and they find it riſes to a Grain, they paſs a Scimmer, or wooden *Spathula* underneath it, from the Right to the Leſt, to ſee what Quality the Graining is of: The Sugar being thus ready, while it remains hot, is caſt into Moulds, or Earthen Pots, with Holes in their Bottoms, yet ſhut: At the End of twenty-four Hours, which is the ordinary Time the Sugar takes to incorporate, the *Negroes* carry the Pots into their Warehouſes; and after they have open'd the Holes, and pierced the Sugar, they ſet the Moulds upon little Pots or Jars, in order to receive the Syrup, or Moloſſes, which runs from it. When the Syrup is run from the Sugar, they take it out of the Moulds, and cut it afterwards with a Knife; and this Sugar cut in this Manner, is call'd the grey *Muſcavado* Sugar; which, to be in its Perfection, ought to be of a whitiſh Grey, dry, the leaſt Fat, or ſmelling of the Fire that may be. This *Muſcavado* is the *Baſis* and Foundation of all the other Sugars ſold among us.

It is but little in Uſe, though very proper to to make Syrups and colour'd Confects.

Of Caſſonade, *or* Powder Sugar.

The *Caſſonade* is made from the grey *Muſcavado* run again; and, after it has been clarify'd, ſtrain'd and boil'd, and caſt into the Moulds, and ſo prepared as we have been ſpeaking before. After the Syrup is drain'd out, they lay upon the Sugar about an Inch Thickneſs of Clay, wetted with common Water, that the Moiſture which is in the Clay may get through the Sugar, and take away with it whatever fat or bad Matter might remain in it: When it will run no longer, and the Clay at the Top is dry, they take the Sugar out of the Moulds, and cut the Cakes into three Pieces, the Top, the Middle, and the Bottom, which they dry ſeparately, according to their Fineneſs. The fineſt Powder Sugar is that of *Braſil*; which is extremely white, dry, and well grain'd, of a Violet Taſte and Flavour. The *Caſſonade*, or Powder Sugar, is much in Uſe among the Confectioners; above all, that of *Braſil*, by reaſon that it is leſs ſubject to candy; upon which Account the Confectioners value it the more.

The Sugar, which we improperly call Sugar of ſeven Pounds Weight, becauſe it as often weighs ten or twelve, is made of the grey *Muſcavado*, form'd into Loaves, as we have deſcrib'd before. The Sugar of ſeven Pounds is diſtinguiſh'd into three Sorts; to wit, the white, the ſecond, and the laſt, which is of a browner Colour; the whiter the Sugar is, the better ſtov'd, grain'd, and dry'd, the more it is eſteem'd. The leſs the Moulds are, that is, the leſs the Loaf is made, and the whiter it is, ſo much the dearer it is.

The Uſe of this is to make choice Syrups, white Confects, and to preſerve *Apricots*, and the like.

Of Sugar-Royal, *and* Demy-Royal.

The Sugar call'd *Royal*, from its extraordinary Whiteneſs, is made from the ſmall white Sugar, or Powder-Sugar, of *Braſil*, melted and caſt into a Loaf as the former. This *Sugar-Royal* ought to be extremely white throughout the Whole; that

is to ſay, as fine at the Top as the Bottom, of a clear, compact, ſhining Grain, notwithſtanding eaſy to break; which is the general Obſervation of Sugars, that are well bak'd, and of a kindly Sort. We ſell beſides, another Sort we call *Demy-Royal*; which is a ſmall Sugar-Loaf, very white, and wrapp'd in a blue Paper, which comes from *Holland*.

The *Dutch* formerly brought us Sugars of eighteen and twenty Pounds, wrapp'd in Palm-Leaves inſtead of Paper; for which Reaſon it was call'd Palm-Sugar, which was a white fat Sugar of a good Sort, and a Violet Taſte. We uſed to have beſides another Sugar from the *Madeiras*, but we have no more of it now, becauſe we have it from ſeveral other Iſlands much better.

Of Brown Sugar.

This Brown Sugar is one Sort of the *Muſcavado*, which they turn to Powder Sugar, and is made of the Syrup of the Seven-Pound Sugar, after the ſame Manner as the others are made. It ought to be of a greyiſh red Colour, dry, and not ſmelling of burning; for there is ſome to be met with ſo moiſt, and with ſo much of the burnt Smell, that it is almoſt impoſſible to uſe it. The Uſe of the Brown Sugar was formerly very conſiderable, in that it ſerv'd to put in Clyſters: At preſent ſeveral Apothecaries, very improperly, imploy it to make many of their Syrups with, which muſt be very diſguſtful, by reaſon of its naufeous Taſte, and its near Alliance to the Molaſſes themſelves, which ſome call the Syrup of Sugar, and which never ought to be uſed in Phyſick; great Quantities of it are uſed in *Holland* to temper Snuff with, and to ſell to poor People inſtead of Sugar: I have been aſſured, however, that Molaſſes are better for diſtilling Rum than the *Muſcavado* Sugar.

Of White and Red Sugar-Candy.

The White Sugar-Candy is made of the white *Liſbon* Sugar, melted and boiled to a Candy thus: Diſſolve your Sugar in pure Water, then boil it to the Conſiſtency of a Syrup, which pour into Pots or Veſſels, wherein little Sticks have been laid, in order that the Sugar may ſtick to them during the fifteen Days that it is in the Stove; but the great Care muſt be to keep the Stove Fire equal during theſe fifteen Days that it remains there; they afterwards take it out of the Stove to drain and dry it, and then put it up in Boxes for Uſe.

Chuſe this Sugar-Candy white, dry, clear and tranſparent. The very fineſt Candy we have comes from *Holland*, and it is ſold for Four-pence or Five-pence a Pound dearer than that of *Tours*, *Orleans*, *Paris*, and other Places. This Sugar-Candy is eſteem'd good to moiſten the Breaſt and cure Rheums.

The Red Sugar-Candy is made the ſame Way with the White, except that this is made with brown *Muſcavado*. Both Sorts are better for Rheums, Coughs, Colds, Catarrhs, Aſthmas, Wheezings, *&c.* than common Sugar; becauſe being harder, they take longer Time to melt in the Mouth; and withal keep the Throat and Stomach moiſter than Sugar does. Put into the Eyes in fine Powder, they take away their Dimneſs, and heal them being Blood-ſhot; alſo they cleanſe old Sores, being ſtrew'd gently upon them.

That Red Sugar-Candy is beſt which is made in *Holland*, and is the drieſt and reddeſt.

Of Barley-Sugar, *White and Amber-colour'd*, Sugar *of* Roſes, Paſtiles *of* Portugal, *&c.*

Barley-Sugar is made either of white Sugar or brown; the firſt Sort is boil'd 'till the Sugar becomes brittle, and will eaſily break after it be cold. When it is boil'd to a Height, caſt it upon a Marble, that is firſt lubricated with Oil of Sweet Almonds; and afterwards work it to a Paſte, in any Figure you fancy. The other Sort, improperly call'd Barley-Sugar, is made of Caſſonade, or coarſe Powder Sugar, clarified and boil'd to a Toughneſs that will work with your Hands to any Shape, and is commonly made up in little twiſted Sticks. This Kind of Sugar is more difficult to make than the other, becauſe of hitting the exact Proportion of boiling it to ſuch a Height that they may work it as they pleaſe: This ought to be of a fine Amber-Colour, dry, new made, and ſuch as does not ſtick to the Teeth: Some Confectioners, to make it of a fine Colour, ſtain it with Saffron.

Sugar of Roſes is made of white Sugar clarified, and boil'd to a Conſiſtence of Tablets, or little Cakes, in Roſe-water, and ſo caſt into what Form you like beſt.

The *Paſtiles*, or *Portugal* Lozenges, are made the ſame Way, of the fineſt Sugar that can be had, made into a Paſte with Gum *Tragacanth*, to which is added ſome Ambergreſe, or any other Perfume, moſt grateful to the Maker's Fancy.

Of Sugar-Plums.

There are infinite Variety of Flowers, Seeds, Berries, Kernels, Plums, and the like, which are, by the Confectioners, cover'd with Sugar, and bear the Name of Sugar-Plums, which would

would be endleſs to ſet down, and are too frivolous for a Work of this Nature: The moſt common of the Shops are Carraway-Confects, Coriander, and Nonpareille, which is nothing but Orrice-Powder, cover'd with Sugar; and what is much in Vogue at *Paris* is green Aniſe: Beſides theſe, we have Almond-Confects, Chocolate, Coffee, Barberries, Piſtachia Nuts. *&c.* Orange Chips and Flowers, Lemon-Peel, Cinnamon, Cloves, and many other Roots, Barks, Fruits, Flowers, *&c.* too numerous to ſpeak of, together with Paſtes, liquid Confections, and the like; many of which are uſeful in the Apothecaries Shops, as green Ginger, Oranges, Jelly of Barberries, *&c.*

Of Spirit and Oil of Sugar.

Beſide all the other Uſes that we make of Sugar, there is an acid Spirit drawn from it, by Chymiſtry, with the Help of *Sal Armoniack*, which, after Rectification, is a powerful Aperitive, and proper for many Diſeaſes, as the Gravel, Dropſy and Dyſentery. The Doſe is as much as is ſufficient to make an agreeable Acidity in any convenient Liquor proper to the Diſtemper. As the Oil of Sugar, even after Rectification, is a black ſtinking Oil, I ſhall direct you to another Sort, which, ſtrictly ſpeaking, is not an Oil, but rather a Liquor of Sugar, *per Deliquium*. This is made by putting Sugar into a hard Egg, and ſetting it in a cold Place, to run into a Liquor, the ſame Way that Oil of Myrrh is made; and is uſed to beautify the Face, or inwardly to remove Pains in the Stomach.

Lemery.

Sugar, in Latin *Saccharum*, or *Succharum*, *Zaccarum*, or *Zuccharum*, is an eſſential Salt, of a Kind of Reed, call'd *Arundo Saccharifera*, or the *Sugar-Cane*, which grows plentifully in many Parts of the *Indies*, as in *Brazil*, and many other Places. This Plant bears on each Joint a Cane of five or ſix Feet high, adorn'd with long, ſtraight, green Leaves, and carries on its Top a Silver-colour'd Flower, like a Plume of Feathers.

The Juice of the Canes is made by preſſing them through the Rowlers of a Mill, from whence there runs a great Quantity of ſweet pleaſant Juice, which being put into Boilers, the watry Part is, by the Force of the Fire, evaporated, 'till it comes to a Conſiſtency; after which they caſt it into a Mixture made of certain Ingredients, fit to cleanſe and prepare it for graining. All the Time it is boiling, with large Copper Scummers they take off the Scum, which conſtantly riſes in great Quantities, until it be fit to empty into Coolers, *viz.* 'till it arrives to its juſt Body: From the Coolers, it is again ſhifted into Earthen Pots, with Holes in their Bottoms, and other Pots they call Drips, under them, for receiving the Moloſſes; which, in about a Month's Time, will be ſeparated from that which afterwards is call'd *Muſcavado Sugar*, being of a pale yellowiſh Colour; this is then knock'd out of the Pots, and put into Caſks, or Hogſheads, for Tranſportation.

The firſt Kind of *Moloſſes* is either boil'd up again to draw from it a Kind of duſkiſh, pale-grey Sugar, call'd *Paneels*, or ſent in Caſks for *England*. From this Sugar there drips a ſecond Sort of *Moloſſes*, which, with the Scum that ariſes in all the Boilings, together with the Waſhings of the Boilers, Coolers, Pots and other Inſtruments, is preſerv'd in great Ciſterns, where it ferments, from which they diſtil that famous Spirit call'd *Rum*, a noble Liquor, not at all inferior in Strength to *French Brandy*, nor yet in Goodneſs or medical Virtues, the Flavour or Palatableneſs being ſet aſide, having an *Empyreuma*, from a fœtid Oil it acquires in the Diſtillation.

The next Thing to be conſider'd is, the Refining of Sugar, to wit, the *Muſcavado Sugar*: which is thus: They put it into refining Coppers, mix'd with Lime-Water, where, as it boils over a gentle Fire, much Scum will ariſe, which is taken off conſtantly 'till it comes to a ſufficient Conſiſtency for mixing it with the Whites of Eggs, well beaten up, in order to clarify it; this being done, it is boil'd up to a proper Height for refin'd Sugar, and ſo turn'd off into Coolers, from whence it is put into ſuch Draining-pots as aforemention'd, with their Drips: When thoſe Pots have ſtood draining or dripping eight or ten Days, then Clay, properly temper'd, is put upon the Pots, which is renew'd as often as Occaſion requires: This forces down all the *Moloſſes*; ſo that in ſeven or eight Weeks Time theſe Sugars will be fit for Caſking.

Theſe *Moloſſes*, thus proceeding from refin'd Sugar, are boil'd up again, and all the former Work repeated; from whence comes another Sort of white Sugar, call'd *Baſtard White*: From this Sugar there drips a ſecond Sort of *Moloſſes*, fit for nothing but the Still to make Rum of; it is alſo to be obſerv'd, that little or nothing is waſted in the Refining, but you have it ſome Way or another; for as much as the fine Sugar wants of its firſt Weight, you have it in the Scum and the *Moloſſes*, or Recrement running from it. After this Elaboration of Sugar for refining it is over, they put up in Caſks or Hogſheads that which is call'd Powder-Sugar, or make into Loaves what they call Loaf-Sugar; both of which are eſteem'd in Goodneſs according to the Number of Times they have been refin'd.

When Sugar has been but once refin'd, it is a little fat or oily: Now to refine it farther, it is diſſolv'd again in Lime-Water, and boil'd as before directed, taking off the Scum all the while, *&c.* The Sweetneſs Sugar has, is thought to proceed from an eſſential, acid Salt, mix'd with ſome oily Particles, of which it conſiſts; for if by Diſtillation we ſeparate the oily Parts from the ſaline, neither of them will be ſweet, but the ſaline will be acid, and the Oil inſipid upon the Tongue, becauſe it makes little or no Impreſſion upon the Nerve of Taſting; but when the Acid is entirely mix'd with it, the Edges or Points of the Acid penetrate the Pores of the guſtatory Nerve, and, by opening them, carry in the oily Particles, and make them alſo penetrate and irritate the Nerve, whereby the Sweetneſs of the Taſte is produced.

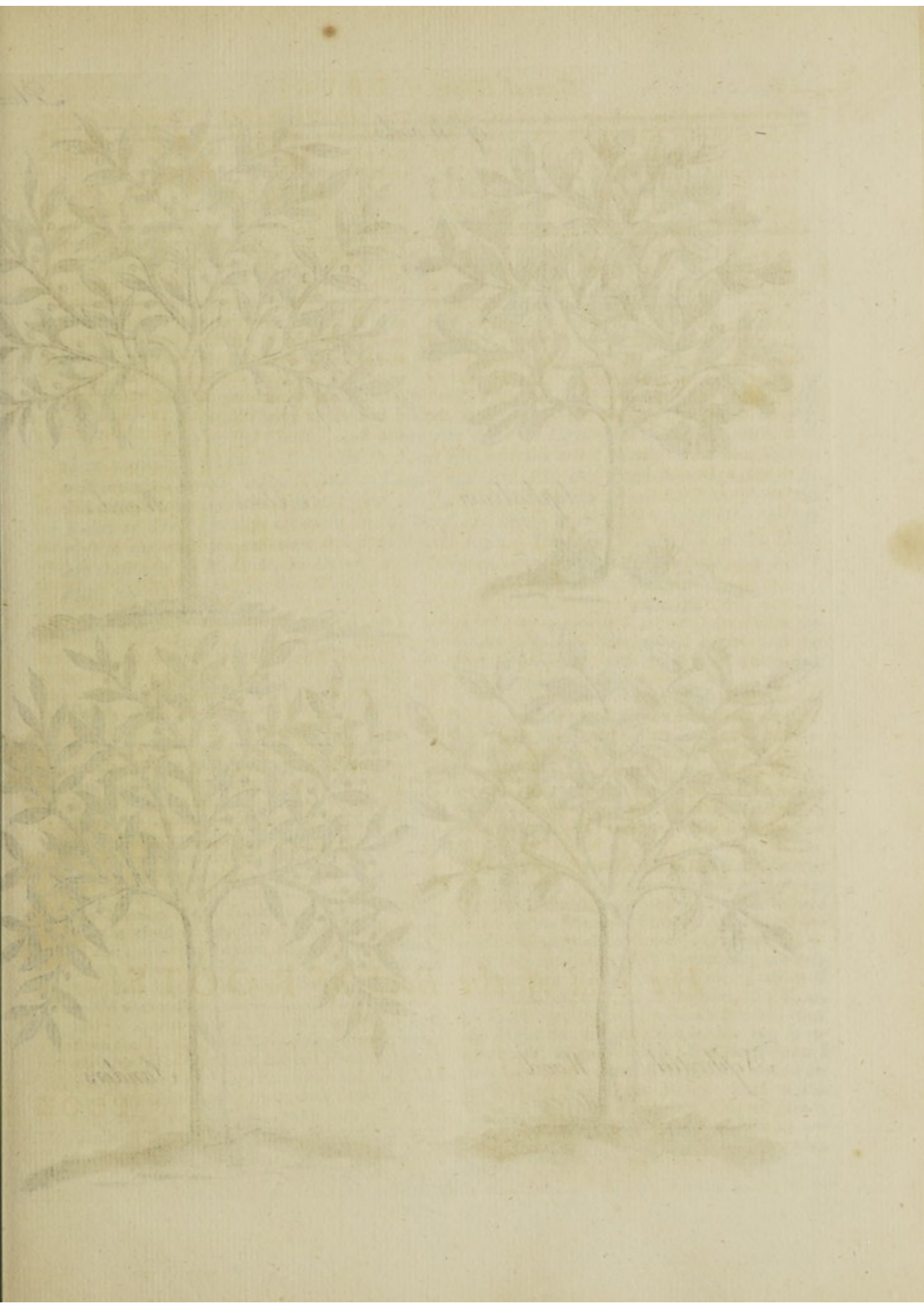
The Powder-Sugar, or that which is leſs refin'd, makes a ſweeter Impreſſion upon the Tongue than the Loaf-Sugar, or that which is more refin'd; becauſe it contains more oily or fat Particles, whereby it remains the longer upon the Taſte: This makes ſome prefer the coarſer before the finer, for Uſe and Sweetening. Sugar was firſt known or produced in the *Eaſt-Indies*, afterwards in *Barbary* and the *African* Iſlands, as the *Madeiras*, *Canaries*, *&c.* then in the *Weſt-Indies*, as *Jamaica*, *Barbadoes*, *Nevis*, *Antigua*, *Montſerrat*, as alſo in the *Spaniſh Indies*; laſtly in *Europe*, as *Spain* and *Portugal*, but not in that Plenty as it is produced in the *Weſt-Indies*. If you make choice of it from the Place, that from the *Madeiras* was formerly accounted the beſt; that from the *Canaries* next, and that from St. *Thomas*'s laſt; but now our fine *Jamaica* and *Barbadoes* Sugar is inferior to none; and next to them is reckon'd the *Liſbon* Sugar, which is the fatter, and not ſo white. If you chuſe it for Colour, the whiteſt is the beſt; then the next to White is that of the Cream Colour, or pale Yellow; and laſtly, the Red. If you chuſe it from the Making, the treble refin'd is the beſt, and that which is form'd into the Loaf, the whiteſt of which will look like the driven Snow.

It is good for the Breaſt and Lungs, to ſmooth their Roughneſs, take away Aſthma's, Hoarſeneſs, eaſe Coughing, and to attenuate and cut tough Flegm, afflicting the Fibres of thoſe Parts. It is very profitable for the Kidnies and Bladder, and in all the Caſes aforementioned; but it is reputed bad for ſuch as are troubled with Vapours and Hyſterick Fits, and therefore ſuch Perſons ought to avoid the Uſe of it. Refin'd Sugar is the ſharper, and better to attenuate, cut and cleanſe; but the unrefin'd to levigate and lenify, and ſo the better for the Lungs; but being conſtantly uſed, rots and decays the Teeth, and makes the Gums ſcorbutick. There are many Preparations, beſides Confects and Sweet-Meats, made of Sugar; the chief of which are, firſt, Sugar of Roſes; 2dly, Sugar of Violets; 3dly, Tincture and Liquor, acid Spirit and Oil of Sugar, Sugar Penids, Eſſence of Sugar, and the like.

[The Plant which produces Sugar is the *Arundo Saccharifera*. C. B. Pin. 18. *Arunda Viba Braſilienſibus dicta*. Piſ. 1648. *Tacomaræ ſive Arundo Saccharifera Ejuſd.* 1658. It is of a middle Nature, between the arundinaceous and mileaceous Plants. There is another Sugar call'd *Saccharum Acernum*, Maple Sugar, which is the Product of *Canada* and *New-England*, in which Countries the Natives collect the Juice of Maple Trees by Inciſion, and evaporate it to the Conſiſtence of Sugar, which, while it remains unctuous, is better for internal Uſe than any other Kind, and the famous Syrup of *Maiden-Hair* of *Candia* is made with it: As it is brought to us it is of a greyiſh Colour, and taſtes like other Sugar. The Inhabitants from this Sugar make Brandy, Vinegar, and a Liquor which is their common Drink.]

The End of the Book of ROOTS.

BOOK



# of Woods.

Asphaltum.

Aloes Wood.

Nephritick Wood.

Sanders.

BOOK the Third.

Of WOODS.

PREFACE.

WHAT we call Wood, *is, according Mr.* Grew, *nothing but a Multitude of very ſmall Pipes, or hollow Fibres, ſome of which raiſe themſelves erect and form perfect Circles; and others run from the Circumference to the Centre, and there mutually croſs one another, like the Lines of Longitude and Latitude on a Globe, or like a Weaver's Threads, extended both in Length and Breadth, and interwoven together. In Time theſe take their Nouriſhment from the Juices of the Earth, become hard and form the Bodies of Trees; which are more or leſs hard and heavy as they are ranged more or leſs cloſe to one another, and more or leſs fill'd with Reſin. The only* Woods *ſold in the Shops are thoſe uſed in Medicine, in Dying, or in Inlaying, of which only I ſhall ſpeak, the others being not my Buſineſs in this Work.*

1. *Of Wood of* Aloes,

Pomet. OF all the Woods ſold in the Shops, we have none more precious, more valuable and rare, than the true Wood of *Aloes*, or *Xyloaloes*; upon which Account it is very little known, and every one is liable to miſtake the Wood, which makes it eaſy to be counterfeited; It is indeed a difficult Matter to know it poſitively, it being deſcrib'd ſo differently by different Authors: And I cannot think any more miſtaken than thoſe who write like M. *de Furetiere*, who ſays that *Aloes* is a large Tree that grows in the *Indies* very high; that the Trunk is of the Thickneſs of a Man's Thigh, on the Head of which is placed a vaſt Heap of thick indented Leaves, large at the Bottom, which narrow themſelves to a Point, and are four Feet long. That the Flower is red, intermix'd with yellow, and double like a *Julyflower*; and is ſupported by little Branches which ariſe from the Trunk, with the Leaves, among which they are hid: That from the ſaid Flower comes a Fruit, round like a large Pea, white and red: And that they draw a Juice from theſe Leaves by ſlitting them with a Knife, which they put up in Shells of Gourds: And that when this is dried in the Sun it appears a Kind of Reſin: That the Wood is ſpotted, ſcented and bitter, and the Bark is ſo curious, that it reſembles a Skin that is of a changeable Colour.

There are ſeveral Sorts of it, but the beſt is the *Agallochum* of *India*, which comes from *Calecut*. The fineſt is the black Kind, of a changeable Colour, full, heavy, ſolid and thick, which is not at all whitiſh, and is difficult to ſet on fire. I know not where M. *Furetiere* had the Account before recited, which confounds the Plant which produces the *Aloes* with the true *Lignum Aloes* Tree.

Others ſay, the Reaſon we have not the true *Aloes* Wood is, that it grows no where but in the terreſtrial Paradiſe, and that it is impoſſible to have it but by the Means of Floods: And others, becauſe it is not produced among us, except in Deſarts and upon inacceſſible Mountains; not only ſo from their Height, but becauſe of the wild Beaſts that inhabit them, as the Lion, the Tiger, the Panther and the like; beſides a thouſand other idle Stories that are told about it, too long to recount here; inſtead of which I ſhall declare what I have learn'd from ſome of the Retinue of the Embaſſadors to *Siam*, who brought ſome of this Wood as a Preſent to the late King of *France*, *Lewis* the Fourteenth, as well wrought as unwrought;

wrought; among the reſt an Ewer, with its Salver, proper to waſh Hands in, made at *Siam*, after the Mode of that Country. This Baſon, though of Wood, is more valued than if it had been of maſſy Gold. They ſay that the true *Lignum Aloes* Tree grows in *Cochinchina*, in the Kingdom of *Lao* and in *China*, and is of the Size and Shape of the Olive Tree, having Leaves ſomething of the ſame Sort, among which grows a little red Fruit, like our Cherry. A great deal of *Lignum Aloes* is brought to *Surat*, the moſt reſinous of which is the moſt valued; it is diſtinguiſh'd by the Bigneſs or Smallneſs of the Pieces.

It is obſervable, that the Trunk of this Tree is of three Colours, which are no other than different Parts of the ſame Subſtance: The firſt Wood, which lies immediately under the Bark, is of a black Colour, ſolid, heavy, and almoſt like black Ebony; the *Portugueſe* call this *Eagle-Wood*. The Second, which is a light veiny Wood, like rotton Wood, and of a tann'd Colour, is what we call *Calambouc*, or the true Wood of *Aloes*. The third Sort, which is the Heart, is the precious *Tamback*, or *Calamback* Wood; but the great Scarcity and high Price of it is the Reaſon why I ſhall ſay no more of it, having never ſeen any of it.

We ought to chuſe the Wood of a ſhining Dye, and of a light Yellow within, bitter in Taſte, eſpecially when it is held ſome Time in the Mouth, from whence it takes the Name of *Aloes-Wood*, becauſe it has a Bitterneſs like that of the *Aloes*. It ſhould be light and porous, like rotten Wood; and when put into the Fire, burn like Wax and yield a ſweet Smell.

This Wood of *Aloes* has no Uſe that I know of but in Phyſick. It is very aromatick, cordial and cephalick, as alſo a Deſtroyer of Worms: Its principal Uſe is in ſome Galenical Compoſitions. As to the *Eagle-Wood*, it is of no Uſe in *France*; it ſerves the *Indians* to make their ſmall Wares with and their Weapons, and it is ſo ſcarce in *France* that it is not eaſy to find any of it; which is quite contrary to the Opinion of thoſe who have writ of it, and ſay that it is very common. Beſides the *Columback-Wood*, or true *Aloes*, we have Quantities enough of other Kinds brought to us, which bear the ſame Name; but as it is impoſſible for me to diſcover all the Differences, I ſhall inform you, that you ought to reject all others whatſoever that are not the Wood we have been ſpeaking of, which is entirely different from others, both in Shape and Figure, in that the pretended Woods of *Aloes* are in great heavy Pieces, ſometimes Red, ſometimes Green, and likewiſe of ſeveral other Colours; and what makes it eaſier to know the Difference is, that the true *Columback* is commonly in flat light Pieces. Some People will have it that the *Arbor Vitæ*, or *Thuya*, which is at *Fontainebleau*, and in the Royal Garden at *Paris*, is the Tree that yields the *Aloes-Wood*; but I have prov'd it otherwiſe, as I had one of thoſe Trees three Years, at the End of which Time it died, and I had it taken up; after having expoſed it to the Air ſome Time, the ſtrong Smell and Taſte it had while growing was quite loſt, and it became extreamly light, of an inſipid Taſte, and white without and within.

Aloes, *Agallochum*, *Xyloaloes*, or Wood of *Aloes*, is brought from *Bantam* in the *Eaſt-Indies*, where they call it *Columback*. It comes to us in Chips, and is of a moſt fragrant Smell and darkiſh Colour; the knotty, reſinous and blackiſh Sort, which is many times full of black Reſin, like *Aloes*, is reckon'd the beſt; or that which is of blackiſh Purple, with Aſh-colour'd Veins, of a bitter Taſte and heavy: The chief Sign of its Goodneſs is, that the Chips being put into Water will ſwim, and when burning on Fire-Coals they will ſweat or fry, afford a ſweet Scent, and leave Bubbles behind them, not eaſily vaniſhing. It is hot and dry, cephalick, neurotick, ſtomachick, cardiack, alexipharmick, ſtrengthens the Brain, Heart, Nerves, Spirits and whole Body; is excellent againſt Faintings and Swoonings, and kills Worms by its Bitterneſs. Doſe in Powder, half a Dram to a Dram. The Chymical Oil is likewiſe uſed like that of *Rhodium*, and ſometimes internally to the ſame Purpoſes as the Wood. *Lemery.*

[This is the *Lignum ſeu Arbor fragrans Siamenſibus Kiſſina*, *Latinis Arbor Aquilæ & Aloes dicta cujus fragrans Lignum appellatur Agallochum.* Kemp. Amen. 903. *Agallochum verum.* Eph. Germ. Dec. 2. p. 74. We account that the beſt which is of a blackiſh Purple Colour, and ſo light as to ſwim upon Water; but there is ſcarce any ſuch now to be found; for the beſt we meet with will ſink in Water. The Juice of this Wood, while growing, is poiſonous and cauſtick, and often deprives the People employ'd in cutting it of their Sight. It has been greatly eſteem'd, but of late is grown into Diſuſe.]

2. *Of* Aſphaltum, *or* Roſe-Wood.

OUR *Aſphaltum* is a Wood which was as little known to the Antients as the the true *Aloes-Wood*, and which at preſent we only know by Relations, which we cannot abſolutely depend upon. *Pomet.*

I have never been able, with all the Diligence I could uſe, to get clearly at the Truth, and can therefore

therefore only declare what I have learn'd, which is, that *Aſphalatum* is the ſtringy Pieces of a ſmall *Chineſe* Tree, ſomething like *Calemba*; they are ſolid, of a reddiſh Brown, ſometimes mark'd with whitiſh Streaks, hard and bituminous, thicker, of a looſer Texture, and leſs firm than the *Lignum Aloes*, of a bitteriſh, fat and reſinous Taſte, and weak Smell.

The Shrub is thorny, it grows on the Mountains, and is by ſome accounted poiſonous.

There are ſeveral Species of the *Aſphalatum* deſcrib'd by the Antients which are not to be found, and are hardly known among us. The *Aſphalatum Wood* of the Antients was uſed in perfum'd Ointments; they boil'd the Wood in Oil, by which the Reſin was extracted, and then uſed the Oil.

Aſphalatum, according to the Accounts of the *Chineſe*, is gather'd in the ſame Manner as the *Lignum Aloes*, for they take only the more fragrant and reſinous Pieces.

There are three Sorts of Wood that bear this Name. The firſt is a blackiſh Wood, which I believe to be the true *Eagle-Wood*. The ſecond is a Wood ſomething bitter, heavy, oily, full of Veins of different Colours, which, all mix'd together, make it a reddiſh Wood: It is cover'd with a grey Bark, thick and very rugged. As to the Figure of the ſaid Tree, the Leaves, Flowers, Fruit, and Country where it grows, I have been able to learn nothing. Whether this be the falſe or true *Aſpalathum*, it is what is moſt receiv'd for genuine, by thoſe who are ſuppoſed to know it the beſt, and is what we commonly ſell.

The third *Aſphalatum-Wood* is as known and common among us, as the two before mention'd are unknown and ſcarce. This third Sort is what we call *Rhodium*, or *Roſe-Wood*, becauſe it has a Smell altogether reſembling that of Roſes. The *Roſe-Wood* is of a pale brown Colour; it is brought from ſeveral Parts of the *Levant*, but chiefly from the Iſle of *Rhodes* and *Cyprus*, from whence it takes the Name of *Roſe* or *Cyprus-Wood*.

Father *Tertre*, however, will have it that there is a Difference between the *Roſe* and *Cyprus-Wood*; he ſays, that which is call'd *Roſe-Wood* in *Guadaloupa*, is properly that which the Inhabitants of *Martinico* call *Cyprus-Wood*. It is very certain that there are two Sorts of *Roſe-Wood* which we confound together by that Name, without making uſe of that of *Cyprus*. The two Trees ſo exactly reſemble one another, in Height, Size, Bark, Leaves, Flowers and Smell, that moſt Part of the Inhabitants miſtake one for the other: I have, notwithſtanding, ſeen ſome curious People of *Guadaloupa*, who have call'd this Wood, which the Inhabitants of *Martinico* call *Roſe-Wood*, *Marble-Wood*; becauſe the Heart of the Wood is ſtain'd like Marble, with White, Black and Yellow, which is the only Diſtinction I could obſerve. This Tree grows very high and ſtraight, with long Leaves like the Cheſnut, but more pliant hairy and whiter; it bears large Cluſters of ſmall white Flowers, and after them little ſmooth black Seeds; the Bark of the Wood is whitiſh, and almoſt like the young Oak; in working on it, it ſends forth a Smell ſo ſweet that the Roſe cannot compare with it. This Wood loſes its Smell in time, but it recovers it again upon being freſh cut, or ſtrongly rubb'd one Piece againſt another. It is very good to build withal. It ought to choſen new, dry, of a yellowiſh brown Colour and a Roſe-like Smell, and in the largeſt and eveneſt Pieces that may be.

This Wood is uſed to make Beads of, and is of ſome Uſe in Phyſick, by reaſon of its fine Smell; it is ſerviceable to the Diſtillers to make Roſe-Water, or at leaſt to give their Roſe-Water a good Scent. The Surgeons and Barbers uſe it in Decoctions and Tinctures for their ſeveral Purpoſes. Some People employ this like *Yellow Sanders*, and after it is reduced to Powder mix it up in Paſtiles for burning. The *Dutch* draw a white Oil from it very odoriferous, which they tranſport abroad under the Name of *Oil of Rhodium*, and which we ſell upon ſeveral Occaſions, as to the Perfumers and others. 'Tis obſervable that this Oil, when new, is like Oil of Olive; but after ſome Time it becomes of a dark Red. The Wood, by Diſtillation, yields a red Spirit, and a black fœtid Oil, which is proper for curing of Scabs and Tetters.

There are ſeveral Sorts of the *Aſpalathum* that are not diſtinguiſhable but by the Curious, as the *Aloes-Wood*, that is call'd the *Eagle*; and the *Lignum Rhodium*, which is ſo call'd, not that it bears Roſes, or is a Roſe-Tree, but from the Flavour and Fragrancy of the Wood, and the odoriferous Oil it yields. This is brought from the *Levant*, and ſome from the *Canaries*; the beſt is the fatteſt, or moſt oily, of a deep yellow Colour, inclining to Red, ſtrong ſcented if broken, and of a compact heavy Subſtance. This Wood contains two profitable Bodies, the one ſpiritous and watry, and the other oily and ſulphureous; both which are very ſubtile and volatile. To make the Oil, chuſe the weightieſt and beſt ſcented Wood, raſp'd finely, of which take four Pounds; Saltpeter one Pound; infuſe them in Rain-Water eight or ten Days, and draw off the Oil in proper Veſſels. There is at the ſame Time a Water drawn from thence, which may be uſed as Roſe-Water for Perfumers, *Lemery.*

and

for a Vehicle where proper. The Oil, which is clear, fair, yellowiſh, and of a fragrant Smell, is uſed inwardly againſt Obſtructions in the Kidneys or Bladder, freeing them from Sand, Gravel and ſlimy Matter, that load and ſtop up the Paſſages. You may make it into an *Eleoſaccharum* with refined Sugar, and then diſſolve it in its own Water, or any proper Diuretick. It is uſed with good Succeſs in Gargles, and to cleanſe and cure Ulcers in the Mouth, or other Parts of the Body. It is cephalick, neurotick, cardiack, antiſpaſmodick, and arthritick, and may be given from three Drops to ten or twelve. This Oil, beſides all its internal Uſes, is accounted one of the ſtrongeſt vegetable Perfumes, and holds its Odour the longeſt.

[This, and not the Lignum Aloes, is the true *Calambac-Wood*; it is the *Aſpalathum*, Mon. Exot. 7. *Agallochum Præſtantiſſimum*. Jons. Dendro. 460. It is brought to us from the *Eaſt-Indies* and the *Canaries*. The Antients varied ſo much from one another in their Accounts of this Wood, that it is probable they have deſcribed different Woods under this Name. It has been much in Eſteem, but is now never uſed unleſs in the Oil to ſcent Pomatums, *&c.*]

3. *Of* Sanders.

Pomet. THE *Sanders* are three Sorts of Woods of different Colours, Smell and Figure; all three, as I have been aſſured coming from the ſame Tree, and having no other Difference than from the different Countries where they grow. This Tree grows about the Height of our Wallnut-Tree, having Leaves like the Maſtich; it bears a ſmall Fruit, of the Size of a Cherry, green at firſt, and black when ripe, after which it eaſily falls off the Tree, is of an inſipid Taſte and no Value.

The yellow *Sanders* is brought to us from *China* and *Siam* in Billets, freed from the Bark; the *French*, when they return'd from *Siam* in 1686, brought with them a good Quantity. Chuſe the heavieſt Wood, of a good Scent and yellow, from whence it is call'd *Citrine Sanders*, which ſignifies yellow; but take Care, at the ſame Time, you be not impos'd on with the *Citron Wood*, which is often ſold in its Stead. The yellow Sanders is moſt uſed in Phyſick, and by the Perfumers.

The white *Sanders* is ſomething like the yellow, but not having the Colour or the Smell, it makes a vaſt Difference. This Wood is brought in Billets, diveſted of its Bark, from the Iſle of *Timor*. Chuſe ſuch as is heavieſt, white, and of the beſt Smell you can get. It is uſed in Phyſick as the yellow.

The red *Sanders* is brought to us in thick long Billets, from the Maritime Places on the Coaſt of of *Cormandel*. Chuſe that which is blackiſh without, of a deep red within, hard to cleave, of an inſipid Taſte, and almoſt no Smell; and take care you do not get Coral-Wood, which is often ſold in its place, which I ſhall mention by and by.

The *Sanders* are ſomething aſtringent, eſpecially the red; they fortify the Heart and Stomach, and purify the Blood, they are given inwardly in Ptyſans, or in Powder from half a Dram to a Dram, and are Ingredients in many Compoſitions.

There is beſide theſe a fourth Sort of *Sanders*, call'd *Taffety-Sanders*, or *Sanders* of *Conſtantinople*, which ſerves to give a red Stain, boil'd in Water with any Acids, like the red.

Of the Citron-Wood.

The *Citron-Wood*, which the *Americans* call *Candle-Wood*, becauſe being cut into Splinters it gives a Light, which they uſe to light themſelves by, is the Trunk of a large thick Tree, that grows very common in the Leeward-Iſlands. This Tree is very beautiful to the Eye, having many large and long Branches, full of Leaves, like thoſe of the Bay-Tree, but bigger, and of a more ſhining green; and Flowers like the Orange, of a Jeſſamine Smell, after which grow little black Fruit, of the Size of Pepper. It is the Trunk of this Tree, that the Reverend Father *Du Tertre* falſly imagin'd to be the yellow *Sanders*, and which afterwards gave Occaſion to certain Druggiſts at *Rouen* to buy of the Company, and ſell it boldly again for the true yellow *Sanders*, to thoſe who underſtood it not, or would buy without ſeeing it, or upon their Words, for the true Wood; or they would ſometimes ſhew a Sample of the true yellow *Sanders* of the *Indies*, and afterwards ſell this *Citron*, or falſe *Sanders*. The Cheat of this is eaſy to diſcover, in that the true *Sanders* taſtes and ſmells ſweet and agreeable, and is but moderately heavy and reſinous; but, on the contrary, the *Citron-Wood*, which is heavy and oily, has a ſtrong Smell, like the *Citron*, from whence it derives its Name; and further, the Billets of the true *Sanders* weigh not above a hundred Pounds. and thoſe of the *Citron* near a thouſand. This Wood is of no Uſe in Phyſick, but is very uſeful to work into proper Utenſils; for after it has been expoſed ſome Time in the Air, it will look like poliſh'd Cocoa. The Gum of the *Citron-Wood* is very fragrant; and what is moſt remarkable, is, that the older the Trees, the ſweeter is the Gum.

This

This Wood likewiſe bears the Name of *Jeſſamine-Wood*, There grows, beſides, in theſe Iſles, another *Candle-Wood*, which has ſuch Leaves, Flowers and Fruit as the *Citron-Wood*, except that the Flowers are more fat, much thicker and rounder; but as this Wood comes not to us, I ſhall ſay nothing further, but that Father *Du Tertre* ſays, that this Tree is ſcarce, and grows no where but on the Sea-Side, and believes it to be a Kind of *Aloes-Wood*. He obſerves likewiſe, that this Tree yields a very odoriferous Gum, and that the older the Tree is, the better it ſmells; and that the Savages make no other Uſe of it but for Lights; except that they uſe the inner Rind of the Bark, from whence they preſs a Juice, valued by them as a ſovereign Remedy for Inflammations of the Eyes.

Of Coral-Wood.

Beſides the *Candle-Wood*, we have brought to us, from the *Leeward-Iſlands*, a certain red Wood, which they call *Coral-Wood:* It is with this Wood they counterfeit the true red Sanders; but that which makes it not difficult to diſcover the Difference is, that the *Coral-Wood* is of a ſhining Red, light and ſtringy; but the true Sanders is of a deep Red, without Threads, and very heavy.

The *Americans* uſe the *Coral-Wood* for ſeveral Sorts of Work. Beſides this, in theſe Iſles there grow two other Kinds of Trees, which bear the Name of *Coral*, becauſe their Fruit are red, like *Coral*, except that on the Right Side of the Bud they have a little black Spot. This Fruit is what we call and ſell by the Name of the *red American Peaſe*, which are extremely bitter, and ſome pretend that theſe Fruits, moiſten'd with the Juice of Citrons, have the Quality of ſoldering Gold and Silver, like Borax.

Father *Du Tertre* ſays, that there are ſo many red Woods in theſe Iſles, that in every ten Leagues they are found of different Colours, ſome deeper, ſome paler, and that they are all very full, heavy, ſolid, and excellent for making the beſt Joyners Work; the Wood being, for the moſt Part, not ſubject to decay.

Lemery. *Santalum Citrinum*, *Album vel Rubrum*, the yellow, white, or red Sanders, are exotick Woods, brought from both the *Indies*, of a very fragrant and ſweet Smell. The *yellow* is to be choſe before the reſt, and that which is of the moſt agreeable Odour, heavy and knotty. Both this and the *white* are uſed in Faintings, Swoonings, Palpitation of the Heart, Obſtructions of the Liver and Spleen. They are good againſt vomiting, and dry up Catarrhs; outwardly the Fume prevails againſt the Head-ach, ſtops Fluxes and Rheums of the Head, with other preternatural Defluctions.

The *red Sanders* is alſo brought from the *Indies*, being a red heavy Wood, and commonly ſold in the Apothecaries Shops in Powder: It is cooling and more aſtringent than any of the reſt; is uſed in Catarrhs, to ſtay thin Rheums falling down upon the Lungs, and to abate the Heat of Fevers, to ſtop Fluxes, and the *Profluvium ſeminis*, with the Gonorrhœa in either Sex: But the chief Uſe of it, this Day, among us, is to colour Medicines with, as Lucatellus Balſam, and other Balſams, Tinctures, and the like.

[It is generally ſuppoſed that the *white* and *yellow Sanders* are the Wood of the ſame Tree, the inner Part or Heart being the *Yellow*, and the Outer the *White*, though there are ſome who ſay they are the Wood of different Trees. They are the *Santalum Album* and *Citrinum* of Authors. The Tree which is believ'd to produce them both, has Leaves like the Tamarind Tree, compoſed of a Multitude of ſmall Leaves, ſet on both Sides of one Middle Rib; the Flowers are of a bluiſh Black, and the Fruit of the Bigneſs of a Cherry. They are both brought to us from the *Eaſt-Indies*.

The *Red* is a Species of the Brazil Wood, it is brought to us from the *Eaſt-Indies*; the Tree which bears it grows beyond the *Ganges*. Its Leaves are like thoſe of the Aſh, and its Fruit contain'd in Pods, thick, bivalve, broad at the End, and the Seed itſelf oblong.

The Labourers who cut this Wood are often ſeiz'd with malignant Fevers and Deliria of a very ſingular Kind, the affected Perſon generally imitating the Actions of his Trade: And they have alſo a *Fames Canina*, of a very terrible Kind.]

4. *Of* Nephritick Wood.

Pomet. THE *Nephritick Wood* is brought to us from *New-Spain*, chiefly from the Kingdom of *Mexico*, where it is call'd *Coult* and *Tlapalcypatly*, and by us *Nephritick*, by reaſon it is a ſovereign Remedy in Stone, Gravel, and Difficulty of Urine. It is a Tree like our Pear-Tree, having Leaves like Chich-Peaſe, but much leſs.

Chuſe the Wood well freed from the thick Bark, which is of a bitteriſh Taſte, and yelloviſh red, and being put into a little cold Water, ſtrikes a fine Sky-colour'd blue, which is a certain Sign of its being true. They ſell in the room of this a red Ebony, or Granadilla, which is readily diſtinguiſh'd from the other, in that it is of a

deeper red, and by infuſing it in Water, it gives a yellow Colour, like another Wood we have brought alſo to us from the *Indies* and *Brazil*, the Name of which we have not yet learn'd; however, you ought to reject all Sorts of Woods that are ſold for the true *Nephritick*, if they will not yield a blue Tincture. This Wood, infuſed in Water, is frequently uſed by Perſons afflicted with the Stone or Gravel for their Drink, and to mix in their Wine. Thoſe who would add to the Virtue of the Wood, put radiſh-Water thereto, with a little Salt of Wormwood, that is to ſay, about half a Dram to a Glaſs.

It is alſo good for Obſtructions of the Liver and Spleen, infuſed in Wine or given in Ptiſans, or in Powder, in any proper Liquor; the Doſe is from half a Dram to a Dram in Powder, and from two Drams to half an Ounce, or more, in Infuſion.

Lemery. The *Nephritick Wood* is thick, without Knots, white without, and blueiſh within, which, by Infuſion, makes a ſky-colour'd Liquor; therefore, to avoid being deceiv'd when you buy it, ſcrape ſome of the inner Parts of the Wood, put it into Water, and let it ſtand four or five Hours; if it turns the Water into a blueiſh Tincture, it is right and good; but if not, and of a yellow Colour, it is falſe. It grows in *America*, and is brought from *Mexico*, and other Places of the *Spaniſh Weſt-Indies*. It is call'd *Nephriticum*, becauſe it is a Specifick in Diſeaſes of the Reins and Bladder. *Schroder* ſays, it grows like a Pear-Tree, and is a Kind of Aſh. It is hot and dry, opens Obſtructions of the Liver, Spleen, Reins and Womb; cures all Stoppages of Urine, whether in the Kidneys, Ureters, or Bladder, bringing away Sand, Gravel, Slime, or other tartarous Matter generated in thoſe Parts.

[This is the Wood of the *Balanus myrepſica ſive glans Unguentaria*. G. Em. 1433. *Nux Ben ſive Glans Unguentaria*. Park. 238. It grows in both the *Indies*; the Leaves are like thoſe of the Aſh, but of a deeper green; the Flower five leav'd; the Fruit is a Kind of trivalve Huſk, full of a white firm Subſtance, encloſing triangular Seeds. The Wood is reddiſh when freſh, but turns brown and loſes its Virtue in keeping. The Infuſion of it held in a Vial between the Eye and the Sun, is yellow, and held ſo as to keep the Eye between the Sun and it, is of a beautiful blue; the true Wood, therefore, may be rejected for ſtaining the Water yellow, only becauſe it is view'd in a wrong Light. The Wood is now not much uſed in Medicine. The Oil, which we call Oil of *Ben*, which is brought to us from *Italy*, is made by Expreſſion from the Fruit of this Tree, which is the *Ben Nutt* of the Shops.]

5. *Of* Lentiſk, *or* Maſtick-Wood.

THE *Lentiſk* is a Tree which has Leaves like *Myrtle*, among which it bears Flowers, which produce ſmall Berries, in Cluſters, green at firſt, and blackiſh afterwards, as they ripen, there likewiſe grows on the Leaves ſometimes, a little Huſk or Bag, full of Liquor, from which little flying Inſects are generated, as from the Scarlet-Grain, or Kermes-Berry.

Theſe Trees are very common in *Egypt* and the *Indies*, and particularly the Iſle of *Chio*, where they are ſo induſtriouſly cultivated and watch'd, that a Man who cuts one of them down, whether deſignedly or not, even tho' he be the Owner, has his Hand cut off for the Offence, unleſs the Tree was old and paſt Service.

It is from this Tree that the Maſtich runs, which I ſhall ſpeak of preſently. They plant a great many of theſe Trees in *Italy*, and the *Italians* make an Oil of the Berries, after the ſame Manner as we do the Oil of Bay-berries. This is uſed to the ſame Intentions as the Leaf and the Wood; the laſt of which they work into Tooth-pickers in *Provence* and *Languedoc*.

Chuſe your *Lentiſk-Wood* heavy, compact, and firm, that is, tough, or hard to break, grey without and white within, of an aſtringent Taſte, and adorn'd with Leaves, if poſſible.

Of Maſtick *in Tear.*

The *Maſtick* in Tear, ſo call'd to diſtinguiſh it from that made of Reſin, *&c.* is a reſinous Gum, which drops during the great Heats, without Inciſion, from the large Branches, and the Trunk of the *Lentiſk*; and ſometimes likewiſe, after having been cut, the Tears fall from the Tree into a Receiver ſet for that Purpoſe.

Chuſe ſuch as is in the largeſt Tears, and which, being chew'd, becomes like white Wax. The beſt is that of *Chio*, being larger and of a more balſamick Taſte, than that which is brought to us from the *Levant*, by the Way of *Marſeilles*, which is almoſt the only Sort they have in *France*. *Maſtick* is much uſed in Phyſick, and, among other Things to eaſe the Tooth-ach, and is uſed to ſeveral other Purpoſes, as the making of Varniſh, *&c.* The People of the *Levant-Trade* deal ill with us, particularly in mixing their *Maſtick* ſo as the worſt lies at the Bottom and the beſt at the Top; but they will not ſell the one without the other.

Lentiſcus,

Book 3.
of Woods.

6

Tamarisk

5

Wood of ye Mastick Tree.

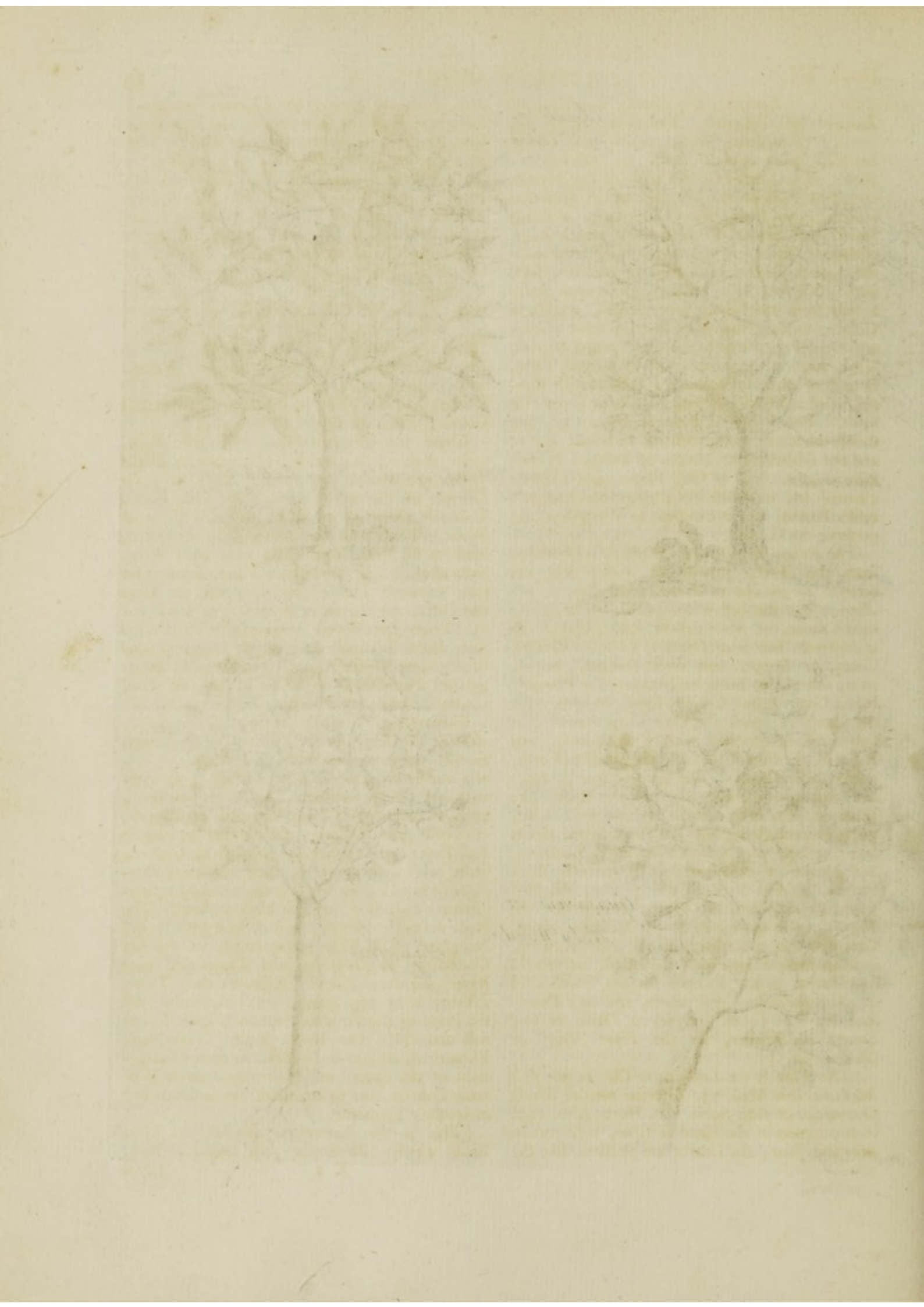
8

Guajacum or
Holy Wood

7

Sassafras

Bockington Sculp.



Lentiſcus, the *Lentiſk*, is a Tree full of Branches, ſometimes large and ſometimes ſmall, which are pliant, flexible, and cover'd with an Aſh-colour'd Bark, The Leaves are like thoſe of the Myrtle, ranged by Pairs on the Side, and at laſt terminate with a ſingle Leaf, always green, of a ſtrong Smell, but not at all diſagreeable; of a ſmart, aſtringent Taſte: There grow oftentimes upon the Leaves certain little Bags or Bladders, fill'd with a Liquor. The Flowers grow upon Stalks ariſing from the Leaves like Grapes, reddiſh in Colour, tending towards a Purple; from whence ariſes the Fruit, which are ſmall round Berries, black when they are ripe, and of an acid Taſte, in each of which is contain'd a little longiſh Kernel, hard and black, having a white or green Pith in it. The Wood is brought dry to us, and ſhould be choſe freſh, difficult to break, heavy, and not ſubject to be carious or ſpongy: It contains a great deal of Oil, Flegm, and likewiſe eſſential and fix'd Salt; is aſtringent and cordial, reſiſts Poiſon, and is excellent to ſtrengthen and preſerve the Gums. *Lemery.*

The *Reſina Lentiſci*, or *Maſtick*, is produced from this Tree, growing in *Syria*, &c. and brought to us out of *Turky*, from *Smyrna* and *Aleppo*; but the beſt is from *Chio*, which is of a light Colour, or white yellow, clear, and almoſt tranſparent, free from Droſs or Filth, in Grains, Tears, or Drops, and ſweet-ſcented, bright, pure, and friable, being eaſily reduced to Powder: It is a Gum-Roſin, ſaid, by ſome, to come from the ſame Tree with the Chio Turpentine. It is ſometimes adulterated with Frankincenſe, and Roſin of the Pine-Tree; but the Smell will eaſily diſcover the Cheat. The green-colour'd, blue, and impure, are not good; and the black, like Bitumen, is nought. It is hot and dry, ſubaſtringent, and ſtrengthens the Stomach and Head, and is chiefly uſed againſt Vomitings, Loathing, and Fluxes of the Bowels. It corrects ſharp Purges, hinders Vapours ariſing from the Stomach, which hurt the Head, ſtrengthens the Nerves, cures ſpitting of Blood, Coughs, Colds, Catarrhs, and a ſtinking Breath. By chewing, it draws away Flegm from the Brain, and is uſed in a Plaiſter to the Temples for the Tooth-ach; in a Cataplaſm for the Stomach, and as a Dentifrice for the Teeth. Doſe, a Dram or two Drams in Powder, for the *Fluor Albus*, or *Gonorrhœa*.

[The Tree is the *Lentiſcus ex Chio ex qua fluit Maſtiche.* Ind. Med. 73. *Lentiſcus vera ex Moula Chio cortice & foliis fuſcis.* Cat. Hort. Ams. 192. It is common in the Iſland of *Chios*, it flowers in *May* and *June*; the Leaves are pinnated like the Aſh, and ever green; the Flowers ſtaminous, and growing at the Inſertions of the Leaves. It is an Error to think this the ſame with the common *Lentiſk*, or *Maſtick-Tree*, as it is call'd.

The Wood comes over in ſlender knotty Pieces, but is ſeldom uſed now. The Reſin or Maſtich of the Shops is whitiſh when new, and grows yellower by Age. It is ſo much of the Turpentine Kind, as to deterge, and paſs by Urine, as appears manifeſtly by its Scent.

6. *Of* Tamariſk.

THE *Tamariſk* is a Tree of a moderate Size, which grows plentifully in *Languedoc*, having very ſmall Leaves, and the Fruit in Cluſters, of a blackiſh Colour, which the Dyers uſe inſtead of Galls. *Pomet.*

Chuſe the *Tamariſk-Wood* with the Bark, white without and within, of almoſt an inſipid Taſte, and without any Smell. They uſe it for Diſeaſes of the Spleen, and make little Caſks, Cups and Diſhes of it, which are call'd *Tamariſk* Ware. Thoſe who are troubled with the Spleen, uſed to fill thoſe little Caſks with good Wine, and, after it has ſtood ſome Time, drink it for their common Liquor; and they uſe the Cups and Diſhes for the ſame Purpoſe, to drink out of. From this Wood is made a white Cryſtal Salt, call'd *Tamariſk* Salt, which is appropriated to the Cure of the Spleen, which, to be in its greateſt Perfection, ought to be dry, in ſmall Cryſtals, and not in Powder, as it frequently is.

Tamariſcus, *Tamarix major*, *ſive Arborea Narbonenſis*, the greater *Tamariſk*, or *Narbone-Shrub*, is a Tree of a middle Size, whoſe Bark is rough, grey without, and reddiſh within: The Leaves are ſmall, long, round, ſlender, very like thoſe of Cypreſs, of a pale green Colour; the Flowers growing at the Top of the Branches, diſpoſed in Cluſters, little, white, and purpliſh, each one being compoſed of five Leaves, which is ſucceeded by a lanuginous Fruit, that contains blackiſh Seed. The Root is thick, woody, and divided into ſeveral Branches. This Tree grows chiefly in the hot Countries, as *Dauphiny* and *Languedoc*, near Rivers and watry Places. It flowers three Times a Year, in Spring, Summer, and Autumn. All the Parts of the *Tamariſk* contain a great deal of Salt and Oil. The Bark, Root, Leaves, and Flowers are all uſed in Phyſick, to open Obſtructions of the Spleen and Meſentery, excite Womens Courſes, and to attenuate the tartarous and melancholy Humours. *Lemery.*

[This is the *Tamariſcus Narbonenſis.* Ger. Emal. 1378. *Tamariſcus folio tenuiori.* Park. 1479.

1479. It is common in Gardens, and flowers in *May* and *June*; the Leaves are like those of the Cypress, or Heath, the Flowers grow in Spikes, and the Seeds are wrapp'd in Down. It is recommended for the Jaundice and *Fluor Albus*, and *Etmuller* equals it to the Saffafras; but it is now very little used.]

7. *Of* Saffafras.

Pomet. THE *Saffafras*, or *Cinnamon-Wood*, call'd *Pavaume* by the *Indians*, is a Tree very beautiful to the Eye, which grows plentifully along the Coasts of *Florida*, where there are entire Forests of it. This Tree has a very strait Trunk, on the Top of of which there are several Branches charg'd with green Leaves resembling those of the Fig, which the Inhabitants make use of bruis'd to cure Wounds withal.

Chuse your *Saffafras* with the Bark reddish, thick and rough, that being the best Part of the Tree, as well for its acrid Taste, as its strong aromatick Smell, which considerably exceeds that of the Wood, especially when the Tree is standing. Upon this Account it was, that the first Time the *Spaniards* landed in *Florida*, they thought they had been Cinnamon-Trees, because of their aromatick Smell, which they might smell two Leagues Distance; they soon found their Error in that, but judging, however, that it was not without some Virtue, they brought of it into *Spain*, and it soon got into Use.

Several People prefer the Bark of this Teee to the Trunk and the large Branches, and that not unreasonably, because it is much more fragrant than the Wood; it is commonly light, reddish without and within, easy to break, of a very strong aromatick Smell and Taste; the Bark is better than the Root, and the Root better than the Wood. When they cut or rasp this Wood for Use, the Smell is so strong that it occasions the Head-ach in those that work upon it, as it likewise does in those that use it, which has much lessen'd its Credit.

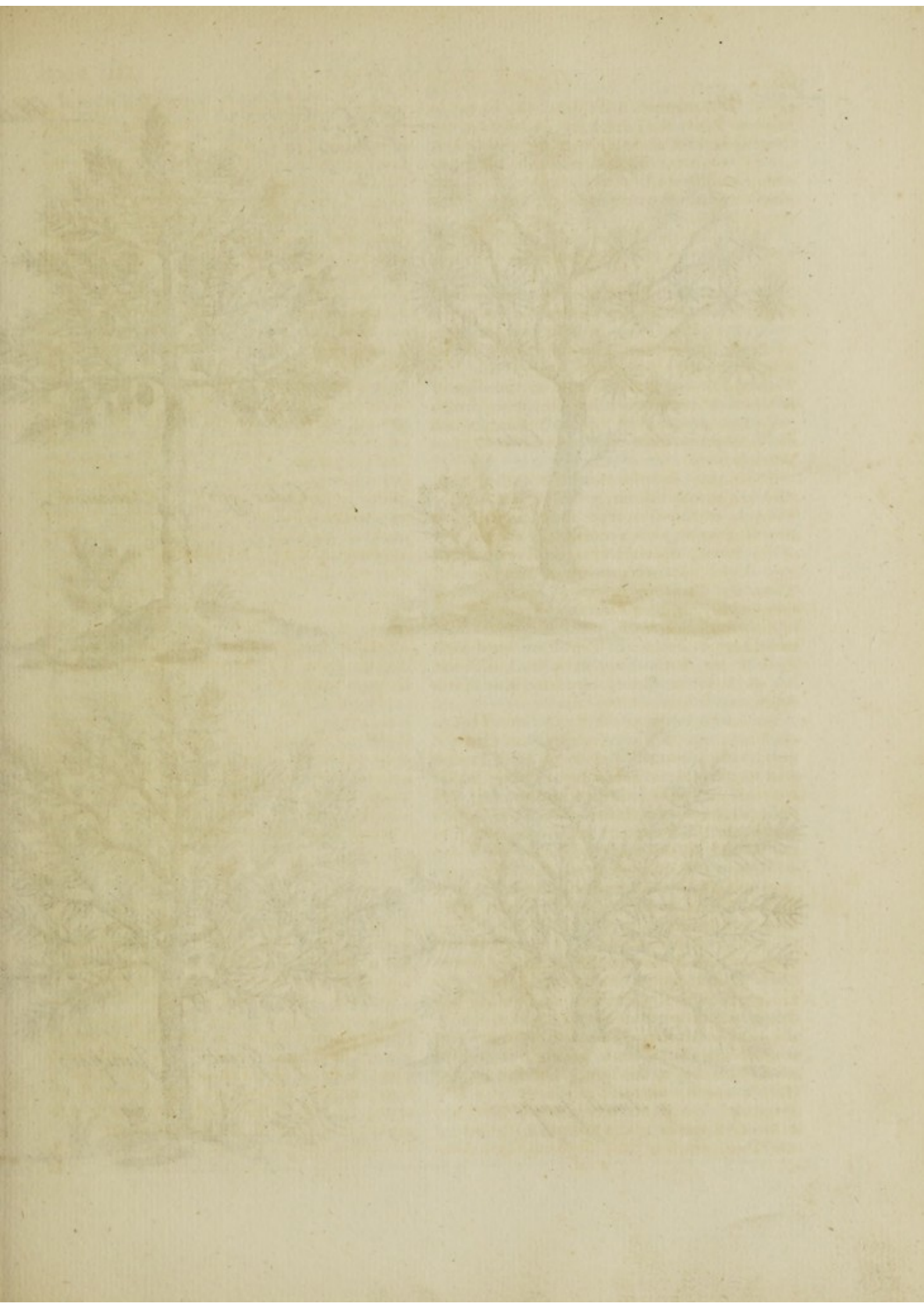
Lemery. *Saffafras* is a yellow fragrant Wood, of a Taste something acrid and aromatick, almost like that of Fennel. It is brought to us in large Pieces from *Florida*, *New Spain*, &c. where it grows, and where the *Indians* call it the *Palm-Tree*; and the *French* give it the Name of *Saffafras*, by which it is call'd by the *Spaniards* to this Day. The Fruit of this Tree is longish, wrinkled, and hangs by a long Footstalk; the Roots are extended along the Ground, bigger or less, according to the Size of the Tree, which is call'd *Saffafras*, by a Corruption from *Saxifrage*, which signifies that it has the same Virtues with *Saxifrage*, that is to say, it is incisive, penetrating, aperitive, sudorifick, and cardiack; it resists Poison, strengthens the Sight and the Brain, and is good in the Sciatica, Gout, Catarrhs, taken in Decoction or Infusion, by Way of a Tea, *&c.* It is the Opinion of some, that the *Saffafras*, call'd the Ague-Tree, is rather a Root than a Wood, brought out of the *West-Indies*, as *New Spain*, &c. It is of a pleasant Smell, and comes in pretty long Logs, as thick as ordinary Billets. The Bark is red without, and cuts of a Flesh-Colour within; its Taste is a little sharp, but aromatick, abounding with much volatile Salt; from whence it is evident that it has great Virtues; the smallest is to be chosen for Distillation, and must have its Rind about it, for that it possesses more of the ætherial Oil, and volatile Salt and Spirit, than the internal Substance of the Wood: It is a most admirable Sudorifick and Diuretick, never missing of its Effects by those two natural Ways of Evacuation; for if the Sick will not yield to Sweating, it often works off by Urine, being full of Spirit and Salt, and therefore is a great Specifick in all the aforemention'd Cases; besides which, a strong Tincture, or the Chymical Oil, is commonly given to facilitate the Labour of Women in Travail, and to expel both Birth and After-birth; after which, it strengthens the Parts, and invigorates the Instruments of Generation. Dose from three Drops to ten or twelve.

[It is the *Arbor ex Florida ficulneo folio*, C. B. Pin. 431. *Arbor Saffafras Monardi*, Breyn. Prodr. 1. 18. *Saffafras*, Ger. Park. It grows in many Parts of *America*. It is very drying and hot, tho' not quite so much as the *Guaiacum*. It makes an agreeable Tea, and would be in great Use, but that the Scandal of its being good in Venereal Cases prevents many from using it.]

8. *Of* Guaiacum.

Pomet. THE *Guac*, *Guaiacum*, or *Lignum sanctum*, Holy Wood, grows plentifully both in the *East* and *West-Indies*, and is brought to us in large long Billets or Logs, some of which weigh four or five hundred Weight. This Tree is about the Height of our Walnut-Tree, bearing Leaves long or round, according to the different Species, which distinguishes the Tree to be Male or Female. After the Leaves, come Tufts of blue Flowers, in the Shape of Stars, furnish'd each with a little brown Husk, of the Size of a Hazel-Nut, in which is contain'd a little Fruit of an Orange-Colour.

It



Book 3.th of Woods.

Plate

9

ye little Cedar

Cedar of Lebanon

10

ye Small Juniper

ye Great Juniper

It is the beſt Sort of Wood we have for Turnery-Ware, eſpecially for making Bowls for the Bowling-Green, Mortars, Peſtles, Rowling-Pins, *&c.* The Surgeons, and others, who uſe it in the Venereal Diſeaſe, chuſe the Shavings or Raſpings to make their Ptiſans and ſudorifick Drinks. There requires no other Care in the Choice of this Wood, but to ſee that it be clean, of a blackiſh brown Colour, reſinous, heavy, hard and compact, and of a ſomething acrid Taſte, and ſuch as has none of the pale outer Part of the Tree with it. There is made of this Wood, a Flegm, a Spirit, and black Oil, which is thick and fœtid; and that which remains in the Bottom of the Retort is black as a Coal; but being made into a *Lixivium*, or a Lye, there is extracted thence a Salt. They make alſo a Reſin and Extract of it, as they do of Jalap.

The Bark of the Tree is likewiſe of great Uſe in the Cure of the aforeſaid Diſeaſe. Chuſe the heavieſt, hardeſt to break, grey without and whitiſh within, of a bitter and diſagreeable Taſte. We have brought from the *Indies* large Pieces of the Gum, ſo like to *Colophony*, that it is almoſt impoſſible to diſtinguiſh it, but by the burning it, whereby it will afford a ſweet Scent; and, on the contrary, the *Colophony* will ſmell of Turpentine. It is one of the greateſt Sudorificks we know at preſent.

Within ſome Years the Surgeons thought that the Wood of the Box-Tree, to which ſome have given the Name of *French Guaiacum*, had the ſame Virtues with the *Indian*, which made them uſe much leſs of the true *Guaiacum* than they had been uſed to do; but if they had been curious enough in the Choice of the right *Guaiacum*, they would have found a vaſt Difference. The Error aroſe from hence; they bought it of the Turners, who uſed to ſell them the Sweepings of their Shops, in which it was mix'd with ſeveral other Woods, for a Penny or Three-Half-pence a Pound.

The Box-Wood [might indeed have as much Virtue as this.

This Box-Wood is well known in *France*, they make ſeveral Sorts of Work of it. The beſt of it comes from *Spain*, and ſome Parts of *France*, but chiefly *Champaigne*. A Spirit and black Oil is drawn from this by the Retort, and is rectify'd as that of *Guaiacum*.

Guaiacum, ſive Lignum Sanctum, *Lemery.* is a Tree the Size of a common Walnut-Tree, whoſe Bark is thick and gummous, and eaſily parts from the Trunk. Its Wood is hard, firm, weighty, and marbled with brown, red and black; of an acrid Taſte: The Leaves are longiſh, or almoſt round: The Flowers grow in Cluſters, of a pale yellow Colour, hanging upon green Stalks; theſe are ſucceeded by a Fruit like ſmall Cheſnuts, round, ſolid, and brown; in which is contain'd another little Fruit, or Seed, of an Orange-Colour. This Tree yields, by Inciſion, a reſinous Gum, of a reddiſh brown, clean, ſhining, friable, fragrant, and of an acrid Taſte, call'd *Gum Guaiacum*.

The Wood, Bark, and Gum, are all uſed in Phyſick; every one of which contains a great deal of eſſential as well as fixt Salt, Oil and Gum. They are eſteem'd good Sudorificks, and are given in the Venereal Diſeaſe, Rheumatiſms, Catarrhs, Gouts, Scurvy, and Dropſy, and other Diſeaſes, which proceed from Weakneſs, Obſtructions, or Diſeaſes of the *Viſcera*. It is a Wood which is white without, and of a greeniſh yellow, or blueiſh green ſometimes within, the heavieſt being the beſt. It is brought from *Jamaica*, and ſeveral Places of the *Spaniſh Weſt-Indies*, in Pieces ſo large as to make Bowls of them, which hold from three to twenty Quarts.

[It is the Wood of the *Guaiacum, ſive Lignum ſanctum*, Park. 1586. *Guaiacum Americanum primum fructu Accris ſive legitimum*, Breyn. Prodr. 1. 31. It is common in *Jamaica*, *St. Domingo*, and many other Places. The Leaves are alated; the Flowers blue and pentapetalous; the Fruit ſomething like the Maple. Some Authors diſtinguiſh the *Lignum ſanctum* from the *Guaiacum*, and ſay it is the Wood of the *Guaiacum foliis Lentiſci*, Breyn. Prodr. 2. 54. and *Caſpar Bauhine* has made three Species of it, 1. the *Guaiacum magna matrice*; 2. the *Guaiacum propemodum ſine matrice*; 3. the *Guaiacum foliis Lentiſci*; but Father *Plumier*, who was upon the Spot whence they are all brought to us, affirms they are all the Wood of one Tree in different Circumſtances of Age, Place of Growth, *&c.*

The Wood was formerly famous for the Cure of the Venereal Diſeaſe; but it was found not to ſucceed ſo well in *Europe*, as in hotter Climates; but it is ſtill kept in uſe in ſuch Caſes as an Aſſiſtant, in Diet-Drinks during Mercurial Courſes.]

9. *Of* Cedar *of* Lebanon.

THE *Cedar* of *Lebanon* is a Tree which grows to a prodigious Size, *Pomet.* and of a pyramidal Figure, whoſe Branches are adorn'd with little, narrow, green Leaves, and the Fruit like our Pine-Apples. It is from the Trunk, and the large Branches of this Tree, that there flows, during the great Heats, without any Inciſion, a Sort of white Reſin, very clear and tranſparent, which we call *Cedar-Gum*, of which the largeſt Trees yield not leſs than ſix Ounces

Ounces a Day. Here are likewiſe, during the hot Seaſon, little Bladders form'd on the Body of this Tree by the ſcorching of the Sun; which being pierc'd, afford a clear white Liquor, like Water, of a ſtrong penetrating Smell; and when the Tree produces nothing more naturally, they make Inciſions in it, and there runs from them an unctuous Liquor, which drops as it runs down the Tree, and makes what we call Reſin of the *Cedar*; but this, as well as the other Productions of this Tree, are very ſcarce. This Reſin is of a very fine yellow, bright and tranſparent, and of a very grateful Odour.

Of the Berry-bearing Cedar.

The *Berry-bearing Cedar* is a Tree of which there are three Kinds, differing only in Height, or in the Thickneſs of the Leaves; they are commonly crooked, bearing long ſharp-pointed Leaves, always green, eſpecially in Winter; after which come Berries of the Bigneſs of thoſe of Butcher's Broom, or Knee-Holm, green at firſt, but red when they are ripe. The Trunk being cut, there iſſues forth a very clear tranſparent Gum, which is the true Sandarac; but as we very ſeldom have it among us, we uſe the great Juniper-Gum inſtead of it, which I ſhall deſcribe hereafter.

They make of this Wood, by the Aſſiſtance of the Retort, a black Oil, which being rectified, is call'd Oil of *Cedar*, or Cade Oil; but as theſe Trees are not very common, we content ourſelves with that made of the Great and Leſſer Juniper. The true Cade Oil, or Oil of *Cedar*, is admirable for curing Tetters and Scabs in Horſes, Cattle, Sheep, and other Beaſts: But as theſe Sorts of Oil are too dear, we ſubſtiture in their Place clear Oil of Pitch, which for that Reaſon is alſo call'd Cade Oil, as you will find in the Chapter of Pitch.

Lemery. *Cedrus Magna, ſive Libani Conifera*, or, according to *Tournefort*, *Larix Orientalis, fructu rotundiore obtuſo*, is a Species of the Larch Tree, or a very large, thick, ſtrait Tree, riſing Pyramidal, whoſe Bark is all of a Piece, the Wood very hard and durable, ſo that it is ſaid never to decay; the Leaves are ſmall, ſtrait and green, diſpoſed in Cluſters along the Branches, putting forth in Spring-time, and falling at the Approach of Winter; the Flowers and Fruit as before deſcrib'd. There runs a Sort of Gum from the Tree without Inciſion, hard, and as it were in Grains like Maſtick, from whence it frequently is call'd the *Maſtick-Cedar*; the Wood is uſed in fine Joiners Work, and Turners Ware; the Tear that flows from the Tree, is improperly call'd a Gum, becauſe it is the pureſt reſinous Part of the Tree, and is digeſtive, deterſive, conſolidating, ſtrengthening, good againſt Gangrenes, and proper for Diſlocations and Fractures.

There is another Sort of *Cedar* call'd *Cedrus Baccifera*, the *Cedar* that bears a Berry, or *Cedrus Minor*, the *Leſſer Cedar*, of which there are three Kinds; the firſt is call'd the *Phœnician Cedar*, or *Cedrus folio Cupreſſi major fructu flaveſcente*, the Great Cypreſs-leav'd *Cedar*, with the yellow Fruit; the Trunk and Branches whereof are crooked and knotty, the Wood reddiſh, yielding a Smell like the Cypreſs; the Leaves narrow and ſharp-pointed, harder than thoſe of Juniper and more prickly, green all the Year as the Cypreſs; the Shells or Huſks are made up of ſeveral little Scales, at the Bottom of which grow ſeveral Bags or membranous Veſicles, full of Duſt; the Fruit ariſes upon the ſame Foot or Stalks with the Huſks, but divided into Cells, in which are Berries that turn yellow when ripe, are a little fleſhy, odoriferous and of a grateful Taſte; each of them containing three woody Kernels that are hard, hollow on their Backs, and flat on the other Side; there comes from the Trunk of the ſaid Tree, in the hot Countries, a Gum call'd Varniſh.

The ſecond Sort is call'd the *Lycian Cedar*, or *Cedrus folio Cupreſſi media majoribus baccis*, the Middlemoſt Cypreſs-leav'd *Cedar*, with the great Berries; this Tree differs from the former, in that it is lower, and the Berries are much bigger.

The third Sort is call'd, *Cedrus Hiſpanica procerior fructu maximo nigro*, the Tall *Spaniſh Cedar*, with the great black Fruit; it is much higher than the reſt, and the Berries a great deal bigger, of a black Colour: Theſe *Cedars* grow in *Italy*, *Spain*, *Provence*, and *Languedoc*; they remain always green, and yield Abundance of Oil; the Wood is ſudorifick, being uſed in Decoction; the Berries are proper to ſtrengthen the Stomach, and aſſiſt Digeſtion. The Oil is drawn after the common Method, by a Retort, being black, and paſſes for the true Oil of *Cedar*; it is good for all Sorts of Scabs and Deafneſs, and may be inwardly given in Hyſterick Caſes. Doſe from two Drops to ſix.

[The firſt of theſe Trees is the *Cedrus Libani*, Ger. 1161. *Cedrus conifera foliis Laricis*, C. B. Pin. 490. It is kept in the Gardens of the Curious; the Reſin is very ſeldom to be met with, and its Virtues are not now known but by Conjecture; the Wood is of a red Colour, ſomething reſinous, and of a ſtrong agreeable Smell; it is ſaid never to decay; it is ſometimes uſed in Phyſick as a Sudorifick.

The

The *Berry-bearing Cedar* is the *Oxycedrus* of the Shops; the original Species is the *Oxycedrus Lycia*, Ger. 1191. *Cedrus major Dioſcoridis Cluſii*, Pluk. Alm. 201. It is alſo kept in the Gardens of the Curious. The Wood and Berries both reſemble the Juniper in Smell and Taſte, as well as Virtues, but they are ſeldom uſed.]

10. *Of the* Great *and* Small Juniper.

THE *Great Juniper*, call'd in *Latin* *Pomet.* *Juniperus*, is a Tree of different Sizes, according to the different Places where it grows; this Tree is commonly ſlender, at a good Height of which ſpring forth ſeveral Branches, furniſh'd with little, narrow, prickly Leaves, always green; it bears alſo Berries of the Bigneſs of a Hazel Nut; which the firſt Year are green, the ſecond brown, the third black, and which being full ripe, are very alexipharmick.

By cutting the Trunk, and the largeſt Branches of this Tree, there flows a Gum call'd Sandarac, during the great Heats, which is brought to us from *Africk*, where the Trees grow very high, and in great Quantities. This Sandarac is the *Arabian* Sandarac or Varniſh, which is much traded in by the *Swedes*, *Hamburghers* and *Engliſh*; this is call'd by ſome the *Arabian* Sandarac; by others, the *Varniſh-Gum*, or *Gum-Juniper*, and is of more Uſe to Artiſts than in Phyſick. Chuſe it in large white Drops, and not duſty.

Of the Small Juniper.

The ſmall Kind of *Juniper* is ſo common every where, that it needs no Deſcription; there is made of the freſh and dried Berries, a white and fragrant Oil; as likewiſe a Water or Spirit, vulgarly known by the Name of Geneva, as a Corruption from the *French* Word *Genevre*: Beſides this, there is a Spirit and Oil drawn from the Wood, by the Retort; which Oil is mention'd in the preceding Chapter. The Wood is uſually burnt as well as the Berry, to drive away or expel infectious Air. The *Germans* uſe the Berry in their *Ragous*, and it ſerves them for the *Theriaca*, for which Reaſon an Extract of it is call'd *German-Treacle*. This *Juniper* likewiſe affords ſome Sandarac, but in ſuch ſmall Quantities that it is not worth the while to make it.

Lemery. The *Great Juniper* is call'd *Juniperus vulgaris celſior & arboreſcens*, the common high *Juniper-Tree*, or the *Spaniſh Juniper*, which is chiefly improv'd in *Africa*. M. *Tournefort* diſtinguiſhes this Tree from the Cedar by its Leaves, which are ſingle and flat, inſtead of thoſe of the Cedar, which more reſemble the Cypreſs. It is ſudorifick in Decoctions, and fragrant when burnt; to which Purpoſe it is frequenly uſed in the Houſes to prevent peſtilential Diſeaſes, and other Infections.

The other *Juniper* is a common Shrub, known to every Body, which is full of Oil and eſſential Salt; it grows plentifully in ſome Parts of *England*, and in moſt Parts of *Europe*; the Berries are cephalick, good for the Nerves and Stomach, to provoke Urine and the Terms, to reſiſt Poiſon, for inveterate Coughs, Wind-Cholick, and nephritick Pains, together with the Strangury, Gravel, Sharpneſs of Urine, and all Obſtructions of the urinary Paſſages, Womb, Liver, or Spleen. In *France* they make Comfits of them, which they call St. *Roch*'s Comfits, and carry them in their Pockets, that they may chew two or three of them in a Morning, to prevent infectious Airs, and make the Breath ſweet.

[The ſmall or common *Juniper* is the *Juniperus vulgaris fructuoſa*, C. B. Pin. 488. *Juniperus vulgaris baccis parvis purpureis*, J. B. 1. 293. It is common on Heaths.

The Great *Juniper*, or *Juniperus major* of the Shops, is the *Juniperus maxima Heyrica*, Park. 1029. *Juniperus major bacca cærulea*, C. B. Pin. 498. this is moſt common in *Greece*. There is alſo another Species uſed in Medicine, which is the *Juniperus Alpina*, J. B. 1. 301. *Juniperus minor montana folio latiore fructu longiore*, C. B. Pin. 489. The principal Uſe of this Species is, that its Infuſion or Juice are given to Horſes, to deſtroy the Worms call'd Bots, with good Succeſs.]

11. *Of* Braſil Wood.

WE ſell to the Dyers ſeveral Sorts of red Woods, by the Name of *Braſil-Wood*; the firſt that is moſt eſteem'd, and moſt in Uſe, is the *Braſil-Wood* call'd *Fernambuck*, becauſe it is brought from a Place of that Name in *Braſil*; the next is the *Braſil-Wood* of *Japan*, which the *Engliſh* and *Dutch* call *Sapan-Wood*, of which there are two Sorts; to wit, the large *Sapan-Wood*, or the great *Braſil-Wood* of *Sapan*, and the leſs the *Braſil-Wood* of *Japan*, or the *Biames Sapan*, which is much ſmaller: The third Sort is the *Lamon Braſil*; the fourth is the *Braſil* of St. *Martha*; the fifth, and much the leaſt, is the little *Braſil-Wood* that comes from the *Antilles*; ſo that that which makes ſo many different Kinds of *Braſil-Wood*, is nothing elſe but the ſeveral Places and Difference of the Soil where the Wood grows.

The

The Tree from whence this Wood is cut, is very thick and large, having long Branches that bear a vaſt Quantity of little Leaves, roundiſh, of a fine ſhining green, among which come Flowers, like the Lilly of the Valley, of a beautiful red, and a ſweet Flavour, from whence comes a flat Fruit, in which are encloſed two flat Kernels, of the ſame Shape and Figure as the Gourd Seed.

The Natives prepare the Wood, which is brought to us, by cutting it cloſe with the Ground, and branching or lopping of it, and taking away the outer Part; ſo that what remains is only of the Size of a Man's Leg, tho' the Tree was of the Thickneſs of a Man's Body. Chuſe the true *Fernambuck Braſil* in heavy Billets or Logs, compact, and without Pith, ſound and firm; that is to ſay, without the outer Subſtance and Rottenneſs; ſuch as, after it is ſhiver'd in Pieces, ſhews of a reddiſh Colour, and being chew'd, is of a ſweet Taſte; but take care that it be not mix'd with other Kinds of *Braſil*, which is eaſily known, in that all other Sorts, except the *Japan*, are without Pith; and that of *Lamon* may be diſtinguiſh'd from the *Fernambuck*, in that it is in large Billets. Some Perſons have aſſur'd me, that the *Braſil* of *Lamon* comes from *All-Saints-Bay*, where it grows in great Quantities. As to the *Braſil* in Chips, the beſt Account I can give you of it, is to truſt to the Honeſty of the Merchant with whom you deal. This Wood is uſed among the Dyers, and the Stationers make Red-Ink thereof. There is a very red Tincture made of the *Fernambuck Braſil*, of which I have been aſſur'd a Carmine is made as from Cochineal, but I never try'd it. Likewiſe there is a Liquid Lake made of this, which the Painters uſe for Miniature.

Lemery.

This Wood is call'd *Lignum Braſilianum rubrum*; the Tree from whence it comes, by the *Indians* is nam'd *Ibirapitanga*; the Bark is reddiſh and thorny, the Branches are long, and adorn'd with abundance of ſmall Leaves like the Bramble; the Flowers are little and join'd ſeveral of them together, very odoriferous, and of a fine red Colour: This Tree grows in the Woods, and the beſt Kind is the *Fernambuck*, which is brought us from a Town of *Braſil*, of that Name. Chuſe the heavieſt, firmeſt, ſoundeſt, reddeſt, and that which affords the ſweeteſt Smell.

There are ſeveral Sorts of this Wood, the principal Uſe of all which is for the Dyers; it contains a great deal of Oil, and a little eſſential Salt; is aſtringent, and the Tincture proper to ſtrengthen the Stomach, abate a feveriſh Heat, and remove the Inflammation of the Eyes: The Wood boil'd in Water, with a little Allum, will ſtrike a red Dye into Eggs boil'd with it; and it is uſed to colour Roots of Althea to clean the Teeth withal. Some Authors affirm it to be of great Uſe againſt the French-Pox; but I find it ſeldom or never preſcrib'd for that Purpoſe; for tho' it may be drying, it has nothing of the acrid, hot Quality of the *Guaiacum*, neither does it abound with Roſin like that Wood: According to the following Preſcription, you will have a Tincture for the dying of Skins, Book-Covers, and the like Things, and to write withal, as Red-Ink: The Tincture prepar'd with Water, only ſerves for dying of Wooll, which will not turn purple, nor ſuffer an eaſy Decay. The Tincture is thus made; take Raſpings of *Braſil*, and, inſtead of Water, infuſe them in Vinegar, or ſome Lixivium, with a little Gum-Arabick and Allum, ſetting them in a glazed Pot, or Pipkin, for ſome Hours, you will have a Blood-red Tincture.

[This is the Wood of the *Erythroxylum Braſilianum Spinoſum foliis Acaciæ*, Herm. Par. Bat. Pr. 333. *Criſta pavonis Coronillæ folio, tertia, ſive Tinctoria, maxima, Braſiliana, flore variegato, parvo odoratiſſimo, ſiliqua aculeata, Lignum Braſilium dictum ferens*, Breyn. Pr. 2. 37. It grows all over *Braſil*, and flowers in *December*; the Heart of the Wood is what ought to be uſed. It is ſaid to have the ſame Virtue with the Red Sanders, but is little uſed in Medicine.]

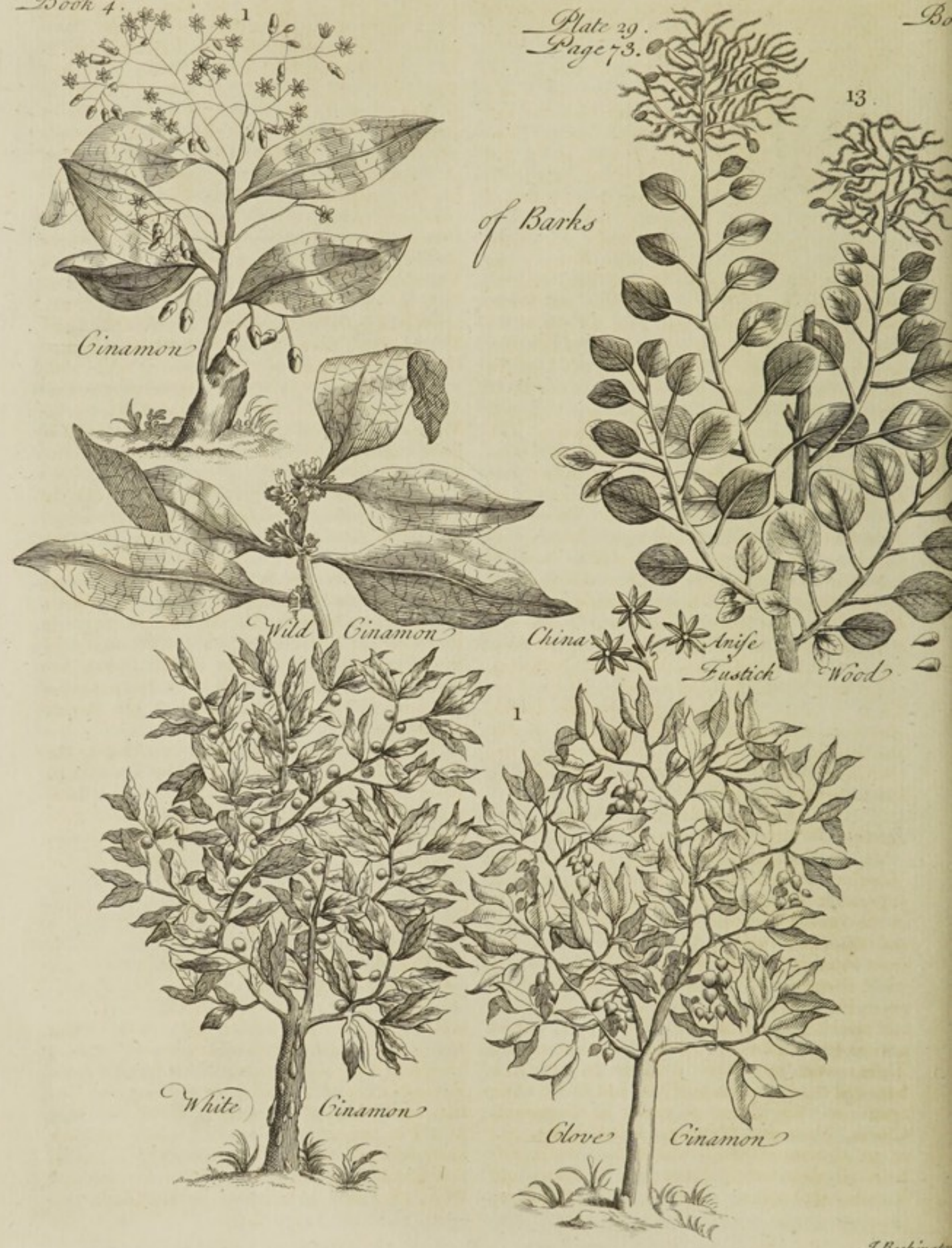
12. *Of* Log-Wood, *or* Campeachy-Wood.

Pomet.

THE *Log-Wood*, call'd *Indian-Wood*, *Campeachy*, or *Jamaica-Wood*, is the Heart of the Trunk of a large Tree, which grows plentifully in the two Iſlands aforeſaid, and in *Santa Cruce* in *America*, where there are whole Foreſts of it.

This Tree is bigger or leſs, according to the Soil that produces it; it riſes with a Trunk, very thick and ſtrait, cover'd with a thin Bark that is plain and ſmooth, of a Silver-grey, or yelloviſh Colour; the Leaves are like thoſe of the Bay, and being held in the Mouth, afford a Scent like the Clove, which has made it oftener taken for the Tree that bears the Clove than any other, by Reaſon of the delicate Flavour, which has given it the Name of the *Indian aromatick Laurel*: Among the Leaves comes a ſmall Fruit, which adheres to the Branch by a little Stalk like the Cubeb, and has at the other End a ſmall Crown; the Fruit is of a dun Colour, the Taſte ſharp and piquant, notwithſtanding it is agreeable enough, taſting like a Clove, which occaſions it for the moſt

Part


1
13
of Barks
Cinamon
Wild Cinamon
China
Anise
Fustick
Wood
1
White Cinamon
Clove Cinamon

Part to be call'd Clove-Berry; the Fruit being broken, there are found within three ſmall Kernels very nearly reſembling Muſk-Seed.

We may obſerve then, that the *Indian Laurel*, or *Campeachy-Tree*, affords three Sorts of Commodities that are very good and ſaleable; the firſt is the Wood, which ought to be choſen true *Campeachy*, cut by the *Spaniards*, as that is the beſt Kind, ſuch as is not decay'd, and cut, not ſaw'd at the Ends, which diſtinguiſhes it from that of *Jamaica*, which is commonly ſaw'd, and is brought by the Way of *England*, and coming from *Campeachy* or *Jamaica*, is carried to *France*; this Wood chiefly employs the Dyers, Bead-makers, and others, who uſe it to dye blue and black. The ſecond Commodity this Tree affords is the Leaf, which may be uſed in the Place of the *Malabathrum* wherever it is order'd, as this Leaf has more Virtues than it; the *Americans* make uſe of them for Fomentations, to cure the Palſy, and other Diſeaſes proceeding from cold Cauſes. The third is the Fruit, which the *French* uſe in Imitation of the *Engliſh*, as being a very ſtrong aromatick, and proper upon ſeveral Occaſions: As this has been known but of late Years, the *French* have had but little Commerce therein, beſides what their Privateers of *St. Maloes* have taken from *England*: The Grocers diſtinguiſh it by the Name of Clove-Berry, becauſe of its Reſemblance to that Spice in Smell and Taſte, and it is call'd with us All-Spice, as having an Analogy to Cinnamon, Cloves, Mace, and Nutmegs, and is very much uſed in all Sauces. By the *Engliſh* it is call'd *Jamaica-Pepper*, by the *Dutch*, *Amomum*, and by the *French*, the Fruit of the *Indian-Wood*, and vulgarly, though improperly, the Clove-Berry. The Flowers of this Tree are ſaid to be very beautiful.

Lignum Indicum, *Campecium*, Log-Wood, or *Jamaica-Wood*, call'd alſo *Braſiletto*, comes from *Campeachy* and *Jamaica*, where it is chiefly found growing; but it grows in ſeveral other Parts of the *Weſt-Indies* in the *Spaniſh* Territories, the Iſles of *Providence*, and the like; where, beſides the Wood, the main Produce is the Pepper, or Fruit of the Tree, call'd *Pimento*. What the *Engliſh* uſe comes in great Plenty from *Jamaica*; it is ſmall, round and blackiſh, almoſt like common Pepper, but of a more fragrant Smell, and much more aromatick Taſte; when one chews it in the Mouth, it is hot, and the Flavour is as if you had all the other Spices in your Mouth at once, as Cinnamon, Cloves, Mace and Nutmegs, being ſtrong, and of an odoriferous Smell, and without doubt poſſeſſes all their ſeveral Properties, Qualities and Virtues, tho' poſſibly not in ſo large a Meaſure, in Reſpect to its Body; for that it conſiſts of much more earthy Parts than any of them, Cinnamon only excepted; but the Tincture, or Oil of it, being extracted from its terrene or feculent Part, with which it holds but a ſmall Proportion in Reſpect of the four Spices; they are not much inferior to what may be extracted from thoſe generous Drugs: So that in ſhort we muſt allow this Spice to be ſtomachick, cephalick, cardiac, uterine, nephritick and arthritick; it is alexipharmick and diuretick, comforts the Brain and nervous Parts, refreſhes and ſtrengthens the whole Animal Œconomy, and reſtores the natural Functions of Life, where weaken'd or decay'd. It is given in Powder, Decoction or Tincture, againſt Diſeaſes of the Reins, Liver, Spleen and Womb; and is very profitable in Gout or Stone, eight or ten Drops of the Tincture, made with Spirit of Wine tartariz'd, being taken three or four Times a Day, in any Cordial Water or Wine. The fœtid Oil, made by the Retort, is good outwardly applied to Gangrenes, Tooth-Ach, and the like.

[The *Log-Wood* is the Wood of the *Criſta Pavonis Coronillæ folio ſecunda ſive Tinctoria Indica, flore luteo racemoſo minore, ſiliqua latiſſima glabra Lignum rubrum Sappan dictum ferens*, Breyn. Prodr. 2. 37. *Erythroxylum ſive Lignum rubrum indicum Spinoſiſſimum Coluteæ foliis floribus luteis, ſiliquis maximis*, Par. Bat. Prodr. 333. It is a Native of both the *Indies*; the Wood is uſed in dying, and ſometimes in Phyſick, being accounted an Aſtringent: This Tree does not grow in *Jamaica*, but upon the Coaſt of the Bay of *Campeachy*.

Theſe Authors are miſtaken in thinking the *Pimenta* the Fruit of this Tree; the Tree which bears that Spice is the *Myrtus arborea foliis Laurinis Aromatica*, Cat. Jamaic. P. 161. which is very common over the whole Iſland of *Jamaica*. For a full Account of this Spice, ſee the Appendix.

Lemery.

13. *Of* Fuſtick-Wood.

Pomet.

THE Wood we commonly call by this Name, is the Roots and Trunk of a Shrub, which Botaniſts call *Coggigria* from *Theophraſtus*, and *Cotinus* from *Pliny*, which has green Leaves almoſt round; after which grows a Flower, which at firſt is made in the Nature of a Cluſter, of a dark green Colour, and which at laſt opens itſelf into the Shape of a Fan, among the Down of which are black heart-faſhion'd Seeds. The Roots and Trunk of this Shrub are what the People of *Provence* and *Italy*, after they have peel'd off the Bark, ſell

for *Fuſtick-Wood*, which, according to its good yellow Colour, is ſuppoſed to be the better Commodity; that of *Provence* excels the *Italian*; but there is a better Sort comes from *Holland* and *England* than either of the other two. The Uſe of it is for the Dyers, to make a dead Green, and it is of ſome ſmall Account among the Workers in Ebony and the Curriers.

This Wood is call'd by M. *Tournefort*, *Cotinus Coriaria*, *Coccigria* by *Theophraſtus*, and *Coggigria* by *Pliny*. It is a Shrub of ſix or ſeven Feet high, bearing its Branches round, cover'd with a dark red Bark; the Leaves are large, veiny, almoſt round like the Elm, but much leſs, ſmooth, and green; the Flowers grow on the Tops of the Boughs in Cluſters, of a dark Colour, inclining to Purple. This Shrub grows on the Mountains in *Italy*, *Hungary*, and *Provence*. The Wood is yellow, and uſed by the Dyers and Leather-dreſſers; the Leaves and Seeds are very aſtringent and cooling, drying and vulnerary, and may be uſed in Gargles for Ulcers in the Mouth, Throat, and other Parts, and for the Tooth-Ach. A Salt made of the Aſhes of the Wood, makes an excellent Purge with two Drams of Treacle of Mithridate, and ten Grains of the Salt; this may be given three or four Days ſucceſſively, as the Diſeaſe requires, and is ſaid to have ſuch ſufficient Virtue to give Relief in the Gout and Rheumatiſm, as is not to be found in any other Medicine whatſoever, laxative, purgative, or expulſive. Make the Salt thus; take what Quantity of the Wood you pleaſe, burn it to Aſhes, and with Fumitory Water, or any other proper Vehicle, make a *Lixivium*, or Lye; filtrate this, and then coagulate it into a Salt, according to the uſual Form.

In Surgery you may uſe the Salt thus: If the Wound or Sore you would dreſs be open, firſt cleanſe by this Salt, then anoint it twice every Day with the Balſam or Gum of this Wood, made as that of *Guaiacum*, 'till the Cure is perfected. If there be great Pain in any Part of the Body, and nothing to be ſeen, anoint the Place with this Gum. By this Gum may be cur'd the Gout, the Palſy, and the *French* Diſeaſe.

[*Fuſtick-Wood* is the Wood of the *Morus fructu viridi Ligno Sulphureo Tinctoria*, Sl. Cat. Jam. *Tateci iba Pis.* 163. The Tree here deſcribed by *Pomet*, and which he thought produced the *Fuſtick*, is the *Cotinus Mathioli*, C. B. Pin. 415. *Coccigria Cotinus coriaria nonnullis dicta*, Chabr. 37. It is common in *Italy*; it flowers in *May* and *June*; the Fruit is eſteem'd drying and aſtringent, but now never uſed in Medicine.]

There comes another Sort of yellow Wood from *England* and *Holland*, in thick Billets, which is known by no other Name than that of the Yellow Wood, which ſerves the Dyers and the Workers in Ebony. I know nothing further touching this Yellow Wood, than what I have here related; but that it ought to be choſen of the higheſt Colour that may be, and the Buyer muſt take care that he has not *Fuſtick* ſold him for it. There comes alſo a certain Wood from *Lorrain* of a greyiſh Colour, tending ſomething to reddiſh, hard and moderately heavy, furniſh'd with a Bark that is thin, and a little reſembling the Cherry-Tree, which is what we call *St. Lucy's Wood*; and which, becauſe of its agreeable Scent, is uſed by the Workers in Ebony. The Choice of this Wood is from its being firm, and without Knots. This Wood is admirable in its own Nature, in that it is not ſubject to decay, and the older it is, the better it ſmells. M. *Tournefort* aſſured me, that this Wood was the Stem of the Shrub which bears the *Mahalep*, of which I made mention in the firſt Book of Seeds.

There is alſo brought from the *Indies* a certain greeniſh Wood in thick Billets, of a very good Smell, by the Name of *Calambourg-Wood*, ſerving for a great many Sorts of Works, by Reaſon of its ſweet Scent, which is proper for ſeveral Kinds, as alſo for inlaying and making of Beads; the Barbers uſe it as *Rhodium*, boiling it in the Water with which they ſhave.

The *Dutch* tranſport two Sorts of purple or Violet-colour'd Wood in large Billets, which is of no other Uſe but for inlaying. The Choice of this Wood is to pick ſuch as is the moſt veiny, or marbled within and without, the leaſt ſpotted or decay'd that can be met withal, and freeſt from the outward Subſtance; the largeſt Violet-Wood is call'd *Palixandre-Wood*. There is another Sort the *Dutch* tranſport, of a reddiſh Colour, tending to a Purple, which the *Dutch* call *Letter-Hout*, and the *French China-Wood*. M. *Furetiere* ſays, that this Wood only comes from the Continent of *Guinea*, which I do not underſtand, having never ſeen any. But this is likewiſe for inlaying.

Beſides theſe Sorts of Wood mention'd before, there are three Sorts of Ebony, to wit, the black, which the *Dutch* bring from the Iſland of *St. Maurice*, which the Antients believ'd to be a Species of *Lignum Aloes*; the ſecond is the red Ebony; the third is the green Ebony. As to the Tree that produces the black Ebony, ſome affirm that is the Height and Size of the Oak, and that it is like that Wood both in the outer Subſtance and the Heart, except that the Colour is blacker, and takes a fine Poliſh or Smoothneſs, which makes it valued. It is ſaid the Leaves reſemble the Laurel, and that it bears a Fruit like an Acorn,

Acorn, upon a little Stalk. The red Ebony is likewiſe very ſolid and heavy, being more veined and of a higher Colour. The green has the ſame Qualities when freed from the Bark and outer Subſtance.

The Uſe of Ebony is for ſeveral Kinds of inlaying, and becauſe of the great Uſe it was of formerly, thoſe who work upon Ebony are call'd at this Time Ebonifts, who are in *France* a very conſiderable Body of Work-Men. There are thoſe who affirm that the outer Subſtance of the Ebony, infuſed in Water, has a purgative Quality, which will cure the Venereal Diſeaſe.

Beſides this, there comes from the *Indies* a greyiſh Wood in large Billets, of an Aniſeed Smell; for which Reaſon it is call'd by the Ebonifts, or Cabinet-makers, who work in it, Aniſe-Wood, or Anil-Wood. There is another Wood ſold with the Seed thereof, nam'd Aniſe of *China*, *Siberia*, or the *Philippine* Iſles, or the *Badean* or the Zinge-Seed, *&c.* deſcrib'd under the Head of *Nigella Romana*, by the Name of *China Aniſe*. There are alſo brought to us two Sorts of the Caſhew-Wood, the red and the white; the Tree is ſaid to bear Leaves like the Oak; the Wood is light and ſpongy.

The *Tacamahac-Wood* is the Wood of a great Tree common in *New Spain*, which produces the Gum *Tacamahac*, to be ſpoke of in its proper Place.

There are yet ſeveral Sorts of Wood, as *Sambarame-Wood*, which is a Kind of white Sanders; *Molucca-Wood*, which the Natives of the Country call *Panava*; and many others which I ſhall forbear to mention, we having little Trade or Sale for them. As to the *Molucca-Wood*, ſome have aſſur'd me that it was the white Cinnamon, which I have no Faith to believe.

[As theſe Woods are not uſed in Medicine, a particular Account of the Trees which produce them I judged would be foreign to the Intent of this Work.]

14. *Of* Snake-Wood.

THE *Snake-Wood* Plant is a Creeper which ſpreads itſelf a great Way; the Branches are ſlender and full of Leaves, like thoſe of Briony, and faſten themſelves to the Trees that are near them; the Wood is firm, heavy and compact, and cover'd with a thin Rind, reddiſh or of a marbled brown, without Smell, and of an inſipid Taſte; it is brought to us in long Pieces, of the Thickneſs of a Child's Arm; it grows in the Iſlands of *Ceylon* and *Timor*. Chuſe ſuch as is the oldeſt you can find. It is deterſive, deſicative, and good in Intermitting Fevers.

[This is not properly a Wood, it is the Root of the *Nux Vomica minor Moluccana*, *Lignum Colubrinum Officinarum*, Par. Bat. Prod. 357. *Radix Colubrina Lignum Colubrinum*, Mont. Ex. 7. It is of a very bitter Taſte, and is a ſtrong Purgative and Emetick, taken in Infuſion from a Scruple to a Dram, and in Subſtance from ten Grains to a Scruple; but its Operation is obſerv'd to be much more violent upon the *Europeans* than on the *Indians*, with whom it is a common Medicine for the Worms.]

The End of the Book of WOODS.

BOOK the Fourth.

Of BARKS.

PREFACE.

BY the Word Bark *I mean the firſt, ſecond, or third Covering, or Rind of the Trunk of a Tree; which we uſe, either as it is taken naturally from the Vegetable, as the* Cortex, *or* Peruvian *Bark, and the Bark of the Mandrake; or cleanſed, or freed from the firſt outward Rind, as* Cinnamon, Caſſia Lignea, *and others of the like Nature. I ſhall begin this Book with the Tree that bears the* Cinnamon, *as well becauſe of the great Conſumption that is made of that Bark, as for the conſiderable Virtues with which it is endowed,*

1. *Of* Cinnamon.

WHAT the Antients, as well as the Moderns, call *Cinnamon*, is the middle Bark of the Branches of a Tree which grows the Height of a Willow, and whoſe Leaves are ſo like the *Folium Indum*, that it is difficult to find the Difference at firſt Sight, which has given ground to ſome People to aſſert, that the *Folium Indum* was the Leaf of the Tree that bears the *Cinnamon*; but if the Leaves are ſo like, that the Eye cannot readily diſtinguiſh them, the Palate can do it with Eaſe, becauſe the Leaves of the *Cinnamon* are of ſo ſweet a Taſte and Smell, that they ſurpaſs, in ſome meaſure, the *Cinnamon*. After the Leaves, ariſe white Flowers, in Form of little Cups, from whence come Berries, of the Figure of an Olive-Stone; each of which adheres to the Branch, as is repreſented by the Cut engrav'd from the Original, which M. *Tournefort* has in his Hands, of which he gave me, at the ſame Time, five or ſix Leaves, of the Shape and Taſte here taken notice of.

As to the Place from whence the *Cinnamon* comes, and the Manner of Barking the Tree, I think it proper to relate what Mr. *Tavernier* has writ of it. The *Cinnamon* comes from the Iſle of *Ceylon* in the *Eaſt-Indies*; the Tree that bears it is very like our Willow, and has three Barks, or Rinds; but the firſt and ſecond, or middlemoſt Bark, are choſen for Uſe, and the third they never meddle with. This *Cinnamon* coſts the *Dutch* more than can be believ'd, for the King of *Ceylon*, otherwiſe call'd King of *Candy*, from the Name of the Capital City, is a ſworn Enemy to the *Hollanders*; ſo that every Year they are oblig'd to ſet a Guard of five or ſix hundred Men to cover and defend the Labourers, during the Seaſon for barking the *Cinnamon-Trees*, and entertain theſe Workmen all the reſt of the Year, without reckoning the ſeveral Garriſons they are forc'd to maintain throughout the whole Iſland. Theſe great Charges enhance much the Price of *Cinnamon*.

When the Inhabitants of the Iſland gather their Crop of *Cinnamon*, they free it from the outward Bark, which is brown and rough; then they lay it to dry, and roll it up: By this Means it acquires the Figure we ſee it in, and becomes of a reddiſh Colour, being of a ſweet Smell, and piquant Taſte, aromatick, and very agreeable; therefore chuſe ſuch, together with the thineſt Bark, and of the higheſt or deepeſt red Colour that you can get, throwing aſide ſuch as is thick, or has little Taſte or Smell. As to thoſe who buy great Quantities, let them take care that they do not purchaſe *Cinnamon* that has had the Oil or Eſſence drawn

drawn from it, which is very difficult to know, unleſs you taſte it Piece by Piece.

Cinnamon is of ſuch great Uſe, that we have few Drugs which we uſe ſo much, as well becauſe of its Virtues, as from its agreeable Taſte and Smell. The *Dutch* bring us another Sort of *Cinnamon*, with a large Bark, and very thick, which is that the Antients, from the *Arabians*, call'd *Dracheni*, and we, *Rough Cinnamon*. This *Cinnamon* is the Bark of the Trunk and large Branches of the Tree bearing the *Cinnamon*; but as it is a Merchandize or Commodity of little Value, becauſe there is no Sale for it, being without Taſte and Smell, except it be here and there a Piece of it, which has a little thin Membrane within it of ſo piercing and aromatick a Taſte, that it is almoſt impoſſible to bear it in the Mouth any Time; but there is ſo little of this to be found among it, that it is ſcarce worth ſpeaking of. The Confectioners, after infuſing the fine *Cinnamon* in warm Water, cover it with Pearl Sugar, and ſell it by the Name of *Milan Cinnamon*. The *French* likewiſe make little Paſtilles of *Cinnamon* and Sugar, which, with the Mucilage of Gum-Tragacanth, they make into a Paſte. The *Dutch*, and the Natives of *Ceylon*, make a Confection of freſh *Cinnamon* taken from the Tree, which is an excellent Sweetmeat to carry to Sea, but very rare to be met withal in theſe Parts of the World.

2. *Of* Oil *of* Cinnamon.

BY Means of a proper Menſtruum, and an Alembick, there is made, from fine *Cinnamon*, a rich, clear, and reddiſh Oil, of a very ſtrong piquant Taſte, which it is almoſt impoſſible to bear upon the Tongue; nevertheleſs its Taſte and agreeable Smell is the Reaſon that moſt People covet it. As *Cinnamon* is a Bark which has very little Oil in it, we are forc'd to have Recourſe to the *Hollanders* for it. It is an Error, however, to think they keep a better Kind of *Cinnamon* for their own Uſe, and to draw the Oil from, than they ſell to us; the *Cinnamon* is the ſame, and different Manner of managing it is the only Reaſon they have more Oil from it than we can get: They take what Quantity of *Cinnamon* they pleaſe, infuſe it twenty-four Hours in cold Water, then taking it out, put freſh in, continuing this ſo long 'till the Water becomes ting'd of a beautiful red; they then put it into a large Copper Alembick, and add thereto a proportionable Quantity of Spirit of Wine, which has the Property to ſeparate the Oil from the Water, and make it riſe to the Top of the Veſſel; ſo that one Pound of *Cinnamon* ſhall be able to produce near the Quantity of an Ounce of Oil, which is very different from what we can do here; for Mr. *Lemery* affirms, that four Pounds of good *Cinnamon* will, with Difficulty, produce ſix Drams of Oil.

It is rare that the *Hollanders* ſell the Oil of *Cinnamon* genuine and natural as it is made, but mix it with Spirit of Wine, well deflegmated, and drawn over upon Salt of Tartar; which has given a Handle to ſeveral Chymiſts and Druggiſts to do the ſame; ſo that thoſe who buy an Ounce of this Oil, have not above half an Ounce for for their Money; which is of great Conſequence, not only as it is a valuable Commodity, but as it is one of the beſt Medicines; tho' the Cheat is eaſy to diſcover two Ways; the firſt is, when looking into the Bottle in which it is contain'd, you may obſerve the Humidity that is within: The ſecond is, by dipping the Point of your Knife in, and putting it into the Candle; if there is any Mixture of the Spirit of Wine, it will take fire preſently; but, on the contrary to that, when it is pure, it will do nothing but ſmoke. And this pure Oil is what we call, with juſt Reaſon, Eſſence, Quinteſſence, or Oil of *Cinnamon*, which is proper to all its Intentions, and excels all other Preparations of the Bark. This Oil and the Bark itſelf are the greateſt Cordial we have; for which Reaſon the *Dutch*, the *Engliſh*, and the *Germans*, as well as the *French* and *Italians*, uſe ſuch great Quantities of it.

Beſides the Oil, there is made a Sort of Cinnamon-Water, in which the Oil plentifully abounds. This is diſtill'd from White-Wine, Roſe, or Balm-Water, or, inſtead of Wine, *Aqua Vitæ*, or Spirit of Wine and *Cinnamon*; from which, by a Glaſs Alembick, in a Sand-Heat, or *Balneo*, a muddy Liquor is drawn, like Milk, which, after a little Time, clears up again, and looks like Spring-Water: That which makes the Water look thick when it is new, is the Oil, which is rarified in the Water, ſo that it becomes imperceptible in that Form; but when the Liquor ſeparates, and becomes clear, the Oil precipitates to the Bottom of the Liquor, and remains in Form of a little Ball. This Cinnamon-Water is very uſeful to give Women in Labour, in that it is an excellent Corroborative, ſtrengthens the Stomach, and aſſiſts Evacuations. It is alſo prevalent in reſiſting the Malignancy of the Air, and peſtilential Vapours, and to re-eſtabliſh the natural Heat of the animal Life. The Doſe is from half an Ounce to an Ounce.

Some make Paſtilles with Cinnamon-Water and Sugar, which formerly were call'd *Oleo-Saccharum*; but thoſe are not ſo good as what are made with Oil of *Cinnamon*. At *Montpellier* they make a Syrup of *Cinnamon*, from a ſtrong Infuſion of it and Sugar, brought to a due Conſiſtence,

ſiſtence, and aromatiz'd with a few Drops of the eſſential Oil. We ſell a Tincture of *Cinnamon*, whoſe Virtue is encreaſed by ſeveral other Aromaticks, as Cloves, Mace, Long Pepper, Galangal, Ginger, Coriander, Muſk, and Ambergreaſe, all groſly powder'd and put into a Bottle, with Brandy or Spirit of Wine, and ſet in the Sun during the hot Days; and this is what we ſell by the Name of red *Hypocras*. There is likewiſe a white *Hypocras*, made almoſt the ſame Way, only it is diſtill'd to diſcharge the Colour; they may both of them be mix'd in Wine, ſweeten'd according to the Palate of the Drinker. This is a mighty Cordial in uſe at *Montpellier*, and the Southern Parts of *France*.

3. *Of* Caſſia lignea.

THE *Caſſia lignea* is alſo a ſecond Bark of the Trunk and Branches of certain Trees, very like thoſe which produce the Cinnamon. Theſe Trees grow in the Iſle of *Ceylon* here and there, intermix'd with thoſe Trees that bear the Cinnamon. It is the ſame as to *Caſſia lignea* as it is in Cinnamon, that is, the finer or purer the Bark is, the higher colour'd, the ſweeter taſted, and the more biting and aromatick it is, the more it is eſteem'd; nevertheleſs, be the *Caſſia lignea* ever ſo good, there is a great Difference betwixt the one and the other, the *Caſſia lignea* leaving a Viſcoſity in the Mouth, which we do not meet with in the Cinnamon. It is of little or no Uſe in Phyſick, only that it enters into the Compoſition of the great Treacle, and there would be but a ſmall Quantity of it ſold, but that it is frequently impoſed upon the unſkilful Buyer for true Cinnamon, tho' a Pound of that be worth more than four of the *Caſſia*, and the *Caſſia* has not its Virtues. An Oil is drawn from it as from Cinnamon, and uſed in the ſame Caſes. There are ſeveral Kinds of this Bark; as firſt, the true or Quill Sort, and 2dly, the *Tramboon*, brought from the *Eaſt-Indies*. The true is that which is the beſt for medicinal Uſes, and is of the Quill Sort, being of the Thickneſs of a Gooſe-Quill, made up into ſmall Bundles, generally ten or fourteen Inches long, of a bright Cinnamon Colour, and much of the Taſte, but not ſo biting upon the Tongue, when chew'd. The *Tramboon* is of three Sorts; Firſt, the ſmall, like ſmall Cinnamon, and ſomething of the ſame Taſte, but not ſo ſtrong, being more earthy and woody, and of a worſe Colour. 2dly, The Bundle Sort, bound up in Bundles like Clove-Bark, of a very hot biting Taſte, but breaking more blackiſh within, and, as it were, gummy. 3dly, The thick Sort, almoſt like the laſt, in Rolls as thick as a Man's Thigh, which is alſo ſtrong, but of a very dark Colour. *Caſſia lignea* differs from Cinnamon, in that it is weaker, darker colour'd, and, when chew'd in the Mouth, more glutinous, dry, and harſh; whence it appears that the *Caſſia lignea* Tree, and that of the Cinnamon, are two different Trees. The Difference of the Colours in the *Tramboon Caſſia* may be ſuppoſed to ariſe from its Preparation when taken off the Tree, being dry'd in the Sun; when it is leſs dry'd than it ſhould be, it is of a paler Colour; and, when too much burnt with the Sun, it grows, as it were, black.

Lemery.

Cinnamomum, ſeu Cannella, in Engliſh *Cinnamon*, is a thin Bark, that is ſmooth, and roll'd in long Pipes, of a ruſſet Colour, or yellowiſh, inclining to red; of a ſweet Smell and Taſte, piquant, fragrant, and very aromatick: It is taken from the Branches of a Tree about the Height of our Willow, which bears a Leaf ſhaped like the *Indian* Leaf we call *Malabathrum*, which ſmells and taſtes like the Cinnamon. The Flowers grow in little Cups, white and odoriferous, ſucceeded by a Fruit that is of the Shape and Size of a ſmall Olive, green at firſt, but growing black as it ripens. This Tree grows in the Iſle of *Ceylon*, which is in the meridional Part of *India*; and the Wood is without Smell or Taſte. The principal Virtue lies in the Bark, which, when freſh, is greyiſh without, and yellowiſh within: When it is ſeparated from the Tree, it eaſily divides into two Barks, and they keep the inner Bark as the moſt valuable, which they dry in the Sun, and roll it up juſt as we have it come to us. This has little or no Smell or Taſte when taken from the Tree, but acquires both afterwards; take Care of ſuch as has been dry'd in too ſcorching a Sun, for that will be blackiſh, a great deal of the volatile and eſſential Parts being evaporated: On the other Hand, if it has been dry'd in too moiſt a Seaſon, it will have a grey Colour, and not have half its Virtue, becauſe the volatile Salts are not ſufficiently exalted: But chuſe ſuch as is the fineſt thin Bark, of the higheſt Colour, a grateſull Smell, and biting Taſte. When they have bark'd the Cinnamon-Tree, if they let it alone for three Years together, it will produce another Bark as good as the former. This Cinnamon yields a great deal of exalted eſſential Oil and volatile Salt; therefore it is proper for the Head, Brain, and Nerves, to fortify the Vitals, comfort the Heart, aſſiſt the Stomach, expel Wind, help Digeſtion, ſtrengthen the Womb, open Obſtructions, and provoke the Terms: It is the greateſt Reſtorative in Nature, and an excellent Antidote againſt Poiſon, Plague, and any malignant Diſeaſes.

The

The beſt Preparation of it is the eſſential Oil, of which, if genuine, two Drops given upon a Lump of fine Sugar, or in a ſpirituous Vehicle, will revive the Spirits to a Miracle. It is good in Powder, Decoctions, Tinctures, Cordial Waters, &c. from half a Dram to a Dram in Powder, and from that to an Ounce or two in Decoction, Tincture, or Water.

That Cinnamon which is ill colour'd, and of no Taſte, is worth nothing; therefore in buying it, you ought to bite, chew, and taſte every particular Stick, that you be not deceived; for that without Taſte, has either been ill got and dry'd, or diſtill'd in the *Indies*, or elſewhere, and its ſtrong aromatick Oil taken from it, which is a great Cheat and Abuſe to *European* Buyers. This *Cinnamon* was the *Caſſia lignea* of the Antients, and the ſame which in ſome Shops is call'd *Camella*: The beſt comes from *Ceylon* aforenam'd, and the worſt from *Java*. Its Colour it attracts from the Sun-Beams; for the Bark being taken off from the Tree, and expoſed to be dry'd in the Sun, that which is not well dry'd is of an Aſh Colour, but if too much burnt with the Sun, it is of a blackiſh, or of a dark brown: If it be well cur'd, it is of a more roſy or pale red, and, by lying together, and Length of Time, changes into the Colour we have it of here.

[There is a great Variety in Opinions among Authors, about the *Caſſia*, *Cinnamon*, and *Malabathrum*; ſome confound *Cinnamon* and *Caſſia* together, and ſay they only differ in Name, others ſay the Tree that produces them is the ſame, but that its growing in different Places makes the Difference, and others that they are taken from different Parts of the ſame Tree; but the certain Truth is, that they are the Barks of different Trees, ſo much alike however, that they are not eaſily known from each other. The Tree which produces the *Cinnamon*, is the *Arbor canellifera Zeylanica, cortice acerrimo ſeu præſtantiſſimo qui Cinnamomum Officinarum.* Breyn. Prodr. 2. 17. *Laurus Ceylanica glandifera, folio trinervio optimum et legitimum Cinnamomum ferens.* Muſ. Zeyl. 12.

That which produces the true *Caſſia lignea*, is the *Arbor Canellifera Malabarica cortice ignobiliore, cujus folium Malabathrum Officinarum.* Breyn. Prodr. 2. 18. *Caſſia vulgaris Calihaeba dicta.* Piſ. The Bark of this is brought to us from *Malabar* and *Java*. But there is another *Caſſia lignea* more common in the Shops, tho' not nearly ſo good, of a darker Colour, more mucilaginous in the Mouth, and generally in larger Pieces, which is the Bark of the *Arbor Canellifera Indica cortice acerrimo viſcido ſeu mucilaginoſo qui Caſſia lignea Officinarum.* Breyn. Prod. 2. 17. This is brought from the *Eaſt-Indies*, and is what we commonly ſee under the Name of *Caſſia lignea*.

The *Folium Malabathrum* is the Leaf of the *Cannella Sylveſtris Malabarica*. Com. fl. Mal. 68. Katou Karva, Hort. Mal. 5. 105. *Pſeudo Caſſia Dioſcoridis*. Jonſ. Dendr. 162.

Dioſcoridis err'd in ſaying, this was a Sort of *Lens Paluſtris*, for there is no Room to doubt its being the Leaf of this Tree, but the true and genuine Leaves are very ſeldom ſeen, thoſe of the *Cinnamon* and *Caſſia* Trees being generally ſent over for them.

The Fruit of the Cinnamon-tree by Coction and Expreſſion, yields an oily Subſtance, of which Candles are made for People of the firſt Rank; and from the Neck of the Root they draw a fine Kind of Camphir, very rarely to be met with in *Europe*, and of a ſpicy Smell.]

4. *Of White* Cinnamon, *or* Cortex Winteranus.

WHite *Cinnamon*, to which ſome give the Name of *White Coſtus*, *Coſtus corticoſus*, *Winter's Bark*, or *Winter's Cinnamon*, becauſe *William Winter* was the firſt who brought it into *England*; is the Bark of the Trunk and Branches of a Tree, of the Size of a Pear-Tree: The Branches are ſlender, high, ſtraight, and well adorn'd with Leaves like thoſe of the Spurge Laurel, but more delicate, ſofter, of a Sea-Green, and very fine Smell; after which grows a round Fruit, of a beautiful red. This Tree grows plentifully, at St. *Domingo* in *Guadaloupa*, all about the ſandy, mountainous, or rocky Parts; and is met withal in the Iſle of St. *Laurence* or *Madagaſcar*, where it is call'd *Fimpi*.

The white *Coſtus* we call white *Cinnamon*, has ſo great Conformity with the rough Cinnamon, that but for Colour and Taſte, few People could diſcover the Difference. This is the Bark that ſome Apothecaries improperly make Uſe of, inſtead of *Arabian* or *Indian Coſtus*, of which we made Mention already, and upon that Occaſion, give it the Name of *Indian Coſtus*; which is very improper, becauſe the *Indian Coſtus* is a Root almoſt unknown to us, and this is a Bark we are very well acquainted with. Tho' this is of a warm biting Taſte, and very aromatick, it is very little in Uſe, either in Medicine, or to other Purpoſes, among any of the *European* Nations. It ought to be choſen in fine Pieces, whitiſh without and within, cleanſed from its outer Rind, which is greyiſh, thick and rough, of a biting, acrid Taſte, and a Nutmeg Smell. Some have thought

thought this Bark very uſeful in the Cure of the Scurvy. It is an Ingredient in ſome Galenical Compoſitions, and its Æthereal Oil is excellent for the Gout, and other ſuch Diſeaſes. During the hot Seaſon, there flows from the Trunks of theſe Trees, a black Gum, fat, and very odoriferous: This is that which ſome Druggiſts call *Gum Alouchi*, and oftentimes ſell for *Gum Ivy*, or *Bdellium*; which is eaſy enough to diſtinguiſh, in that *Gum Ivy* is very dry, clear, and tranſparent, and the *Bdellium* is almoſt like *Gum-Arabick*, but that it won't diſſolve in Water; whereas this *Gum* is ſoft and greaſy, of different Colours, very dirty and impure.

Cinnamomum Winteranum, rolls up in Pipes like Cinnamon, but is much larger and thicker, and of a whitiſh yellow Colour, very hot, biting, and aromatick in Taſte, having the Virtues and Reliſh of moſt other Spices; and is brought to us out of the *Weſt-Indies*, from *Nevis*, *Antigua*, *Montſerrat*, and other of the adjacent Iſlands. It is an excellent Cephalick, Stomachick, Cordial, and Hyſterick: It attenuates and opens, is ſudorifick and alexipharmick, prevails againſt the Vertigo, Megrim, Head-Ach, Apoplexy, Lethargy, Palſy, and moſt Diſeaſes of the Head and nervous Parts: It ſtrengthens the Stomach, cauſes an Appetite and good Digeſtion, expels Wind, and is ſingular againſt the Cholick, and griping of the Guts; opens Obſtructions of the Bowels, and provokes the Terms: It is a good Cordial, ſtrengthens the Heart, revives the Spirits and fortifies the whole Body, being excellent againſt Faintings, Swoonings, Sickneſs at Stomach, Palpitation of the Heart, *&c.* uſed as the true Cinnamon, in Powder, Water, Oil, or Spirit; but in large Quantities, to anſwer the ſame Intentions.

[The true *Cortex Winteranus* is the Bark of a Species of *Periclymenum*, the *Laurifolia magellanica cortice acri*. C. B. Pin. 461. The *Cortex Winteranus*, *Cortex magellanicus*. Mont. Exot. 8. But this, tho' the right and genuine *Cortex Winteranus*, is ſeldom ſeen in the Shops; what we meet with in its Place, is the *Canella Alba*. Rai. Hiſt. The Bark of the *Arbor Baccifera laurifolia aromatica fructu viridi calyculato, racemoſo*. Phil. Tranſ. 192. This grows plentifully in *Jamaica*, the Bark has no Uſe in Medicine but as a *Succedaneum*, for and under the Name of the *Cortex Winteranus*.]

5. *Of* Clove-Cinnamon.

THIS is what we call improperly, *Clove-Wood*: It is the ſecond Bark of the Trunk and Branches of a Tree, whoſe Leaves come very near thoſe of the Bay-Tree; after which there grows round Fruit, of the Size of Gall-Nuts, Cheſnut-colour'd, very light, which being broke, you may find within a Kind of Kernel: The Fruit has the Smell and Taſte of the Clove, which gave Occaſion to the Antients to call it *Clove* or *Madagaſcar* Nut, becauſe we meet with great Quantities of thoſe Trees in that Iſland. The *Clove-Wood*, or rather the Bark, having the Taſte and Smell of the Clove, is at preſent made Uſe of, eſpecially by the Hawkers and Chandlers, who ſell it, after it is beat to Powder, for powder'd Cloves, though the Cloves are four or five Times as dear as this Bark; and ſo they deceive the ignorant. They alſo ſell it whole, pretending that it is the Bark of the Clove Tree, which is falſe, for the Clove is found only in the Iſland of *Ternate*, and this Bark is from *Braſil*, or from *Madagaſcar*.

As it is a Bark in ſome Uſe, I ſhall obſerve that it ought to be choſen pick'd clean from the outward Bark which is uſually grey and knotty, and of a dun Colour; that it ought to be thin, of a biting aromatick Taſte, and as nearly approaching the Clove, both in Smell and Taſte, as poſſible; but take care that what you buy be not muſty, or mix'd with thick Bark, that has neither Taſte nor Smell, as happens too often. This is of little or no Uſe in Phyſick; but there are ſome Perſons who make a Tincture of it with *Aqua Vitæ*, or Spirit of Wine, which they ſell for Tincture or Eſſence of Cloves: The Confectioners and Perfumers likewiſe uſe it inſtead of Cloves.

Others ſay, the *Clove-Bark* is brought to us out of *Turkey*, and is almoſt in the Shape of Cinnamon, but comes very near the Colour of Cloves, and has the ſame Taſte and Smell; ſo that the Fragrancy and Odour of each are ſcarcely diſcernible one from the other, except by the Strength, Cloves being much ſtronger than this Bark. We ſeldom make Uſe of it in theſe Parts of the World; but the Natives of the Country where it grows, eſteem it as a Cephalick, and good againſt the Cholick, Wind, Gripings of the Guts, Obſtructions of the Courſes, *&c.* taken in Powder from a Dram to two Drams, and in Tincture to an Ounce or two. There is a Water made of it, that the *Hollanders* impoſe upon us for Clove-Water, tho' at an inconſiderable Price, which is a good Stomachick, and an excellent Vehicle to convey any Cephalick or Anticholick Medicine in.

[This is the *Caſſia Caryophyllata* of the Shops: It is the Bark of the *Caryophyllus folio et fructu rotundo*. Breyn. Pr. 2. 26. *Caryophyllus Aromaticus Indiæ Occidentalis foliis et fructu rotundo, dipyrenis*,

dipyrenis, ſeminibus ferè orbiculatis planis. Pluk. Alm. 88. The Tree is plentiful in *Cuba*, and elſewhere in the *Weſt-Indies*.

The Fruit of this Tree is frequently, but erroneouſly ſold in the Shops for the *Carpobalſamum*, and ſometimes for the *Amomum*.]

6. *Of the* Peruvian Bark.

THE *Kinquina*, or *Quina-quina*, *Peruvian-Bark*, or the Bark againſt Fevers, is the external or outward Bark of the Trunk and Branches of a Tree, that grows plentifully in *Peru*, from whence this is brought us, by the Way of *Cadiz*. But as I have never been in *Peru*, to know how to ſpeak exactly of the Trees which produce this Bark, I ſhall have Recourſe to Mr. *Bernard*, who is a very honeſt Man, and very curious in the Knowledge of Simples, who had a Deſcription of the *Kinquina* given him from one who liv'd twenty Years in *Portugal*, and had made ſeveral Voyages to the *Weſt-Indies*, and to *Peru*.

A true Deſcription of the Peruvian Bark.

The *Kinquina* is the Bark of a Tree that grows in *Peru*, in the Province of *Quitto*, upon the Mountains near the City of *Loxa*. This Tree is almoſt the Size of a Cherry-Tree; the Leaves are round and indented: It bears a long reddiſh Flower, from whence ariſes a Kind of Huſk, in which is found a Kernel like an Almond, flat and white, cloath'd with a thin Rind; that Bark which comes from the Trees at the Bottom of the Mountains, is thicker, becauſe it receives in more Nouriſhment from the Earth: It is ſmooth, of a whitiſh yellow without, and of a pale brown within. That which comes from Trees on the Top of the Mountains, is much thinner; it is uneven, browner without, and of a higher Colour within; but the Trees which grow on the Middle of the Mountains, have a Bark yet browner than the other, and more rugged. All theſe Barks are bitter, but that from the Trees at the Bottom of the Mountains, leſs than the others.

It follows from hence, that the Bark of the leaſt Virtue, is that which grows in the loweſt Places, becauſe it abounds more with earthy and watry Parts, than that which grows high, which for the contrary Reaſon, is better; but the beſt of all, is that which grows in the Middle of the Mountains, becauſe it has not too much or too little Nouriſhment. There is another Kind of *Quinquina*, which comes from the Mountains of *Potoſi*, and is browner, more aromatick, and bitterer than the former, but abundantly ſcarcer than any of the reſt.

Beſide the Qualities remark'd in this Bark, it ought to be heavy, of a firm Subſtance, ſound and dry. Beware of ſuch as is rotten, or hurt by Wet, and ſuch as flies into Duſt in breaking, or is dirty and unclean, as it happens to be ſometimes: But make choice of ſuch as is in little thin Pieces, dark and blackiſh without, with a little white Moſs, or ſome ſmall Fern-Leaves ſticking to it, reddiſh within, of a bitter and diſagreeable Taſte; and refuſe that which is full of Threads when broke, and of a Ruſſet Colour; and take care that there be not ſeveral Pieces of Wood mix'd with it, which you have ſometimes ſticking to the Bark. This was brought firſt into *France*, in the Year 1650, by the Cardinal *Lago* a Jeſuite, who having brought it from *Peru*, it was had in ſuch Vogue in *France*, as to be ſold Weight for Weight for Gold, but the Quantities of it ſoon afterwards brought over, quickly leſſen'd the Price.

The Uſe of this Bark is for the Cure of Fevers, eſpecially intermitting, for which Purpoſe it is given in Subſtance, Tincture, or Infuſion; but as it is a Medicine ſome People have an utter Averſion to, and as the Uſe of it is of ill Effect, unleſs properly applied; I would adviſe no Body to make Uſe of it without the Direction of an able Phyſician. The extraordinary Virtues which the *Spaniards* attribute to this *Kinquina*, for the Cure of Fevers, is the Reaſon why they give the Tree that bears this Bark, the Name of *Palo de Calenturis*, which ſignifies the *Fever-Wood*.

Kinakina, *Quinquin*, *Cortex Peruviana*. The Peruvian, or Fever-Bark, is call'd ſo from the Tree that produces it in *Peru*, where it grows, about the Size of our Cherry-Trees; the Leaves are round and indented; the Flower is long, of a reddiſh Colour, and is ſucceeded by a Pod, which contains a flat Kind of Kernel that is white, and encloſed in a very thin Skin. There are two Sorts of it, one cultivated, and the other wild; the cultivated is to be prefer'd much before the other: It contains a great deal of fix'd Salt, and abounds with an Oil; it cures intermitting Fevers beſt uſed in the Powder, finely ſearc'd; from a Scruple to two Drams the Doſe: There may be likewiſe an Infuſion made of it in Wine or Water for the ſame Intention. Some ſay that Bark is beſt which is of the moſt lively Colour, and enclining to a dark Cinnamon, moſt curled up, as coming from the ſmaller Branches of the Tree, that breaks of a ſhining Colour, is of a bitter Taſte, very aſtringent; or rough and ſtyptick upon the Tongue, and whitiſh outwardly: The thick, flat, dark-

dark-colour'd, is nothing ſo good; and if it wants its bitter Taſte and Stypticity, it is good for nothing.

It is a Specifick for the curing of all Sorrs of intermitting Fevers or Agues; and ſo certain it is in effecting this Cure, that it ſeldom fails in a ſkilful Man's Hand: Beſides which, Experience tells us, it ſtops Catarrhs, and all Sorts of Fluxes; but the great Skill of a Phyſician is to know to whom, when, how to uſe it, and how long: Firſt, conſidering the Nature and Quality of this Medicine, it is evident, it ought not to be given to ſuch as have their Courſes ſtopp'd; or to ſuch with whom they ſeldom flow kindly, but come down pale and ſparingly; nor yet to ſuch as are coſtive in their Bodies, or are commonly troubled with a Conſtipation of the Bowels; for to ſuch, the Uſe of this is generally of ill Conſequence; nor ought it to be given in continual burning Fevers, becauſe it fixes the morbifick Matter, ſtops the Pores, and ſo encreaſes the Heat, and concenters it, that it infallibly deſtroys the Patient. *Secondly*, when it ought to be given, the Perſons to whom we allow it to be given, ought to be prepar'd for the Uſe of it, by ſome proper Vomits or Purgatives, ſuch as the *Ipecacuana*, the emetick Wine or Tartar; and purge with *Glauber*'s *Sal Mirabile*, or *Solutivum*, Cream of Tartar, and the like, two or three Times at leaſt, before the Uſe of the *Cortex*.

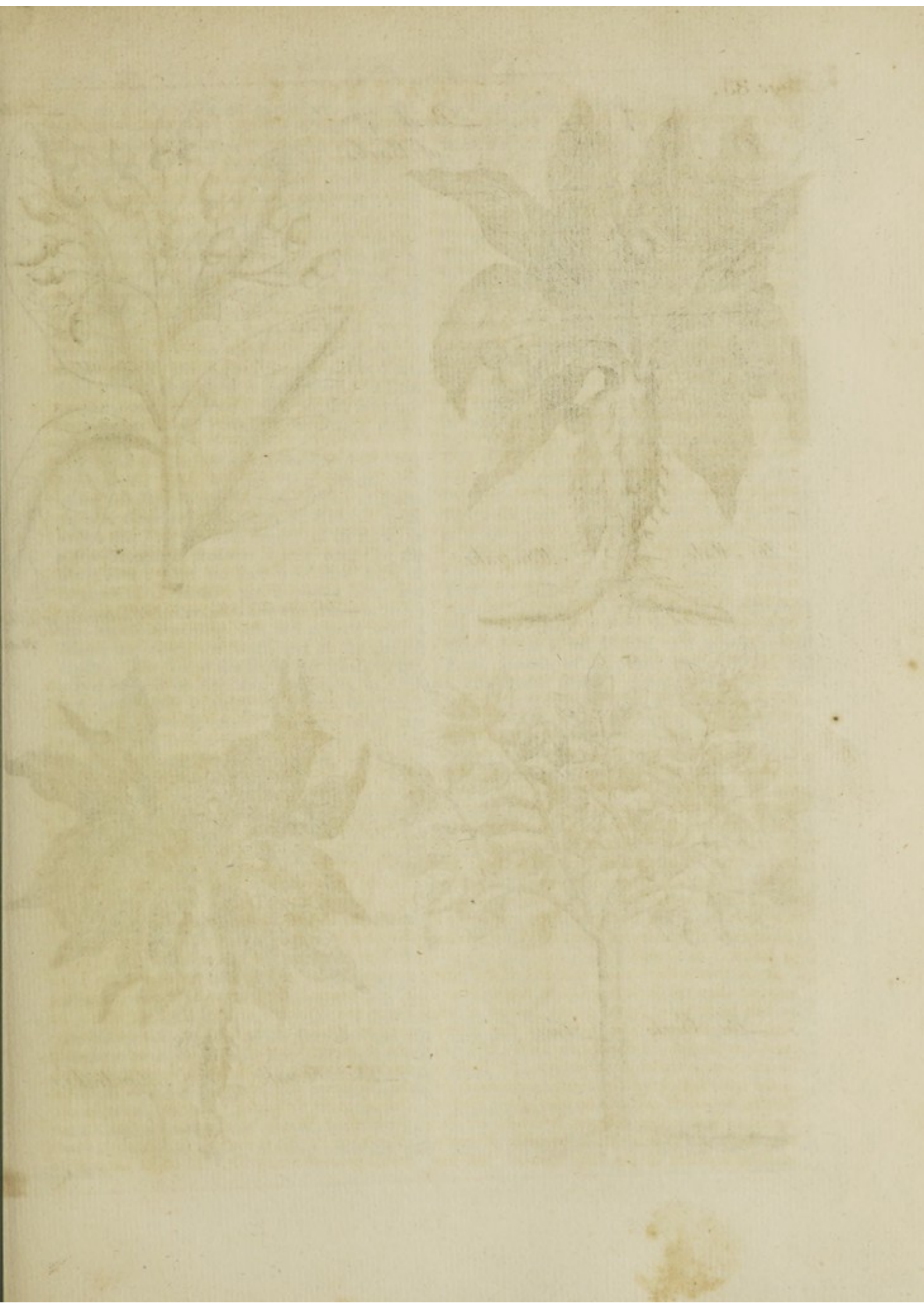
Thirdly, You ought to know how it ſhould be given, which is in Powder, from a Scruple, or half a Dram, to a Dram or two; beat it very ſmall and ſearce it; and about an Hour after the Fit is gone off, put your Quantity of Powder in a Glaſs of good ſtrong White-White or Claret, and drink it off: There are ſeveral other Liquors this may be taken in, according to the Fancy of the Patient. In Infuſion, take fine Powder of the Bark one Ounce, Claret ten Ounces; infuſe four or five Days, ſhaking it twice a Day, then decant it clear; it is given in double the Quantity in Infuſion, to that of the Powder, becauſe you take the laſt in Subſtance; you may make a Tincture with Brandy, or Spirit of Wine, whereof take half an Ounce.

In the fourth Place you ought to conſider how long, or often the Bark ought to be taken: Herein you muſt have regard to the Nature of the Fits, their Strength and Accidents that attend them, as Seaſon, Temperature, Uſe, *&c.* In Children, and tender Conſtitutions, the Doſe is to be leſs, but oftner and longer continued: In *Tertian* Agues, it ought to be uſed at the End of the Fit, and taken at different Intervals, till the next Return. When that is over the Remedy muſt be repeated in the ſame Manner, 'till the Expectation of another Fit; what Intervals of Time are to be obſerv'd between each Doſe, depends on the Quantity of the Powder, or Strength of the Infuſion, or Length of the Intermiſſion between each Fit: The ſtronger the Infuſion, the longer Space of Time is to be between each Doſe; and if the Intermiſſion of the Fits is long, there is no Need of repeating the Doſes ſo often, as if the Intermiſſion was ſhorter. The whole Quantity, from the firſt to the laſt, ought to be about an Ounce and half, or two Ounces; let it be given an Hour or two before Meat, and two or three Hours after; and if it be in Infuſion, let the Quantity taken be about four Ounces.

To prevent the Return of the Ague, this Method ought to be continued for eight Days, three Times a-Day: Firſt, early in the Morning, then an Hour before Dinner; and at Night, an Hour before Supper; but if the Ague ſhould return again, as it does, if you purge after it, the Uſe of the Bark muſt be repeated after the ſame Manner as before, and it will not fail to produce the deſir'd Effect, which is abſolutely to cure the Ague, ſo that it ſhall not return any more. But tho' the Ague ſeems to be perfectly gone, for ſeveral Revolutions of Fits, yet it is neceſſary to continue the Uſe of the Remedy, for twelve Days, by which Means you will ſecure the Patient againſt any freſh Aſſault.

It is at the End of the Fit that the Doſe is to be given, and it muſt be continued 'till the Cure is perfected; which in a ſingle and double Tertian, commonly happens at the ſecond Fit, or at moſt at the Third: The ſame is to be underſtood in a ſingle and double Quartan, wherein you have two whole Days to give the Medicine in, without Interruption; in which, as in the Tertian, the Ague is maſter'd at the third and fourth Fit, if not at the very firſt, which often happens; and to prevent its Return, the Uſe of the Bark is to be the longer continued after the Cure; for 'tis the too haſty Diſcontinuance of it, which cauſes the Relapſe, and puts the Patient to a new Trouble of running over the ſame Courſe again.

This Medicine ought not to be given at the coming on of the Fit, nor yet during the Time of it; becauſe then, inſtead of alleviating the Force and Violence of the Ague, it would be apt, by Reaſon of the febrifick Ferment, to excite a fiercer Conflict, and make the Paroxyſm the more violent. This Method being obſerv'd, the Medicine will intercept the Courſe of the Diſeaſe in its Progreſs; and being convey'd into the Maſs of Blood, by a gentle Motion, it purifies it, and deſtroys the feveriſh Ferment, which would produce a new Fit. It ought likewiſe to be



7

The Male Mandrake

The Canilla alba, or Cortex Winteranus of ye Shops

Plate

9

The Cork Tree

8

The Female Mandrake

J. Buckington Sc.

be given at ſeveral Times, to produce, gradually, the wiſh'd-for Effect; and but a ſmall Space of Time ought to be allow'd between each Doſe, that the ſecond Doſe may begin its Operation, when the Force of the firſt is over; and the third may begin to act, when the Strength of the ſecond is loſt. It is given, in like Manner, two or three Hours after, that thereby its Virtue may the better unite itſelf with the Chyle in the Stomach, in order to its Entrance into the Maſs of Blood, to correct, depurate, and renew it. If this Courſe is purſued, the Cure is in a manner certain and infallible, and it will hardly be poſſible for the Fit to return again. When the Paroxyſm is gentle, in a good Habit, and a good Seaſon of the Year, there is no need of giving it above five or ſix Days together, once or twice a Day in the Intermiſſion; but when the Paroxiſms are ſtrong, oftner, as before directed.

[This is the Bark of the *Arbor febrifuga Peruviana Incolis Gannanaperide*, Jonſ. Dendr. 476. *Arbor febrifuga Peruviana China Chinæ et Quinquina et Gannanaperide dicta*, R. Hiſt. 2. 1976. When this Tree has been ſtripp'd of its Bark, in a few Months it produces a new one, like the Cork Tree; what we have is of three Sorts or Degrees of Goodneſs; the firſt of a bitter and reſinous Taſte, not ſo red as the common Sort; the ſecond ſomething leſs, and cover'd with a Moſs; the third, the fineſt, and in the ſmalleſt Quills. The Uſe of this Bark, the *Spaniards* ſay, was diſcover'd by Accident, an *Indian*, in a Fever, accidentally drinking the Water of a Pond, into which ſeveral of theſe Trees were fallen, was cur'd by it; which made his Friends and Acquaintance ſearch into the Occaſion, and ſo diſcover this ineſtimable Medicine.

Notwithſtanding all the good Qualities of this Bark, there requires the Skill of an experienced Practiſer to uſe it; for, in ignorant Hands, it is capable of doing as much harm, as good in ſkilful.]

7. *Of the* Bark *of both the* Mandrakes, *Male and Female.*

Pomet. THIS is the Bark of the Root of a Plant that is diſtinguiſh'd into two Kinds, Male and Female. I ſhall not trouble myſelf with the uſeleſs Accounts that the Antients have given of this Root, but inform you that both Sorts are very ſcarce about *Paris*; ſo that the Apothecaries are obliged to leave out the Leaf of this, as well as that of Navel-wort, in the Compoſition of the Ointment of Poplar; which is a great Abuſe, it being impoſſible that the Compoſition can have the Virtues the Author of it deſign'd, or that are now aſcrib'd to it, when the principal Drugs are left out. Beſides, the Apothecaries, inſtead of making this Ointment freſh every Year, keep it two or three, which is contrary to the Opinion of thoſe Authors, who treat of this, and ſay, that the cooling Quality of the Ointment *Populeon* holds not above a Year. Thoſe Apothecaries, about *Paris*, who who will have this Compoſition true, are forced to ſend for it from *Montpellier*; by which means they diſcharge their Conſciences, and ſerve the Publick faithfully.

The *Mandrake*, as it grows, bears large green Leaves, trailing or hanging upon the Ground, and the Fruit is very like that of the *Coloquintida*: We ſell nothing but the Bark of the Root, freed from its woody Part. 'Tis of an Aſh-Colour within, and a little more reddiſh without, of ſome ſmall Uſe in Phyſick, as it is put into ſome of the *Galenical* Compoſitions. With the Bark we have ſometimes ſome of the Root brought us cut into Pieces like Jalap, but it is of little Uſe, the Heart of it having no more Virtue than a Chip.

The *Mandrake* is a Plant without a Stem, of which there are two Kinds: *Lemery.* Firſt, the *Mandragoras Mas fructu rotundo* of *Tournefort*. The Leaves riſe directly from the Root, above a Foot long, broader than a Man's Hand in the Middle, and narrow at both Ends, ſmooth, of a browniſh green Colour, and a diſagreeable Smell. Among theſe riſe ſhort Stalks, each of which bear a Flower made like a Bell, divided commonly into five Parts, a little hairy, of a white Colour, inclining to Purple. When the Flower is gone, it is ſucceeded by a little round Apple as big as a Medlar, fleſhy, and of a yellow green Colour: It contains ſome white Seeds, which bear the Figure of a ſmall Kidney. The Root is long, thick, whitiſh, ſlit, or divided into two conſiderable Branches, ſet about with ſhort Filaments, ſlender almoſt as Hairs; repreſenting, when it is whole, the lower Parts of a Man; from whence it is call'd *Anthropomorpha*, which ſignifies the Figure of a Man.

The ſecond Sort is call'd the Female *Mandrake*, *Mandragora Fœmina*, or *Mandragora flore ſubcœruleo purpuraſcente*, according to *Tournefort*, the *Mandrake* with a bluiſh purple Flower. It differs from the former, in that the Leaves are ſmaller, narrower, more folded, blacker, trailing on the Ground, of a ſtrong ſtinking Smell; and that the Flowers are bluiſh, inclining to Purple; the Fruit leſs and paler, not form'd like a Pear, as ſome Authors will have it, but round, ſcented, full of Juice, and containing very ſmall black Seeds. The Root is about a Foot long, divided into two

Branches, brown without, white within, and furniſh'd with ſome Fibres, but nothing like the former. Both Sorts grow in the hot Countries, in the Plains, or mountainous Places; but the laſt much rarer. They contain in them a great deal of Oil and Flegm, but little Salt. They are narcotick, cooling, ſtupifying, *&c.* applied outwardly, and likewiſe relieve Inflammations of the Eyes, Eryſipela's, ſcrophulous Tumours, and the like. The Apples are cold and moiſt, but not ſo cold as the Root. Being ſmell'd to, they cauſe Sleep; ſo alſo their Juice taken inwardly, in little Quantities, in a good generous Wine. The Antidotes againſt their Poiſon are Wormwood, Rue, Scordium, Muſtard, Origanum, Caſtor, *&c.* with Wine and Vinegar. The Antients, by *Mandrake*, intended another Plant, quite different from this.

[The Male is the *Mandragora mas*, Dod. *Mandragora fructu majore*, C. B. Pin. 169. The Female, the *Mandragora fructu Pyri*, C. B. Pin. 169. *Mandragoras fœmina Trag.* They are kept in the Gardens of the Curious, and flower in *April*. Our People who deal in medicinal Herbs, ſell the Leaves of the common black Henbane for the *Unguentum Populneum*, inſtead of thoſe of this Plant. It was formerly eſteem'd to have a ſtrong narcotick Quality, and order'd to be given before an Amputation, to deaden the Senſe of Pain, by ſtupifying the Patient; but it is now never uſed in ſuch, or indeed hardly in any other Intentions.]

8. *Of the* Autour Bark.

THIS *Bark* very much reſembles, in Size and Colour, the large or groſs Cinnamon, except that it is more decay'd on the Outſide, and of the Colour of a broken Nutmeg within, diſtinguiſh'd with many little Sparkles. It is very light and ſpongy, of an almoſt inſipid Taſte, and without Smell. They bring it from the *Levant* to *Marſeilles*, from whence it comes to us. This is of no other Uſe, than as the *Choüan*, to add to the Perfection of Carmine Colour. A Perſon aſſur'd me that it grew about *Paris*, and gave me a Piece of a Bark, which is ſomething like it, but of a bitter Taſte, and an earthy Colour, without any Sparkles.

[This is never ſeen in the Shops, nor uſed in Medicine.]

9. *Of the* Cork-Tree.

Pomet. CORK, which the *Latins* call *Suber*, is the outward Bark of the Trunk of a Tree, which grows plentifully in *Spain*, *Italy*, and *France*, chiefly in *Gaſcony*, and upon the *Pyrenees*. The Leaves of theſe Trees are of a moderate Size, green on the upperſide, and whitiſh underneath, indented all round; it bears Acorns like thoſe of the Oak.

When the Inhabitants of thoſe Parts would gather this Commodity, they take off the Bark of theſe Trees from the Top to the Bottom, and after put one Piece upon another, to a reaſonable Height, in a Pit or Ditch that is full of Water; and having loaded it with Weights to keep it down, they leave it in this Condition for ſome Time, and when it is ſwell'd, ſoak'd, and laid ſtrait, they remove it to another Ditch, and ſo to a third and fourth; and after that take it out of the Water to dry: Which being done, it is tranſported in Bales to different Parts of the World.

Chuſe your Cork in fine Boards, all of a Piece, not full of Knots or Chinks, of a moderate Thickneſs, yellowiſh without and within, and ſuch as is even when it is cut. We commonly call this Cork, white Cork of *France*; becauſe this Sort is prepar'd in *Guienne*, chiefly from *Bayonne*, from whence almoſt all that is uſed in *France* comes. We bring from the ſame Parts another Kind of Cork, which we call *Spaniſh Cork*, and which, to be fine, ought to be light, plain, blackiſh without, as if it had been burn'd, yellowiſh within, and eaſy to cut, not rotten; but take the thickeſt Sort you can get, that being much more eſteem'd, and dearer than the thin. A Friend of mine aſſur'd me, that the Blackneſs of this Cork proceeded from nothing elſe, but that it was ſteep'd in Sea-Water inſtead of freſh Water.

The Uſe of this is too well known to need any Account of it; I ſhall only tell you it is of ſome ſmall Uſe in Medicine, as to ſtop Bleeding, being reduced to Powder, or put into ſome aſtringent Liquor: Burn'd, and mix'd with the *Unguentum Populneum*, it is very proper for the Piles. The *Spaniards* burn Cork into an extraordinary fine Black, which is what we call *Spaniſh Black*, and is uſed for ſeveral Sorts of Work.

Suber Latifolium, the broad-leav'd Cork, according to *J. Bauhin*, *Gerard* *Lemery.* and *Parkinſon*; or the *Suber Latifolium perpetuo Virens* of *Tournefort*, the broad-leav'd Cork that is always green; is a Tree of a moderate Height, very much reſembling the Oak, but the Trunk is thicker, bearing fewer Boughs, and the Bark is a great deal thicker, very light, ſpungy, of an Aſh-colour, tending towards a Yellow, which is taken from the Tree firſt, and afterwards freed from an inner Bark; the Leaves are like the Holm Oak, but much larger and longer, ſofter, greener on the Outſide, ſometimes a little indented; the Cups and the Acorns are alſo like thoſe of the Oak. This Tree grows in the hot Countries,

tries, as *Spain*, *Italy*, towards the *Pyrenees*, and in *Gaſcony*; that which grows in *Spain* is different from thoſe that grow about the *Pyrenees* and in *Gaſcony*, in that the Bark is black on the outward Surface, and the Leaves continue green all the Winter; whereas they fall from the others at the End of Autumn.

The Acorn of the Cork is aſtringent, and proper in the Wind Cholick; the Doſe is from about a Scruple to a Dram; it contains a great deal of Oil and little Salt; but the Bark has leſs of the Salt, and more of the Oil; it is deterſive and aſtringent; it ſtops the Hemorrhoids and Belly-Aches, being beat to Powder: It is proper to heal the Piles, being burn'd and applied outwardly.

[This is the Bark of the *Suber Latifolium perpetuo virens*, C. B. Pin. 424. *Suber Latifolium*, I. B. 1. 103. It is kept in the Gardens of the Curious. The remarkable Property of this Tree is, its bearing, the Loſs of its Bark without Damage, and producing, in Time, a new one.]

10. *Of the* Capers Bark.

THE *Cortex Capparis*, or *Cappers Bark*, is the Bark of the Tree of that Name; it is brought dry from *Italy* and *Provence*. It ſhould be choſen new, and of a piercing bitter Taſte. It is warm and diuretick, cleanſing and detergent: It is given in Swellings and Hardneſs of the Spleen, and is an Ingredient in ſome Compoſitions.

[This is the Bark of the Root of the *Capparis rotundiore folio*, Ger. 748. *Capparis Spinoſa folio rotundo*, R. Hiſt. 2. 1629. The *Capers*, ſo common in Pickle with us, are the Buds of the Flowers of the ſame Tree.

There are beſides a great many Sorts of Barks, in which we have no Trade; as the Bark of the Root and Trunk of the Tree call'd *Macer*, the *Coru*, and *Hivorahé*, and others, which we have but little of, and which nevertheleſs are reckon'd good Medicines, as may be ſeen in Authors, who have wrote Hiſtories of *Indian* Drugs, to which the Readear may have Recourſe; but as many People make Uſe of Mace in Bloody-Fluxes, ſome ſell this Macer in the room of that, believing it to be the ſame Thing, though there is a vaſt Difference, this being the Bark of a Tree, but Mace the covering of the Nutmeg.

[The *Coru Bark* is the *Coru* of *Acoſta*, *Garicas*, *&c.* The *Hivorahé*, properly *Hyvourahé*, a *Braſilian* Word, ſignifying a ſcarce Thing, is the *Hyvourahé* of *Thevet*; and the *Macer* the Bark of the *Ulmo affinis vaſculis Membranaciis et ſemine intus incluſo compoſito*, R. Hiſt. 2. 1799. But as theſe are never uſed, or heard of with us, a more particular Account of them would be foreign to the Intent of this Work.]

The End of the Book of BARKS.

BOOK the Fifth.

Of LEAVES.

PREFACE.

I Mean by Leaves *the* Verdure *of* Trees, Shrubs, *and* Plants, *and ſhall therefore only comprehend, in this Book, the Leaves which iſſue from the Branches or Stalks of Trees or Plants, as theſe Parts of Plants only ought to be called by that Name. Some uſe the Word* Leaf *for the component Parts of* Flowers, *as* Roſes, Tulips, *and others; calling them* Roſe Leaves, *&c. But as I have not follow'd that Method, I ſhall here only treat of the* green Leaves *which grow from the* Stalks, *and not of thoſe colour'd Leaves which compoſe the Flowers of Roſes*, &c.

In this Book I ſhall alſo treat of ſuch Leaves *as are work'd for Uſe; as the* Tobacco, *and ſuch as we have the* Fæculæ, *or the* Salts *drawn from; as the* Anil *or* Indigo, *the* Kali *or* Glaſſwort, *and others.*

1. *Of*

1. *Of* Dittany *of* Crete.

Pomet. THE *Ditanny* of *Crete*, or *Candia*, is a Plant of two or three Feet high, whose Leaves are of the Size and Shape of a Man's Thumb, white and woolly both on the upper and under Side; after which rise Flowers in Spikes of a Violet Colour. This Plant, which is very beautiful to look upon, grows plentifully in the Isle of *Candia*, from whence it takes its Name.

Chuse your *Dittany* fresh and new, with fine, white, large, thick, soft, woolly Leaves, of a sweet aromatick Taste, agd prefer such as is furnish'd with the deepest blue Flowers you can get, and refuse such as has small Leaves, not hairy, and where you meet with it fuller of little Sticks than Leaves. This *Dittany* is of some Use in Physick, because of its warm aromatick Quality, and is an Ingredient in the *Venice* Treacle, and some other Preparations.

Lemery. *Origanum Creticum latifolium tomentosum, seu dictamnus Creticus* of *Tournefort*, is a Kind of *Origanum*, or a fine white Plant agreeable to the Eye: The Stalks grow about two Feet high, hairy, a little purplish, divided into Branches or Twigs; the Leaves are of the Bigness of the Nail of the Thumb, roundish and pointed, with a small End, cover'd on both Sides with a white Down, odoriferous, and of an acrid pungent Taste; the Flowers grow spike-fashion on the Top of the Branch, of a purple Colour; when the Flower is gone, there follow four Seeds that are almost round, enclosed in a Covering that serves as a Cup to the Flower; the Roots are small and numerous. It grows in *Candia*, on *Mount Ida*, from whence it is brought dry. The Leaves are aperitive, cordial, proper to provoke the Terms in Women, to hasten Labour-Pains, to open and remove Obstructions, to resist Poison, and drive away malignant Humours by Transpiration. It is given in Powder for all the same Purposes: Dose to a Dram, and half an Ounce of the Decoction, or Tincture, in White Wine, for Sickness at the Stomach.

[This is the *Dictamnus Creticus*, C. B. Pin. 222. Park. 27. *Dictamnus Creticus, sive verus*, J. B. 3. 253. Its Place of Growth is the Island from whence it has its Name, but it is cultivated every where in the Gardens of the Curious; it flowers in *July*; it has been look'd on as a vulnerary Cordial, *&c.* but is little esteem'd at present, and scarce ever used but as an Ingredient in some of our Compositions.]

2. *Of* Poley Mountain.

Pomet. THERE are two Sorts of *Poley Mountain*, the White and the Yellow; the Yellow *Poley Mountain* is a Plant of the Height of half a Foot, having small thick indented Leaves, garnish'd above and below with a fine yellow Down, inclining to a Gold Colour, and the Flowers around of a Gold Colour, very fine to look upon; of an aromatick Smell, and bitter Taste. This little Plant grows plentifully upon the Mountains and high Hills about *Provence* and *Languedoc*; it is brought to us in little Bunches with the White, which grows in the Plains, or by the Way Sides, chiefly in sandy or other dry Places, being, notwithstanding, very different from the former, in that the Leaves are much less, and not so woolly, bitterer, and altogether white; they are used in several Compositions, and are counted alexipharmick and cordial. Chuse such as are newly gather'd with their Flowers on, of a bitter and disagreeable Taste.

Lemery. *Polium Montanum*, or *Poley Mountain*, is a Plant whereof there are two Sorts, one yellow, and the other white; the first is call'd *Polium Montanum luteum*, by *Tournefort*; or *Polium Montanum vulgare*, by *Parkinson*: It is of a small Height, very hairy and woolly, bearing a great many slender, round, hard, woody Stalks; the Leaves are small, oblong, thick, and indented; the Flowers, says Mr. *Tournefort*, are divided into five Leaves, as the *Germander* Flower; when that is dropp'd, small round Seeds follow, that are enclos'd in a Covering, which serves as a Cup to the Flower: This Plant grows on mountainous and rocky Places in *Languedoc*, *Provence*, and *Dauphine*.

The second Sort is call'd *Polium Montanum album*, by *Tournefort*, &c. and the *Poley Mountain* of *Montpellier*, by others. It differs from the former, in that the Stalks lie upon the Ground; the Leaves are less, and not so full of Cotton; the Flowers are whiter, and less scented. This Plant grows not only on the Mountains and hilly Places, but likewise in the sandy dry Plains, by the Road Sides, in *Languedoc* and *Provence*. The Yellow is the best and most valued in Physick. This Plant yields a great deal of exalted Oil and volatile Salt; the Tops are chiefly that which they call in *Latin*, *Coma Polii*, or *Poley-Hair*.

They are aperitive, cephalick, sudorifick, vulnerary, provoke Urine and the Terms, resist Putrefaction, fortify the Brain, and expel malignant Vapours from the Head and Heart.

[The

Book 5.
of Leaves

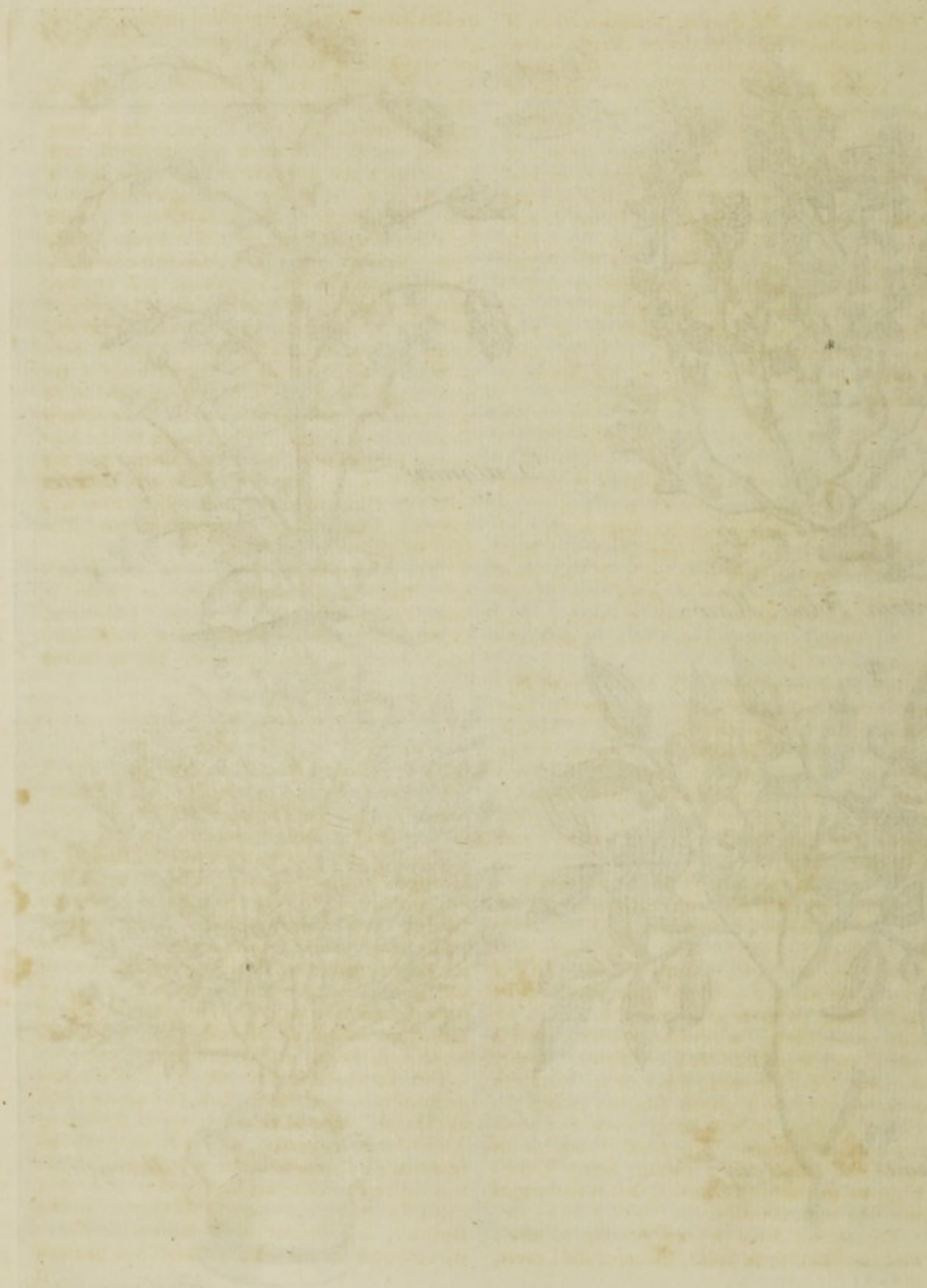
Mountain Poley Hair

Dittanny of Crete

Indian Leaf

Marum

I: Beckington Sculp.



[The White is the *Polium Montanum album* of moſt Authors; *Polium Montanum Monſpeliacum*, Park. 24. this is common in *France* and *Italy*: The Yellow is the *Polium Montanum luteum* of moſt Authors; the *Polium Montanum vulgare*, Park. 24. this grows in *Spain* and ſome Parts of *France*; they are both kept in the Gardens of the Curious here. There are alſo two other Species of this Plant, call'd Officinal, which are the *Polium alterum* of the Shops; the *Polium Lavendulæ folio*, C. B. Pin. 220. *Polium Lavendulæ folio flore albo*, Ger. Em. 655. and the *Polium Montanum Officinarum* of the Catalogues of the Officinal Plants in *Chelſea* Garden; this is the *Polium Maritimum erectum Monſpeliacum*, C. B. Pin. 221. *Polium Monſpeſſularum*, J. B. 3. 299. Theſe have all the ſame Virtues, but are very little regarded in the preſent Practice.]

3. Marum, *or Herb Maſtick.*

Pomet. THE *Marum* is a little Plant that looks pretty to the Eye; the Leaves are greeniſh, very ſmall, and Spear-pointed; the Taſte very bitter and diſagreeable, and therefore it is call'd *Marum quaſi Amarum*, as being bitter. After the Leaves come Flowers in Spikes, almoſt like thoſe of Lavender, which are of a purple Colour, and ſtrong ſcented.

This Plant grows plentifully in the Iſles of *Hyeres*, near *Thoulon*, from whence thoſe who have occaſion for it may have it brought. Chuſe it freſh, odoriferous, furniſh'd with Flowers, and as green as poſſible. It is little uſed in Phyſick, only in the Compoſition of the *Troches* of *Hedycroi*, and the like; but Apothecaries frequently ſubſtitute *Amaracus*, which is what they call Sweet Marjoram, in its Place.

Lemery. *Marum* is a Plant that has two Species; the firſt is call'd *Chamædrys Maritima incana fruteſcens foliis lanceolatis*, according to *Tournefort*, which is the hoary *Sea-Germander*, with Spear-pointed Leaves. It is a Sort of *Germander*, or a little Plant which grows like Thyme, with a great many Branches, or little round Twigs, woody and whitiſh, cover'd with Leaves larger than thoſe of Garden-Thyme, and liker Wild Thyme; the Flowers like thoſe of *Germander*, of a purple Colour; when the Flower is gone, it bears in its Place four Seeds that are almoſt round: The whole Plant has an odoriferous Smell, and a piquant biting Taſte: It grows in the hot Countries, but is introduced now into moſt Gardens.

The ſecond Kind is the *Marum vulgare*; which is a Plant whoſe Stalks, Branches and Leaves, are like Marjoram, but ſomething higher; for this grows near two or three Feet high, being woody, and extending it Branches; it has ſome Reſemblance to the firſt Sort of *Marum*, but is larger, whiter, and of a bitter ſmart Taſte; the Flowers and Seeds are like thoſe of Thyme; the Root is woody, and all the Plant of a ſtrong Smell, that is aromatick and agreeable enough; the beſt is that which grows in *Spain*, and other hot Countries; it requires a dry ſtony Ground; both Sorts abound with Plenty of Oil and volatile Salt, with a little Phlegm. The *Marum* is cephalick, ſtomachick, ſudorifick, vulnerary, and uterine, being good againſt all cold and moiſt Diſeaſes of thoſe Parts, Cramps, Convulſions, Burſtings, Strangury, and the Bitings of mad Dogs, Serpents, and other venomous Beaſts, being a famous Alexipharmick. It is likewiſe uſeful in all malignant and peſtilential Fevers. Doſe from a Dram to two Drams. The Herb is of the Nature of *Origanum* and Sweet Marjoram, and has all their Virtues. The diſtill'd Oil may be given from two Drops to ſix, againſt cold Head-aches, Megrims, Vertigos, Apoplexies, Lethargies, Palſies, Weakneſs of the Nerves, *&c.*

[The *Marum* of the Shops, is the *Marum vulgare*, Park. 12. *Thymbra Hiſpanica Majoranæ folio*, Tourn. Inſt. 197. It is kept in Gardens, and flowers in *July*. It is accounted a Cephalick, Sudorifick, and Aperitive, but is ſeldom uſed.]

4. *Of the* Indian-Leaf.

Pomet. THE *Folium Indum*, *Thamalapatra*, *Malabathrum*, or *Indian-Leaf*, comes from a large Tree that grows in the *Eaſt-Indies*, about *Cambaja*.

The Antients knew as little of this Leaf as of many other Drugs, ſome having writ that it was found ſwimming upon ſeveral Lakes in the *Indies*: But the moſt rational Opinion is, that this Leaf comes from a Tree of the Size of the Lemon. Among the Leaves grow ſmall Berries, very like thoſe of Cinnamon, except that they are leſs. Some of theſe Leaves have on their Under-Side a Kind of little Bladder, of the Bigneſs of a Pin's-Head, which ſome People will have to be the Seed.

I cannot underſtand for what Reaſon the Antients made uſe of this Leaf in the Compoſition of Treacle, ſince it is almoſt without Smell or Taſte; notwithſtanding, I cannot poſitively affirm that they were to blame in it, becauſe when it is freſh gather'd it may have both; but I never could find that it had any ſenſible Quality at all; however, as I am not able to prevent the Uſe of it, or hinder its Sale, I ſhall direct you to chuſe it

it in fair Leaves, large, and the greeneſt and leaſt broken that may be.

Lemery. *Folium Indum, ſeu Malabathrum*, or the *Indian-Leaf*, is the Size of one's Hand, like the Lemon-Leaf, of a pale green, ſmooth, and ſhining, having three Nerves that run length-ways upon it. It grows upon a Tree that is found in *Cambaja*, from whence it is brought dry'd. Authors adviſe us to chuſe the freſheſt, having a weak Smell when bruiſed, like Cloves, and of an aromatick Taſte; but none of the Leaves that are brought to us have any thing of theſe Virtues, but appear perfectly inſipid and taſteleſs. By a chymical Diſtillation it affords an Oil and a flegmatick Spirit, which contains ſome little Salt in it. This Leaf is hot and dry, agreeing in Nature and Virtues, as they will have it, with Spikenard, or, as others, with Mace. It is warming, digeſting, and ſtrengthening; comforts a cold Stomach, and helps Digeſtion. The Powder is diuretick, ſtomachick, alexipharmick, and an Antidote againſt the Plague. Doſe from half a Dram to a Dram. A Tincture of it in Wine or Brandy cauſes a ſweet Breath; bathed on the Eye-lids, it ſtrengthens the Eyes, ſtops the Rheum, and abates the Inflammation.

[See a more perfect Account of this Leaf at the End of the Chapter of Cinnamon, where it naturally came under Conſideration, as the Leaf of one of the Trees of that Species.]

5. *Of* Tea.

Pomet. THE *Tea*, which the People of *China* and *Japan* call *Cha*, or *Tcha*, is the Leaf of a little Shrub which grows plentifully about *Pekin* and *Nankin* in *Chiua*, and in ſeveral Parts of *Japan*: This is reckon'd the beſt, and, from its excellent Qualities, is call'd the Flower of *Cha*, or *Thee*. It is a ſlender green Leaf, pointed at one End, and roundiſh at the other, and a little cut or indented round about; and in the Middle of each Leaf there runs a Filament, or String, from whence proceed a Number of little Fibres. In a Word, it is of the Shape of the Figure repreſented in the Plate, which was taken from a Branch which was given me by a Perſon of Probity, who brought it from *Holland*. Among the Leaves, grow ſeveral Huſks, which are each of the Size of one's Finger's End, of a very particular Shape, in each of which are found two or three Seeds of the Figure of the *Areca*, of a Mouſe-colour'd Grey without, and within having a white Kernel, very ſubject to be worm-eaten.

This *Japan Tea* differs not from that of *China*, but only as the Leaves are much ſmaller, and the Taſte and Smell more agreeable, and it is uſually of a finer, clearer green. This Difference of Smell, Taſte and Colour, has raiſed the Price; ſo that the *Japan Tea*, as deſcrib'd before, which is the true Sort, of the fine Violet Flavour, will ſell for two Thirds more than that of *China*.

The *Tea* which the *Dutch*, *Engliſh*, and other Nations bring us, is in little curl'd or twiſted Leaves, as it is now ſold among us, and is thus prepar'd by the Natives of the Country; who, after they have gather'd it, dry it gently before the Fire, and the Leaves, in drying, curl up juſt as we now ſee them. And that the Buyer may not be impoſed on in this Commodity, which always bears a conſiderable Price, let him chuſe that which is the greeneſt, the beſt ſcented, and which is as little broke into Duſt or ſmall Powder as poſſible, and prefer that, as I have obſerv'd, which comes from *Japan*, before that of *China*.

The *Tea* is ſo much in vogue with the *Eaſtern* People, that there are very few who do not drink it; and the *French* ſome Years ago had it in univerſal Eſteem; but ſince Coffee and Chocolate have been introduc'd into that Country, there is nothing near the Quantity uſed as was before. I ſhall ſay nothing of its Virtues, but refer you to ſuch Authors as have treated particularly of it, eſpecially the Sieurs *de Four* and *de Blegny*.

I cannot paſs over this Article, without ſaying ſomething of the Flower of *Tea*; the Perſon who gave me the Leaves, made me at the ſame Time a Preſent of a Sort of *Tea* entirely different from the common *Tea*, in that it is of a blackiſh brown Colour, and more of the Shape of a Flower than a Leaf; and, whether this be a Leaf or a Flower, it is ſo valued by the *Dutch*, that they ſell it Weight for Weight for Gold, which is about four Pounds an Ounce; as well by reaſon of the ſmall Quantity they get of it, as for its agreeable Smell and Taſte, particularly when it is new, in which it abundantly excels the true *Japan Tea*.

The chief Reaſon that this is become ſuch a good Commodity to buy in *Europe*, is becauſe the *Dutch*, *&c.* have it in Exchange for Sage, which the *Japoneſe* and *Chineſe* are great Lovers of; which is not without Reaſon, ſince we have not a Plant that is endow'd with more Virtues than Sage, eſpecially that Sort which, for its ſingular Goodneſs, is call'd *Sage of Virtue* among us, and is the ſame with the *French Sage*; and it is certain, that if this grew in *India*, it would be much more valued; but becauſe it is common, we make no Account of it, notwithſtanding the *Latin* Proverb, *Cur morietur homo, cui Salvia creſcit in horto?* Why ſhould any body die that has Sage

in

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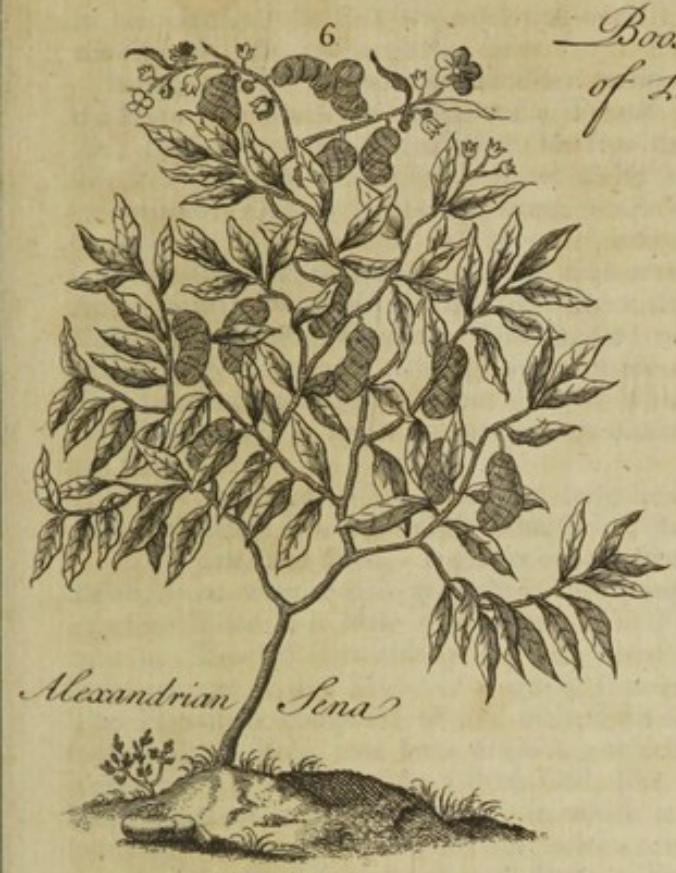
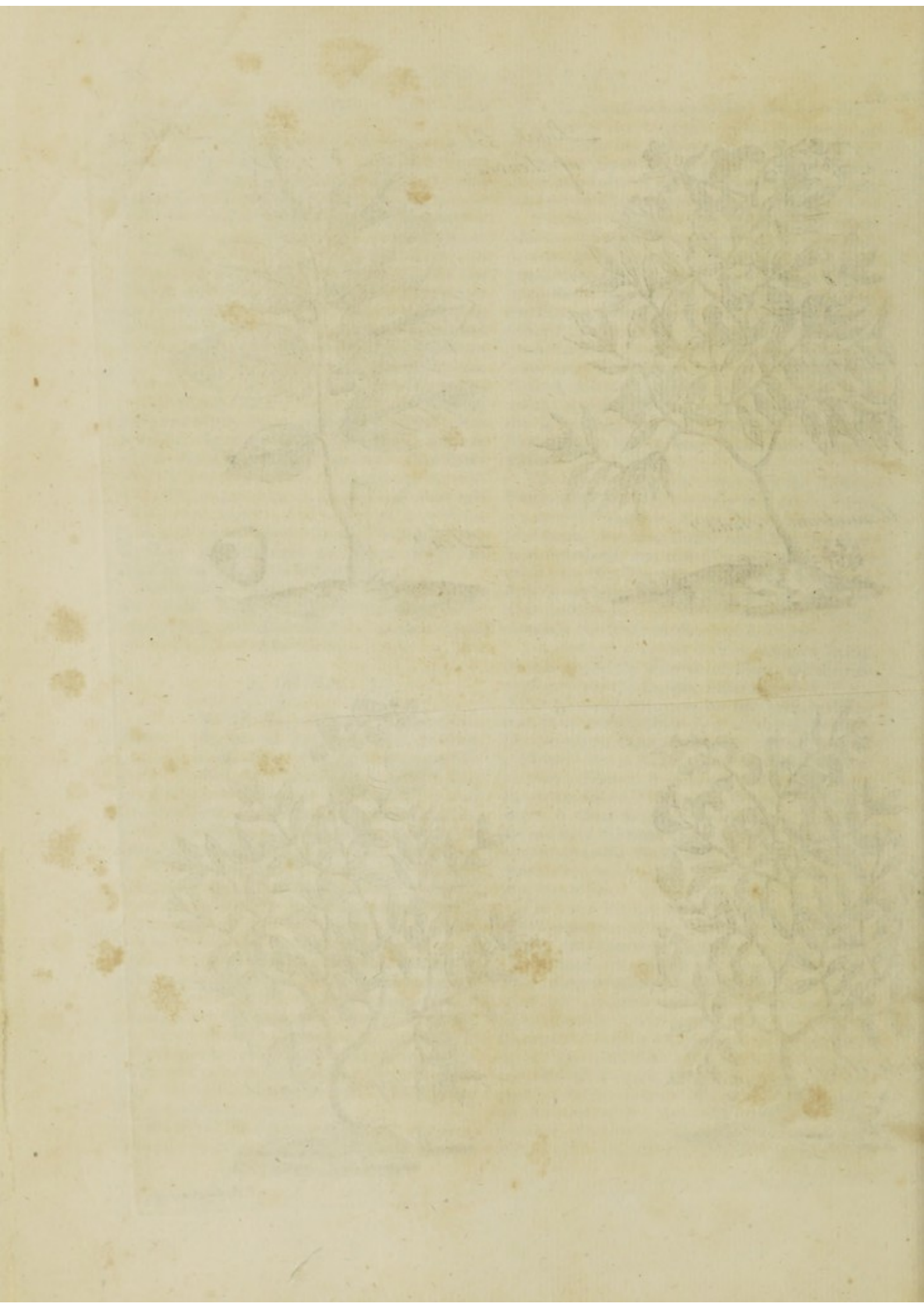
Plate 32



J. Beckington Sculp.



in his Garden? So that we need not wonder if the *Chineſe*, &c. exchange *Tea* for it.

It may not be improper in this Place to refute the Error into which the Author of a Treatiſe of *Tea*, *Coffee*, &c. has fallen, when he ſays that this *Tea* produces a blackiſh Seed, which he ſaw brought into *France*; but he was wrong inform'd, ſince the Fruit of the *Tea*, as I have ſaid before, is of the Shape of the *Areca*, and the Size of an Acorn cut in two, and is cover'd with a thin Shell, of a Cheſnut Colour. This Author obſerves, that there is a febrifuge Syrup made of *Tea*, to which he attributes great Virtues, which thoſe who deſire to know farther of may conſult his Treatiſe for.

Lemery.

The, or *Tſia*, is a very little Leaf, which is brought dry'd from *China*, *Japan*, and *Siam*. It grows upon a ſmall Shrub, from whence it is gather'd in the Spring, at which Time it is little and tender. The Figure or Shape of it is oblong, pointed, thin, a little indented on the Sides, of a green Colour. The Flower is compoſed of five white Leaves, form'd like a Roſe, and ſome *Stamina*; which, when gone, is ſucceeded by a thick Cod, like a Hazel-Nut, of a Cheſnut Colour, in which are found two or three Nuts or Berries, which contain in each a little Kernel, of an ill Taſte. The Root is fibrous, and ſpreads upon the Surface of the Earth. This Shrub flouriſhes equally in rich or poor Ground. The Leaf is more uſed for Pleaſure in the Liquor we call *Tea*, than for any medicinal Purpoſe; but it has a great many good Qualities, for it lightens and refreſhes the Spirits, ſuppreſſes Vapours, prevents and drives away Drowſineſs, ſtrengthens the Brain and Heart, haſtens Digeſtion, provokes Urine, cleanſes or purifies the Blood, and is proper againſt the Scurvy.

[*Tea* is the Leaf of the *Styraci & Euonymo Mediæ affinis*. The *Sinenſium ſive Tſia Japonenſibus, flore niveo, ſimplici & pleno*, Br. Pr. 2. 98. *Thea frutex folio Ceraſi, flore Roſæ ſylveſtris, fructu unicocco, briocco, & ut plurimum tricocco*, Kæmp. Hiſt. Jap. 2. Ap. 2.

We have ſix Kinds of *Tea* uſed in *England*; 1. The *Bohea*, of a dark Colour, giving a brown Tinge to the Water it is infuſed in; 2. the *Congou*; 3. the *Peco*; 4. the *Green Tea*, call'd *Singlo*, of which there are two Kinds; the one with oblong narrow Leaves, the other with ſmaller; both equally good, and both of a blueiſh green Colour, criſp to the Touch, and giving a pale green Colour to Water they are infuſed in; 5. the *Imperial Tea*, the Leaves of which are large and looſe, and leſs roll'd together than thoſe of the former Kinds; the beſt is green, criſp in the Mouth, and has the moſt agreeable Flavour; the ſixth is that call'd the *Hyſon Tea*, now moſt uſed among Perſons of the upper Rank. All theſe Kinds are the Leaves of the ſame Tree, only differing according to the Time of gathering and Manner of curing. Theſe are much more uſed for Pleaſure than as Medicines; the *Bohea*, however, is eſteem'd ſoftening and nouriſhing, and good in all inward Decays; the *Green* is diuretick, and carries an agreeable Roughneſs with it into the Stomach, which gently aſtringes the Fibres, and gives them ſuch a Tenſity as is neceſſary for a good Digeſtion: Improper or exceſſive Uſe may make this, or any thing elſe that has any Virtues at all, do Miſchief; but there are very few Inſtances of that; and with Moderation, it certainly is one of the beſt, pleaſanteſt, and ſafeſt Herbs ever introduced into Food or Medicine, and in the frequent Uſe of which, People generally enjoy a confirm'd Health: The *Green* indeed, if drank too freely, is prejudicial to ſuch as have weak Lungs; ſuch People, therefore, ought to drink the *Bohea* with Milk in it.]

6. *Of* Senna.

Pomet.

THE *Senna*, which ſome call the *Eaſtern Leaf*, comes from a Plant, or rather a Shrub of about a Foot high, which grows in ſeveral Parts of the *Levant*, and alſo in *Europe*. This Plant, or Shrub, bears Leaves which are more or leſs green, and of different Shapes, according to the different Places where they grow. Among the Leaves come little Flowers of a purple Colour, in Form of Stars; and after them, thin flat Pods, in which are contain'd five or ſix ſmall Seeds, likewiſe flat, broad at one End, and ſharp at the other; and theſe Pods are what we call *Senna Huſks*.

As *Senna* is a Leaf that is very common among us, from the great Sale of that Commodity, I muſt inform you there are three Sorts, which we diſtinguiſh into *Alexandrian Senna*, *Tripoli Senna*, and *Mocha Senna*; and under theſe three Kinds there are ſeveral other Species, which have no Difference, but from the Places where they are cultivated, as the ſame Species may have a Variety in the Leaves, Flowers, and Fruit, from the Nature of the Soil where it is cultivated: The fineſt Sort, and beſt in Quality, is the *Alexandrian Senna*, that comes from the *Levant*, which pays a Tribute to the Grand Signor; this the *Turks* call *Palte*.

Chuſe this *Senna* with narrow Leaves, of a moderate Size, of the Shape of a Spear-Point, yellowiſh colour'd, of a ſtrong fragrant Smell, in a

manner ſweet, the leaſt broke, full of Sticks or dead Leaves, or any other Filth that may be. This Deſcription of *Senna* will undoubtedly appear ridiculous to ſome People, who have no great Knowledge of it, who will have it that the beſt *Senna* is that with great, broad, green Leaves: But I am ſatisfied that no body that underſtands *Senna* will contradict what I ſay; and the rather, becauſe I muſt be allow'd to be a Judge of it, from the vaſt Quantities of this Drug that have paſs'd thro' my Hands; beſides that, I have by me the entire Plant, from whence the Figure is engrav'd, as it was brought to me from *Aleppo*. The Uſe of *Senna* is ſo common, it would be needleſs for me to ſay any more, than that it is a very good Purgative.

The ſecond Sort of *Senna* is that of *Tripoli*, which is a green *Senna*, ſold ſometimes, but very rarely. It comes next in Virtue to the *Alexandrian*, but is uſually more churliſh, and has very little Smell; notwithſtanding which, it is bought up by thoſe who underſtand little of it.

The third Sort is the *Mocha Senna*, which the Hawkers call *Pike Senna*, becauſe the Leaves are long and narrow, that is to ſay, twice as long as the true *Senna* from the *Levant*. The ill Quality of this *Senna* is ſufficient to warn you againſt the meddling with it all; for it is good for nothing.

As to the *Folliculi*, or *Senna-Huſks*, their Excellency ought to engage the Phyſician to preſcribe them more frequently, becauſe they purge very gently, and ſcarce give any Taſte or Smell to the Medicine, contrary to the Leaf, which gives ſo bad a Taſte, that moſt People refuſe to take the Medicines made with it. Chuſe theſe Shells thick, large, and of a greeniſh Colour, with the Seed which is within plump, well fed, and almoſt like the Stones of Raiſins, only flat. Throw ſuch away as are blackiſh and dry'd, as not fit for internal Uſe. You may make an Extract of *Senna*, by Means of Fire and Water, and alſo a Salt, to which ſome People aſſign great Virtues, and pretend by its Help to make Infuſions of *Senna* of greater Force and Efficacy. Some Authors have writ, that there is Plenty of *Senna* to be found in *Italy*, eſpecially in *Tuſcany*, and about *Genoa*; but I believe that theſe Kinds of *Senna* are rather the Leaves of that Plant which the Botaniſts call *Colutea*, or the Wild or Baſtard *Senna*; an Account of which may be ſeen at large in Botanick Authors.

There is a Plant found in *France*, which the Botaniſts call *Gratiola*, which purges more than *Senna*. There is, beſides, another Plant, which the Simplers call *Alypon montis Ceti*, becauſe it is found plentifully at *Cette* near *Montpellier*, which purges more than *Senna*: Some call this *Alypon*, White Turbith.

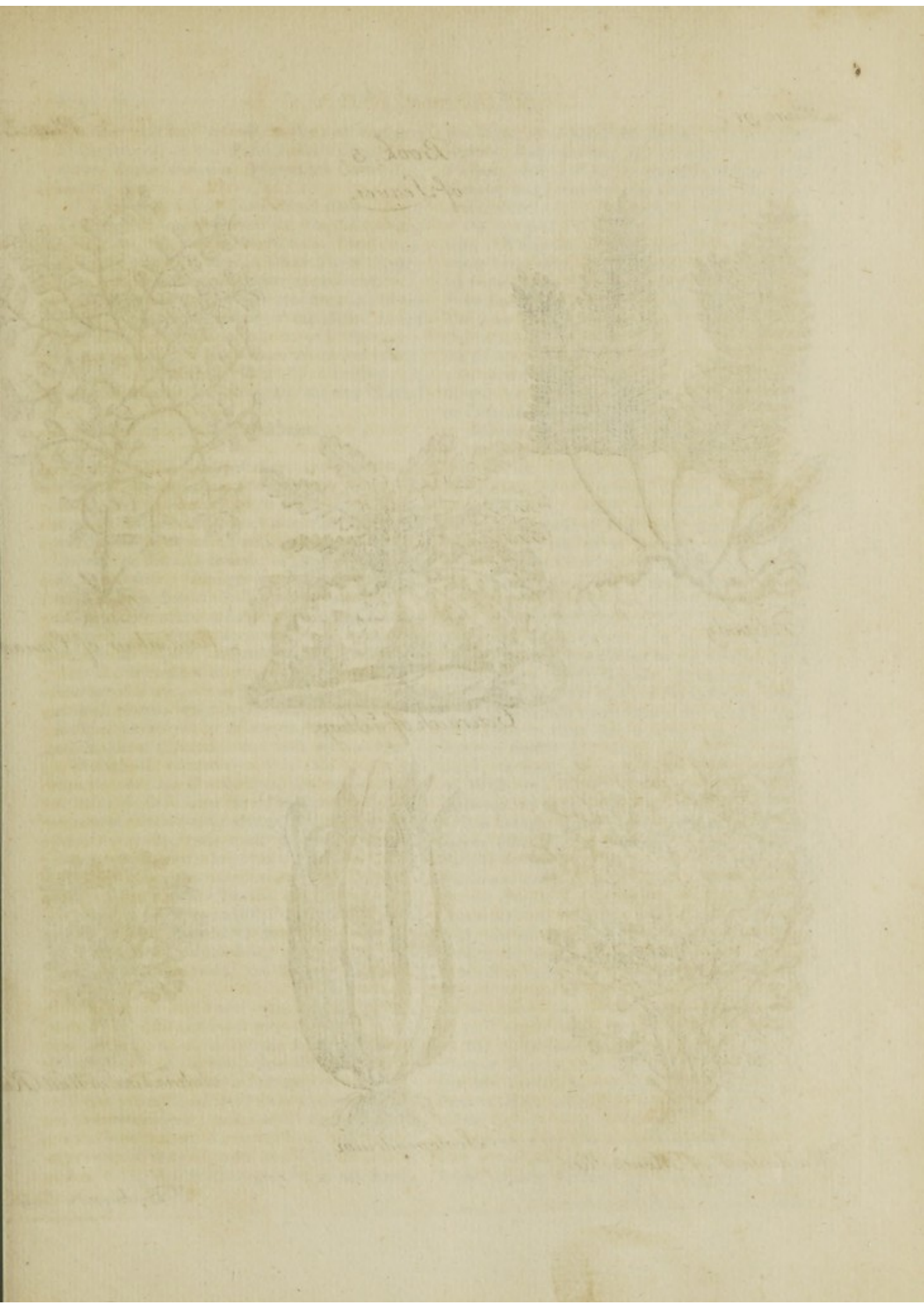
Senna, *Folium Orientale*, or *Sena*, is a little longiſh Leaf, which is brought dry'd from ſeveral Parts of *Europe*. It grows on a ſmall Shrub, and is of two Kinds; the firſt is call'd *Senna Alexandrina*, *ſive foliis acutis*, the *Alexandrian Senna*, or that with ſharp-pointed Leaves, by *Bauhine* and *Tournefort*: It carries its woody Stalks a Foot and a half, or two Feet high; from whence come Leaves that are oblong and narrow, pointed, of a yellowiſh green; the Flowers are made up of five Leaves each, after which come flat crooked Pods. *Lemery.*

The ſecond Sort is call'd *Senna Italica*, *ſive foliis obtuſis*, by *Bauhine* and *Tournefort*, or *Italian Senna* with blunt Leaves: It differs from the former, in that the Leaves are larger, more nervous, broad, and blunter at the End. We are furniſh'd by the Merchants with three Sorts of *Senna*; the firſt and ſecond of which are call'd the *Levant Senna*, and the laſt *Mocha Senna*, as *Pomet* has deſcribed them. The Leaves and Pods of all the Sorts afford a good deal of Oil and Salt.

Other Accounts of *Senna* diſtinguiſh it into True and Baſtard; the True is of three Sorts; firſt, the *Alexandrian*, with ſharp-pointed long Leaves, freſh Smell, ſtrong Scent, free from Stalks, ſmaller or narrower than the other Kinds, of a lively Colour; this is the beſt of all. 2dly, That of *Aleppo*, which is generally fuller of Stalks and Duſt, and has a ſhorter and blunter Leaf than the former. Chuſe that which has a good ſtrong Smell, of a pale green Colour, well cleanſed, and not muſty: This is next in Goodneſs to the former. 3dly, The *Indian Senna*, which is much like that of *Aleppo* in Form, is the coarſeſt Sort of all, and the worſt, and becomes ſomething worſe and weaker by reaſon of its long Carriage from the *Indies* hither, being often heated in the Hold of the Ship, where it is ſpoil'd. The Baſtard *Senna* is the *Colutea*, or Wild *Senna*, ſpoken of before.

The Leaf of the beſt *Senna* is the moſt famous and common Purge againſt ſerous Humours and Melancholy, which it diſcharges from the Head, Stomach, Lungs, Liver, Spleen, Womb, and Joints; but it gripes ſometimes, by reaſon of the ſharp Humours from the Body that join with it, and upon which it acts. It is corrected with Cinnamon, Cloves, Galingal, Ginger, *&c.* It is a general Purger, and may be quicken'd in its Operation by *Sal Gem*, Salt of Tartar, and Tartar Vitriolate: It is ſeldom given in Powder, but in Infuſion or Tincture, from half an Ounce to two Ounces. There are eighteen or twenty Prepa-

rations



Book 5.
of Leaves.

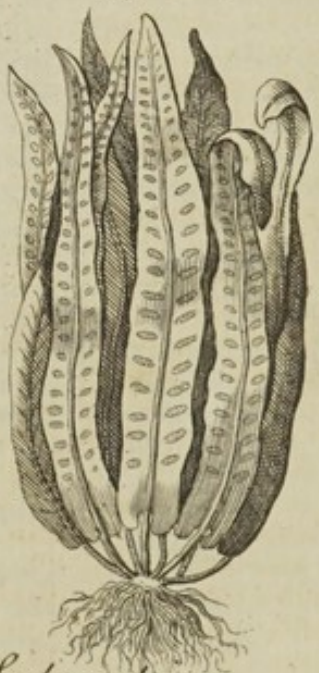
7

Polipody

Ceteraich of ye Shops

Maidenhair of Canada

Maidenhair of Montpellier



Scolopendrium

Salvia Vitæ or Wall Rue

J. Beckington Sculp.

rations of this Leaf in Uſe, in the moſt common Diſpenſatories, as the Extract *Benedictum*, *Decoctum Sennæ Gereonis*, *Quercetan*'s Cathartick, and the like.

[The beſt and right *Senna* of the Shops, is the Leaf of the *Senna Alexandrina, ſive foliis acutis*, C. B. Pin. 397. *Senna Orientalis*, Ger. 1114. It grows in *Syria*, *Arabia*, *Perſia*, and *Egypt*: The Leaves of this are narrow and pointed.

The worſe Sort of *Senna*, too often ſold in the Place of this, is the Leaf of the *Senna Italica foliis obtuſis*, Boerh. Ind. Alt. 2. 57. *Senna Italica*, Park, 225. The Leaves of this are roundiſh and ſomething Heart-faſhion'd at the End. It purges leſs, but gripes more than the true *Senna*.]

7. *Of* Maidenhairs.

Pomet. THE *Maidenhairs* are little Plants that are brought whole to us from ſeveral Parts; the chief and moſt eſteem'd, is that which comes from *Canada*, and is call'd *Maidenhair* of *Canada*, and, by Botaniſts, *Adianthum album Canadenſe*, or the White *Canada Maidenhair*. This grows about a Foot high, with a very ſlender Stalk, hard and blackiſh; from whence there ariſe ſmall Branches bearing green Leaves, pretty deep indented, as may be ſeen by the Figure: It grows likewiſe in *Braſil*: This is cultivated with great Care in the King's Garden at *Paris*, as well as many other Sorts of exotick Plants, which were brought from ſeveral Parts of the World by Meſſieurs *Fagon* and *Tournefort*, the moſt eminent Botaniſts we have had.

Beſides the *Maidenhairs* which we have from *Canada*, we have alſo the Syrup ſent to us, which to be of the beſt Kind ſhould be Amber-colour'd, of a good Taſte and Conſiſtence, ſmelling neither ſour nor muſty, truly made in *Canada*, and as clear and tranſparent as poſſible.

Great Virtues are attributed to this Syrup, eſpecially for Coughs, Catarrhs, and Diſeaſes of the Breaſt; it is alſo adminiſter'd to Infants newborn, with a little Oil of Sweet-Almonds. As to the Choice of *Maidenhair*, you muſt take ſuch as is neweſt, very green, and the leaſt broke that you can get.

Beſides this *Maidenhair* and the Syrup, we have from *Montpellier* another Kind of Syrup, call'd *Capillaire*, which is made from a Plant the Botaniſts call *Adianthum album Monſpelienſe*, or the White *Maidenhair* of *Montpellier*. The Syrup of this is little different from that made of the *Canada Maidenhair*; when faithfully prepar'd, it ought to be of an Amber-Colour, and a very agreeable Taſte. There are other Syrups of *Maidenhair*, and the like, prepar'd in the Southern Parts, as of Black *Maidenhair*, Golden *Maidenhair*, *Scolopendrium*, and *Ceterach*; ſome add *Polypody*, *Salvia Vitæ*, or common White *Maidenhair*, and Liquorice; and all theſe Plants together make a red Syrup, which they ſell as well as the Syrup of *Maidenhair*. Some Apothecaries diſtil a Water from the *Maidenhair*, and make a white Syrup of it, which ſells very well, but it has no more Virtue than a plain Diſſolution of Sugar. Sometimes there comes from *Montpellier* a liquid Conſerve of *Maidenhair*, but it is very ſcarce, and little enquired for. As to the Preparations of the Syrups, I ſhall ſay nothing further; but thoſe who would make the Syrup of *Maidenhair* of *Canada* or *Montpellier*, may conſult ſuch Books or Diſpenſatories as treat of them.

Lemery. *Adianthum*, or the true *Maidenhair* of the Shops, is a Plant that bears ſeveral ſlender, blackiſh Stalks, of about half a Foot, or a Foot high, divided into fine delicate Branches, which are adorn'd with little Leaves, like thoſe of Coriander, almoſt triangular, fragrant, and of an agreeable Taſte: This Plant bears no Flowers; its Fruit, according to Mr. *Tournefort*'s Obſervations, is produced in a Folding of the End of one of the Leaves; which after it is ſtretched out, encloſes ſeveral ſpherical Coverings which are caked to the ſaid Foldings, and cannot be diſcover'd but by the Aſſiſtance of a Microſcope: Theſe *Capſulæ*, or Coverings, are furniſh'd with, as it were, a Purſe-String, which by its Contraction opens them; they contain ſome little Seeds in them that are almoſt round: The Root is fibrous and black; it grows in ſhady, moiſt, or ſtony Places, againſt Walls, or Sides of Wells and Ditches: The beſt they have in *France* grows about *Montpellier* in *Languedoc*.

It is brought likewiſe from *Canada*, *Braſil*, and ſeveral other Parts of *America*. where there is a Sort of the dried *Maidenhair*, a great deal larger than ours, call'd by *C. Bauhine*, *Adianthum fruticoſum Braſilianum*, and is the ſame with the *Maidenhair* of *Canada*: The Stalk is ſlender, hard, and of a browniſh red, or purple Colour, tending to black, divided into many Branches, which bear little Leaves, almoſt like the common Sort, long, and indented on one Side, but whole on the other, ſoft, tender and fragrant; this is what is moſt valued, as being the beſt ſcented of all the *Maidenhairs*. It is common in ſeveral Parts of *America*, and eſpecially in *Canada*; ſo that the Traders pack up their Goods with it inſtead of Hay, when they would ſend them to a diſtant Country; 'tis by this Means we have ſuch Quantities of it; but it would be much better if they would pack it up in Paper, or Bags, which would preſerve the Scent and Virtue of it. Chuſe

ſuch as is freſh, green, well ſcented, whole and ſoft to the Touch. This Plant contains little Phlegm, a good deal of Oil, but not much Salt; they are pectoral, aperitive, and raiſe the Spittle, ſweeten the Blood, and provoke Womens Courſes. They give the Name of *Maiden-Hair* to four other Kinds of Plants, which in ſome Meaſure reſemble the *Adianthum*, and to which they attribute the like Virtues, *viz. Filicula*, *Ceterach*, *Wall-Rue*, and *Polytrichum aureum*, or *Golden Maiden Hair*.

The *Adianthum Aureum minus*, and *Politrichum nobile vel primum*, is a little Plant about the Length of a Man's Finger, bearing many Leaves, on Stalks almoſt as fine as Hair, of a yellowiſh Colour; the Stalks bear on their Tops little longiſh Heads, the Roots are very little like ſmall Threads: This Plant grows in the Woods, and againſt old Walls, and in Bogs and marſhy Places; it is a good Sudorifick and Antipleuretick, being infus'd half a Handful in a Pint of boiling Water, as you make Tea, and uſed after the ſame Manner.

Polytrichum vulgare, or the *Trichomanes* of the Shops. M. *Tournefort* has diſcover'd with his Microſcope, that this Plant, as well as the *Adianthum*, bears a little Seed roul'd up in the End of the Leaf, which is very ſmall, and almoſt round, cover'd on the Ribs with a great many light Particles like Duſt; the Roots are very ſmall and ſtringy; it grows like the other Sort, and is reckon'd a good Pectoral, aperitive and proper for Obſtructions of the Liver and Spleen, and in Womens Caſes.

Ceterach of the Shops, or the true *Scolopendrium*, is a Kind of *Maiden Hair*, or a Plant whoſe Leaves reſemble, in ſome Manner, *Polypody*, but they are much leſs, cut in almoſt round; their back Parts are reddiſh or yellow, hairy, and cover'd with a little ſcaly Matter: M. *Tournefort* has made a Diſcovery of a Seed in this Plant unknown before: This grows in wild Places in hot Countries; and thoſe of *Languedoc* call it uſually *Golden Locks*, becauſe of its near Approach to Hair and its golden Colour. It is pectoral, and particularly appropriated to the Diſeaſes of the Spleen, and is a good Aperitive.

[The true *Maiden Hair* is the *Adianthum foliis Coriandri*. C. B. 355. *Capillus Veneris Verus*. Ger. 982. This grows in *France* and *Italy*.

The *Canada Maiden Hair*, which is another Species of this, is the *Adianthum fructuoſum Braſilianum*. C. B. Pin. 355. *Adianthum fructuoſum Americanum ſummis ramulis reflexis & in orbem Expanſis*. Pluk. Almag. 10.

The other Kinds uſed in Medicine, or kept in the Catalogues of Officinal Plants, are

1. The *Polytrichum Aureum majus*. C. B. P. 356. This is a large erect Moſs, and different in Form from all the *Maiden Hairs*.

2. The *Trichomanes*. Park. 1051.

3. The *Adianthum Album*. Rai. Hiſt. 1. 146.

4. The *Adianthum nigrum vulgare*. Park. 1049. And

5. The *Adianthum Album folio Filicis*. J. B. 3. 741. *Dryopteris Alba*. Ger. Emac. 1135.

The *Ceterach* mention'd in this Chapter is the *Aſplenium ſive Ceterach*. J. B. 794. And is not properly a Species of *Maiden Hair*.

Theſe were all once in great Eſteem, as Pectorals, Balſamicks and Reſtoratives; but have of late loſt much of their Credit, and are now ſeldom ſeen in Preſcription.]

8. *Of* Sea-Bind-Weed *and* Winter-Green.

Soldanella, or *Convolvulus Maritimus noſtras*, of M. *Tournefort*: The *Sea-Bind-Weed* is a ſmall Plant, whoſe Roots are ſlender, and the Leaves like thoſe of the *Ariſtolochia*, or *Birthwort*, except that they are leſs and ſomething thicker; among theſe grow Flowers, very much reſembling thoſe of the common *Bind-Weed*, of a purple Colour. This Plant is brought to us entire from Maritime Parts, where it grows in Abundance; 'tis much uſed in Medicine, to purge off dropſical Humours; for which Reaſon Mr. *Brice Bauderon* made it very properly an Ingredient in his hydragogue Powder: You need take no further Care about the Choice of it, only that it be new and as little broke as poſſible. Beſide this *Soldanella*, we ſell another Herb call'd *Pyrola*, or *Winter-Green*, of which there are two Kinds, a larger and a ſmaller; its Leaves ſomething reſemble thoſe of the Pear-Tree, from whence it takes its Name, and is alſo call'd *Winter-Green*, becauſe it preſerves its Verdure all Winter, in ſpite of the hard Seaſon. It is a Plant pretty common in ſome Places, as *Germany*, and other cold Countries. And as this Plant is ſomething ſcarce in theſe Parts, our Herbaliſts ſell to thoſe who want it the young Leaves of the Pear-Tree, raiſed from Seed, which it is not eaſy to detect, becauſe of the great Likeneſs between one and the other: 'Tis ſaid the Decoction of this is a very great Aſtringent, and that it is very proper for the Cure of Ulcers, and other Maladies of the like Nature.

The *Pyrola* bears ſeveral little Stalks, at the End of each of which is a ſmall roundiſh Leaf of a browniſh Green; from the Middle of the Leaves ariſes a Stem, whoſe Top is adorn'd with many little white Flowers, of a very good Smell, and the whole Plant is not above a Foot, or a Foot and a half high; it delights much in the Northern

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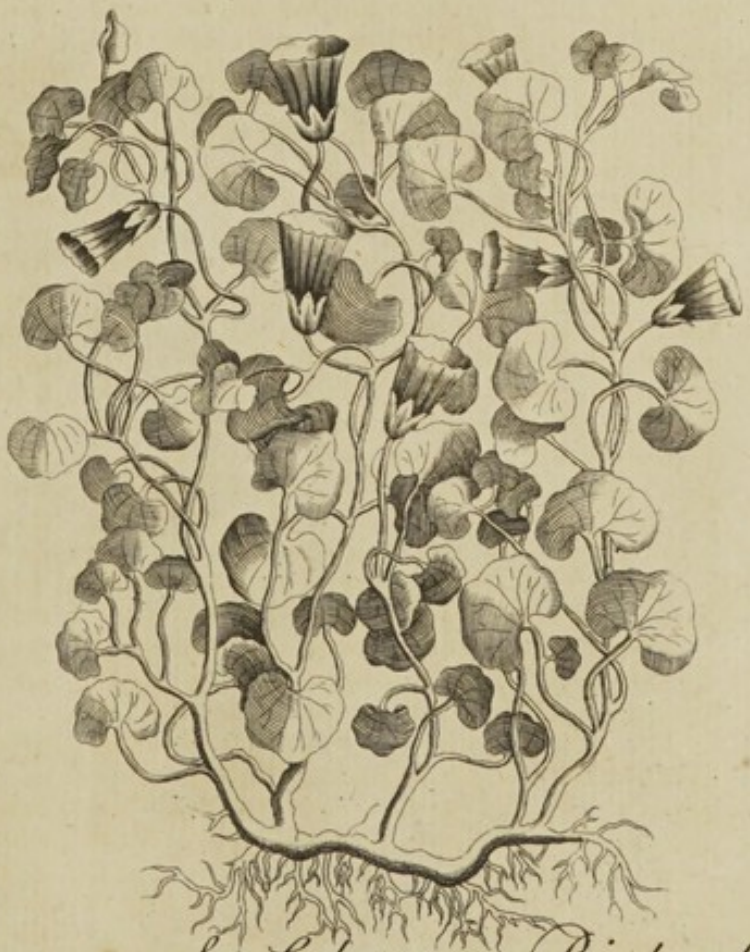
English Maidenhair

Black Maidenhair

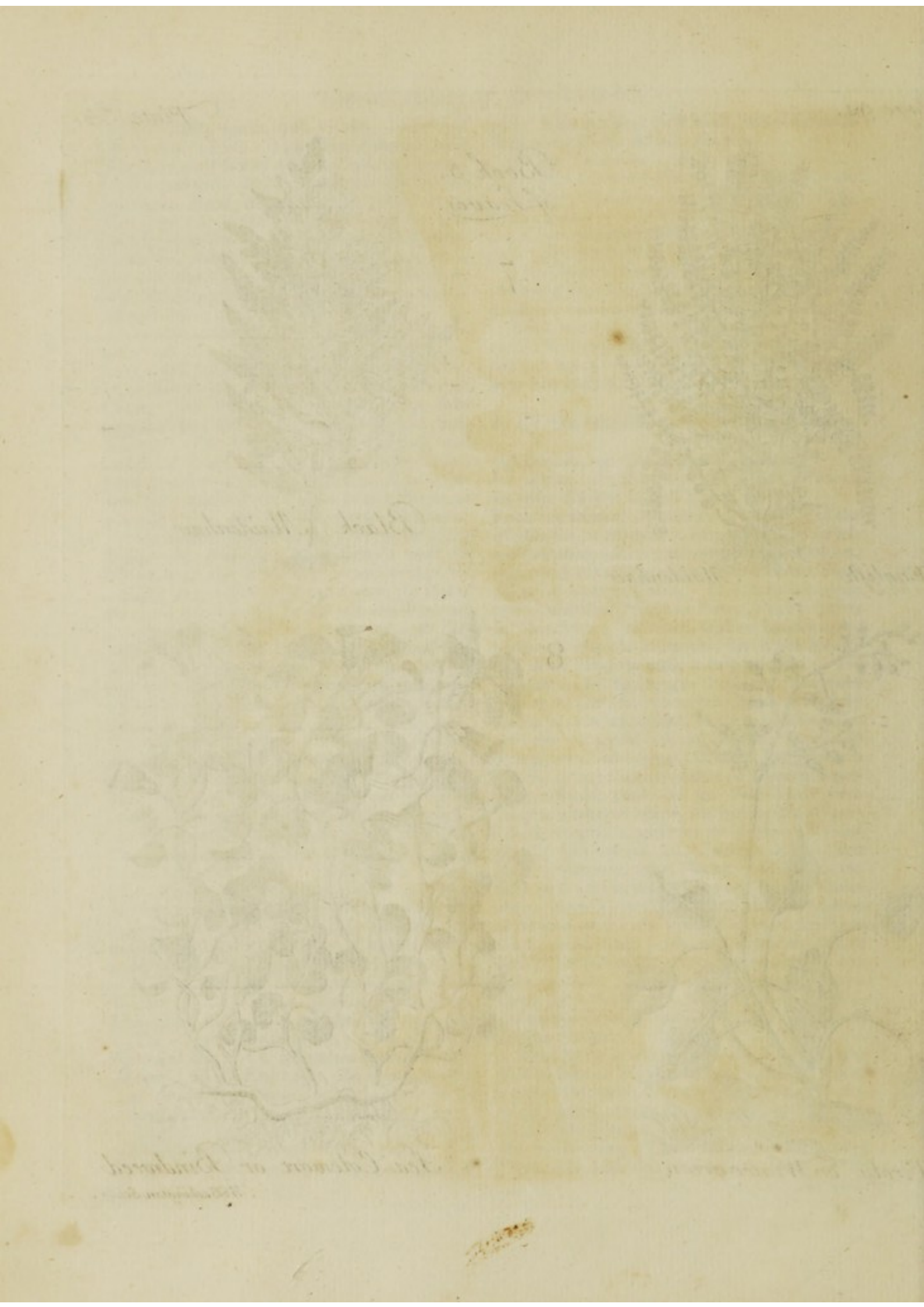
Pirola or Winter-green

8

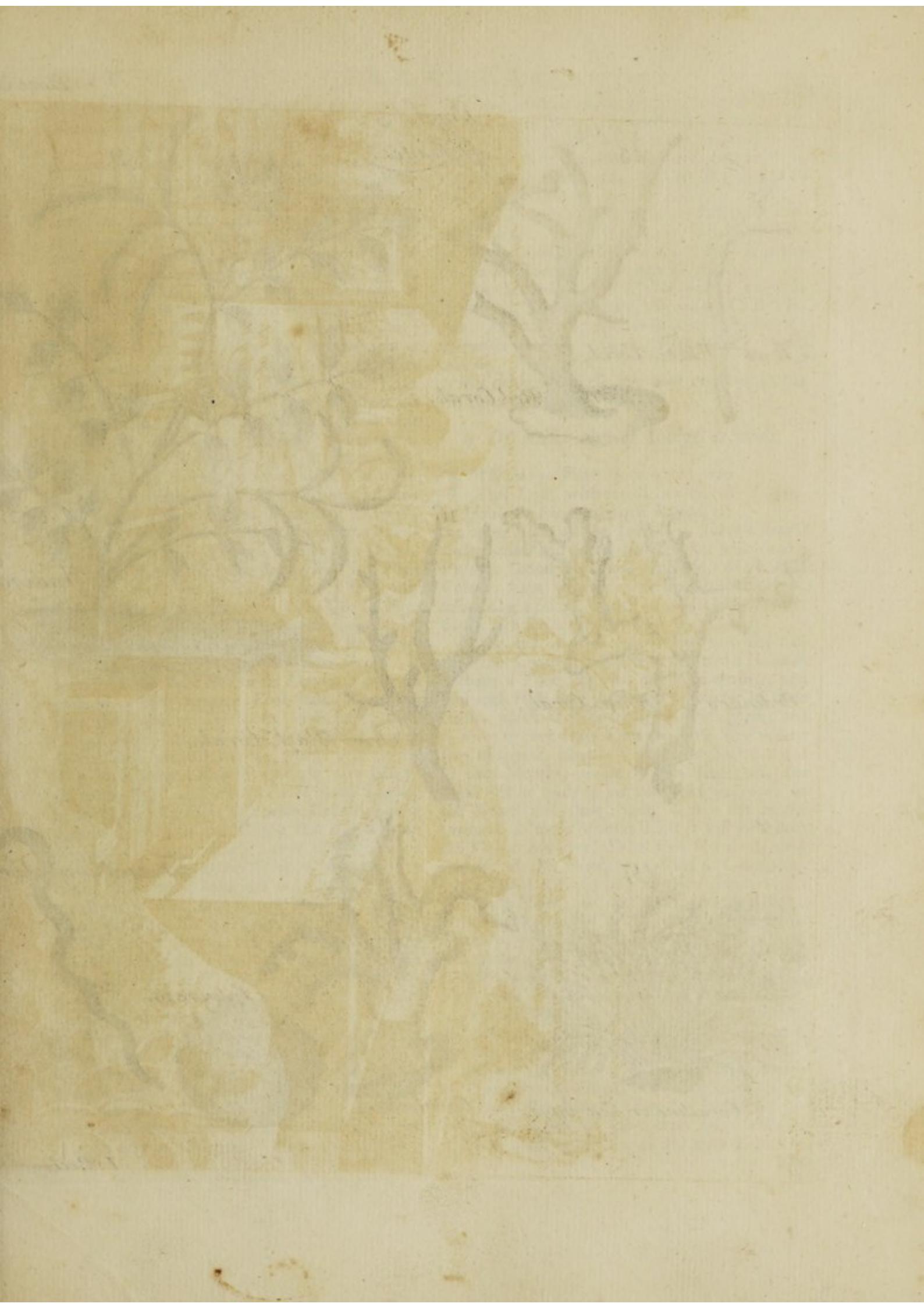


Sea Colewort or Bindweed

J. Beckington Sculp.



Overseer of the Negroes.
The Negroes throwing the Indigo into the Water.
10
The Negroes cutting the Indigo.
A Negro Stirring the Indigo in Water.
Negroes carrying Indigo into Chests or Cases to dry it.
Anil or Indigo



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True White Coral.

Red Coral.

9

Indigo.

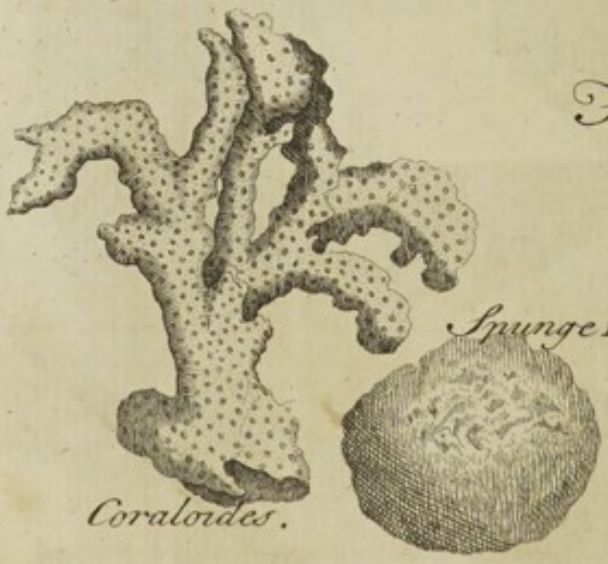
Ordinary White Coral.

16

True Black Coral.

17

Coralline or Sea moss.



Coraloides.

Sponge 18.

False Black Coral

Northern Countries, which makes it very rare in *France*, and other warm Climates.

Soldanella, *Braſſica Marina*, *Sea Lemery*. *Colewort*, or *Convolvulus Maritimus noſtras* according to *Tournefort*, *Sea-Bind-Weed*; is a Species of *Bind-Weed*, or a ſmall Plant that ſends forth ſlender, winding, reddiſh Stalks, that creep upon the Ground. The Leaves are almoſt round, ſmooth, ſhining, like thoſe of the leſſer *Celandine*, but thicker, full of a milky Juice, tied by long Tails, the Flowers are in Form of a Bell, with the Mouth turn'd upwards, as other Kinds of *Bind-Weed*, and of a purple Colour: When theſe are gone they are ſucceeded by a Fruit that is almoſt round and membranous, which contains a corner'd Seed, black or white; the Roots are ſmall and fibrous: The whole Plant has a bitter Taſte, and is a little ſaltiſh; it grows near the Sea-ſide, and flowers in *June*. They dry it entire with the Root, and ſo it is tranſported: Chuſe ſuch as is freſh or new, as little broke as may be; it yields a great deal of eſſential Salt and Oil, purges violently, and is uſed in Dropſies, Palſies, Diſeaſes of the Spleen, Scurvy and Rheumatiſm: The Doſe is from a Scruple to a Dram.

Pyrola, *Winter-Green* or *Sea-Green*, is a Plant of which there are ſeveral Kinds. I ſhall only take Notice of two that have ſome Uſe in Phyſick: The firſt is call'd *Pyrola noſtras vulgaris*, by *Parkinſon*, or *Pyrola rotundifolia major*, by *Tournefort*, the greater round-leav'd *Winter-Green*. It bears from the Root five or ſix Leaves, ſupported each by a long ſeparate Foot-Stalk, by which they trail upon the Ground; from among theſe riſes a Stem, about a Foot high, furniſh'd with ſeveral little pointed Leaves, which bear on the Top ſweet-ſcented Flowers that are very beautiful to the Eye, compoſed each of many Leaves, in the Shape of a Roſe, of a white Colour, having ſomething riſing in the Middle that reſembles an Elephant's Snout, which, after the Flower is gone, becomes an angular Fruit, divided into five Cells, fill'd with a Seed that is as ſmall as Duſt; the Root is thin, fibrous and winding, all the Plant of a bitter Taſte and very aſtringent.

The ſecond Sort is call'd *Pyrola minima*, or *Pyrola rotundifolia minor*, by *Tournefort*, the leſſer round-leav'd *Winter-Green*. It differs not from the former, but only as it is leſs in all its Parts. Theſe Plants grow in mountainous Places, in Woods and Shades, about *Geneva*, in *Germany*, *Bohemia*, *Moravia*, and other Northern Countries, from whence the dried Leaves are brought; but they are very ſcarce at *Paris*: Take Care leſt the Merchant, too greedy of Gain, mix young Pear-Tree Leaves with them, which it is not eaſy to diſtinguiſh: They are both very aſtringent, vulnerary, cooling, proper in Fluxes of the lower Belly, Hemorrhoids and Inflammations of the Breaſt, being taken in Infuſion or Powder; they are likewiſe uſed externally in Plaiſters and Ointments, to ſtop Blood, and to dry up Wounds.

[The firſt of theſe Plants is the *Soldanella Maritima minor*. C. B. Pin. 293. *Soldanella vulgaris, volubilis Marina*. Park. 161. It grows on the Sea Shores, and flowers in *June*.

The Second is the *Pyrola noſtras vulgaris*. Park. 508. *Pyrola rotundifolia major*, C. B. Pin. 191. And the other Species of this the *Pyrola folio mucronato ſerrato*. C. B. Pin. 181. *Pyrola tenerior*. Park. 509.

But neither of theſe are now ever heard of in the Shops.]

9. *Of* Anil, *whereof* Indigo *is made*.

THE *Indigo* Plant grows about two Feet high, with round Leaves, of a Green, inclining towards Brown on the upper Side of the Leaf, and Silver-colour'd underneath, and pretty thick; after which come Flowers almoſt like thoſe of Peaſe, of a reddiſh Colour, from whence come long crooked Pods, reſembling a Sickle, which encloſe a little Seed in them, like Radiſh-Seed, of an olive Colour. *Pomet.*

When the *Americans* ſow this Plant they firſt dreſs the Ground, and afterwards make Holes in it about a Foot Diſtance one from another, and into each Hole they throw ten or twelve of theſe Seeds, which they cover lightly with Earth, and in three or four Days Time this little Seed will be ſure to appear, eſpecially in a wet Seaſon; and in two Months, or ſix Weeks ſometimes, this Plant will be ready to cut and make *Indigo* of, as the Sequel will ſhew; and, if it is left in the Ground, in three Months Time it will yield both the Flower and Seed: What they fear moſt, upon account of this Plant, is a Kind of Caterpillar, which in St. *Chriſtopher*'s they find ſometimes to breed in a Night, and ruin all the promiſing Hopes of the Inhabitants: The Way they have to remedy this is, immediately to cut down all the Plant, and throw it into a Vat, or Tub, with the Caterpillars and all, which alſo are of ſome Service. The other Way to remedy this Misfortune is, to clear a large Space betwixt what they have eat, and what they have not touch'd: This Havock is not ſeen in *Martinico*.

Indigo is a Fecula, or Settling, made by means of Water and Oil-Olive, out of the Leaves of the *Anil*, or *Indigo-Plant*: There is a Difference between that made of the Leaves only, and that which is made of the Leaves and ſmall Branches.

The

The choiceſt of the former Sort is that which bears the Sur-Name of *Serquiſſe*, from a Village of that Name, which is twenty-four Leagues from *Surat*, and near *Amadabat*. It is made likewiſe about *Biana*, and *Coſſa* near *Agra*, alſo in the Kingdom of *Golconda:* The *Dutch* alſo bring ſome of it from *Brampour* and *Bengal*, but that is the leaſt valuable of all.

When the Inhabitants of the Places above-nam'd would make the *Feculæ* of *Anil*, in order to make *Indigo* of it, they cut the ſaid Herb with a Sickle, when the Leaves begin to fall upon touching them; and after they have ſtripp'd them from the Branches they put them into a ſufficient Quantity of Water, which is in a Veſſel call'd the Steeping-Vat, there letting them infuſe thirty or thirty-five Hours; after which they turn the Cock in order to let the Water run off, which is become of a green Colour, inclining towards Blue, into a Veſſel of the Nature of a Churn, where it is work'd by a Negro, by Means of a Rouler, or Turner of Wood, the Ends of which are pointed and faced with Iron; this they work 'till the Water abounds with a Lather, then they caſt into it a little Oil-Olive; to wit, one Pound into ſuch a Quantity of the Liquor as will yield ſeventy Pounds of *Indigo*, ſuch as we ſell; and as ſoon as the ſaid Oil is thrown in, the Lather ſeparates into two Parts, ſo that you may obſerve a Quantity curdled, as Milk is when ready to break; then they ceaſe working and let it ſtand to ſettle; which when it has done ſome Time, they open the Pipe or Cock of the Veſſel, in order to let the Water clear off, that the Fecula which is ſubſided may remain behind, at the Bottom of the Veſſel, like Dirt of Lees of Wine: Then taking it out they put it into Straining Bags of Cloth, to ſeparate what Water was left; then they convey it into into Cheſts or Boxes that are ſhallow, to dry it; and being dried, it is what we call *Indigo*, and that Name is given to this, in all Appearance, becauſe it comes from *India*. Sometimes the *Indians* make their *Indigo* in a Sort of Ponds, made in Form of a Baſon, which they prepare with Lime, that becomes of an equal Hardneſs almoſt to Marble.

Chuſe the *Indigo* of *Serquiſſe*, in flat Cakes, of a moderate Thickneſs, neither too ſoft nor too hard, of a deep Violet Colour, light, and ſuch as ſwims on Water, and when broken has no white Spots in it; and laſtly, ſuch as is copperiſh or reddiſh on being rubb'd with one's Nail, and has the leaſt Duſt or broken Pieces among it.

We have no Sort of Commodity liable to more various Ways of being ſophiſticated, or counterfeited, than *Indigo*, when it bears a good Price; which, if I ſhould attempt to relate, it would make a ſmall Volume of itſelf; but I do not think it neceſſary, ſince it is eaſy to diſtinguiſh that which is good from the bad, by what I have been directing about its Choice.

We have another Sort of this, call'd *Cheſnut Indigo*, or *Agra Indigo*, which is almoſt as good as the *Serquiſſe*; but as the Form does not recommend it to all the World, it is only in Uſe with the Dyers. There come to us, beſide this, ſeveral other Sorts of *Indigo*, which have no other Difference than what ariſes from the Places where they are made, and the different Seaſons and Age of the Herb from which they are made; for the *Indigo* made of the Plant of the firſt Gathering is better than that of the Second, and the Second better than the Third; the younger the Leaf is which is uſed, the finer the *Indigo* is, being of a more lively, ſhining, violet Colour.

The Uſe of the *Indigo* is for the Dyers and Laundreſſes, ſerving the laſt to put among their Linnen. The Painters uſe it to grind with White, for painting in Blue; for if it is uſed alone, and neat, it turns black; ground with Yellow it makes a Green. Some Confectioners and Apothecaries very prepoſterouſly employ this to colour Sugars to make Conſerves with, and Syrup of Violets, by adding ſome Orrice; but there is no danger of being thus cheated if the Syrup is bought of reputable Perſons.

10. *Of the other Sort of* Indigo.

THIS *Indigo* is alſo the *Fæculæ*, made from the *Anil*, which differs not from the former, but as it is made of the whole Plant, Stalk and Leaf; the beſt of which Kind is that which bears the Name of *Gatimalo*, which comes from the *Weſt-Indies*. It ought to be light, moderately hard, reddiſh upon one's Nail, ſuch as will ſwim upon Water; and, in ſhort, to come as near the other Kind as may be. The ſureſt Proof of its Goodneſs is its burning upon the Fire like Wax, and leaving only a little Aſhes behind.

The ſecond Sort of this *Indigo* is that of St. *Domingo*, which differs not from the Gatimalo, only that it is not of ſo lively a Colour. The third is the *Jamaica Indigo*, that is brought to *England*. The fourth is that of the *Leeward-Iſles*; all the Sorts are better or worſe, according as they are more or leſs neat and pure; for thoſe who make this, mix it ſometimes with Sand or Dirt; but the Cheat is eaſy to diſcover, in that the *Indigo*, which is fine and neat, will burn like Wax; and when this is burnt, the Earth or Sand will be left behind. M. *Tavernier* obſerves, in his Book, *Page* 242. that the *Indigo* Duſt is ſo ſubtile, and ſo penetrating, that thoſe who ſift it are obliged

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11

Dyers Weed

Woad

13

Turnfole

Curriers Sumach

to have their Face cover'd, and drink Whey very often: And to confirm this, and make good the Penetration of the *Indigo-Powder*, he ſays, having put ſeveral Times an Egg, in the Morning, near the Sifters of *Indigo*, and at Night breaking it, the Inſide has been all ſtain'd thro' with a blue Colour. This is uſed only by the Dyers.

Lemery.

Anil, Gili, ſive Nil, herba roriſmarini facie; or *Indigo-Herb* reſembling Roſemary, is a Plant of *Brazil*, about two Feet high, the Leaves round and pretty thick. The Flowers are like thoſe of Peaſe, reddiſh, and ſucceeded by long crooked Pods, containing in them Seeds like Radiſh-Seed, of an Olive Colour. All the Plant has a bitter piquant Taſte. Of this they make *Indigo* [*as deſcribed by* Pomet *before.*] The Leaf is reckon'd vulnerary, and proper to deterge and cleanſe old Ulcers, being applied to the Part in Powder; likewiſe there may be a Frontal made of it to aſſwage and abate Pains in the Head.

The *Indicum*, ſo call'd, becauſe this is prepared only in the *Indies*, is a blue Flower or Meal, brought from thence, made only of the Leaves of *Anil*, by the Means of Water and a little Olive-Oil, [*as taught before.*] There are ſeveral Kinds of it, but the beſt is that of *Serquiſſe*, call'd ſo from a Village of thar Name, where it is made. The next is that of *Agra*, made in Shape of a Cheſnut, from whence it is call'd ſo.

There is a Meal made of *Anil*, that is only diſtinguiſh'd from the *Indicum* ſpoken of before, as being made out of the entire Plant. Chuſe ſuch of this as is the lighteſt, neat, and clean, moderately hard, and of a fine bright Colour, and that will ſwim upon the Water, and flame in the Fire 'till it is almoſt all conſumed.

[The Plant from which *Indigo* is made, is the *Indigo vera Colatæ foliis utriuſque Indiæ.* Phil. Trans. 276. *Nil ſive Anil ſive Indigo Indica.* Hiſt. Ox. 2. 202. *Emerus Americanus Siliqua incurva.* Tourn. Inſt. 666. It is common both in the *Eaſt* and *Weſt-Indies.* It has been generally eſteem'd a Poiſon, and the Uſe of it is ſtrictly prohibited by the Electors of *Saxony*; ſome Phyſicians, however, have preſcribed it in the Jaundice and ſome other Caſes.]

11. *Of* Woad, *or* Dyers Herb, *and other Herbs uſed in* Dying.

Pomet.

THERE is cultivated in *France*, eſpecially near *Thoulouſe*, a Plant which is call'd in *Latin*, *Iſatis*, or *Woad*; and by the *French*, *Peſtel*, *Greſde*, and *Serech.* They make a Merchandize of this Plant, which bears ſome Reſemblance or Affinity to Indigo, not with regard to the Herb or Form it is brought in, for it looks like Earth; but as it is made from the Leaves of *Woad*, as the Indigo is made from Anil.

This *Woad* is very heavy; it is uſed by the Dyers. For making of it, the young Leaves are cut at the End of *February*, or at the Beginning of *March*, and then put into Places to heat and rot, moiſtening them with Water, and ſtirring them twice a Week; and when the Herb is reduced in a Manner to Dirt, and become dry, they put it into a Corner, and lay in its Place a ſecond Crop of the Leaves, which have ſprung up ſince this was rotting: When this Crop is rotted in like Manner, they put it to the firſt, and bring in a third Crop, and afterwards a fourth, for they continue cutting it 'till the End of *September*, at which Time they make the fourth and laſt gathering; and this it is which makes it of that bad Quality, and fills it ſo with Dirt; for the *Woad* made of the firſt Cutting is much more efficacious than that which is mix'd with what is cut in *September*, as well becauſe it is mix'd, as that the Leaves are much harder, and fuller of Sand and Gravel, occaſion'd by the Winds and Rain, which happen during that Seaſon.

The Dyers that uſe this Commodity, dry the Droſs or Scum of it; which, when dry, bears ſome Reſemblance in Colour to *Indigo*, and is ſold by the Name of *Endigo Flower*, which has given Occaſion to Authors that underſtood not the Commodity, to take this for true *Indigo*, as *Dalechamp* and others did. One may ſee by the preſent Deſcription, that it is poſſible of the young or firſt Leaves of this Kind of *Woad* to make a blue Flower, or Meal, like the *Indigo*. Beſide this *Woad*, they bring from *Picardy* a Plant which the Dyers call *Yellow-Weed*, and the *Latins Luteola.* We have alſo another Sort that comes from *Provence*, for the Uſe of the Dyers, the Leaves and Stalk whereof are green, which is what the *French* call *Serech*, from the *Arabian* Word *Sereth.* This Plant is likewiſe call'd *Dyers-Weed*, or *Small Broom*; and by the Inhatants of the *Canaries*, from whence it firſt came, *Oriſel.*

Beſide the Plants already mention'd, we bring from *Portugal*, eſpecially from a Place or Sea-Port call'd *Porto*, a certain Commodity, which is nothing elſe but Leaves and young Branches of a Tree we call, after the *Arabs*, *Sumach*, beat or pounded; and is the ſame that is often call'd by the Leather-Dreſſers, *Rouſſe.* This Commodity is in great Uſe among the Tanners, Dyers and Curriers, to dye green with.

The

The beſt *Sumach* for dying is that which is greeniſh and new. This Commodity obtains the Name of *Port of Port*, from the Place it comes from, being *Porto*. Beſide the great Uſe which the Dyers make of the Leaves of this, we uſe the Fruit, which grows in Cluſters, and is of a very fine red, and a ſharpiſh Taſte; it is an excellent Remedy for the Flux of the Belly, being boil'd in Water with the Pomegranate Bark. The Fruit, ſton'd and dried, are what we call *Sumach Berries*; they have the ſame Phyſical Virtues, except that they are not ſo ſtrong, becauſe of their being dried. They will not keep good above a Year, becauſe their Sharpneſs and Aſtringency are then loſt.

12. *Of the* Dutch Turnſole *in* Paſte *and in the* Cake.

THE *Dutch Turnſole* is a Paſte made, according to the beſt Information I can get, of the Fruit or Berry of a Plant which the Botaniſts call *Heliotropium Tricoccum*, or *Turnſole*, (which grows plentifully in ſeveral Parts of *Holland*) of *Perelle*, or a dry'd Earth that is brought from *Auvergne* in *France*, Lime and Urine: After having mix'd theſe four Drugs together, they put them into little Barrels that hold about thirty Pounds. Thoſe that make the *Turnſole* in Paſte, do not ſell it always ſoft, but ſometimes in Form of ſquare Cakes of Bread, which, after it is dried, is what we call *Turnſole* in the Cake; as when the Paſte is new made any Thing will mix and be hid in it, the *Dutch*, and others, ſeldom fail to throw in a Quantity of Sand, to encreaſe the Weight; and that's the Reaſon that the *Turnſole* in Cake, or that which is dried, is reckon'd better than the ſoft. This Cake *Turnſole* ought to be dry, of a Violet blue; and ſtriking a blue, and not a red Colour, on Paper.

It is uſed by the Dyers, Cardmakers, and others, inſtead of Indigo.

13. *Of* Turnſole *in Rags.*

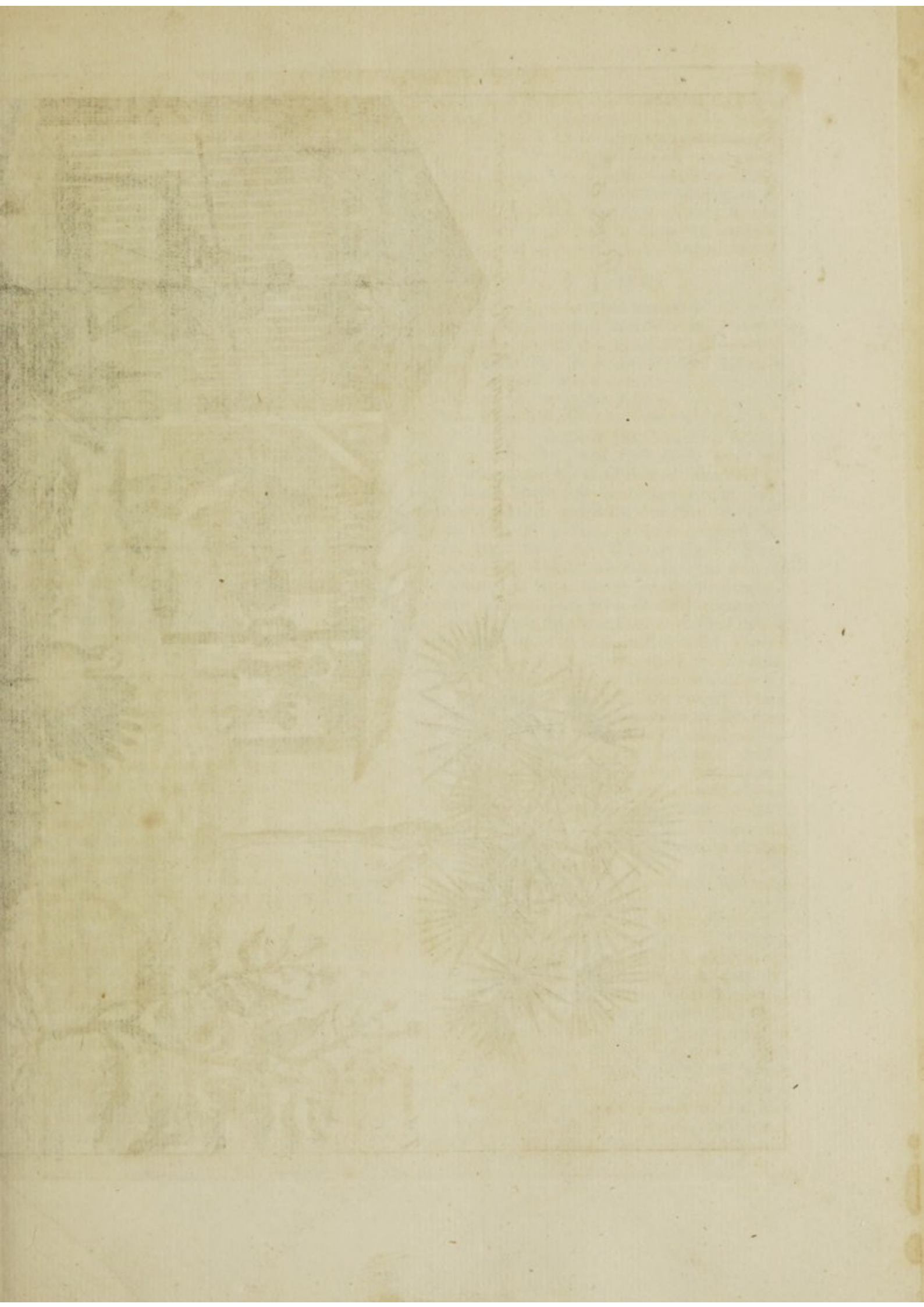
THE *Turnſole* in Rags, is ſo call'd becauſe it is nothing but Rags which have been colour'd red with the *Turnſole* Fruit, by the Aſſiſtance of ſome Acid. What is commonly ſold in the Shops is nothing but old Rags, or old Linnen, dipp'd either in the Juice of the blood-red Grape, or that of Mulberries, and ſo dried in the Sun: But this is a Cheat, or an Abuſe of the firſt Deſign; for the true *Turnſole* ought to be dipp'd in the Juice of the Berry of the Herb call'd *Turnſole*. This Plant, which we call *Turnſole*, the *Greeks* call *Heliotropion*, the Sun-Flower, becauſe its Flower always turns to the Sun. It bears Berries always three ſet together, not much unlike the *Palma Chriſti*; whence it is call'd by *Pliny*, *Heliotropium Tricoccum*, the *Turnſole* with three Berries, which, when they are at their full Maturity, have within them, between the outward Skin and the Kernel, or Seed, a certain Juice, or Moiſture, which being rubb'd upon Paper or Cloth, at firſt appears of a freſh and lively green Colour, but preſently changes into a Kind of bluiſh purple; and the ſame Cloth afterwards wet in Water or White Wine, and wrung forth, will ſtrike the ſaid Water orWine into a red or Claret Wine Colour; and theſe are the Rags or Cloth which are the true *Turnſole*, and ought to be ſold in the Druggiſts Shops, wherewith People colour Geilies, Conſerves, Tinctures, *&c.* as they pleaſe; as alſo to colour all Sorts of Spirits and the like, that have of themſelves no Colour.

[It is to be obſerved, that the Fruit of the *Turnſole* makes of itſelf a very fine blue, but on being touch'd with any Acid, it becomes red; therefore, when we have a Mind to try whether any Thing contains an Acid in it, we need to do no more than touch it upon ſomething that has been ſtain'd by this Fruit.]

Of the Turnſole *Rags from* Lyons.

That of *Lyons* is compoſed as the other, of Perelle, quick Lime, and Urine, to which ſome add a Tincture of *Brazil-Wood*, in order to give it a finer deep red. This is made frequently about *Lyons* and *Auvergne*; it ought to be deep-colour'd, and when rubb'd upon Paper the Colour very lively.

The *Iſatis domeſtica, ſive Glaſtum, Latifolium* of *Tournefort*, in *Engliſh*, *Lemery*. the *Broad leav'd Woad*, or *Dyers-Weed*, is a Plant that bears its Stalks three Feet high, as thick as the little Finger, round, hard, ſmooth, reddiſh, divided towards the Top into abundance of Branches, cloth'd with a great Number of Leaves, diſpoſed without Order, that are oblong and large as thoſe of Hounds-Tongue, without Hair, of a deep green Colour, and ſometimes tending to a Sea-green. The Branches are furniſh'd with a great many little Flowers, compoſed of four yellow Leaves, like a Croſs, tied by a ſlender Foot or Stalk. When the Flowers are gone there ariſe in their Places little blackiſh Fruit, divided into Tongues, flat on the Sides, containing each two oblong Seeds. The Root is about a Foot and a half or two Feet long, an Inch thick at the Top, and growing ſmaller by Degrees downwards, white and woody. It is cultivated



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Book 5.th

The Negroes Stringing & Rolling Tobacco.

cultivated in the hot Countries, particularly in *Languedoc*, near *Thoulouſe*. The Taſte is bitter and aſtringent. It yields abundance of Oil and fix'd Salt. There is made of this Plant a dry'd Paſte, in the Nature of an Extract, which is call'd *Paſtel*, or *Indian Flower*. This Plant is vulnerary, drying, aſtringent. Some People apply it to the Wriſt, after ſtamping it, to cure an Ague, or Intermitting Fever, in the Shaking or cold Fit.

The *Rhus*, or *Sumach*, is a Shrub which grows ſometimes the Height of a Tree. The Leaves are longiſh, large, indented on the Sides, and reddiſh. The Flowers diſpoſed in Bunches, of a white Colour, each of which makes a little Roſe of ſeveral Leaves; which being gone, there ſucceeds a flat Capſula, or Huſk, that is almoſt oval, membranous, and red, containing in it a Seed of the ſame Figure, which reſembles in ſome Degree a Lentil, of a reddiſh Colour. The Fruit has an acid aſtringent Taſte. This *Sumach* grows in ſtony Places, and is uſed ſometimes to ſeaſon Proviſions with; from whence it is call'd *Rhus culinaria*, or *Kitchen Sumach*. The Tanners make Uſe of the Leaves to tan Skins, thence it is call'd *Rhus Coriaria*, Tanners or Curriers *Sumach*. The Leaves and Fruit are both uſed in Phyſick; they are very aſtringent, proper in the Dyſentery, menſtrual Courſes, and Hemorrhoids, to ſtop Gonorrhœa's, and the like, being uſed in a Decoction, or in Powder.

The fine *Turnſole* in Rags, is made of Linnen Cloth died at *Conſtantinople*, with Cochineal and ſome Acids. The *Cotton Turnſole*, call'd *Portugal*, or *Spaniſh Wool*, is made from Cotton that is flatted the Size of a Crown, and dyed in *Spain* or *Portugal*, with *Meſtich Cochineal*. Both Sorts are made Uſe of to colour Liquors, Fruits, and Gellies.

There is another Kind of *Turnſole* that is made with Rags dipp'd in a red Tincture, prepared with the Juice of the Berry of *Turnſole*, and a little acid Liquor. It comes from *Holland*, *Languedoc*, *&c.* and is uſed to tinge Wines of a red Colour.

The *Turnſole* in Paſte, or in Cake, or *Stone Turnſole*, call'd likewiſe *Orſeil*, is a dry'd Paſte made up of the Fruit, *Perelle*, Quick Lime, and Urine; the Colour of the Paſte will be blue. The Dyers uſe that which comes from *Holland*, and they make it at *Lyons*, but it is not ſo good.

[The Herb from which *Woad* is made is the *Iſatis ſativa vel latifolia*. C. B. Pin. 113. *Glaſtum ſativum*. Ger. 394. The other two Herbs, call'd Dyers Weeds, are the *Luteola*. Ger. 398, and the *Geniſtella Tinctoria*. Ger. 1136. The *Sumach* is the *Rhus Coriaria*. 1291. *Rhus folio Ulmi*. C. B. Pin. 414. And the Plant, with the Berries of which the Linnen and other Things are ſtain'd for Uſe, is the *Heliotropium Tinctorium tricoccum*. Pluk. Alm. 182. *Ricinoides ex qua paratur Turneſol Gallorum*. Tourn. Inſt. 665. Each of theſe Herbs has a Place in the Catalogues of Medicinal Plants, and they have all their ſeveral Virtues, according to many Authors; but the preſent Practice takes no Notice of any of them.]

14. *Of* Tobacco.

TOBACCO is ſo called becauſe it is met with plentifully in the Iſle of *Tobago*; and by ſome it is called *Nicotiana*, becauſe Mr. *J. Nicot*, a *French* Embaſſador in *Portugal*, was the firſt that brought it into *France* to the Queen Regent, upon which Account it was likewiſe called the *Queen's Herb*. It is alſo called *Antartick Buglos*, becauſe it grows much in thoſe Iſles; and *Holy Herb*, from its great Virtues; and laſt of all *Petum*, from *Petun*, which is the Name that the *Indians* give it, and which was the firſt, and is the true Name for it. *Pomet.*

This Plant, at preſent, is very common in *France*, there being few Gardens where it does not grow: But I ſhall not entertain you with a long Account of it, it having been writ upon by ſo many Authors, who have eſteem'd it more or leſs, according as they have liked or diſliked it.

We have *Tobacco* in Leaf, in Roll and in Powder. That in Roll is diſtinguiſhed by ſeveral Names; as firſt, the *Brazil Tobacco*, which is a black *Tobacco*, of the Size of one's Finger The ſecond is in a dry reddiſh Leaf, roll'd the Thickneſs of a large Cane, and is call'd *Sauſage-Tobacco*, from being like a Sauſage in Shape. And there is another Sort in this Form that comes from *Holland* The third Kind is that call'd *Dieppe Tobacco*, and is a little black Roll, of the Thickneſs of a Child's Finger, or thereabout. There are ſeveral other Sorts of *Tobacco*, as thoſe of *Virginia*, *St. Domingo*, *&c.*

As to the *Tobacco* in Powder or Snuff, ſcented and unſcented, there are ſo many Sorts, it is impoſſible to treat of them all; for which Reaſon I ſhall ſay nothing of them; but content myſelf to relate what Father *du Tertre* has writ about the *Tobacco Plant*, which is, That the Inhabitants of the Iſlands commonly cultivate four Sorts of *Petum*, or *Tobacco*, namely, *Green Tobacco*, *Tongue Tobacco*, *Amazonian Tobacco*, and *Muſk Tobacco*. The Savages call all *Tobacco*, without Diſtinction, *Yoly*. The *Green Tobacco* is the moſt beautiful, and of the fineſt Figure. The Leaves are a Foot broad, and two Feet long, but it is commonly very ſubject to Decay, and not reckon'd of any great Account. The *Tongue*

Tobacco, is ſo call'd becauſe the Leaves grow in the Shape of a Tongue, is very much eſteem'd, becauſe it is not at all ſubject to waſte away and damage. Theſe two firſt Sorts are what are moſt commonly ſold. The *Venice*, or Muſk *Tobacco*, is much leſs than the two former. The Leaves are a little rougher, more wrinkled, and pointed at the End, than the others. It is, in Proportion, the leaſt of all, and is the moſt inclinable to decay, yet the moſt valued, and the deareſt, becauſe the Leaves have not only a Muſk Scent, but the Smoke is perfum'd in the burning of it, with a very agreeable Odour, as that of the other *Tobacco* is unſupportable to a great many People. But what is further remarkable, is, that one Plant of this muſk'd *Tobacco* will communicate its Virtue to four others, ſo as to make them paſs for the ſame; which is uſually practiſed in the Places from whence it comes. Tho' the Manner of cultivating, and afterwards making *Tobacco*, be commonly known among the Inhabitants where it grows, it may yet be ſatisfactory to a great many curious Perſons in theſe Parts of the World, to have as ſuccinct an Account writ of it as may be.

They firſt of all ſow the Seed, which is mix'd with five or ſix Times as much Aſhes. After they have ſown the Seed well, and that it begins to riſe or ſpring out of the Ground, they cover it every Morning with Branches of Trees, to defend it from the ſcorching Heat of the Sun, which would burn it up before it was ready to tranſplant. They make ready the Garden where they deſign to raiſe the *Tobacco*, by clearing, ſtubbing, cutting, and burning the Wood that is upon the Ground, and freeing it entirely from all Sorts of Weeds. When the Garden is ready, they remove the Plants in a rainy or wet Seaſon, and plant them down again at about three Foot diſtance from each Plant to another every way, that it may have Room to ſpread, without the Leaves touching one another, ſo as to make them rot and corrupt. After the *Tobacco* is thus planted out, Care muſt be taken from Time to Time, to prevent the Weeds from over-powering it. When the Plant is ready to flower, they ſtop it ſhort, by cutting it about Knee-high; then pull off the Leaves underneath that hang on the Ground, ſo that they leave behind about 10 or 12 Leaves upon a Stalk, which being weeded or howed diligently every ſeven or eight Days, all that Time cleanſing away all Weeds, the ten or twelve remaining Leaves will be prodigiouſly encreaſed, and become as thick as a good Skin. To know and try whether it be ripe, they rumple or fold a Leaf in their Fingers, if it break in touching, it is ready to cut: Being cut, they leave it ſpread upon the Ground; after which they ſtring it upon Cords, ſo that the Plants may not touch one another; and ſo they leave it to dry in the Air, fifteen Days or three Weeks: They then pull off the Leaves from the Stalks, and take out the middle Rib, and moiſtening them a little with Sea Water, twiſt them into a Sort of Rope, and afterwards roll them up together.

They make, by Diſtillation of *Tobacco* with Flegm of Vitriol, a Liquor that is emetick, or very vomitive, and proper to cure Itch and Scabs, by rubbing lightly with it. There is a black fetid Oil diſtill'd from it, by Means of a Retort, which is much of the ſame Nature. There is likewiſe a Salt made of it that is Sudorifick, to be given from four Grains to ten, in any convenient Liquor.

There are ſeveral other Sorts of Leaves, which we may ſell if they come to Hand, as *Betel*, or *Tembul*, which are the Leaves of a creeping Plant, of which the *Indians* make a Kind of Troches with *Areca* and burnt Oyſter-Shells, but this Leaf ſeldom is brought into *Europe*. The *Coca*, which is the Leaf of a ſmall Shrub, pretty like the Myrtle, which the *Weſt-Indians* uſe as the *Eaſt-Indians* do *Betel*, and the *Europeans Tobacco*. The Inhabitants of *Peru* uſe the Leaves of *Coca* two different Ways; the firſt, in making a Comfit of it with burnt Shells, to ſecure them from Hunger and Thirſt in a Journey; the ſecond, in mixing it with Leaves of *Tobacco*, which makes them as if drunk or mad, and ſets them on a thouſand Extravagancies.

The *Alcana*, or *Cyprus*, are the Leaves of a Plant which grows plentifully in *Ægypt*, and the *Levant*, and which the *Indians* employ in painting their Nails and Hair yellow, infuſing it in Water; and to paint red, putting it in Vinegar, Juice of Citron, Alum-Water, or any other Acids. The *Ægyptians* make an Oil of the Berries of this Plant, which is call'd *Cyprus* Oil, very fragrant, and proper for relaxing and ſoftning the Nerves. Several Perſons have aſſur'd me, that the *Alcana*, or *Ægyptian Cyprus*, is that which the Botaniſts call *Liguſtrum Ægyptiacum*. There are ſeveral other Medicinal Herbs, which the Druggiſts do not deal in, becauſe the Herbſellers furniſh the Apothecaries with what they have Occaſion for.

In Places where there are none of theſe Herbſellers, the Apothecaries have often a great deal of Trouble in ſending to a great Diſtance for a ſmall Quantity of any Herb they want, but they have the Advantage of knowing the Herbs much the better for it, and of uſing the right Plant, whereas the Herbſellers frequently ſell one for another.

Beſides

Beſides theſe Herbs, we ſell a great deal of a ſmall Seed, of a deep red Colour, no bigger than a Pin's Head, which is found upon the Root of the large *Pimpernel*, which the Dyers uſe by the Name of Seed *Cochineal*, and ſometimes Wood and wild *Cochineal*. This *Cochineal* ſhould be choſen freſh, dry, large, high in the Colour, and the cleaneſt that can be got.

The Plants that come under the Catalogue of Drugs, are *Scordium*, Mountain *Calamint*, *Germander*, *Chamæpitys*, White *Hore-hound* or *Marrubium*, *Southern-wood*, the great and ſmall *Wormwood*, *Ceterach* or *Spleen-wort*, *Betony*, *Avens*, *Camomil*, *Periwinkle*, *Hemlock*, *Hart's-Tongue*, *Hound's-Tongue*, *Agrimony*, *Rupture-wort*, *St. John's Wort*, the great and leſſer *Centaury*, *Melilot*, *Mugwort*, *Mint*, *Baum*, *Baſilicum*, *Origanum*, *Savory*, *Hyſſop*, *Scabious*, *Thyme*, and ſeveral other Herbs treated of ſo largely by all Botaniſts, that it will be unneceſſary to ſay any Thing further. We do not ſell theſe Herbs in the Druggiſts Shops, becauſe of the Herb-ſellers; but we ſell the fix'd, eſſential, and volatile Salts, eſpecially thoſe of *Carduus*, *Wormwood*, *Mugwort*, *Centaury*, *Baum*, *Sage*, *Roſemary*, *Succory*, *Scurvy-graſs*, *Benn*, and ſeveral other Sorts. But as to the Choice of theſe Salts, that honeſt People may not be cheated in the Purchaſe of them, which is too frequently done by the Chymiſt and Druggiſt, who inſtead of any of theſe Salts, give 'em either Salt-Peter, Salt of Tartar, or Sal-Polychreſt, which they put into ſo many different Bottles, and write the Names of the ſeveral Salts upon them: Therefore, I ſay, to hinder them from being cheated, let 'em throw any of theſe Salts upon lighted Charcoal, and if they fly off, or ſparkle in the Flame, it is certain they are mix'd with Salt-Peter; but it is not ſo eaſy to diſcover the Tartar, but only that this Salt is not ſo ſoft to the Touch, as theſe vegetable Salts.

Nicotiana, in *Engliſh*, *Tobacco*, is a Plant whereof there are principally three Kinds, the firſt is call'd, by *C. Bauhinus* and *Tournefort*, *Nicotiana major latifolia*, the broad-leav'd *Tobacco*, and by *Parkinſon*, *Tobacco latifolium*. There are a great many other Names more curious than inſtructive, which I ſhall paſs by: This firſt Kind bears a Stem of about five or ſix Foot high, as thick as a Man's Thumb, round, hairy, full of white Pith; the Leaves are broad, and larger than thoſe of *Enula Campana*, without Stalk, a little pointed, ſtringy, of a pale, green Colour, glutinous in touching, of a ſharp burning Taſte: Mr. *Tournefort* ſays, that the Top of the Stem is divided into ſeveral Sprigs, that ſuſtain Flowers made like Bells, cut or ſeparated into five Parts, of a purple Colour; when the Flowers are gone, there is a huſky, oblong Fruit ſucceeds, that is partition'd into two Cells, containing in them a good deal of ſmall, reddiſh Seed: The Root is fibrous, and of a very biting Taſte; the whole Plant is of a ſtrong Smell. *Lemery.*

The ſecond Sort is call'd *Nicotiana major anguſtifolia*, the great Narrow-leav'd *Tobacco*, or *Hyoſcyamus Peruvianus*; in Oppoſition to the firſt, call'd *Hyoſcyamus latifolius Peruvianus*, the *Peruvian Henbane*. It differs only from the other, in that the Leaves are narrower, ſharp-pointed, and hang to the Stem by longer Tails or Stalks.

The third Sort is call'd *Nicotiana minor*; the ſmall Tobacco, by *Bauhinus*, *Tournefort*, and *Ray*, and by *Parkinſon*, *Tobacco Anglicanum*, the *Engliſh Tobacco*. It bears a Stalk a Foot and Half, or two Foot high, round, hard, hairy, the Thickneſs of one's Finger, ſometimes branchy, glutinous to the Touch, and carries its Leaves, rang'd alternately, oblong, thick, and of a browniſh, green Colour, hanging upon ſhort Stalks; the Flower, Fruit and Seed, are like the firſt Sort, but the Flowers more inclinable to a yellowiſh Purple; the Root about a Finger's Thickneſs, and ſometimes divided into white Fibres, that ſpread themſelves round in the Ground. Tobacco is cultivated in fat, rich Land in Gardens, and yields Abundance of a ſharp, biting Salt, both fix'd and volatile.

It purges upwards and downwards, with a great deal of Violence, in the Apoplexy, Palſy, Lethargy, Suffocations of the Womb, and in the Aſthma taken by the Mouth, or being fomented with it; applied outwardly to the Part, or ſmoak'd, it relieves the Tooth-ach; in Powder or Snuff it purgeth the Noſtrils, and excites Sneezing, and is a very good vulnerary, the Leaf, Ointment, or Powder, being applied to the Wound.

[The *Tobacco* of the Shops is the Leaf of the *Nicotiana major latifolia*. C. B. P. 169. *Hyoſciamus Peruvianus*. Ger. 285. It is common in the Gardens of the Curious, and flowers in *June*; the Species call'd *Engliſh Tobacco*, is the *Priapeia quibuſdam Nicotiana minor*. J. B. 3. 360. *Hyoſcyamus lutæus*. Ger. 284.

In Regard to the other Things mention'd in this Chapter, the *Betle* is the *Beetla Codi Hort.* Mal. 7. 29. *Piper longum foliorum Nervis decurrentibus, tenuioribus et mollioribus Betle dictum.* Hiſt. Ox. 3. 603. But as neither this, nor the others that follow it, ever come into the Druggiſts Shops, and the Herbs are Part of that Claſs of the *Materia Medica*, which is entirely in the Hands of the Sellers of Medicinal Herbs, I ſhall not trouble the Reader with a particular Account of them here.

For the *Coccus infectorius*, here call'd *Seed Cochineal*, see the Chapter of *Cochineal.*]

15. *Of* Coral.

Pomet. CORAL, according to Mr. *Tournefort*, is a Plant that grows at the Bottom of the Sea; it has no Leaf, nor is yet known to have Flower nor Seed; nevertheleſs it ſticks to the Rocks by a Kind of a Root, and is cover'd with a Bark that is adorn'd with Pores like Stars, nearly to the Bottom; it is divided into Branches, and diſcovers Rays that have ſome Analogy to Fibres: In ſhort, it is undoubtedly encreaſed by its Seed, which is the Opinion countenanced by all thoſe that rank *Coral* among the Number of Plants. It is agreed, at this Day, that it is hard in the Sea; the Softneſs of the Bark or Cruſt, which is ſmooth, and almoſt oily, has, perhaps, deceiv'd thoſe who have aſſerted that this Plant was ſoft. The Bark is a tartarous Cruſt, red upon the red Coral, and white upon the white: The Extremities, or Ends of the Branches, are ſoft, and alſo produce little Balls, the Size of a red Gooſberry, divided commonly into ſix Cells, fill'd with a white Humour like Milk, like that of the Tithymale; it is fat, acrid, and aſtringent. Theſe little Balls are commonly call'd Flowers of Coral, but ought, with more Reaſon, to be nam'd the *Caſpulæ* of the ſaid Plant: For our modern Authors have obſerv'd, that the white Juice which they yield, produces the Coral Plants on any Bodies upon which it falls; and beſides the Coral they ſhew at *Piſa*, which ſticks naturally upon a human Skull, I have a pretty large Piece that grew upon a broken Piece of Earthen-ware.

There are properly but three Sorts of Coral uſed in Phyſick, namely, the red, the common white Coral, which has ſome Reſemblance to the red or fleſh Colour, ought to be judg'd a Species of this; the true white Coral, which differs not from the red but in Colour; this is the ſcarceſt and deareſt: In its Place they uſe commonly that Sort for the white, which *J. Bauhinus* calls *Corallium Album Officinarum Oculatum*, the white Coral of the Shops, that is full of Eyes: The black Coral, called *Antipathes*, is of no Uſe at all: It ſeems indeed of a different Nature from all the others.

They fiſh for Coral in the *Mediterranean*, on the Coaſt of *Provence*, near *Toulon*, or *Cape Creuſe*, betwixt *Colioure* and *Roſes*, upon the Coaſt of *Catalonia*, in the *Streights* which are betwixt *Sicily* and *Italy*, towards the *Baſtion* of *France*, and in ſome other Parts; as on the Coaſt of *Sardinia*, and thoſe of the Iſles of *Corſica* and *Majorca*. The Coral-Fiſhing, according to Mr. *Tavernier*, is from the Beginning of *April* to the End of *July*, in which they uſually employ two hundred Barks, ſome Years more, and ſome Years leſs.

As the Coral grows in the hollow Rocks where the Sea is deep, this is the Artifice they uſe to get it up. The Coral-Fiſhers tye two Beams of Wood acroſs, and hang a good Piece of Lead in the middle, to ſink them; then they tye Tufts of Hemp about the Beams, which are ſlightly or careleſly twiſted, about the Thickneſs of one's Thumb, and tye the Beams with two Cords; the one to hang at the Prow, and the other at the Stern of the Bark; ſo that the Pieces of Wood are left at the Bottom to run along the Rocks, and catch hold of the Coral in their Paſſage: It is neceſſary, ſometimes, to make Uſe of five or ſix Boats to get up the Beams; and during that Time, if one of the Cables happen to break, they are all in Danger of being loſt; there is a great Riſk in the taking the Coral out, that ſome does not fall into the Sea; and the Bottom being uſually full of Mud, the Coral is apt to be deſtroy'd as the Fruits of the Earth by Worms; ſo that the ſooner the Coral is got from the Filth of the Sea, the leſs it is damag'd.

Of all the Corals the red is moſt in Uſe, as well for Medicine as other Things; and People that value Coral, the *Japoneſe*, and other Nations, moſt eſteem the red Coral; which to be in its Perfection ought to be thick, ſhining, in fine Branches, and of a beautiful red; the little Pieces, and ſuch as are cover'd with a cruſty Matter, ought to be rejected; nevertheleſs, when that is reduced to Powder, it is every whit as efficacious as the finer. By Means of certain Acids, they make a Tincture of red Coral, which is afterwards reduced to a Syrup, which is reckon'd an admirable Cordial, and uſeful to purify and cleanſe the Maſs of Blood. There is likewiſe a Magiſtery, and Salt, made of this; but the moſt common Way of uſing it is, reduced to an impalpable Powder, by levigating it upon a Marble with Roſe-Water, *&c.*

16. *Of* Black Coral.

AS to the black Coral, the true Kind is ſo rare, that it is almoſt impoſſible to meet with it; for all that we now have, is only a Sort of Plant that is petrified in the Water, which ſome have call'd *Antipathes*; but it is entirely different from the true Coral, being very light, and more like Horn than Coral; whereas the true Sort is heavy, of a reddiſh black Colour, and very rough; with the utmoſt Diligence I have

have only been able to meet with one Piece of this, and that no bigger than the End of one's Finger; tho' I have a Piece of the common black Coral, of about two Foot long. As to the *Coralloides*, it is nothing elſe but white Coral that is not brought to its Perfection, and is of no Manner of Uſe; yet it is ſometimes ſold inſtead of the White, tho' it is eaſy to diſtinguiſh, it being large, light, and imperfectly form'd.

17. *Of* Coralline, *or* Sea-Moſs.

THE Coralline, or Sea-Moſs, is gather'd from Rocks, or Shells, in the Sea, to which it grows; there are ſeveral Sorts of it to be met withal; but that which is uſed in Phyſick comes from the *Baſtion* of *France*, and other Parts of the *Mediterranean*. *C. Bauhinus* calls it, *Muſcus Maritimus, ſive corallina Officinarum.*

This Moſs or Coralline, is of ſome ſmall Account in Medicine, as it is ſaid to have a Quality to deſtroy Worms: As to the Choice, it ought to be greeniſh, ſmelling and taſting of Sea Water, and the moſt free of Dirt and Filth that can be got.

Corallium, *Lithodendrum*, or Coral, *Lemery.* is a ſtony Plant, that is found growing to Rocks, at the Bottom of the Sea, and cruſted over in the Nature of Stone. The chief of what is ſold comes from ſeveral Parts of the *Mediterranean*. There are three Sorts of it, red, white, and black.

The *Corallium Rubrum*, or red Coral of *C. Bauhinus*, grows commonly three or four Fingers high, but ſuch Corals as are found of any conſiderable Length, are kept in the Cabinets of the curious; it bears ſeveral Branches without Leaves, that are very hard, ſmooth, ſhining, and of a fine red; the Root is rocky, and of the ſame Hardneſs: This Coral is the moſt uſed and eſteem'd in Phyſick; chuſe ſuch as is all of a Piece, poliſh'd, ſhining, and of the higheſt Colour.

The ſecond Sort is white Coral that grows much about the ſame Height. There are two Kinds of this, one call'd *Corallium Album*, *Oculatum*, which is a little ſtony Plant as the former, the Ends of whoſe Branches are round, and repreſent, in a Manner, little Eyes. The other is call'd *Corallium Aſperum*, the rugged Coral; this is a little ſtrong Shrub, about a Hand high, that is ramoſe, rough, white, full of Pores, or little Holes, and much lighter than the former; this laſt grows not only in the *Mediterranean* but in the red Sea, and is of ſmall Account in Phyſick.

The third Kind of *Coral* is call'd by *C. Bauhinus*, *Corallium extra rubens intus nigrum*, or red Coral without and black within, but this is very ſcarce; and there is ſubſtituted in its Stead a falſe black Coral, call'd *Antipathes*, which is a ſtony Sea-Plant, which is uſually cover'd in the Sea with a Sort of Bark or tartarous Cruſt, of the ſame Colour. When the Corals are young and tender, the Ends of their Branches are found divided into little Balls, of the Size of a ſmall Gooſeberry, that are ſoft, and diſtinguiſh'd uſually into ſix little Cells, full of a milky Liquor, that is of an acrid ſtyptick Taſte, and theſe are call'd Coral Flowers.

Others ſay, but improperly, that Coral, while under Water, is green and ſoft, but when it once comes into the open Air, it changeth both its Colour and its Nature, and from its Greenneſs becomes of a very delightful beautiful Red, and from its Softneſs, of a compacted Firmneſs, that is hard and durable. It ſprings up naturally, reſembling a Plant or Shrub, adorn'd with many pretty Branches. The red is beſt, and of that the reddeſt, the paleſt being of leſs Uſe; but in Medicines a ſmall Sprig Sort is taken for Cheapneſs. The white is next in Goodneſs; the beſt of which is that which is pure, white, and clear, almoſt tranſparent, free from Droſs, and ſomething reſembling white Wax. The black is not valued, yet the greateſt Rarity of them all. It is obſervable, that red Coral, infuſed two or three Days in white Wax, melted upon hot Embers, and pour'd an Inch over it, loſes its Colour, and the Wax becomes yellow. Freſh red Coral put into the ſame Wax, in the ſame Manner, becomes brown; and freſh red Coral put in like Manner into the ſame Wax the third Time, makes the Wax become red; for the Wax diſſolves, and draws forth Part of the red ſulphureous Particles lying on the Surface of the Coral.

Coral is prepar'd by levigating it on a Marble into a fine ſubtile Powder. It is cooling, drying, and aſtringent, ſtrengthens the Heart, Stomach and Liver, abſorbs Acidities, purifies the Blood, reſiſts the Plague, and the Force of putrid and malignant Fevers; ſtops Fluxes of the Belly, and is profitable in the Gonorrhœa and Whites. It is ſaid to prevent the Epilepſy in Children, being firſt given in the Mother's Milk as ſoon as the Child is born. It ſtops bleeding, helps in Difficulty of Urine, and is prevalent againſt the Stone in the Bladder, and the bloody Flux. Doſe from a Scruple to a Dram, in any proper Liquor. Outwardly it helps Ulcers, filling them with Fleſh, and cicatrizing; in Collyries it helps the Eye-Sight, ſtops the Weeping of the Eyes, and abſorbs the watry ſharp Humours.

Of

Of this there is a Tincture made with Spirit of Vinegar, or Juice of Lemons, and from thence a Syrup, Magiſtery, and Salt prepar'd; but they are all forced unnatural Preparations. And crude Coral, reduced to ſuch an impalpable Powder, as aforeſaid, is far ſuperior to all the other Preparations of it.

Corallina, call'd Coralline, or hard Sea-Moſs, s of ſeveral Kinds. That which we now uſe in Phyſick, is call'd *Muſcus Marinus, ſive Corallina Officinarum*, Sea-Moſs, or the Coralline of the Shops. This is a little buſhy Plant, which grows about three Fingers high, bearing a great many little Stalks, that are as fine and ſlender as a Hair, ſtony, and furniſh'd with very little Leaves, of an aſh-colour'd green, and a fiſhy Smell, the Taſte being ſalt and diſagreeable, cracking or crackling betwixt the Teeth like ſmall Stones, and being ſubject eaſily to be bruiſed betwixt the Fingers. Chuſe ſuch as is whole, clear, of a whitiſh green Colour, and very ſtrong Smell. It yields a good deal of Salt and Oil. It is proper to kill Worms, ſuppreſs Vapours, provoke Womens Courſes, and ſtop Fluxes of the Belly. Doſe, in fine Powder, from half a Dram to a Dram.

The *Coralloides* is a Plant that is but petrified in Part, having the Appearance of a little Shrub, but without Leaves. There are ſeveral Sorts of it, which vary in Size, Shape, Hardneſs, and Colour. They are all uſually aſtringent as to Paſſage by Stool, and aperitive by Urine, but of no great Vogue in Phyſick. It is call'd *Coralloides*, as being ſomething like Coral in Figure and Hardneſs.

Other Authors deſcribe the Coralline to be a hard ſtony Moſs, growing uſually on Rocks, in or near the Sea, riſing either from the Stones thereof, or from the Shells of Scallops, Oyſters, and the like. It grows ſcarce a Hand high, ſpreading forth ſeveral ſmall Branches, like a green Herb, with many ſmall ſhort Leaves like Hairs. It is gather'd on all the Weſtern Coaſts, and the Northern Parts of *Europe*, and is found growing in little white Threads, faſten'd to the Rock or Shell it ſprings from, as Moſs to a Tree; and if good, is very white, in little Strings, like the Unravelling of coarſe Linnen Cloth, ſome an Inch long, ſome ſhorter, ſome longer, of an unpleaſant Taſte and Smell.

[The red Coral is the *Corallium rubrum majus.* Park. 1299. *Corallium verum.* Boet. 318. the White the *Corallium album majus.* Park. 1300. *Corallium album.* Tourn. Inſt. 527. and the Black the *Corallium nigrum.* C. B. Pin. 366. *Keratophyllum arborum nigrum.* Boerh. Ind. Alt. 6. *Lithophyton nigrum arboreum.* Tourn. Inſt. 574. The Red is taken out of the *Mediterranean*, the White moſtly out of the *Sicilian*, and the Black out of the *American Seas*; the Red is uſed in Medicine very much; but all its Preparations, except that of lœvigating it into an impalpable Powder, are now entirely out of Uſe.]

18. *Of* Spunges.

SPunges are a Kind of *Fungus*, or Sea *Muſhrome*, which are found ſticking to the Rocks in the Sea. I ſhall not detain the Reader to give an Account of what a Multitude of Authors have ſaid concerning Spunges; ſome ſaying that they are Male and Female, others that they are neither Plants nor Animals, but both, that is *Zoophytes*, which partake of the animal Kind, and that of Plants too. There are two Sorts of Spunges ſold, namely, the fine, which are thoſe the Antients call'd the Male; and the coarſe which are the Female. The greateſt Part of the Spunges that are ſold comes from the *Mediterranean*, and there is a certain Iſland of *Aſia*, that furniſhes us with a very large Quantity of Spunges. This Iſle is call'd *Icarus*, or *Nicarus*, where the young Men are not allow'd to marry, 'till they ſhew that they can gather Spunges from the Bottom of the Sea; and for this Reaſon, when any one would marry his Daughter, a Number of young Fellows are ſtripp'd and jump into the Sea; and he that can ſtay longeſt in the Water, and gather the moſt Spunges, marries the Maid. The People of this Iſland pay a Tribute to the Grand Signior in Spunges. *Pomet.*

The finer the Spunges are, the more they are eſteem'd, and thoſe are reckon'd beſt that are faireſt, cleareſt and lighteſt, whereof the Holes are ſmall, and the leaſt full of Stones, that may be; as to the coarſe Sort, the nearer they approach to the fine, the more they are valued.

The Uſe of Spunges is ſo well known, it would be unneceſſary to give any Deſcription thereof; after they are prepar'd, by cutting into ſizeable Pieces, and put into melted, white Wax, and afterwards preſſed, they are ſold to Surgeons, and other People, by the Name of prepar'd Spunges. They are uſed to dilate the Orifices of Wounds: They are likewiſe calcin'd to make a Powder for the Teeth: The large or coarſe Spunges have a Sort of little Pebbles, and other extraneous Bodies in them; to which, when reduced to Powder by Calcination, they aſſign a Property of curing the Gravel: Some Authors call theſe Stones by the Name of *Cyſtheolithos*, and affirm that ſuch of 'em as are to be found in Shape of an Almond, being

The White Squill.

The Red Squill.

Pancratium.

20

Pot-ashes or Kali.

being pounded and mix'd in any proper Vehicle, are uſeful to deſtroy Worms in Children.

Lemery. The Spunge is a Kind of Muſhroom which grows to the Rocks in the Sea, of which there are two Kinds, [as *Pomet* has deſcrib'd them already.] But though it is taken from the Sea, Authors have not yet determin'd in what Claſs to place it; ſome thinking it to be neither Vegetable, Mineral, nor Animal; others, that it participates of them all: Some again place it between Animals and Vegetables, and think it partakes of both of them, for that it has an active Quality to dilate itſelf, and ſhrink up together, when in the Sea, and therefore they will have it to be a Plant Animal; becauſe in its Nature it comes near both to that of an Animal and alſo to that of a Plant.

The moſt Part of Spunges that we uſe are brought from *Smyrna*, *Aleppo*, and other Places in the *Levant*. Thoſe which are fine, ſmooth, ſoft, and not too full of large Holes in them, are ſaid to grow in the *Archipelago*. Thoſe which are large, fine, cloſe, and lively colour'd, whether white or yellow, are accounted the beſt. The worſt Sort are of a dirty Colour, rugged on the Surface and hard, with ſmall gritty Stones ſometimes in them. The Spunge is of an alkalious Nature, and is good againſt Pains of the Stomach, Gripings in the Bowels, and the Cholick; and is ſuppos'd to be a Specifick againſt the Stone and Gravel in the Kidneys or Bladder, or any Obſtructions in the Urinary Paſſages. The chief Uſe of it is in a Powder calcined.

The Spunge-Stone is found in thoſe Places where Spunges are found, and is made of the Matter of Spunges petrified or harden'd. *Schroder* ſaith, that it alſo grows in Spunges, and is a brittle Stone, white or grey. It is attenuating without much Heat, and is good to break the Stone in the Kidneys and Bladder, and to diſcuſs Tumours of the King's-Evil, being drunk every Morning in Urine, or in Wine, with *Sal Gem* and *Tartar*. The levigated Powder abſorbs Acids, deſtroys the Matter breed ng the Stone and Gout, cures Heart-burnings, and violent Pains in the Stomach.

[The Spunge uſed in Medicine is the *Spongia Globoſa*, C. B. Pin. 368. *Spongia marina alba*, Ger. 1383. *Spongia marina veſicalis*, Park. 1303. It is found growing to Rocks, Shells, and other Subſtances, in the Sea.

The Spunge Stone is the *Lapis Spongiæ*, Boet. 407. *Lapides in Spongiis*, Mathiol. 1390. *Spongit s*, Aldrov. Muſ. Metall. 671. It is a porous, brittle Stone, of a pale greyiſh Colour, found in and about the large Pieces of Spunge, but never uſed now in Medicine.]

19. *Of* Squills.

SQUILLS are Sea Onions, which are brought from *Spain*, *&c.* where they grow plentifully, eſpecially on the Sea Shore; great Quantities alſo come from *Normandy*, eſpecially about *Roüen*. They are of different Sizes and Colours; but thoſe we commonly have are the red *Squills*, which the Antients call'd the Female. The white were known by the Name of the Male *Squill*; but we meet with very few of them. Theſe Onions bear broad, large, long, green Leaves, and Flowers, like Stars, of a fine white Colour. *Pomet.*

Chuſe ſuch Roots, or Bulbs, as are ſound, heavy, freſh, and full of Juice, and beware of thoſe that are decay'd towards the Head, to which they are ſubject. They are made Uſe of in the Shops for making Vinegar and *Oxymel* of *Squills*, and Troches for Treacle, and likewiſe in ſome Ointments and Emplaiſters. Several Perſons have aſſur'd me, that the *Squills* which we have from *Normandy*, are thoſe that the *Botaniſts* call *Pancratium*.

The *Squills* are reckon'd, eſpecially the Heart, to be Poiſon; for which Reaſon they ſplit them in two, throw away the dry Leaves, and the Heart; and the middle Part betwixt both, they expoſe to the Air to dry; and being thus prepar'd, they make Uſe of it, as aforeſaid, to make Vinegar, Honey, Wine, *&c.*

Lemery. *Scilla*, or the *Squill*, is a kind of *Ornithogalum*, or a Plant, whereof there are two Sorts. The firſt is the *Scilla major*, or *Scilla rubra magna vulgaris*, the great, common, red *Squill*, call'd by *Tournefort*, *Ornithogalum maritimum*, *ſeu*, *Scilla radice rubrâ*, the Sea-Onion, or red-rooted *Squill*; and by *Parkinſon*, the true *Pancratium*. It bears Leaves of above a Foot long, almoſt as broad as a Man's Hand, fleſhy, very green, full of a bitter viſcous Juice: From the Middle riſes an upright Stalk, of about a Foot and a Half high, bearing on the Top, Flowers compos'd of ſix white Leaves, that are form'd round; which, when gone, are ſucceeded by a Sort of roundiſh Fruit, rais'd with three Corners, and divided within into three Partitions, which are fill'd with black Seed. The Root is an Onion or Bulb as big as a Child's Head, compos'd of thick Coats or Spheres that are red, juicy, viſcous, and encompaſſing one another, having at the Bottom ſeveral thick Fibres.

The ſecond Sort is call'd *Scilla maſcula*, the Male *Squill*, or *Scilla minor*, *ſeu Scilla radice albâ*, the leſſer *Squill*, or that with the white Root. It varies from the former, in that the Roots and Leaves

Leaves are not ſo large; beſides, this is white, and leſs common. Both Sorts grow in ſandy Places, near the Sea, in *Spain*, *Portugal*, *Sicily*, and *Normandy*. We have them brought to us of all Sizes. They contain a great deal of eſſential Salt, ſome Oil and Flegm, and a little Earth.

They are hot and dry, ſharp, bitter, attenuating, inciding, abſterging, diſcuſſing, alexipharmick and diuretick; powerfully cleanſe the Stomach, open Obſtructions of the Liver, Spleen, Gall, Meſentry; provoke Urine and the Terms, carry off ſlimy tartarous Matter from the Lungs; for which Reaſon they are accounted good againſt Colds, Coughs, Wheezings, Hoarſeneſs, Difficulty of Breathing, and are ſingular againſt the Scurvy, Gout, and Rheumatiſm. The Root is prepar'd by rolling it in Dough, or putting it in Pye-cruſt, and baking it in an Oven, then taking it out and drying it. Being thus prepar'd, it is fit to make Vinegar of *Squills*, by infuſing it in Vinegar. Doſe from one to four Spoonfuls: Or Wine of *Squills*, by infuſing it in Wine; which is emetick, and good againſt Aſthma's, Phthiſicks, Falling-Sickneſs, *&c.* given from an Ounce to two, or more. There are ſeveral other Preparations of the Root to be met with in every Diſpenſatory, eſpecially *Quercetan*'s, *Swelfer*'s, the *Auguſtan* and *London* Diſpenſatories.

[The *Squills* generally uſed are red, which are the Roots of the *Scilla vulgaris radice rubra*, C. B. Pin. 73. *Scilla rubra ſive Paneratium verum*, Park. Parad. 133. It grows on the Sea Shores, and flowers in *September*.

The White, which is not ſo common, but ſometimes brought among the other, and uſed indifferently with it, is the Root of the *Scilla Hiſpanica vulgaris*, Ger. Em. 171. *Scilla magna alba*, J. B. 2. 618.

A few Grains of Cinnamon in Powder takes off the emetick Quality of this Root, and makes it a powerful Diuretick, and an excellent Medicine in Dropſies.]

20. *Of* Pot Aſhes, Kelp, *or* Kali.

Pomet. THIS is a grey Salt, which we bring from *Alicant* and *Carthagena* in *Spain*, in Loaves or Cakes of different Sizes. It is made from a Plant that grows along the Sea Coaſt, which the *Botaniſts* call *Kali*, and we *Salt-wort*, *Soap-wort*, *Glaſs-weed*, *Kelp*, and many other Names. This Plant bears a Stalk a Foot and a Half high, or thereabouts, furniſh'd with ſmall narrow Leaves. They ſow this Herb, and when it is come to a due Height, they cut and manage it like Hay.

When it is dry'd, the *Spaniards* make large Holes or Pits in the Ground, in the Nature of Lime Kilns, into which they throw a Bundle of the dry'd Herb, to which they put Fire; and when it is well lighted, they throw in other Bundles, 'till they fill it full of the dried Herb; when they have fill'd it, they ſtop it up, and leave it all together for ſome Time, that it may not only be reduced the better to Aſhes, but likewiſe incorporate, and be capable to form into a Stone or Cake, in which Form it is now brought to Market; when they have open'd the Pit, they find the ſaid Herb burnt into a hard Stone, which they are oblig'd to break and raiſe up juſt as they do Stone out of the Quarry.

We ſell at *Paris* four Sorts of *Pot-Aſhes*; the firſt and moſt valuable of which are thoſe of *Alicant*, which, when they are right, ought to be dry and clean, of a bluiſh grey without and within, having little Holes made like a Partridge's Eye, and when ſpit upon and held to the Noſe, have no offenſive Smell. And beware the Stones be not encloſed with a greeniſh Cruſt, or full of Pebbles; for the firſt will ſtain and ſpot and entirely ſpoil Linen, and the ſecond, by encreaſing the Weight, will enhance the Price, beſides ſpotting the Linen, according to the Nature of the Stones that are found within. Likewiſe take heed that the Bales be not open'd, and the Commodity that was good exchanged for that which is naught, and chuſe ſuch as is in ſmall Pieces. This is very much uſed by the Glaſs-makers, to make the beſt Glaſs, and the Soap-boilers likewiſe uſe it conſiderably, drawing its Salt from it, which they uſe in the making of white and marbled Soap; but the greateſt Part of that which comes from *Spain* is conſum'd at *Paris* and the neighbouring Villages by the Scourers or Whiteners, who uſe it to whiten their Linen.

They make from this Salt, which the *French* call *Soude*, by the Aſſiſtance of common Water, a white Salt, call'd Salt of *Kali*, or *Alkali*, which is as much as to ſay, *Soude Salt*, becauſe *Al* is an *Arabian* Word that ſignifies *Salt*, and *Kali*, *Soude*. It is to be obſerv'd, that this Salt only is properly called *Alkali Salt*; though the fixed Salts of other Plants may be alſo called *Alkali Salts*, with the Addition of the Name of the Plant they are made from, as the *Alkali Salt* of Wormwood. There are thoſe who pretend that the true *Alkali* Salt, is the Glaſs Salt, but they deceive themſelves, as they may be ſatisfied in the Chapter concerning the Glaſs Salt.

The ſecond Sort is that of *Carthagena*, which only differs from that of *Alicant* in not being ſo good, neither is it of the bluiſh Caſt, but more cruſted, and the Bales are much larger. The third Sort of Pot-Aſhes is that named the *Bourde* Kind, which

which ought to be entirely rejected, as being ſo bad, that it is fit for nothing but to deceive thoſe that buy it. This is uſually moiſt, of a blackiſh green Colour and very fœtid. The fourth Sort is that of *Cherbourg*, which is made of an Herb found along the Sea-Coaſts of *Normandy*. This is likewiſe a very bad Kind, being extremely humid, of the ſame Colour and Smell with the laſt Sort, and fill'd with Stones. Theſe two Sorts are good for nothing but to impoſe upon the unwary Buyer, and cheat the poor Whiteners.

21. *Of* Sandiver, *or* Glaſs Salt.

THE *Glaſs Salt*, which the Workmen call *Sandiver*, or the Scum of Glaſs, is a fat Droſs that floats upon the Glaſs Metal when it is in Fuſion. And this Froth comes from nothing but the Pot-Aſhes, which they uſe in making their Glaſs; for the Flints that they make uſe of will afford no ſuch Scum.

Chuſe ſuch *Sandiver* as is in very large Pieces, white without and within, heavy, and the likeſt Marble that can be; and throw away ſuch as is fat, blackiſh, and moiſt. It is very much uſed by thoſe who make white Earthen Ware, becauſe it aſſiſts the Sand in its Vitrification. It is very remarkable that this ſhould be of no Uſe to the Glaſs-makers; and the Earthen Ware Workers would not know what to do without it.

It is to be had in all Places wherever Glaſs is made, it being a ſort of ſuperabundant Salt, thrown forth from the Metal while melting in the Furnace, and by the Glaſs-Men taken off, as the Recrement of their Materials, with a Ladle. It is a very white Salt, and inclining neareſt to a nitrous Taſte, eaſily diſſolving in the Air, or any moiſt Place; for as Glaſs is made of Sand and Pot-Aſhes, the latter being put in to make the former melt into Metal; ſo this *Sandiver* is the Superabundancy of that Salt, more than is requiſite to go into the Body of the Glaſs, which being in Fuſion, ſends up to the Top whatever is more than requiſite for that Purpoſe. This muſt be ſcumm'd off, or elſe 'twill make the Glaſs unfit for working, very brittle, and no ways pliable.

The beſt Metal will yield, in a Pot of two hundred Weight, a quarter or half a hundred of *Sandiver*. The weaker the Salt or Aſhes are, the greater is the Quantity of *Sandiver*: They yield ſome four or five Parts more than others do. When the Aſhes are bad, they are forced to fill the Pot four or five Times with more freſh Aſhes, by reaſon of the Quantity of *Sandiver* that is in them, before the Pot will be fill'd with Metal. They dare not caſt in any cold Water to hinder the Boiling; for if they ſhould, the Furnace and the Pots would be blown up together.

This *Sandiver* ſerves to make Metals run; and a little thereof put into *Antimony* and *Salt-Petre*, for making *Crocus Metallorum*, encreaſeth the Quantity of the *Crocus*, and it will therewith ſeparate the better from the *Scoria*.

'Tis ſold in *France*, and there uſed to powder their Meat, and alſo to eat inſtead of common Salt. Diſſolv'd in Water, and pour'd upon Garden Walks, it deſtroys both Weeds and Vermin. The more nitrous and foſſile the Salts are, the more Unctuoſity they have, and the more they run into *Sandiver*, to which Nitre comes ſomewhat near in Colour, Taſte and Fatneſs.

It is ſaid wonderfully to dry and heal Scabs and Mangineſs, the diſeaſed Part being bathed with Water, in which it is diſſolv'd. *Parkinſon* ſays that *Sandiver* works much the ſame Effect with the Aſhes of *Kali*, or Pot-Aſhes; and is uſed often, being ground fine, either to be blown into Horſes Eyes, or, being diſſolv'd, ſquirted into them with a Syringe, to take away any Skin, Film, Cloud, or Pearl, growing on the Sight. It is alſo uſed to dry up running Sores and Scabs, Tetters, Ring-Worms, and ſuch like Blemiſhes of the Skin.

22. *Of* Cryſtal-Glaſs, *and many other Sorts, with the various Ways of Colouring them*, &c. *from* Pomet, Lemery, *and ſeveral other Authors.*

GLASS is a Compoſition, or Mixture of Aſhes, or ſome Alkaliſate Salt, with Sand, Cryſtal, Flints, Pebbles, or other Stones, melted together into one Body, by the Force of Fire. The firſt Ingredient going into the Compoſition of Glaſs, is Pot-Aſhes, called by the *French*, *Soude*, *& Roquette*; and by the *Italians*, *Polverina Barillia*, *&c.* There is little or no Difference in the Goodneſs of theſe Pot-Aſhes, but as to the ſeveral Places they are brought from; for the beſt Aſhes make the moſt Salt, and the cleareſt and fineſt Glaſs. Pot-Aſhes made of *Kali*, which comes from the *Levant*, make a far whiter Salt than the *Barillia*, and by Conſequence a more perfect and beautiful Cryſtal.

Some uſe Braſs Boilers in making this Salt, which may do, where green or blue Colours are to be made; for this ſtrong Lye will fret off ſome Part of the Metal or Verdegreaſe, which will damage a Cryſtalline Glaſs: In this Caſe therefore, the better Way is to have the Copper, or Veſſel, doubly lin'd with Tin, becauſe that emits no Tincture: Alſo, in making the aforeſaid Salt, you

muſt mix a Quantity, more or leſs, of Tartar calcin'd to Whiteneſs, with your Pot-Aſhes; becauſe it makes not only more, and a whiter Salt, and a more beautiful Cryſtal, but likewiſe opens the Body of the Pot-Aſhes, cauſes a ſpeedier Diſſolution, and a better Extraction of the Salt, juſt as Alum or Vitriol opens the Body of Salt-Petre, in making *Aqua Fortis*, or Spirit of Nitre, which otherwiſe, without ſuch Addition, would not riſe ſo eaſily.

The ſecond Ingredient that enters into the Compoſition of Glaſs, is Glaſs Stone, or Sand; and this is what gives Body, Conſiſtency and Firmneſs to Glaſs, as Iron gives to *Engliſh* Vitriol, and Copper to *Hungarian*, *Dantzick*, and *Roman* Vitriol, which otherwiſe would run into Water, in moiſt Places and Seaſons. Glaſs Stones are properly all, or moſt Sorts of Stones, which will ſtrike Fire with a Steel; theſe are apt to vitrify, and eaſy to make Glaſs and Cryſtal withal; thoſe which will not ſtrike Fire with a Steel will never vitrify, whereby you may partly know the Stones which will, and which will not, be tranſmuted into a glaſſy Body.

The firſt Place is given thoſe Stones which are white, but not tranſparent, of which Kind is *Tarſo*, which is a Sort of hard White Marble, found in *Tuſcany*, at *Piſa*, *Seraveza*, *Carara*, the River *Arnus*, above and below *Florence*, and in many other Places in the World; that is the beſt which is without blackiſh or yellowiſh Veins in it like Ruſt. The next to a Kind of Pebble, in Appearance like White Marble, ſomething tranſparent, and hard as a Flint, which being ſtruck, gives Fire, and turns not into Lime: This, when firſt put into the Fire, becomes white, and loſes its Tranſparency, and afterwards it turns to Glaſs.

Where fit Stones cannot be had, Sand is made Uſe of; and as ſome think, and affirm with good Reaſon, was the firſt Material made uſe of in making Glaſs; it muſt be ſmall, white, and very clean, and well waſhed, before it be uſed, which is all the Preparation of it. This is uſually met withal upon the Mouths and Banks of Rivers, and in many Places upon the Sea Shore, and ſometimes upon Inland Sand-Hills. White Cryſtal Glaſs requires a fine, clear, tranſparent Sand, but green Glaſſes a more coarſe and brown.

The laſt Ingredient is *Manganeſe*, or *Magneſia*, ſo call'd from its Likeneſs in Colour, Weight and Subſtance to the Load-Stone, and it is accounted one of the Kinds thereof; it is found in *Germany*, *Italy*, *Piedmont*, *&c.* and of late Years, in *England*, among the Lead Mines; and wherever the Miners find it, they certainly conclude that Lead-Oar lies under it. The Potters ſpend great Quantities of it, this being the only Material wherewith they colour their Black, as they do Blue with Zaffer. That is beſt which has no glittering Sparkles in it, and is of a blackiſh Colour; but being powder'd, of a dark Lead Colour: 'Tis a Stone very hard and ponderous, and the deeper its Colour is, the deeper it colours the Metal in the Furnace; this is to be put into the Melting-Pot together with the *Fritt*. This is the moſt univerſal Material uſed in making of Glaſs; and is that which alone purges off the greeniſh, bluiſh Colour which is in all Glaſs, and makes it not only clear and diaphanous, but alſo makes it dark, black, red, and purple, according to the Proportion which is added. The *Manganeſe* of *Piedmont*, and that of *England*, which are the beſt of all others, leave the Glaſs white, and take away from it the Greenneſs and Blueneſs; the Reaſon of which Operation ſeems to be a Change in the Figure, and more minute Parts of the Metal; for the Fire making the *Manganeſe* run, mixes it with the ſmalleſt Atoms of the Metal throughout, which by boiling and various Agitations and Revolutions of them, form thoſe Reflexions of Light, which we call white, clear, and diaphanous.

As much *Manganeſe* prepar'd muſt be uſed in common white Glaſs, as in that made of Flint, or Cryſtal; the Quantity of the *Manganeſe* is uncertain, and is only known by Practice and long Trial, and therefore cannot be poſitively determin'd, either by Weight or Meaſure, but muſt be wholly left to the Eye, Judgment, Trial and Experience of the Artiſt. In putting of it in, you are to try whether it has enough of *Manganeſe*, or no; if it be greeniſh, give it more *Manganeſe*, with Diſcretion, and put it in by little and little; for otherwiſe, inſtead of a clear, white, diaphanous Colour, which in juſt Proportion it always gives, if too much be added it will make a duſky Purple, or Black, and take away the Splendor of the Metal, which otherwiſe would be clear and ſhining; for it is the Property of *Manganeſe*, to take away the Foulneſs and Greaſineſs which Cryſtal has, and to make it reſplendent, white and clear.

A fourth Ingredient alſo has of late been added to the Compoſition of Glaſs, which is Salt of Tartar: If the Proportion of twelve Pound of pure Salt of Tartar be added to a hundred Weight of *Fritt*, it makes it, without any Compariſon, much fairer and more pliable to work than ordinary. This Salt of Tartar muſt be very pure, and put in when the *Fritt* is made, mix'd with the Glaſs Stone, *Tarſo* or Sand, together with the *Pulverine*, *Rochette*, or *Pot-Aſhes* ſifted and made fine, whereof the *Fritt* is to be made. Hitherto of the Materials; but to deſcend to the Inſtru-

Inſtruments, and the Manner of working in the Glaſs, would be beyond the Scope and Intention of this Performance, therefore I ſhall proceed to ſhew how to turn the Materials into *Fritt*, of which Glaſs is made and faſhion'd.

Fritt is nothing elſe but a Calcination of thoſe Materials which make Glaſs; and tho' they may be melted, and make Glaſs without Calcination, yet this would require Length of Time, and occaſion much Wearineſs, and therefore this Calcination was invented to calcine the *Fritt* in the *Calcar*; which when it is calcin'd, and the Proportion of the Materials is adjuſted to the Goodneſs of the *Pot-Aſhes*, it preſently melts in the Pot, and admirably clarifies. *Fritt* ſeems to be deriv'd from *frittare*, to *fry*; ſince, indeed, it is nothing elſe but Salt or Aſhes mix'd with Sand, or Stone, in fine Powder, and ſo fry'd or bak'd together; the *Engliſh* call the whole Quantity, bak'd at a Time in the *Calcar*, a *Batch*: Then it runs into little Lumps like *Fritters*, call'd often in *Italian*, *Fritelle*, or little Fritts.

It is of three Sorts; firſt, *Green-Glaſs Fritt*, made of common Aſhes, without any Preparation of them, other than beating them to Powder, and a hard Sand fetch'd from *Woolwich* in *Kent*. Secondly, Ordinary *White Fritt*, made of Aſhes of *Polverine*, or *Barrillia*, without extracting the Salt from them, which makes common White Glaſs. Thirdly, *Cryſtal Fritt*, made with *Polverine*, or *Pot-Aſhes*, and Salt of Tartar, with white Cryſtalline Sand, Cryſtal, Pebbles or Flints. The Materials muſt be finely powder'd, waſh'd, ſearſed, and then incorporated well together, which put into the *Calcar*, will exactly mix in the ſmalleſt Particles, and minuteſt Atoms; for otherwiſe the Salt and Sand will, in the Melting-Pot, eaſily ſeparate one from another, which they are apt enough to do were they not ſtirr'd with the Rake.

To make the ſecond Kind, or common white Sort of *Fritt* for the White Glaſs; ſcarſe the pure *Pot-Aſhes*, and what will not go thorough, beat and ſearſe again; beat alſo finely and ſearſe your *Tarſo*, *Cryſtal*, *&c.* Take of the Aſhes, *&c.* one hundred Weight, of the Stone from eighty to ninety; pure white Cryſtalline Sand, waſh'd and freed from all its Filth, ſix Pounds; mix all together, then put them into the *Calcar*, or calcining Furnace, when it is hot; at firſt mix and ſpread them well in the *Calcar*, with a Rake, that they may be well calcin'd, and continue this 'till they begin to run into Lumps; the *Fritt* will be perfectly wrought in five or ſix Hours, being ſtirr'd all the Time, and a ſufficient Fire continued; when you wou'd ſee whether it be enough or no, take a little of it out; if it be white, yellowiſh and light, 'tis enough: The calcining it more than five or ſix Hours is not amiſs; for by how much the more it is calcin'd, by ſo much the better it is, and the ſooner it melts in the Pot; and by ſtanding a little longer in the *Calcar*, it loſes the Yellowneſs and Foulneſs, which it wou'd communicate to the Glaſs, and becomes more clear and purified.

It is here to be noted, that in *Italy*, and other Places, when they take the *Fritt* out of the *Calcar*, they throw upon it a good Quantity of cold Water, while it is hot, then ſet it in a Cellar, from whence a Lye will drop, which may be ſtrengthen'd with calcin'd Tartar to be kept for Uſe, with which they now and then water the *Fritt*; which being heap'd up together in a moiſt Place, the Space of two or three Months, or more, grows in a Maſs, like a Stone, and is to be broken with Mattocks: This, when it is put into the Pot, ſoon melts and makes Glaſs as white as Cryſtal; for this Lye is thought to leave, upon the *Fritt*, its Salt which produceth this Whiteneſs, and makes it eaſier to melt, and more Cryſtalline, as aforeſaid.

To make *Cryſtal Fritt*, commonly call'd *Bollito*: Take of the beſt clear Pebbles, Cryſtal, *Tarſo*, or Flint, ground ſmall in a Mill, and ſearſed as fine as Flower, two hundred Pounds; of pure Salt of Polverine, or Pot-Aſhes, ſifted alſo, one hundred and thirty Pounds; put them into the *Calcar* when it is well heated; for ſhould the *Calcar* be cold, the *Fritt* would never be made: At firſt, for an Hour, make a temperate Fire, and always mix the *Fritt* with the Rake, that it may be well incorporated and calcin'd; then increaſe the Fire, always mixing the *Fritt* well with the Rake; for it is of great Importance, which you muſt continually do for five Hours, continuing a ſtrong Fire; then take the *Fritt* out of the *Calcar*, being perfected, and put it into a dry Place on a Floor, and cover it well with a Cloth, that no Filth or Duſt may fall upon it; and you muſt take care of this, if you would have good Cryſtal. The *Fritt*, thus made, will be white as the pureſt Snow. If the *Tarſo* be lean, you may add to the Quantity ten Pounds, or more, of the aforeſaid Salt; but this is to be done after making Trial: You ought always to make Trial of the firſt *Fritt*, by putting it into a Crucible, and ſetting it in the Furnace; if it grow clear ſuddenly, you will know whether it be well prepar'd or not, whether it be ſoft or hard, and whether any more Salt is to be added to it, or to be diminiſh'd. This *Cryſtal Fritt* muſt be kept in a dry Place, where no Moiſture is; for by Moiſture it will ſuffer Damage, grow moiſt, and the Salt of it will run to Water,

and the other Ingredient remain alone, which of itſelf will never vitrify. This is not to be water'd as the former, but may lie three or four Months; after which it will be much better to put into Pots, and ſooner grows clear.

Green Glaſs Fritt, of which we have yet ſaid nothing, is a Compoſition made of groſſer Materials; to wit, of common Aſhes, without any Preparation of them, or elſe of Gobbets ground to a fine Powder, and a hard Sand; this requires ten or twelve Hours baking, more or leſs, according to the Goodneſs and Softneſs, or Hardneſs of the Sand and Aſhes. When the *Fritt* is put into the Melting-Pots, to be made into Glaſs, in the ſecond, or working Furnace, whether it be Green Glaſs, White Glaſs, or Cryſtal *Fritt*, it is to be melted and kept ſo long in Fuſion 'till it is purified and refin'd, before it is wrought: It purifies itſelf by ſending up a Scum to the Top of it, which is a ſuper-abundant Salt, caſt forth from the Metal, and by the Workmen is call'd *Sandiver*, and is to be taken off with the Scumming-Ladle, as the Recrements of the Materials. This *Sandiver* damages the Metal, and makes the Glaſs obſcure and cloudy, being always very foul, and therefore is continually to be ſcumm'd off, and taken away, as long as any of it riſes.

To reduce Glaſs again into its firſt Principles; take Glaſs in Powder, what Quantity you pleaſe, Pot-Aſhes, as much; mix or melt them in a ſtrong Fire, which immediately put into warm Water, ſo the Glaſs will diſſolve, the Salt will melt and mix with the Water, and the Sand, *&c.* will fall to the Bottom; by which it appears that the Fuſion of Glaſs is not the laſt Fuſion, or beyond any Reduction. *Helmont* ſaith, if you melt Glaſs in fine Powder, with good Store of *Sandiver*, and ſet them in a moiſt Place, all the Glaſs will ſoon be reſolv'd into Water, whereunto if you add as much *Aqua Regis* as will ſuffice to ſaturate the *Sandiver*, you ſhall find the Sand preſently ſettle to the Bottom, in the ſame Weight in which it was firſt put in; for the Salt in the Glaſs is imbib'd, and taken up by the *Sandiver* and *Aqua Regis*, and ſo the component Parts, analyz'd into their former Principles.

As to the Way of making Prince *Rupert*'s Glaſs Drops: They are made of green Glaſs, well refin'd, for otherwiſe they will not ſucceed, but crack and break preſently after they are dropp'd into Water: The beſt Way of making them, is to take up ſome of the Metal out of the Pot, upon the End of an Iron Rod, and immediately let it drop into cold Water, and lie there 'till it is cold; where obſerve, firſt, If the Metal be too hot when it drops into the Water, the Drop will certainly froſt and crackle all over, and fall into Pieces in the Water. 2dly, Every one of them that cracks not in the Water, but lies in it 'till it is quite cold, is ſure to be good. 3dly, That the moſt expert Artiſts know not the juſt Meaſure of Heat required, and therefore cannot promiſe before-hand that the next ſhall be good, for many of them miſcarry in the making, and oftentimes two or three, or more, prove ill for one that hits. 4thly, If one of them be taken out of the Water whilſt it is red hot, the ſmall Part of the Tail or Thread it hangs by, ſo much of it as has been in the Water, will, upon breaking, fall into Duſt, but not the Body of the Drop, tho' its Cavities are full as large. 5thly, If one of them be cooled in the Air, or on the Ground, hanging by the Thread, it becomes, in all Reſpects, like other Glaſs. 6thly, The Outſide of the Glaſs Drops that are cool'd in Water, is cloſe and ſmooth, like other Glaſs, but within it is ſpungy, and full of Cavities or little Bubbles. 7thly, The Figure of it is roundiſh, or oval at the Bottom, not much unlike a Pear or Pearl, wreath'd from the Beginning of the Neck as it grows ſmaller, and terminating in a long Neck, for the moſt Part bended or crooked. 8thly, If a Glaſs Drop be let fall into ſcalding hot Water, it will crack and break in the Water, either before the red Heat is over, or ſoon after. 9thly, If it be taken out of the Water before it be cold, it will certainly break. 10thly, If they be dropp'd into Vinegar, or Spirit of Wine, or Water in which Nitre or Sal Armoniac have been diſſolv'd, or Milk, they never miſs to froſt, crack, and break to Pieces. 11thly, If dropp'd in Oil-Olive, they do not ſo frequently miſcarry as in cold Water, nor have ſo large Blebs or Bubbles in them, but ſome Part of the Neck, and ſmall Threads break like common Glaſs; and if the Neck be broken near the Body, and the Body held cloſe in the Hand, it breaks not into ſmall Parts, nor with ſo ſmart a Force and Noiſe, as thoſe made in cold Water. 12thly, If you break off the Tip of the Thread, or Neck, of one of thoſe made in Water, the whole will fly immediately into very minute Parts, which will eaſily crumble into coarſe Duſt. 13thly, A Blow with a ſmall Hammer, or other hard Inſtrument, only upon the Body of one of thoſe made in Water, will not break it. 14thly, One of them broke in the Hand, under the Water, ſtrikes the Hand more ſmartly, and with a briſker Noiſe than in the Air; but faſten'd in a Ball of Cement, half an Inch in Thickneſs, upon the Breaking off the Thread, or Tip of it, it breaks the Ball in Pieces like a Granado. Laſtly, Some of them being ground

ground upon a Tile, or other Stone, break when the Bottom is a little flatted, and others not 'till half is rubb'd, or ground off.

To prepare white Glaſs, or Cryſtal Glaſs, take *Fritt* of ordinary Pot-Aſhes, to make a fair, white, common Glaſs; but *Fritt* of the beſt, whiteſt, and hardeſt Pot-Aſhes, in great Lumps, makes the Glaſs, which is call'd *Cryſtalline Glaſs*, not Cryſtal itſelf. You muſt put as much *Manganeſe* in one Sort as to another; caſt the white and Cryſtal-like Glaſs into Water, that you may have them clear in Perfection. You may make them without this caſting into Water; yet it is neceſſary, if you would have them fairer than ordinary; and may be repeated, if you would have them yet more reſplendent, and then you may work them into what Veſſel you pleaſe. To have the Glaſs yet whiter, calcine it, that it may purify well, and have but few Bliſters; and alſo add to a hundred Pounds of the *Fritt* twelve Pounds of pure Salt of Tartar, which muſt be put in when the *Fritt* is made, and ſo mix'd with Sand Pot-Aſhes ſifted, and then be made *Fritt* thereof, as before; and ſo will the Metal be fairer beyond Compariſon.

Of Colouring Glaſs.

The calcining Copper or Braſs variouſly for various Colours is done firſt by *Feretto* of *Spain*, with thin Copper-Plates laid in Bits upon Sulphur, *Stratum ſuper Stratum*, cover'd, luted, and calcin'd for two Hours, then beaten ſmall and ſears'd: Or, 2dly, It is prepar'd with Vitriol inſtead of Sulphur. 3dly, You may make a Calcination of Braſs with Sulphur, thus: Take thin Plates in Bits, which lay upon Sulphur, *Stratum ſuper Stratum*, which calcine for twenty-four Hours; then powder and ſearſe it, and reverberate again for twelve Days; grind, ſearſe, and keep it for uſe to colour Glaſs of a tranſparent Red, or Yellow. 4thly, Calcine Braſs by itſelf, by putting Bits of Braſs Plates into a Crucible, and luting on the Top; this makes Glaſs of a Sky-Blue and Sea-Green. 5th, Calcine Scales of Braſs *per ſe*, which if well done will be red. Scales of Braſs thrice calcin'd, become of a ruſſet Colour, and will make a Sea-Green, an Emerald, a Turchois, and a beautiful Sky-Blue, with many other Colours.

To tinge Glaſs of a Sea-Green; take *Cryſtal Fritt*, put it in a Pot, without any *Manganeſe* addded; melt it, and take off the *Sandiver*: Being well and perfectly clarified, take of this Cryſtal twenty Pounds; Braſs of the firſt, third, or ſixth Preparation, ſix Ounces; *Zaffar* prepared, one Ounce and half; mix theſe two Powders well, and put to the ſaid Cryſtal at three Times. At firſt it makes the Metal ſwell very much, therefore mix the Glaſs with the long Squares; then let it ſettle, that the Colour may be incorporated for three Hours; then mix again, with the long Squares, and take a Proof thereof. Put in rather too little than too much of the Colour; for then it may be eaſily heighten'd. At the End of twenty-four Hours, after it has had the due Colour, it may be wrought, mixing it well firſt from the Bottom of the Pot, that the Colour may be equally mix'd and ſpread through all the Metal, and united with it, otherwiſe it ſettles to the Bottom, and the Metal at Top becomes clear. At *Moran* they take half *Cryſtal Fritt* and half *Pot-Aſh Fritt*, and proceed as before, whence ariſes a fair Sea-Green, but the former is fairer.

For a Sky-Colour, take *Fritt* made of the beſt Pot-Aſhes, which purify from its *Sandiver*; and to twenty Pounds thereof add Braſs, of the fourth Preparation, ſix Ounces, and put it in at three Times, as aforeſaid. At the End of two Hours remix the Metal and make a Proof; being well colour'd, leave it for twenty-four Hours, ſo will you have an excellent Sky-Colour, varied with other Colours, then work it.

Another Sea-Green, yet more excellent, is thus made: Take *Caput Mortuum* of the *Vitriol* of *Venus*, made without Corroſives, expoſe it to the Air for ſome Days, and you draw from it, without any Artifice, a pale green Colour, which being powder'd, to ſix Ounces of it, add *Zaffar* prepar'd, once Ounce and half; *Chryſtal Fritt* purified, as before, twenty Pounds: Work as in the firſt Green, ſo will you have the moſt beautiful Colour of the three.

To make a Gold-yellow in Glaſs, or a Kind of Amber-Colour: *Cryſtal Fritt* two Parts, pure *Pot-Aſhes Fritt* one Part, both made of *Tarſo*, which is much better than Sand; but if of natural Cryſtal it is yet better; mix theſe well together, of which take twenty Pounds; of *Tartar* well beaten and ſearſed fine, *Manganeſe* prepared, of each three Ounces; mix theſe Powders well together firſt, then, with the *Fritts*, put them in the Furnace, and let them ſtand four Days on an ordinary Fire, becauſe they riſe much. When the Metal is purify'd and well colour'd, which is at the End of four Days commonly, it will be very fair and beautiful, and is then to be wrought into Veſſels, *&c.* This Colour you may make deeper or lighter, by adding or diminiſhing the *Powders* or *Fritts*. If you would have it yet fairer and more beautiful, you muſt take all *Cryſtal Fritt*: Moreover, another Thing is to be obſerv'd; you muſt put the Powder at ſeveral Times into the *Fritt*, not into the Metal, for then it colours not.

To

To make a black Colour in Glaſs: Take Pieces of broken Glaſs of many Colours, grind them ſmall, and put to them Powder made of *Zaffar* prepar'd, two Parts; *Manganeſe* prepar'd, one Part; this Glaſs, purified, will be a moſt admirable Black, ſhining like Velvet, and will ſerve for Tables, *&c.* Another brighter Black: Take *Fritts* of Cryſtal and Pot-Aſhes, of each ten Pounds; Calx of Lead and Tin, of each two Pounds; mix all together, ſet them in a Pot in the Furnace, well heated; and when the Metal is pure, add ſix Ounces of Powder made of Steel, well calcin'd; Scales of Iron, finely powder'd, of each equal Parts; let them boil twelve Hours, now and then mixing the Metal, then work it. Another Black, yet clearer, is this: Take of the beſt *Pot-Aſh Fritt* twenty Pounds, *Manganeſe* prepar'd, one Pound and a Quarter, *Tartar* in fine Powder, ſix Pounds; mix them, and put them into the Furnace leiſurely; let the Metal purify, which will be at the End of four Days; mix again well, then caſt it into fair Water, and it will be black beyond any of the former.

To make a fair Milk-white call'd *Lattimo*: Take *Cryſtal Fritt*, twenty Pounds; calcin'd Lead and Tin, of each three Pounds and a half; *Manganeſe* prepar'd, one Ounce; mix all together, and put them into a Pot heated, let them ſtand twelve Hours, that the Materials may be melted; and at the End of eight Hours you may work it. It is a fair White; and to make a Peach Colour of it, add a ſufficient Quantity of *Manganeſe* prepar'd, and it will be a Peach Colour; but you muſt work it in Time, otherwiſe it will fade again.

To made a deep Red: Take *Cryſtal Fritt*, twenty Pounds; Tin calcin'd, two Pounds; broken Pieces of white Glaſs, one Pound; mix theſe well together, put them in a Pot to run and purify them; being melted, add leiſurely, one Ounce of this Mixture; Steel calcin'd and ground, Scales of Iron finely ground, of each alike; mix them well together, and in about five Hours it will be perfected: Too much of the Powder makes the Metal black and opacous, whereas it ought to be tranſparent; if it be too black or deep, put in of the fourth Preparation of Braſs, about an Ounce, and mix them many Times, and in about three or four Repetitions it will become as red as Blood: Make ſeveral Trials, and when you find it right and good, work it ſpeedily, otherwiſe it will loſe its Colour and become black; you muſt alſo leave the Mouth of the Pot open, elſe the Colour will be loſt. Let it not ſtand above ten Hours in the Furnace, and ſuffer it not to cool, if poſſible. If you find the Colour fades, put in ſome of the Steel and Iron-ſcale Powder aforeſaid, and it will reſtore it again; 'tis a nice Colour, therefore ſpeedily to be wrought.

For a tranſparent Red in Glaſs, like Blood, take common white Glaſs, twenty Pounds, Glaſs of Lead, twelve Pounds; put them into a Pot glaz'd with white Glaſs; when the Glaſs is boil'd and refin'd, add Copper calcin'd to Redneſs, as much as you pleaſe; let them incorporate, mixing well the Glaſs, then add ſo much Tartar in Powder as will make the Glaſs Blood-red: If the Colour be too pale, add more of the calcin'd Copper and Tartar, 'till the Colour is exact. Another tranſparent Red: Diſſolve Gold in *Aqua Regis*, pour Water upon it; then put this Powder of Gold in earthen Pots, to calcine in the Furnace, 'till it becomes a red Powder, which will be in about forty Days; add this Powder by little, in ſufficient Quantities, to fine Cryſtal Glaſs, which has been often caſt into Water, and it will give a tranſparent Red, a Ruby Colour.

To make Glaſs of Lead: Take of the beſt Red Lead what Quantity you pleaſe, ſuppoſe fifteen Pounds; *Chryſtal Fritt*, or common white *Fritt* twelve Pounds; mix them as well as may be, and put them into a Crucible with a ſtrong Bottom, which put into two other Crucibles of like Strength, one within another, and put them into a Fire of Suppreſſion. The Lead will paſs through the firſt and ſecond Crucible., and in the third you will find the Glaſs. Or thus: Take *Minium* fifteen Pounds; Salt of Pot-Aſhes eight Pounds; Sand the ſame Quantity; mix and put them into Crucibles as before, for fear of breaking; and make a Fire of Suppreſſion, ſo will you have very good Glaſs of Lead. To work the ſaid Glaſs of Lead: Before you take it upon the hollow Iron Pipe, let it be a little rais'd in the Pot, then take it out and let it cool a little, and ſo work it on the Marble, being clean. At firſt let the Marble be well wetted with cold Water, otherwiſe the Glaſs will ſcale it, and be itſelf alſo diſcolour'd, incorporating the Scales into itſelf; and continually wet the Marble whilſt you work this Glaſs, otherwiſe it will loſe all its Fairneſs and Beauty; and do this as often as you take the Metal out of the Pot. This Kind of Glaſs is ſo tender and brittle, that if it be not cool'd a little in the Furnace, before it is wrought into drinking Glaſſes, Cups, or other Veſſels, and taken a little at a Time and held on the Irons, and the Marble continually wetted, 'tis impoſſible to work it.

To make a Gold-yellow in Glaſs, of Lead: Take *Cryſtal Fritt*, calcin'd Lead, or Minium, of each ſixteen Pounds, mix and ſearſe them well; add to them Braſs thrice calcin'd, ſix Ounces;

Crocus

Crocus Martis made with Vinegar, forty-eight Grains; put them well mix'd into the Furnace, let them ſtand twelve Hours, in which Time it will be clear; mix them, and make a Proof. If it be greeniſh, add a little more *Crocus Martis*, 'till it becomes a moſt fair Gold Colour.

A tranſparent Red in Glaſs is made thus: Take impalpable Powder of the beſt *Manganeſe*, refin'd Nitre, of each equal Parts, calcine and reverberate twenty-four Hours, then waſh away the Salt with fair warm Water and dry the Powder, which will be of a red Colour; add to it its equal Weight of *Sal Armoniac*, grind them together on a Porphyry with Spirit of Vinegar; then in a Retort, with a large Body and long Neck, ſublime in Sand for twelve Hours, break the Glaſs, and take what is ſublim'd to the Neck and Body of the Retort, and mix it with what remains at Bottom, adding as much freſh *Sal Armoniac* as is wanted in the Weight of the firſt Sublimation; grind, as before, on a Porphyry, with Spirit of Vinegar, and ſublime alſo in the ſame Manner; repeat this Work ſo long, 'till the *Manganeſe* remains all at the Bottom, fuſible.

A moſt excellent Blue to colour Glaſs: Diſſolve Copper in *Aqua fortis* made with *Nitre* and *Hungarian* or *Roman Vitriol*, which ſharpens the *Aqua fortis*, and yields ſome Particles of Copper to it; then precipitate it with Spelter of *Zink*; this is ſometimes done with the Refiner's double Water impregnated with Copper; by this Means you ſhall have a moſt incomparable Blue for colouring Glaſs.

There are almoſt an infinite Variety of Ways to colour Glaſs, among which I thought theſe few might not be unacceptable, to give the Curious a little Inſight into this Art, which has of late Years receiv'd ſuch vaſt Improvement.

[The Plant, from the Aſhes of which the Salt for Glaſs Work is commonly made, is the *Kali Cochleatum majus*. Park. 279. *Kali majus cochleato ſemine*. C. B. Pin. 289. But that which yields the *Alicant Salt*, the pureſt and beſt of all others, is the *Kali Hiſpanicum ſupinum Annum ſedi foliis brevibus*. Act. Reg. Par. Anno 1717, *Pag.* 93, *Fig. Pag.* 98.

The ſeveral Things uſed in Medicine which owe their Origin to *Kali*, are

1. The *Pot-Aſhes*, or *Cineres Clavellati* of the Shops.

2. The *Sandiver*, or *Axungia Vitri*.

3. The *Soap Lye*, or *Lixivium*, made by diſſolving the *Salt* in *Water*, from which the *Cauſtick Stone* is made.

4. *Soap*, which is made of this *Lixivium*, and is treated of in its proper Place.

Beſide the Aſhes made from the *Kali*, there are the Aſhes of the *Rocket*, prepar'd in the ſame Manner, brought from the *Levant*, and uſed in the ſame Manner by the Soapboilers and Glaſſmakers: And in *Lorrain* they burn the common Female Fern to Aſhes in the ſame Manner, and make a particular Kind of Glaſs with them, call'd *Fern Glaſs*, which is generally very light and thin, and of a pale Sea-green.]

The End of the Book of LEAVES.

BOOK

BOOK the Sixth.

Of FLOWERS.

PREFACE.

FLOWERS *are the expanded Buds of Vegetables, of various Colours and Figures, in which are generally found their Fruits or Seeds. A* Flower *is compoſed of three Parts, the Empalement, or Cup; the Foliage; and the Heart, or Centre.*

Beſides the Flowers *of Plants which we uſually ſell, I ſhall comprehend in this Book the Parts of* Flowers, *and ſome other Vegetable Subſtances, which have no regular Place under any of the other Claſſes of this Work, as the* Spikenard, Epythymum, *and the like.*

1. *Of* Schœnanth, *or* Camels Hay,

Pomet. THIS *Schœnanth* is the Flower of a ſmall Plant, or, more properly ſpeaking, a ſweet Ruſh that grows plentifully in *Arabia Felix*, and at the Foot of Mount *Libanus*, from whence it is brought to us by the Way of *Marſeilles*. This Plant is about a Foot high, the Root being knotty and very little, furniſh'd with ſmall, hard, long, white Filaments, and from each Root come ſeveral hard Stalks, of the Size, Figure and Colour of a Barley Straw; there ariſe little tufted Flowers on the Tops of the Stalks, the Bottoms of which are of a Carnation Colour; ſo that when the Ruſh is in Flower, it is a very fine Plant to look upon. And as this Flower is agreeable to the Eye, ſo it is to the Palate, having a warm, biting, aromatick Taſte.

We have brought from *Marſeilles* the Flower and the Ruſh ſeparate from one another, to wit, the Ruſh in little Bundles, and the Flower juſt in the Manner as it is gather'd; ſometimes clean and neat, and other Times naſty and dirty; which is the Reaſon why ſuch Apothecaries as are curious in their Drugs, clean and wipe every Flower, which is a troubleſome Piece of Work. Chuſe ſuch as are the neweſt, and approaching neareſt the ſcarlet Colour that you can get; tho' they are of no conſiderable Uſe in Phyſick, they they are requir'd for the making of the Great Treacle.

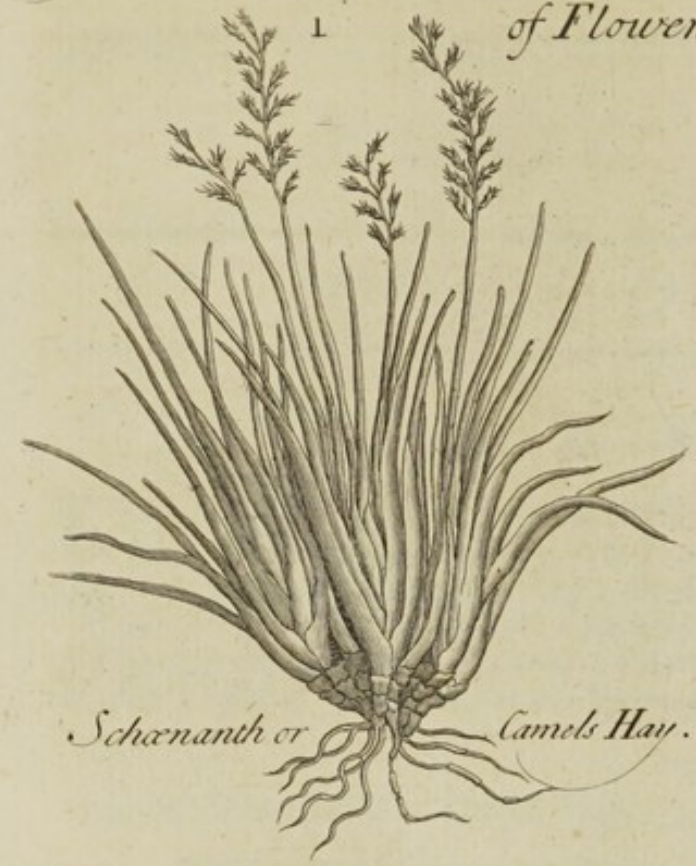
When the Flower is ſcarce People uſe the Plant in its Place, but when the Flower can be had it ought to be uſed, as it has much more Virtue.

Lemery. *Fœnum Camelorum, Juncus odoratus Schœnanthus, Schœnanth*; the *fragrant Ruſh*, or *Camels Hay*, is a Kind of Reed, or Graſs, which grows plentifully in *Arabia Felix*, at the Foot of Mount *Libanus*, where it ſerves the People for Forage and Litter for their Camels. The Stalk is about a Foot high, divided into ſeveral hard Stems, of the Size, Figure and Colour of a Barley-Straw, being much ſmaller towards the Top. The Leaves are about half a Foot long, narrow, rough, pointed, of a pale green Colour. The Flowers growing on the Top are ranged in double Order, ſmall, hairy, of a Carnation Colour, and beautiful to the Eye. The Root is ſmall, hard, dry, knotty, adorn'd with long white Filaments. All the Plant, and particularly the Flower, is of a ſtrong Smell and biting Taſte, pungent and very aromatick, being preferr'd to all the reſt for its medicinal Uſe; it is inciſive, attenuating, deterſive, reſiſts Malignity, is an excellent Vulnerary, provokes Urine, and removes Obſtructions.

[The *Schœnanth* is the *Gramen ad Junceum accedens aromaticum, majus, Syriacum.* Hiſt. Ox. 3. 229. *Gramen dactylon aromaticum multiplici Panicula Spicis brevibus, tomento candicantibus ex eodem pediculo binis.* Pluk. Phyt. Tab. 109. Fig. 1. It is brought from the *Eaſt-Indies* and *Arabia*; many Virtues are attributed to it, but its principal

Uſe

1



Schœnanth or Camels Hay.

2

Provinse Rose.

3

Saffron.

4

Bastard Saffron.

Uſe at preſent is as an Ingredient in the *Venice Treacle*, *Mithridate*, *&c.*

2. *Of* Provins Roſes.

Pomet. THE Roſes, call'd *Provins Roſes*, are Flowers of a deep Red and velveted, which are brought from *Provins*, a little Town about eighteen Leagues from *Paris*. Theſe Roſes grow in ſuch great Quantities about that Place, that it muſt be allow'd that the Ground there is particularly proper for the raiſing theſe Kind of Roſes, becauſe in Beauty and Goodneſs they ſurpaſs all that come from other Parts; and that which contributes greatly to their Excellency is, that the Inhabitants thereabout are perfectly ſkill'd in the drying of them, which makes them keep conſiderably longer than others, and preſerves both their Colour and Smell. We bring now from *Provins* two Sorts, the larger and the ſmaller, the Goodneſs of either of which depends on their Colour, Smell, Clearneſs from little Leaves, Threads, *&c.* and their Dryneſs.

Thoſe who make it their Buſineſs to deal in large Quantities of *Provins Roſes* muſt preſerve them in dry Places, where no Air can enter in, and cloſe preſs'd or ſqueez'd, and in ſuch Manner they may maintain their Beauty a Year, or eighteen Months; but about that Time, whatever Care is taken of them, they loſe their Colour, and Worms breed in them: Some put old Iron among them, to hinder the Worms from deſtroying them.

Theſe *Provins Roſes* are Flowers much eſteem'd by all the World, becauſe they are aſtringent and cordial, ſtrengthen the Nerves, and other weak Parts of the Body: They are of conſiderable Uſe in Phyſick, and enter ſeveral Compoſitions of Value: But ſince, of late Years, theſe *Provins Roſes* were dear, ſeveral Druggiſts and Apothecaries have contented themſelves with the common red Roſes that are cultivated about *Paris* and other Parts, ſince which Time there has not been that Conſumption of theſe Roſes as formerly: Nevertheleſs, thoſe who have made Uſe of the other Sort have found, that they are not equal to the true *Provins Roſe*, either in Beauty or Virtue; beſides which, they will not keep ſo long, notwithſtanding all their Pains to preſerve them.

The true *Provins Roſes* are ſo eſteem'd in the *Indies*, that ſometimes they will ſell for their Weight in Gold; beſide the great Quantity we ſell of theſe Roſes, we alſo receive them now made into Liquid and dry Conſerves, and ſometimes Syrups. You muſt take Care in the Choice of theſe Things to deal with honeſt People, for fear they make their Conſerves and Syrups, when old, of a freſh, lively red, by adding Spirit of Vitriol, or other Acids to them: The liquid Conſerve is uſed to ſtrengthen the Stomach, and the dry to ſtop Catarrhs, Rheums, *&c.* and alſo againſt Gripes and Diarrhæas. The Syrup has the ſame Virtues with the Conſerves, but in a leſſer Degree: There is likewiſe a Conſerve made of the white Roſes, but it is of little Value. We have from the ſame Place beſides, another liquid Conſerve, or Honey of Roſes, which is made with the freſh Juice of the *Provins Roſe* and Honey boil'd together: This is what the Apothecaries call Honey of Roſes.

It is of theſe Roſes we make the beſt Roſe-Water in the World; but it depends entirely on the Honeſty of the Diſtiller, whether he will make all of the pure Roſe, or with the Addition of a great deal of Water; and moſt commonly it is made, as I hinted before, of the Roſe-Wood. The Uſe of this Water is ſo well known, that I need not waſte Time to relate to you the great Conſumption that is made, both by the Perfumers and the Apothecaries, and the large Quantities daily uſed by private Families, upon all Occaſions, eſpecially in Diſeaſes of the Eyes, *&c.* Beſides the Water, there is a fragrant and inflammable Spirit made of Roſes, which is very proper to refreſh and exhilerate the Spirits, as well as to ſtrengthen the Stomach. A white and very fragrant Oil, or Eſſence, may alſo be drawn from Roſes; but the Dearneſs of it is the Reaſon why we ſell but very ſmall Quantities of it. The Roſes which remain in the Alembick, or Still, after Diſtillation, and which are found like a Cake in the Bottom, being dried in the Sun, is that which we call *Roſe-Cake*; but a Decoction of the Buds being ſo much better for all Purpoſes than any thing that can be made from this, it is needleſs to ſay any thing farther of it; and the little Uſe, as well as Virtue, there can be in the Salt made from the Roſe, prevents me entirely from ſaying any thing about it.

Roſe, in *French* and *Engliſh*, a Roſe, is a Flower known through the World; *Lemery.* there are two Kinds of it, one cultivated and the other wild: The Roſe-Buſh is likewiſe call'd in *Latin*, *Roſa*; it is a Shrub which bears hard woody Branches, uſually beſet with ſtrong ſharp Thorns; the Leaves are oblong, indented on their Sides, rough in touching, hanging five or ſeven on the ſame Stalk; the Flower is compoſed of ſeveral, large, beautiful, fragrant Leaves, ſupported by a Cup, or Bud, which becomes afterwards an oval Fruit, of the Figure of an Olive, whoſe Bark, or Covering, is a little

fleſhy; it encloſes, or contains, angular, hairy, whitiſh Seed; the Roots are long, hard and woody; this Shrub, cultivated or uncultivated, is a Hedge Buſh.

The cultivated Roſe is diſtinguiſh'd into ſeveral Kinds; thoſe which are uſed in Phyſick, are the Pale, or Carnation Roſes; the Muſk, or Damaſk-Roſes; the common white and red Roſes: The pale Roſe, call'd in *Latin*, *Roſæ pallidæ*, *ſeu Roſæ incarnatæ*, are fine and large, of a pleaſant Red, or Fleſh Colour, very ſweet to the Smell, and that ſpread their Leaves wide; chuſe ſuch of theſe as are the moſt ſingle and leaſt furniſh'd with Leaves, becauſe the volatile Parts are leſs diffus'd, and their Smell and Virtue is the greater: They afford a geat deal of exalted Oil and volatile eſſential Salt; are purgative, attenuate, and diſcharge a Mucus from the Head, purify the Blood, and purge, chiefly, the bilious and ſerous Humours.

The Muſk Roſe, call'd in *Latin*, *Roſæ Moſchatæ & Damaſcenæ*, are ſmall ſingle white Roſes, which blow not 'till Autumn; they have a Muſk Smell, very ſweet and agreeable; the beſt and moſt efficacious are thoſe that grow in the hot Countries, as *Languedoc* and *Provence*; they yield great Plenty of exalted Oil and volatile Salt: Three or four of theſe Muſk Roſes being bruiſed in a Conſerve, or Infuſion, purge briſkly, ſo that ſometimes they occaſion Blood; thoſe of *Paris* do not work ſo ſtrong, but are more purgative than the pale Roſes.

The common white Roſes, call'd *Roſæ ſativæ albæ*, *ſeu Roſæ albæ vulgares majores*, are large, white and fragrant, a little laxative and deterſive, but are not uſed otherwiſe than in Diſtillations: They contain a great deal of Phlegm, exalted Oil, and but a little eſſential Salt.

The red Roſes, call'd in *Latin*, *Roſæ Rubræ*, *ſeu Roſæ Provinciales*, are of a fine deep red Colour, but of little Smell: They gather them in Bud, before ever they blow, in order to preſerve both their Colour and Virtue, which are deſtroy'd by the Air, if they are entirely expos'd to it. Chuſe thoſe that have the higheſt Colour; thoſe that grow about *Provins* are the fineſt and moſt valued.

The red Roſes are uſed for Conſerves, and are likewiſed dried in great Quantities to keep, becauſe they are employ'd to many Purpoſes, being well dried, ſo as to preſerve their deep red Colour, as well as the Smell they had when freſh. They are aſtringent, deterſive, proper to ſtrengthen the Stomach, ſtop Vomiting, Looſeneſs, Hemorrhages, being taken inwardly: Outwardly, they are uſed for Contuſions, Diſlocations, Sprains, of the Hands or Feet, for Bruiſes, and to ſtrengthen the Nerves and Joints: They are apply'd in Fomentations, Cerates, Ointments and Plaiſters. You ought to obſerve to gather all your Roſes in the Morning before the Sun has got high, for then the eſſential Parts are, as it were, concenter'd by the Coolneſs of the Night; otherwiſe, when the Sun has been upon them, it exhales a conſiderable Part from them. The little yellow Bodies which are found in the Middle of the Roſe, are call'd *Antheræ*; theſe ſtrengthen the Gums, and are uſed in the Teeth-Powders. The wild, or Canker-Roſe, call'd *Cynoſbaton*, I ſhall ſpeak of in its proper Place.

[The Roſes uſed with us in Medicine are,

1. The *Red*, the *Roſe rubra multiplex*. C. B. Pin. 481. *Roſa rubra valde plena*. J. B. 2. 34. This is uſed in the Bud for Conſerve, and dried for Tinctures, *&c.*

2. The *Damaſk*, the *Roſa Damaſcena flore pleno*. Boerh. Ind. A. 2. 152. *Roſa rubello flore majore multiplicato, ſive Pleno, incarnato vulgo*. J. B. 2. 36. Theſe are uſed for the Damaſk Roſe Water, the *Syrupus roſaceus ſolutivus*, *&c.*

3. The *White*, the *Roſa alba vulgaris major*. C. B. Pin. 482. *Roſa Candida plena*. J. B. 2. 44. This is uſed for the Diſtill'd Water. And

4. The *Dog Roſe*, or common Bryar. *Roſa Sylveſtris inodora ſeu canina*. Park. 1017. *Roſa canina inodora*. Ger. 1087. The Fruit of this is uſed for the Conſerve of Heps.

The *Provins Roſe*, ſo much commended here, is the *Roſa maxima multiplex*. C. B. Pin. 481. *Roſa Provincialis ſive Hollandica Damaſcena*. Park. Parad. 413., It is common in our Gardens, but we make no Uſe of it. The *Muſk Roſe* is the *Roſa Moſchata ſimplici flore*. C. B. Pin. 482. *Roſa Moſchata ſimplex*. Park. Parad. 417, which is common in warmer Countries, but never uſed with us: and the *Roſa Pallida* of the Shops is but a Variety of the common *Damaſk Roſe*. The *Bedeguar* of the Shops is the ſpungy Subſtance frequently found on the Stalks of the Briar. And the *Antheræ* are the yellow Chives within the Flower of the *Red Roſe*.]

3. *Of* Saffron.

THE *Saffron*, which the *Latins* call *Crocus*, becauſe of its reddiſh Colour, is the Chive, or Thread of a Flower, of a very beautiful red at one End, and yellow at the other, which is brought from ſeveral Parts. *Pomet.*

That which bears the *Saffron* is a bulbous Root, almoſt like that of the great Shalot, except that it is a little rounder, and of a Colour ſomething redder, from whence ariſe Stalks, adorn'd

adorn'd with long, green, narrow Leaves; at the End of each Stalk comes a deadiſh-blue Flower, in the Middle of which are three little Threads, which is what we call *Saffron*.

The beſt *Saffron*, and which is moſt valued, is that of *Boiſtue* in the *Gatinois*, where it is huſbanded with great Care, being almoſt all the Riches of the Country. They plant the Onions, or Bulbs of *Saffron*, in Spring-Time, in Rows like the Vines, in the Earth: The firſt Year it brings nothing but the Herb, or Leaves, which remain green all the Winter long, 'till the Beginning of Summer, after which the Leaves fall or dye. The ſecond Year it returns with a Flower, in the Middle of which there are three little reddiſh Threads, which are the *Saffron*; when it is ready to be gathered, which is in *September* and *October*, they gather it before the Sun riſes, and then they retire with what they have got; and after it is clean they lay it upon Hurdles, or Bake-Stones, under which is a little Fire to dry it: The next Day they return to gather ſuch as ſprung afreſh ſince the other was got; for it is a wonderful Thing that theſe Bulbs recover again in four and twenty Hours, and continue ſeveral Days to be gather'd and dry'd, 'till the Roots will yield no more.

There grow in *France* ſeveral other Sorts of *Saffron*, as that of *Orange*, *Toulouſe*, *Angouleme*, and of *Menille* in *Normandy*; but the laſt is the worſt of all, and none of the other three are ſo fine as the true *Gatinois*, for which Reaſon it is preferr'd before all the reſt: And to have the requiſite Qualities, it ought to be well dry'd, of a beautiful Colour, long and large, well tufted, of a fine red, good Smell, with the feweſt yellow Threads poſſible, and not ſmelling either burnt or muſty.

Saffron is much uſed in Medicine, being one of the beſt Cordials we have. It ſerves for ſeveral Uſes, becauſe of its yellow Dye. The *Germans*, *Dutch* and *Engliſh* are ſuch Admirers of the *Gatinois Saffron*, that they tranſport great Quantities of it every Year in Times of Peace, into their own Country. [*Here our Author's Love for his Country, or Ignorance of the Goodneſs of* Engliſh Saffron, *which is preferable to any in the World, has led him into a palpable Miſtake.*]

As there is a great deal of *Saffron-Powder* ſold, ſo it is generally a Cheat upon honeſt People, that being almoſt only ſold in Powder, which has been uſed beforehand by the Druggiſt or Apothecary, to make Tinctures, Spirits, and the like, with. We have *Saffron* brought from *Spain* that is good for little or nothing; they ſpoil it entirely through their Ignorance, which makes them believe that the *Saffron* will not keep without it be put in Oil. The Antients made *Paſtilles* with *Saffron*, Myrrh, Roſes, Starch, Gum Arabick and Wine; formerly they were brought from *Syria*, and uſed for ſore Eyes, and to provoke Urine. This Paſte, or Troche, was call'd *Crocomagma*, and by us *Paſtilles*, or *Saffron Troches*; but this Remedy is little known or uſed at preſent. There may be a Salt and Extract made from *Saffron*, but the Dearneſs of them is the Reaſon there is but little made: The Tincture made with Spirit of Wine is uſed in Hyſterical Caſes, given in any convenient Liquor, from four to twelve, or more Drops.

4. *Of* Baſtard-Saffron.

Baſtard-Saffron is a very common Plant, which grows about two Feet high, furniſh'd with Leaves that are rough, pointed, longiſh, green and ſlaſh'd; at the End of each Branch ariſes a huſky Head, of the Bigneſs of one's Thumb's End, of a white Colour: From this Head come ſeveral red and yellow Filaments, or Threads, which is what we call *German Saffron*, *Baſtard-Saffron*, or *Flowers* of *Carthamus*: But as they do not trouble themſelves to propagate this at *Paris*, we have it brought from *Alſace*, and both Sides the *Rhine*, where they cultivate it carefully. It grows alſo plentifully in *Provence*, and other Places.

This *Saffron* is in great Vogue among the Feather-Sellers, and for making *Spaniſh-red*; but has no Uſe in Phyſick, except in its Seed, which the Apothecaries uſe, after having cleans'd it well, in the Compoſition of their Tablets of *Diacarthamum*, which it is the Baſis of. Chuſe ſuch Seed as is heavy, well fed, clean, new and dry, as can be got, and ſee that it be not mix'd with Melon, or Gourd-Seed; to diſtinguiſh betwixt which, know that the true *Carthamum* is round at one End, and pointed at the other; beſides that, it is never ſo white as the Melon-Seed.

5. *Of* Saffranum, *or the* Leſs Baſtard-Saffron.

THERE is another *Baſtard-Saffron*, brought from the *Levant*, about *Alexandria*, *&c.* which is in little Threads or Chives, extremely fine and ſmall, curl'd and reddiſh.

This *Saffron* is alſo a Kind of *Carthamus*, which differs not from that afore, but only as it is much leſs. We chuſe this Flower of the higheſt Colour and fineſt Red; and likewiſe as freſh as we can meet with. The Uſe of it is for the

Dyers about *Lyons* and *Tours*, where they conſume the greateſt Quantity of it, to make their fine Colours, as the bright *Spaniſh* Carnation, and the like.

Crocus, or *Crocus Sativus*, according to *Tournefort* and *Bauhinus*, in *Engliſh*, *Saffron*, is a Plant which bears ſeveral long Leaves, very narrow, and furrow'd. It ſprings about the End of *Auguſt*, or Beginning of *September*, with a low Stalk, or rather Foot, which ſupports a ſingle Flower, ſomething reſembling that of the *Colchicum*, or diſpoſed like *a Flower de Lis*, but much leſs, being divided into ſix Parts, of a blue Colour, mix'd with Red and Purple; in the Middle of which Flower riſe three ſmall Threads, in the Nature of a Tuft, but divided, and of a fine Colour and Smell, which, when gather'd and dried, is the *Saffron*. *Lemery.*

The Root of it is a Bulb as large as a Cheſnut, and ſometimes bigger, fleſhy, ſweet to the Taſte, and cover'd with white or aſh-colour'd Tunicles or Coats, ſupplied externally with a great many Fibres, whereby 'tis faſten'd to the Ground. They cultivate this Plant in ſeveral Parts of *France* [*as obſerv'd by* Pomet,] but the beſt is that of *Gatinois*, and the worſt from *Normandy*. Chuſe your *Saffron* new and freſh, that is well dried and oily; but take Care that it be not artificial, by keeping it in oily Skins or Bladders, as is uſed by ſome. Let it be of a red Colour, with as little Yellow among it as may be. It abounds with an exalted Oil, mix'd with volatile Salt; and is cordial, pectoral, anodyne, hyſterick, alexiterial, aperitive, uſed ſometimes as a Reſtorative in our Food, and in Collyries, to preſerve the Eyes in the Small Pox. It enters the Compoſition of ſome Plaiſters, particularly *Oxycroceum*, but is chiefly uſed internally.

[The Plant which produces the *Saffron* is the *Crocus Sativus*. C. B. Pin. 65. *Crocus ſativus autumnalis*. Park. Parad. 167. The beſt *Saffron* in the World is that of our own Growth. It is excellent to enliven the Blood, remove Obſtructions of the Viſcera, and expell the morbid Humours in malignant Fevers. It is ſaid that in *Hungary* and *Poland* they eat it as a Cordial, ſometimes an Ounce or more at a Time; but taken in exceſſive Quantities with us, it brings on Convulſions, Deliriums, and Death, if not prevented. Its uſual Doſe in Powder is about ſix Grains, and in Tincture half a Dram.

The *Baſtard-Saffron* is the *Carthamus ſive Crocus*. J. B. 3. 79. *Carthamus officinarum flore Croceo*. Tourn. Inſt. It is cultivated in ſome Places, and flowers in *July*. The leſſer Kind differs from this only in its Place of Growth and Manner of curing.]

6. *Of* Balauſtine, *or the wild* Pomegranate.

THE *Balauſtines* are Flowers of the wild *Pomegranate*, which are brought from ſeveral Parts of the *Levant*. We ſell two Sorts of *Balauſtines*, namely, the fine and the common. We mean by the fine the Huſks, together with their Flowers; the common have nothing but the Huſk. The *Balauſtines* have Uſe in Medicine, as they are powerful Aſtringents; make choice of ſuch as are freſh, well ſupplied with Flowers of a deep Colour, that is, a fine Velvet red, as little mix'd with Chaff and Dirt as poſſible. The common Sort are not worth Regard, being in a Manner wholly uſeleſs. *Pomet.*

As to the domeſtick *Pomegranate*, we never ſell the Flowers of it, but we have Plenty of the Fruit brought from *Provence* and *Languedoc*, as a Fruit that is very agreeable to eat, as well as uſeful in Phyſick, the Juice ſerving to make a Syrup with. We ſell principally the Rind of the *Pomegranate*, as being an Aſtringent; but take Care that it be well dried, and does not ſmell muſty: For the moſt Part of thoſe who ſell *Pomegranate-Bark*, ſell nothing but ſuch as hath been dried whole, without emptying, and when they are ſo dried, and come to be uſed, they have ſuch an ugly Taſte, that they are rather fit to make one ſick than relieve one.

We ſell alſo what is call'd a dry'd Conſerve of *Pomegranate*, which is nothing elſe but a little melted Sugar colour'd, with the Addition of a little Cochineal, Cream of Tartar, and Alum. This Conſerve is difficult to make, becauſe of the ſmall Quantity of Alum which is oblig'd to be mix'd with it; and there is nothing in the World more contrary to Sugar than Alum; which ſhews the Error of thoſe who ſay that they mix Alum with Sugar to refine it; and what we here aſſert is ſo true, that four Ounces of Alum is capable of hindering two thouſand Weight of Sugar from incorporating. But to come to our Conſerve. It is adviſable to keep but little Quantities of it, for there is but little Demand for it, and when it grows moiſt there is no recovering it to its Conſiſtence again, as we can other Things of that Kind, becauſe of the Alum. In a Word, Alum is to Sugar as Oil to Ink.

Punica Malus, or the *Pomegranate*, is a Shrub, whereof there are two Kinds, one cultivated, or domeſtick, and the other wild. The firſt is call'd by *Tournefort*, &c. *Punica quæ malum Granatum fert*, that which produces the *Pomegranate*; by *Parkinſon* and *C. Bauhinus*, it is call'd *Malus Punica ſativa*: *Lemery.*

The

6

Wild Pomegranate.

Domestick Pomegranate.

7

Arabian Stœchas.

y entire Flower of y Stœchas.

Citron or Yellow Stœchas.

The Branches are ſmall, angular, arm'd with Thorns; the Bark is reddiſh; the Leaves are ſmall, and reſemble thoſe of the Myrtle, but leſs pointed, hanging by reddiſh Stalks; of a ſtrong Smell when they are cruſh'd or bruiſed. The Flower is large, beautiful and red, inclining to purple, compoſed of five Leaves, like a Roſe in the Hollow of a Cup, repreſenting a little Baſket of Flowers: The Cup is oblong, hard, purpliſh, large at the Top, having, in ſome Meaſure, the Figure of a Bell; they call it *Cytinus*. At the Bottom comes a Fruit after the Flower is gone, which grows into a large round Apple, adorn'd with a Crown, form'd by the Top of the Cup; the Bark is as hard as Leather, of a purple Hue, dark without and yellow within. This Apple is call'd in *Latin*, *Malum Punicum*, *ſeu Granatum*, the *Pomegranate* in *Engliſh*. It is divided internally into ſeveral Partitions full of Seed, heap'd one upon another, being fleſhy, of a fine red Colour, abounding with a very pleaſant Juice, each of which contain, in the Middle of them, an oblong Grain, yellow, and ſometimes very irregularly form'd.

There are three Sorts of *Pomegranates*, which differ in Taſte; the one Sort are aigre, or ſharp, the other ſweet, and ſome are betwixt both; manifeſtly neither the one nor the other prevailing, call'd vinous. Theſe *Pomegranates* are improved in our Gardens, eſpecially in all the warm Countries, as *Spain*, *Italy*, *France*, &c.

The ſecond Sort is call'd *Punica Sylveſtris*, the wild *Pomegranate*. This is a Shrub like the former, but more rough and thorny: They gather the Flowers when in their Prime; and they are what they call *Balauſtia*, or *Balauſtines*; theſe are dry'd to keep, which the Merchant brings from the *Levant*. The wild *Pomegranate* grows only in the hot Countries, contains in it a good deal of Flegm, Oil, and eſſential or acid Salt.

The *Balauſtines* ought to be choſen new, large, fair, well blown, of a deep Colour, or reddiſh purple, affording Plenty of volatile Salt and eſſential Oil. They are proper for Bloody Fluxes, *Diarrhœa*, Ruptures, to ſtop a Gonorrhœa, Whites in Women, and ſpitting of Blood. The Bark is uſed for the ſame Intentions.

The Juice of the *Pomegranate*, which is ſharp or acid, is moſt valued in Phyſick, as proper to fortify the Stomach, ſtop Vomiting and Looſeneſs, precipitate Bile and Choler: The Seed is likewiſe aſtringent, and uſed in Injections. There is found upon the Rocks in the Sea, a Stone, in Shape of an Apple, which both in Figure and Colour reſembles this, and therefore is call'd a Sea *Pomegranate*.

[The *Pomegranate-Tree*, which bears the Fruit, is the *Malus punica ſativa*. C. B. Pin. 438. *Granata Malus*. Mont. Ind. 42. This is a wild Tree in hot Countries, though only to be ſeen in Gardens here. It flowers in *May*.

The *Balauſtine-Tree*, which produces the Flowers of that Name, is the *Balauſtia Hiſpanica*. I. B. 1. 82. *Balauſtia flore pleno majore*. C. B. Pin. 438.

The Flowers of the firſt Kind are ſometimes uſed, and are call'd *Cytini*; but they are ſeldom to be ſeen in the Shops, as the *Balauſtines* are eſteemed ſo much the better Medicine.]

7. *Of* Arabian Stœchas.

THE *Stœchas*, very improperly call'd the *Arabian Stœchas*, as moſt of that which we ſell is brought to us from no other Part than *Provence* and *Languedoc*, where it grows plentifully, is the Flower of a Plant which has very narrow green Leaves; this Flower comes in the Nature of a Spike, of the Size of one's Finger's End, from whence ariſe little blue Flowers, almoſt like a Violet. *Pomet.*

Part of the *Stœchas* we ſell comes from *Marſeilles*, by reaſon of the Plenty they have in the Iſles of *Hyeres*, which were heretofore call'd *Stœchades*, and probably gave their Name to this Flower. The little Uſe this Flower is of in Phyſick, makes it that we ſell but ſmall Quantities, which makes it generally old, and of little or no Taſte, Smell, or Virtue.

There is another *Stœchas* we ſell beſides, whoſe Flowers are of a Citron Colour, to which ſome have given the Name of the *Yellow Amaranthus*; but the little Uſe that is made of it, gives me no Encouragement to ſay any Thing further, but that it is a very common Plant in *Provence* and *Languedoc*. The *Arabian Stœchas* grows ſo large and thick in *Spain*, that it is found as big as one's little Finger, and the Spikes or Heads ſometimes white. The chief Uſe of it is for Treacle, wherein there needs no farther Direction but to chuſe it freſh, good, clean and neat.

Stœchas Purpurea, according to *Bauhinus* and *Tournefort*, is a beautiful Plant, which bears, in the Nature of a Shrub, ſeveral Stalks, of a Foot and a half, or two Feet high, woody, and divided into ſeveral Branches. The Leaves are like thoſe of Lavender, but much leſs, narrower, and whiter. The Tops ſupport or carry Ears, or huſky Heads that are oblong, mounted each on a Cluſter of Leaves, and adorn'd with little Flowers, purple or bluiſh, diſpoſed in Rows the Length of the Head. There ſucceeds to each of the Flowers four *Lemery.*

four Seeds, that are almoſt round, blackiſh, and encloſed in a Covering, which ſerves as a Cup to the Flower. The Roots are woody. All the Plant has an aromatick Smell, with a Taſte ſomething acrid and bitter. It grows in great Plenty in *Languedoc*, *Provence*, and the Iſles of *Hyeres*, call'd by the Antients the *Stœchas Iſlands*. It delights in dry and ſandy Ground, and is brought dry to the Shops, where the Flowers are only uſed. It is call'd *Arabian Stœchas*, becauſe the greateſt Quantities are brought from thence. It is attenuating, deterſive, aperitive, cephalick, hyſterick, ſtrengthens and comforts the Brain, provokes Urine and the Terms, reſiſts Poiſon, and expels Melancholy.

Some ſay this Plant grows near the *Rhine*, that it has a pretty large Flower, much in the Shape of Hops, of a fragrant Smell when growing, yellow and bluiſh, but when dried of a brown Colour, and in Knobs. Thoſe which are the largeſt, beſt ſcented, and leaſt broken, are the beſt. Theſe Flowers are diaphoretick and vulnerary, uſed chiefly in Diſeaſes of the Head and Nerves, and by their Fume they dry up Defluxions. They may be uſed in Powder, from a Dram to two Drams. A *Lixivium*, or Lye, of the Aſhes, in fair Water, will kill Lice and Nits in the Head. The Spirit of this Flower is reckoned excellent againſt all cold Diſeaſes of the Womb, Wind, Gripes and Convulſions; and exceeds *Hungary* Water internally or externally. The Syrup of *Stœchas* is given in Coughs, Catarrhs, Barrenneſs.

[Theſe are the Flowers of the *Stœchas Arabica vulgo dicta*. J. B. 3. 277. *Stœchas purpurea*. C. B. Pin. 216. The Plant is common in *Spain* and *France*; it is cephalick and deobſtruent.

There is another Species of this Plant that has a Place in the Catalogues of Officinal Plants, and is there call'd *Tragium alterum*, which is the *Tragium alterum Dioſcoridis quibuſdam foliis Trichomanis*. J. B. 3. 279. *Stœchadi ſerratæ Affinis*. C. B. Pin. 216. The Root of this is accounted an Aſtringent, but is ſeldom ſeen or heard of.

The Yellow is the *Stœchas citrina tenuifolia Narbonenſis*. J. B. 2. 154. *Elichryſon ſive Stœchas citrina anguſti folia*. C. B. Pin. 264. The Flowers of this are accounted good in Obſtructions of the Viſcera and King's Evil, but they are ſeldom uſed.]

8. *Of* Roſemary.

Pomet. *Roſemary* is a Plant ſo common, it would be a needleſs Thing to give a Deſcription of it, but the conſiderable Sale there is of what is produced from it, engages me to treat of it. Therefore I ſhall begin with the Oil, which is made from the Leaves and Flowers, by Means of an Alembick, with a ſufficient Quantity of Water; from which, by the Help of Fire, we have a white, clear, penetrating and fragrant Oil, indowed with a great many excellent Qualities: But the Dearneſs of this Oil, by reaſon of the ſmall Quantity that it yields, occaſions certain People to adulterate it, by mixing a conſiderable Part of Spirit of Wine, well deflegmated, with it, or elſe they ſell inſtead of it, Oil of Spike, Lavender, and other aromatick Oils; though it is eaſy to diſtinguiſh Oil of *Roſemary*; as being white, clear, and tranſparent; of a ſweet Smell, and very penetrating.

The Uſe of this Oil, which is call'd the Eſſence or Quinteſſence of *Roſemary*, is not very conſiderable in Medicine; but it is very much uſed by the Perfumers, to aromatiſe their Liquors, Waſh-Balls, *&c.* Some eſteem it greatly for the Cure of Wounds, as a very ſpecifick Balſam, which has given occaſion to ſame Strollers and Mountebanks to make it a mighty Commodity, and ſwear that theirs is true Oil or Eſſence of *Roſemary*; when what they ſell for it is nothing but Oil of Turpentine and Pitch, melted together, and colour'd with Alkanet.

The next Merchandize we ſell that comes from *Roſemary*, is the Queen of *Hungary*'s Water, which has made ſuch a Noiſe in the World for ſo many Years together, and is pretended to be a Secret deliver'd by a Hermit to a certain Queen of *Hungary*. The great Virtues appropriated to this Water muſt be owing to the Spirit of Wine and *Roſemary* Flowers, from which two Things it is only made. There are a thouſand Cheats impoſed upon the World by thoſe who pretend to have the true Receipt of making the right *Hungary-Water*: And theſe are the People, generally, that ſpoil this Medicine, by making it of the worſt Materials, and in ordinary coarſe Veſſels; as their Manner is to take the whole Plant of *Roſemary*, infuſe it in *Aqua Vitæ*, or common Spirits, and ſo diſtil it in an Iron Pot, with an Earthen Cap fix'd to it. You have it deſcrib'd at large, and the beſt Method of preparing it, by Mr. *Verni*, Apothecary of *Montpellier*, in his *Pharmacopœia*, or Treatiſe of diſtill'd Waters, *pag.* 829. and Mr. *Charas*, in his *Pharmacopœia*, *pag.* 632.

The Uſe of *Hungary-Water* is ſo univerſal, and the pretended Virtues ſo many, that it wou'd be endleſs to attempt to enumerate them; beſides, there are ſo many Treatiſes take Notice thereof, that it wou'd be a Work altogether needleſs.

We likewiſe ſell the dry'd Flowers, and Seed and Salt of *Roſemary*, but in little Quantities.

We

8

Rosemary.

Lavender.

9

Dodder of Thyme.

11

ifnague or Toothpick Flower.

12

Pansies or Hearts Ease

We have likewiſe a liquid Conſerve of the Flowers. Beſides the Oil of *Roſemary*, they bring us from *Languedoc* and *Provence* Oil of Spike, which is made of the Flowers and the ſmall Leaves of a Plant which the Botaniſts call *Spica, ſive Lavendula mas, vel Nardus Italica, aut Pſeudo-Nardus*, which ſignifies Spike, male Lavender, *Italian*, or Baſtard-Nard: Theſe grow common in *Languedoc* and *Provence*, and upon all the Mountains thereabout. This Oil is frequently adulterated; and many People ſell for it Oil of Turpentine, colour'd with a little Petroleum.

This Oil of Spike is proper for ſeveral Sorts of People; as Painters, Farriers, and others; beſides its Uſe in Phyſick, wherein it is accounted cephalick, neurotick, cardiack, ſtomachick, and uterine; a great Strengthener of any weaken'd Part, eſpecially the Head or Nerves; excellent againſt Vertigoes, Lethargy, Apoplexy, Epilepſy, Palſy, Convulſions, Syncope, Fainting Fits, Palpitation of the Heart; a good Specifick to ſtrengthen the Eye-Sight, and open Obſtructions of the optick Nerves, cure a ſtinking Breath, and relieve in the Spleen and Jaundice. We have from the ſame Places the Oils of Lavender, Marjoram, Thyme, Sage, Mint, and other aromatick Plants.

Roſmarinus hortenſis anguſtiore folio, Lemery. according to *C. Bauhinus* and *Tournefort*; or, the Garden Roſemary with the narrow Leaf. This is a woody Shrub, whoſe Stalk grows four or five Feet high, and ſometimes much more, having ſeveral long Branches, aſh-colour'd, on which grow long narrow Leaves, that are hard and ſtiff, of a browniſh Green without, and whitiſh underneath; a little ſucculent, of a ſtrong Smell, aromatick, and of a pleaſant agreeable biting Taſte. The Flowers are ſmall, but numerous, mix'd among the Leaves, each of which has a Tail cut at the Top into two Lips, of a pale blue Colour, inclining to white, of a ſweeter Smell than the Leaves. When the Flowers are fallen, there follow ſome little Seeds, that are almoſt round, join'd four together, and encloſed in a *Capſula*, or Covering, which ſerves as a Cup to the Flower. The Roots are ſmall and fibrous. They cultivate this Shrub in Gardens, but it grows without Improvement near *Narbonne* in *Languedoc*, and flowers in *May* and *June*. The Flower is call'd *Anthos*, which is as much as to ſay *the Flower*, by way of Excellence. Both the Leaf and Flower are uſed in Medicine; but thoſe of *Languedoc* are to be valued before any of the more Northern Parts of *France*, becauſe the Heat of the Climate renders the Plant there more ſpirituous and bitter. It yields a large Quantity of eſſential Oil and volatile Salt, beſides fix'd Salt, which it affords great Plenty of, by burning to Aſhes, making a Lye of them, then filtering, and afterwards evaporating in a Sand Furnace to a due Dryneſs.

[The Officinal *Roſemary* is the *Roſmarinus coronarius fruticoſus*. J. B. 2. 25. *Roſmarinus hortenſis Anguſtiore folio*. C. B. Pin. 217.

The Plant from which the Oil of Spike is made, is the *Lavendula minor ſive Spica*. Ger. 468. *Pſeudo-nardus quæ Lavendula vulgo*. J. B. 3. 282. This is a ſmaller Species of Lavender; but is not that Kind commonly known here by the Name of Lavender, and uſed in the *Spiritus Lavendula Compoſitus, &c.* That is the Flower of the *Lavendula major ſive vulgaris*. Park. 72. *Lavendula latifolia*. C. B. Pin. 216. and indeed is the moſt fragrant of all the Kinds.]

9. *Of* Dodder *of* Thyme.

Epithymum is a Plant like a Buſh of Hair, found upon Thyme, from whence it took the Name of *Epithymum*, or Thyme-Weed. *Pomet.* We ſell two Sorts of it, to wit, the *Epithymum* of *Candia*, and that of *Venice*: The firſt in long Threads, of a browniſh Colour, and pretty aromatick Smell. The ſecond Sort, on the contrary, is very little, and curled, and has a great deal ſtronger Smell than the other. There is a third Sort of *Epithymum*, which our Herbariſts ſell by the Name of *Country Epithymum*; but this ought to be entirely rejected, as it is good for nothing at all, having neither Smell nor Taſte, which is the very reverſe of the two former, which you ought to chuſe freſh, odoriferous, and the leaſt bruiſed that can be. This *Dodder* is of ſome Uſe in Phyſick, as it is warm, deſiccative, and aperitive; beſides which it enters into ſeveral *Galenical* Compoſitions.

There is another Kind of a Plant we ſell, which we call *Cuſcuta Podagra, Angina Lini, Dodder, Whitwinde, Gout-Herb*, &c. This Plant is the ſame Thing with the *Epithymum*, having no Difference; but according to the Plants it grows upon it changes its Name. And to prove what I ſay, I ſhall relate what M. *Tournefort* wrote to me on this Subject.

The *Cuſcuta*, ſays he, is a Plant of a ſingular Kind: It comes from a very ſmall Seed, that produces long Threads or Strings, that are as fine as Hairs, which periſh very ſoon, as alſo does the Root, unleſs there are ſome Plants near it, for it to twiſt itſelf about; they catch hold of the Stalks or Branches of any ſuch, and draw their Nouriſhment from the Bark of the Plant. It bears ſeveral Flowers, at Diſtances, gather'd into Balls:

The

The Flowers are like little Cups, white, tending to a Fleſh Colour, cut into four Quarters, in each of which is a round *Capſule*, membranous, and fill'd with four or five Seeds, ſmall, brown, or greyiſh, as little as Poppy-Seeds.

This Plant grows indifferently on all Sorts of Herbs, and there are above a hundred Plants to which it clings; and it is believ'd, that as it receives its Nouriſhment from thoſe Pants which it ſurrounds, it likewiſe partakes of the ſame Qualities. The *Dodder* that grows upon Flax, or Flax-Weed, is what we generally uſe and mean by *Cuſcuta*, as that which grows upon Thyme is the *Epithymum*. It corroborates, opens Obſtructions of the *Viſcera*, and paſſes by Urine.

Epithymum, ſive Cuſcuta minor, is a Kind of *Cuſcuta*, or *Dodder*, that is ſtringy, and winds itſelf upon any Plant it approaches, being of a reddiſh brown Colour, and having a pleaſant fragrant Smell; that which has feweſt Stalks in it is to be preferr'd. By ſeeing how *Dodder* grows upon Nettles, Hemp, *&c.* we may apprehend what it is like. It is brought to us out of *Turky*, *Italy*, *Venice*, and other Pars of the *Streights*. It is reckon'd amongſt Cathartieks, and ſaid to purge watry Humours and Melancholy; is aperitive, arthritick; purifies and cleanſes the Blood; is good for the Spleen and *Hypochondria*, Wind, Rheumatiſm, and Gout, being beaten to Powder, or taken in Infuſion in Water, Wine, or Whey. *Lemery.*

[The *Epithymum* is the *Cuſcuta minor*, Tourn. Inſt. 692. *Cuſcuta minor, ſive Epithymum*, Buxb. 89. and the common *Dodder*, the *Cuſcuta, ſive Caſſutha*, Ger. 462. *Caſſuta, ſive Cuſcuta*, J. B. 3. 266. Neither of them are at all uſed in the preſent Practice.

10. *Of* Spikenard.

SPikenard, or *Indian Nard*, is a Kind of Spike of the Length and Thickneſs of one's Finger, adorn'd with little brown Hair, or Nap, that is rough, coming from a ſmall Root of the Size of a Quill. They ſay that the *Spikenard* grows in Tufts or Buſhes cloſe to the Ground, and that it raiſes a ſlender, long Stalk; but as I never ſaw it growing, I have ſet it down in the Manner as we ſell it, according to the Figure engrav'd with the Root, to ſhew that the Root is not ſo ſmall and ſlender as Authors wou'd make it. As I have Pieces like that I had the Figure engrav'd from, which I found among the *Spikenard* I keep for Sale. *Pomet.*

We ſell three Sorts of *Spikenard*, namely, the *Indian Spikenard*, ſo call'd, becauſe it comes from *India*, whereof there are two Sorts, *viz.* the great and the Small. The ſecond is the *Mountain-Spikenard*, which is brought from *Dauphiny*. And the third is the *Celtick-Spikenard*. The ſmall *Indian Spikenard* is according as it is expreſſed in the Figure; it is of a bitter Taſte, and a ſtrong diſagreeable Smell; and the large is of the Length and Thickneſs of one's Finger, and much of the ſame Quality with the other; it is uſually browner, and more upon the red.

As to the *Celtick Nard*, it is in little ſhelly Roots, full of pretty long Fibres, from whence ariſe little long Leaves, that are narrow at Bottom, and large towards the Middle, and a little ſharp at the End; of a yellow Colour, ſomething upon the red; when they are dry'd, and brought to us, they are fit for tranſporting. In the Middle of the Leaves comes a little Stalk, about half a Foot high; at the End of which are many ſmall Flowers, of a Gold Colour, ſhap'd like Stars. This *Spikenard* is brought us in Bunches from different Parts, but the greateſt Plenty comes from the *Alps*, from whence we have it by the Way of *Marſeilles* or *Rouen*. The Uſe of this is only for the great Treacle, where it undergoes a long and difficult Preparation; for they are forc'd to put this ſome Time in a Cellar to make it moiſt, that its little Root may be the eaſier clean'd, which is the only Part put into the ſaid Compoſition. One ought to take Care of ſeveral little extraneous Plants, which are uſually found mix'd with it; as *Baſtard Spikenard*, *Hirculus*, or the like. Chuſe all the Kinds as freſh and fragrant as poſſible.

The great *Indian Spikenard* ſhould never be uſed but when the little one is not to be had; the Mountain Kind ought to be entirely rejected.

Nardus Celtica, or *Spica Celtica*, is a little knotty Root, yellowiſh and aromatick, being form'd like an Ear, from whence it takes the Name of Spike or *Spica*. It bears fine ſmall Fibres, or ſlender Tails, pretty long, which ſupport ſmall oblong Leaves, narrow at the Bottom, large or broad in the Middle, and ending in a Point of a yellow Colour: there riſes among the Stalks a little Stem of about half a Foot high, bearing on the Top a good many Flowers in Form of Stars: It grows in the *Alps*, *Tyrol*, *Liguria*, *Carinthia*, *Styria*, &c. That is beſt which is freſh, ſweet-ſcented, with many ſmall Fibres, full and ſtrong, or not brittle; it is hot and dry, and of the Nature of the *Indian Spikenard*, but not altogether ſo ſtrong; it ſtrengthens the Stomach, expels Wind, is good againſt the Cholick, and provokes Urine; it may be given in Powder, from a Scruple to a Dram, and in Tincture to half an Ounce. *Lemery.*

Nardus

le Indian Spicknard.

Celtick Spicknard.

great Indian Spicknard.

French Spicknard.

iard Spicknard.

Bouquain or Hirculus.

Spicknard wthout root.

Nardus Indica, or *Spica Indica*, the *Indian Spikenard*, is a Kind of Ear as long and thick as one's Finger, light, and ſupplied with long Threads, or Hairs, that are reddiſh, not brown, of a ſtrong, unpleaſant Smell: It grows in *India*, and is brought thence to *Alexandria* in *Ægypt*, and from thence to *Venice*, and ſo hither; and is call'd *Spica*, becauſe it reſembles an Ear of Corn. There is a Baſtard *Spikenard*, which is a Sort of Lavender; a ſecond Sort of *Narbonne*; and thirdly, a Mountain *Spikenard*, like *Valerian*. When you chuſe the *Indian Spikenard*, let it be ſuch as is dry, of a yellowiſh red, or Cinnamon-Colour, freſh, ſmooth, with a long Beard, or Fibres, and a ſharp Spike, biting on the Tongue, ſweet-ſcented like *Cypreſs*, and keeping its Scent long. If it be moiſt or whitiſh, or rough, and without Hairs, and Fibres like Wooll, it is naught: It is hot, cephalick, ſtomachick, and alexipharmick; attenuates and aſtringes; ſtops Fluxes, yet provokes Urine and the Terms, powerfully expels Wind, and cures the Jaundice; it reſiſts the Malignity and Poiſon of the Plague, and all Manner of malign and peſtilential Fevers: It is uſed in Powder, beſides its being an Ingredient in *Mithridate*, *Venice* Treacle, and other Antidotes. Its Doſe is from half a Dram to a Dram and a Half; and there may be an excellent compound Oil made of it, with the Addition of other Spices.

[The *Indian Spikenard* is the Root and hairy Fibres of the wither'd Leaves of the *Gramen Cyperoides aromaticum Indicum*, Breyn. Prodr. 2. 53. It is brought to us from the *Eaſt-Indies* and *Egypt*.

The leſſer Kind of this, mention'd by *Pomet*, differs in nothing from the larger, but that it is the Root of the younger and ſmaller Plants, and for that Reaſon is commonly the ſtronger ſcented.

The *Celtick Spikenard* is the Root with the firſt Leaves of the *Nardus Celtica Dioſcoridis*, C. B. Pin. 165. *Nardus ſive Spica Celtica*, Park. 117.

And the *Mountain Spikenard* the Root and Leaves of the *Valeriena Nardus dicta radice Olivari*, Hiſt. Ox. 3. 103. *Nardus Montana tuberoſa*, Park. 116. This is ſuppos'd to have the ſame Virtues with the *Celtick*, but is but little uſed.]

11. *Of* Biſnague, *or* Tooth-Pick-Flower.

Pomet. THE *Biſnague*, or *Viſnage*, is the Tufts and Taſſels of a Plant whereof you have the Figure under that Name, which grows plentifully in *Turky*, from whence we have it brought to ſell. This Plant is cultivated in ſeveral Parts of *France*, but chiefly in the Royal Garden at *Paris*. Of the whole Plant we ſell nothing but the Taſſels, becauſe the People of Quality, in Imitation of the *Turks*, uſe them as *Tooth-Picks*; and the rather, becauſe they are of an excellent good Taſte: As to your Choice, you need not be otherwiſe curious, than in taking ſuch as are whole, the largeſt and faireſt you can get.

[Theſe are the Seeds of the *Gingidium Fœniculi folio*, C. B. Pin. 191. *Gingidium verum Syriacum*, Park. 890.

Thapſia orientalis, anethi folio, ſemine eliganter crenato, Tourn. Cor. 22. Boer. Ind. 60. This is the true oriental Kind. There are alſo the Seeds of another Plant put to the ſame Uſe, call'd the *Spaniſh Tooth-Pick*, which is the *Gingidium umbella longa*, C. B. Pin. 151. *Viſnaga Gingidium appellatum*, Park. 890. *Viſnaga*, Boer. Ind. Æ. 49. The Plants have both the ſame Virtues with Fennel, but are never uſed, except in the Taſſels, which make excellent *Tooth-Picks*.]

12. *Of* Hearts-Eaſe.

Pomet. BEſides the *Biſnague*, we ſell a certain Flower, which is brought us from *Provence* and *Languedoc*, or from *Lyons*; becauſe of its bluiſh Colour, and its Reſemblance to Violets, when dry'd; upon which Account the Apothecaries uſe it inſtead of *March Violets* in ſeveral of their Compoſitions, where the true Violets are required, which is an Abuſe, as it has been obſerv'd by Mr. *Charas*, in his *Pharmacopœia*, the ſecond Edition, *Page* 334.

But theſe are not true Violet Flowers, but the Flowers of a Plant, whoſe Figure is here given under this Head, and which is what the Botaniſts call *Viola Tricolor erecta*, *Aſſurgens Tricolor Dodonæi*, &c. and others *Viola Pentagonia*; in *Engliſh*, Panſy or Fancy; *Flos Trinitatis*, by ſome, *Trinity-Flower*, and by others *Hearts-Eaſe*: It is call'd the Flower of Trinity from having three Colours; to wit, the Violet, the blue, and the yellow; ſome have thought theſe Flowers, tho' erroneouſly, a proper *Succedaneum* for true Violets; which being ſo well known in all Countries, and treated of in every Herbal and Diſpenſatory, I ſhall ſay nothing further of, either in relation to the Syrup, Flower, Seed or Comfit; but adviſe every Body to apply themſelves to honeſt People when they want any of them, that they may furniſh them with what is true, natural, and not decay'd.

There are other Sorts of Flowers sold by us, as red Poppy, Colt's-Foot, St. *John*'s Wort, Centaury, Cat's-Foot, and Lilly of the Valley, and several others People are furnish'd with from the Herb-Shops, and publick Markets in *Paris*, as I told you before; for which Reason there are a great Variety of Simples that we do not keep in our Shops.

Herba Trinitatis, *Viola Tricolor*, *Jacea major*, *sive Viola Tricolor*, *sive Trinitatis flos*, *Pansy*, or *Pensie* in *French*, and *Fancy* in *English*, is a Kind of Violet, or Plant, bearing its Leaves upon creeping Stalks, like those of Ground-Ivy; the Flowers are blue, purplish, or white and yellow, without any Smell, each composed of five Leaves. After the Flower is gone, there appears a Pod, or Bag, which contains several small Seeds; the Root is fibrous and stringy. This Plant is cultivated in our Gardens, flowers most of the Summer, and yields some essential Salt and Oil: It is incisive, vulnerary, detersive, penetrating and sudorifick; good for Ulcers of the Lungs, Coughs, Obstructions of the Womb and Gall: The Juice taken in White Wine, *&c.* is good *against Fevers* and Inflammations, drank for a Continuance of three Weeks or a Month; it is said to be a Specifick in the Venereal Disease: The saline Tincture is much more effectual for that and other Purposes above-mentioned: Dose three Drams in any proper Vehicle. *Lemery.*

[These are the Flowers of the *Viola Tricolor*, Ger. 703. *Viola Tricolor major et vulgaris*, Park. 756. They are never used in Medicine, the other Violet we make the Syrup from, possessing all their Virtues in a much greater Degree, which is the *Viola martia purpurea flore simplici odorato*, C. B. Pin. 199. *Viola simplex martia*, Park. Parad. 282. The Syrup of this is the hardest to keep, but is also happily the hardest to counterfeit of any in Shops.]

The End of the Book of FLOWERS.

BOOK the Seventh.

Of FRUITS.

PREFACE.

IN this Chapter I shall take in whatever bears the Name of Fruit, and whatever, in Herbs, Plants, Shrubs, or Trees, it is that succeeds the Flower; and likewise, whatever is produced by any of them, whether naturally, or as an Excrescence, as Mistelto by the Oak, Agarick by the Larch Tree, and the like: I shall also speak here of what we have from Fruits. Fruits are commonly distinguish'd into two Sorts, to wit, into such as bear Nuts, and such as bear Stones or Kernels. It is said that Fruits are composed of three essential Parts, namely, the Skin, or outward Membrane, the Pulp or fleshy Part, and the Fibres or stringy Parts. There are Fruits whose Kernels are cover'd with a Capsula, *or Case, that contains the Seed, and others that are not.*

1. *Of* White Pepper.

WHITE Pepper is the Fruit of a climbing Plant, whose Leaves are entirely like those of our Gooseberry; after which come small Clusters, adorn'd with round Seeds, green at first, but when ripe they are of a greyish Colour. *Pomet.*

As this Pepper-Plant cannot support itself, the Inhabitants of those Parts where it grows, plant it at the Root of certain Trees, as the *Areca*, which is a Sort of Palm-Tree, very straight and tall; the Cocoa, or other Trees of the like Nature

1

te Pepper climbing up y Areca.

2

Black Pepper leaf.

Black Pepper climbing up y Aoüay.

6

Long Indian Pepper.

Mecaxuchit.

7

Long Indian Pepper of America.

ture. But as this Pepper is rarely brought to us, a great many Persons will affirm, that there is no such Thing as true natural *White Pepper*, and that what we have is only the Black with its outward Rind taken off. It is for this Reason I have given you the Figure, and will endeavour to prove the *White Pepper* to be natural in some Places, according to what M. *de Flacourt*, Governor in the Isle of *Madagascar*, asserts; who says, that the true *White Pepper* grows upon a Creeper, and that the Stalk and Leaves smell altogether as Pepper; and that there are great Quantities in that Country, where the *French* might have a good Establishment, and lade their Ships, every Year, with a great deal of it; for the Woods all about are full of it, so that it is Food for the Turtles and Wild Pigeons. It is ripe in *August*, *September*, and *October*. Tho' some Authors, and among the rest *Piso*, in his History of the *Indies*, and after him Mr. *Charas*, observes, that there's no such Thing as *White Pepper*, it shall not hinder my Belief of it; for it is impossible that they can ever bark Black Pepper, so as to make it smooth and even, as we find the white *Coriander* Pepper that the *Dutch* bring us. And further, when we break the Pepper, we see the outward Skin, which is an infallible Token that was never taken off; and if it had been bark'd, we should have discover'd some Grains with the Wrinkles remaining; and this is such a Truth, that all the Peppers we find bark'd, or husk'd, and blanch'd in *Holland*, we always find a great Part of them plainly to have a wrinkled or wither'd Skin.

Chuse the true *White Dutch Pepper*, the largest, best fed, heaviest, and the least Black amongst it, that you can get; and take Care of such as is blanch'd, which is soon known by rubbing it in your Hands; for the white mealy Colour will change yellow: Besides that, the *Coriander* Pepper, that is not blanch'd, will appear with little Streaks like Ribs; and when beat to Powder, of a fine grey, tending to a white Colour: Its Uses are too well known to detain me any longer on that Head. We pound, or reduce to a gross Powder, the white *Coriander* Pepper, upon which we throw Essence of Ambergrease, and then it is call'd Amber-Pepper, or *Bergerac* Pepper, which has no other Use than to gratify Persons of Quality.

2. *Of* Black Pepper.

BLACK Pepper is likewise the Fruit of a Creeper that has large broad Leaves, very fibrous, and supplied with seven nervous Ribs, that are very conspicuous, according to the Figure which was given me by M. *Tournefort*. The *Dutch* and *English* bring three Sorts of *Black Pepper*, which differ not from the other, but according to the Places where they grow. The first and finest is that of *Malabar*; after that the Pepper of *Jamby*, which comes the nearest to the *Malabar*. The third Sort is a meagre, lean, dry Pepper of *Bilipatham*; and tho' that be the least of all, it is nevertheless most esteem'd by the *Mahometans*, because, they say, the smaller the Pepper is, the better Condition it is of: The smaller Pepper is not so hot as the great Pepper, which is the Reason the *Dutch* rarely bring any of the little Pepper from *India*: Besides, they have a better Trade for the large *Malabar* Pepper than other Nations, in that they never pay any Ready Money, but truck with the Natives for their Commodities which they carry thither, as Quick-Silver, Cinnabar, and the like; whereas the *English* buy theirs with Ready Money; for which Reason they cannot well afford one Bale of *Malabar* Pepper, to a Lot of *Black Pepper* of ten Bales, which makes the Pepper from *England* seldom so fine and large as the *Dutch*.

Chuse your *Black Pepper* well fed, and little wither'd or wrinkled, heavy, and as clean from Dirt and Dust as can be; and take Care of being imposed upon with Pepper, the largest of which has been pick'd out for making White Pepper.

The *Black Pepper* is used as the White, and is likewise of Use in Medicine, because of its Warmth; for which Reason it is employ'd in some hot Compositions, as *Venice* Treacle, and some others. Druggists sometimes sell it; but it is mostly sold by the Grocers. Pepper expels Wind, and cures the Cholick, so that it is the Basis or Foundation of most of the Gripe-Waters that are made: The Tincture is good for most cold Diseases of the Nerves and Brain; as Palsies, Convulsions, Rheumatisms, Sciaticas, *&c.* The Chymical Oil, whereof this yields but little, is an incomparable Remedy, internally or externally, in Weakness of the Parts of Generation of Men or Women, as likewise in Barrenness; a few Drops of the Oil in any proper Liniment, rubb'd upon the *Perinæum* three or four Times, will restore a lost Erection.

3. *Of* Fine Spice.

THE *Fine Spice* is a Mixture of several Aromaticks together. To prevent the Abuse that attends this Composition, I have thought fit to give the Receipt of those Things it ought to contain: Take Black *Dutch* Pepper, five Pounds; dry'd Cloves, one Pound and a Half; Nutmegs the same Quantity; fresh dry'd Ginger, two Pounds

and a Half; green Aniſe and Coriander, of each three Quarters of a Pound; powder them ſeparately, and ſift them thro' a fine Sieve; then mix them together, and take Care to keep them cloſe ſtopt for Uſe.

It is here obſervable, That the Generality of thoſe who make the four Spices, uſe, inſtead of Pepper, Pepper-Duſt; inſtead of Cloves, *Jamaica* Pepper; inſtead of Nutmegs, white Coſtus, or a Kind of Bark, that I know not well what to call, but is ſo like rough Cinnamon, that it is impoſſible to diſcover the Difference, but that the Taſte is altogether foreign, and has more Likeneſs to Saſſafras, the leſſer Galingal and Cloves mix'd together; and thoſe who ſell it, call it Cinnamon-Wood, clov'd Cinnamon, or Clove-Wood, and ſay, that it is the Bark of the Clove Tree, which is falſe; for my own particular, I believe that it is the Bark of a Kind of *Saſſafras*.

4. *Of* Cubebs.

CUBEBS are a little Seed, or Berry, ſo like the Black Pepper, that if it was not for their little Stalk or Tail, and that they are a little greyiſh, no Body could find out the Difference betwixt them and Pepper: Theſe grow likewiſe on a creeping Plant, the Leaves of which are long and narrow; after which comes the Fruit in Cluſters, each being ty'd by the Means of a little Stalk. The Iſle of *Java*, *Bantam*, and other Parts of the Eaſtern World, produce great Quantities of *Cubebs*; they are of ſome Uſe in Phyſick, from their pleaſant Taſte, eſpecially when held in the Mouth without chewing; likewiſe of admirable Uſe to make the Breath ſweet and help Digeſtion. They are ſaid to be good for Barren Women, by taking away the Coldneſs, Moiſture and Slipperineſs of the Womb.

The beſt are ſuch as are large, heavy and freſh. Not many Years ago it was diſputed what they were; ſome ſaid they were a Sort of Pepper like the Black; others thought they came from the *Agnus Caſtus*; and ſome again ſaid they were the Fruit of a *Ruſcus*, or that of *Amomum*; which were all falſe Conjectures; for they are the Fruit of a creeping Plant, as I have before deſcrib'd, and delineated in the Figure.

5. *Of* Thevet Pepper.

THE *Thevet Pepper* is a ſmall round Berry, of the Size of White Pepper, reddiſh as to Colour, and at one End has, as it were, a little Crown; but as this Pepper is of no Kind of Uſe, by Reaſon of its Scarcity, I ſhall ſay nothing further of it, but only that it has a pleaſant aromatick Taſte. The Tree that bears it, is of the ſame Figure, as expreſs'd in the Plate under the Name.

The *Dutch* likewiſe give the Name of *Amomum* to this Pepper, as well becauſe of its Reſemblance to *Jamaica* Pepper in Shape, as becauſe it has almoſt the ſame Taſte; and becauſe it is both round and bears the Taſte of Clove, it has obtain'd the Name of the little round Clove, to diſtinguiſh it from the Clove, or *Madagaſcar* Nut. They uſe it in the Place of the common Clove, as the other.

6. *Of* Long Pepper.

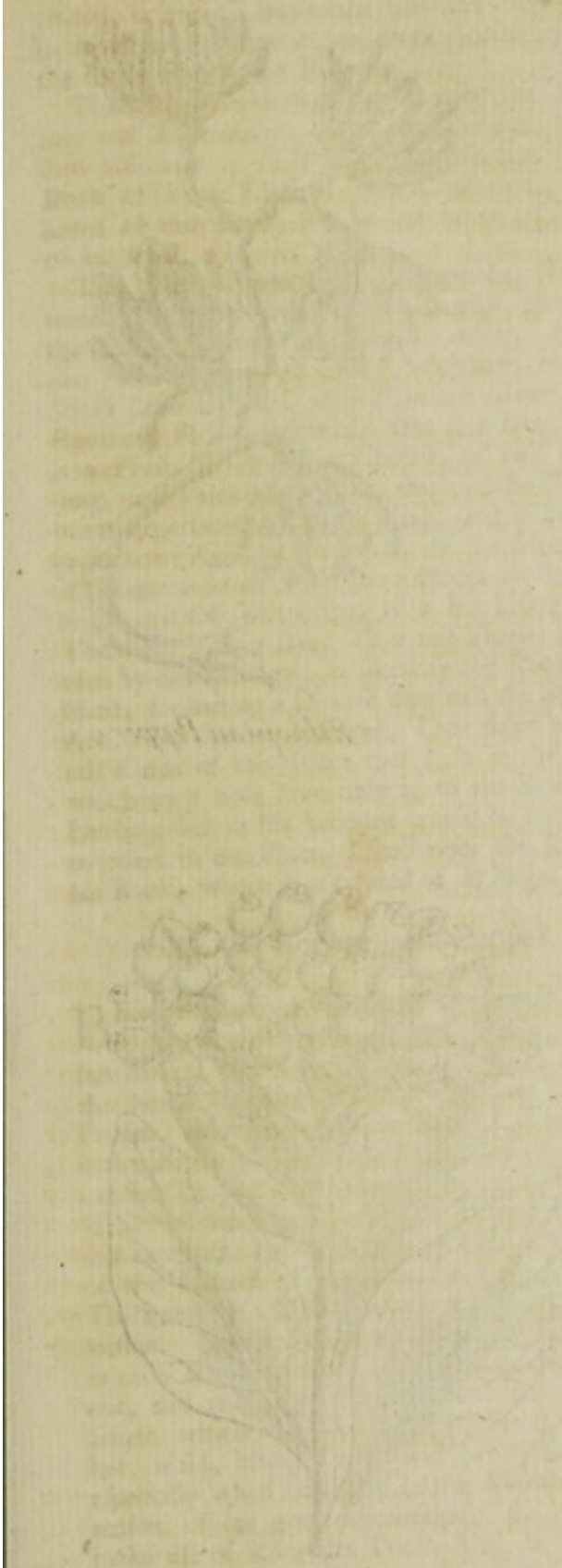
LONG Pepper is the Fruit of a Plant altogether like that which bears the Black Pepper, except that it climbs not ſo high, but grows commonly in the Nature of a Shrub, and ſupports itſelf upon its own Stem, and has ſmaller and much greener Leaves, the Stalks of which are not ſo long as thoſe of *Eaſt-Indian Long Pepper*.

The *Eaſt-India Long Pepper*, which is that we uſually ſell, is a Fruit of the Thickneſs and Length of a Child's Finger; it is, properly ſpeaking, nothing elſe but a Collection of Seeds together, ſomething red without and blackiſh within. In each of theſe Seeds is a Kind of Kernel, or a Sort of white Powder, of a hot biting Taſte; they ſtick ſo cloſe together, as not to be ſeparated but by pounding; and this Maſs forms a Kind of Fruit of the Size and Length aforeſaid.

The *Dutch* and *Engliſh* bring Plenty of this Pepper from *India*; which, to have its requiſite Qualities, ought to be freſh, well fed, weighty, hard to break, ſound, and as clear as can be from Duſt and Dirt, which it is very ſubject to be full of. It is of ſome Uſe in Phyſick, as it is an Ingredient in the great Treacle, and ſome other *Galenical* Compoſitions; and is recommended, when bruiſed into a groſs Powder, to boil in any Food, and given to Nurſes to increaſe and give a freſh Spring to their Milk. It warms a cold Stomach, raiſes the Appetite, conſumes crude and moiſt Humours, expels Wind, provokes Urine, and cures the biting of Serpents, and other venomous Creatures.

7. *Of* Long American Pepper.

THERE is found in the Iſlands of *America* a Shrub, which has Leaves almoſt like thoſe of Plantain, which produces a Fruit about a Foot long, according to the Relation of *Nicholas Monard*. This Fruit is compoſed of ſeveral little Seeds, placed about a long Stalk, ranged in Order and touching one another, and are together of the



5

Cubebs climbing up on y^e Thevet Pepper Tree.

8

Ethiopian Pepper.

3. Sorts

9

The Jamaica Pepper or all Spice Tree

the ſame Shape as the Long Pepper. The ſame Author ſays, that the Fruit, when freſh and young, is green; but when the Sun has ripen'd it, black; and that it has more Acrimony than the Long *Eaſt-India* Pepper.

This *Long American Pepper* is what the *Americans* call *Mecaxuchit*, which ſerves them to put into Chocolate. 'Tis likely the Author of the Book of Tea, Coffee, and Chocolate, never heard of this Fruit, for he has taken no Notice of it.

This *Long Pepper*, in Appearance, is that which the Reverend Father *Plumier* means by the Name of *Saururus*, *Botryitis major*, *Arboreſcens foliis Plantagineis*; which ſignifies, *the great Shrub Lizard's Tail, with Plantane Leaves.* The Reverend Father obſerves, that this *Long Pepper* is a Fruit, or rather a Cluſter, of half a Foot long, and four or five Lines thick at the Bottom, but grows narrower at the End; and is full of a great many Grains, or Seeds, of the Size almoſt of Muſtard-Seed, which are green at firſt, and black and ſoft when ripe, of a hot biting Taſte. The ſame Father ſays, That this Pepper is much uſed by the Iſlanders, as likewiſe the Root of the Plant, for curing a Diſeaſe they call the Stomach-Ach. He further obſerves, That there are ſeveral Kinds of this Plant met with in the Iſlands, which vary not, ſave only as to the Size of the Leaves; but as his Account would be too tedious to inſert in this Place, I ſhall refer the Reader to his Book, where it is treated of at large.

8. *Of* Long Black Pepper.

BEſides the other two Sorts of *Long Black Pepper*, of which I have been ſpeaking, we ſell ſometimes, tho' very rarely, a third Sort, by the Name of *Long Black Pepper*, or *Ethiopian* Pepper, *Mooriſh*, or *Zelim* Berry. This Pepper is the Fruit of a creeping Stalk, which produces neither Leaves nor Flowers, but only five or ſix Heads of the Bigneſs of one's Thumb End, hard and roundiſh, from whence proceed ſeveral Pods of the Length of one's Little Finger, and the Thickneſs of a Quill, brown without and yellow within. Theſe Pods are divided by Knots, and in each Knot is found a little Bean, black without, and reddiſh within, without any Taſte or Smell, which is unlike the Pod, for that is of a hot, acrid, biting Taſte, and pretty aromatick, eſpecially when held long in the Mouth; and by reaſon of its great Acrimony, the *Ethiopians* make uſe of it for the Tooth-Ach, as we do Pellitory of *Spain*. But as this Pepper is little known, and very ſcarce, I ſhall trouble you no farther with an Account of it.

9. *Of* Guinea Pepper.

GUinea Pepper, or Garden Coral, which the *Americans* call *Mexico Pepper*, *Tobago*, *Braſil*, *Spaniſh*, *Long Red Indian Pepper*, *Chilli Axi*, or *Carive*, and we *French Pepper*, or *American Pepper*; is a red Pepper, whereof there are three Sorts, *viz.* The firſt, that we ſell, which comes in Pods of the Thickneſs and Length of one's Thumb. The ſecond is much ſmaller, and as it were emboſs'd. The third is much leſs, and almoſt entirely round. All the three Sorts of this Pepper, as they hang to the Plant, are green in beginning, yellow when half ripe, and red at laſt. Of the three Sorts we ſell only the firſt, in that the others are too acrid, ſo that none but the Natives can uſe them; they, indeed, are very fond of them.

The *Guinea Pepper* which we ſell, comes from *Languedoc*, eſpecially the Villages about *Niſmes*, where they cultivate it very much: And this Plant is at preſent ſo very common, that we have few Gardens without it. The Uſe of it is chiefly for the Vinegar Makers, to make their Vinegar; for which Purpoſe it ought be freſh, in fine Pods, well dry'd, and of a good red Colour. Some People make Comfits of this Pepper to carry to Sea, and the People of *Siam* eat this Pepper raw, as we do Radiſhes: But it is much more grateful to the Palate and Stomach, and muſt undoubtedly pleaſe better in Sauces, being preſerv'd in a Pickle thus: Take ſtrong Brine that will bear up an Egg, and Wine Vinegar, of each a Quart; good Spirit of Wine, a Pint; put the Pepper-Pods into it, as well unripe and green, as thoſe that are ripe, and of a red Colour.

[*Black Pepper* is the Fruit of the *Lada*, *aliis Molanga*, *ſive Piper aromaticum*, Piſ. Mant. a. 492. *Piper rotundum ex Malabara foliis latis*, *quinque nervis albicantibus*, Herm. Muſc. Zeylan. 32.

The White Pepper is the *Piper album Leucopiper*, Mont. Exot. 9.

The *Eaſt-Indian* Long Pepper is the Fruit of the *Hatlancuaye ſive Piperis longi ſpecies*, 2 Hern. 126. *Cattatripali*, Hort. Mal. 7. 27. Tab. 14. This is always gather'd before it is quite ripe, and is brought to us from *Java* and *Malabar*.

The *American* Long Pepper is the Fruit of the *Saururus humilis folio carnoſo ſub rotundo*, Plum. 53. Fig. 70. *Piper longum humilius fructu e ſummitate caulis propendente*, Cat. Jam. 45. This grows principally in *New Spain*; it is in ſome Places made an Ingredient in Chocolate, but we ſeldom ſee it here.

The

The *Guinea* Pepper is the Fruit of the *Capsicum longioribus siliquis*, Ger. 292. *Solanum Capsicum dictum vulgatissimum*, Hort. Lugd. Bat. 354. There are many Species of this Plant, but the Pods we see preserv'd in Pickles are the Fruit of this Kind.

The *Æthiopian* Pepper is the *Piper Æthiopicum siliquosum*, J. B. 187. *Carpesium Cord. Piper oblongum nigrum*, C. B. Pin.

The Tree which produces the Cubebs is the *Arbor Bisnagarica myrti amplioribus foliis per siccitatem nigris Cubebæ sapore*, Pluk. Alm. 33. *Arbor Baccifera Brasilienſis fructu Piper recipiente*, R. Hist. 2. 1593. We have these from *Java*, where the Inhabitants boil, or at least scald them in hot Water, before they export them, to prevent their being raised any where else.

The *Thevet* Pepper is the Fruit of the *Xocoxochitl seu Piper Tavasci*, Hern. 30. but it is never seen among us.]

10. *Of* Cloves.

THE *Clove* is, properly speaking, the Flower of certain Trees, that is made hard and black by the Heat of the Sun: They were always very common in the *Molucca* Islands 'till of late Years, the *Dutch* not being able to hinder the *English*, *Portuguese*, and *French* from going thither, and bringing away *Cloves* from thence, thought it advisable to make themselves entirely Masters of that Commodity, to pluck up all the Trees, and transport them to an Island of their own, call'd *Ternate*; by which Means other Nations are forc'd to purchase that valuable Merchandise from them.

As to the Leaf of the Tree bearing the *Clove*, the Figure here represented in the Plate, was taken from the Original in the Hands of M. *Tournefort*. Here is also the Root, the Stalk, and the Leaves, in the Figure mark'd *A*, which came from two *Cloves* which were planted, and which in a little Time produced that little Root, Stalk, and Leaf, as represented.

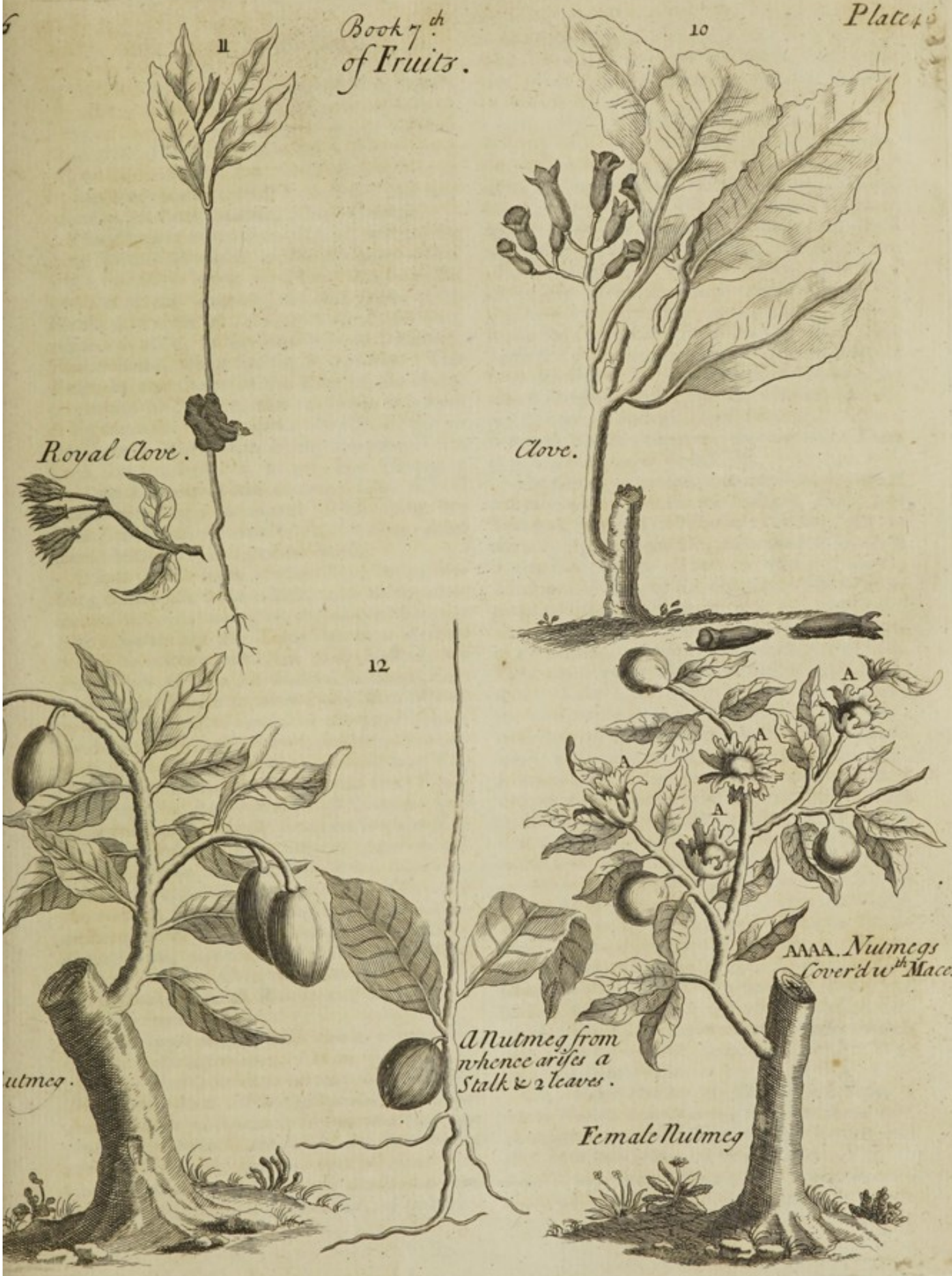
When the *Clove* begins to appear, it is of a whitish green, afterwards reddish, and according as it ripens, it grows brown; and that without being steep'd in Sea-Water, and dry'd before the Fire, as some Authors have observ'd: For the *Dutch*, and Natives of the Islands, make no other Preparation of the *Cloves* than after they are beaten from the Tree to let them dry in the Sun, exposed in the open Field, and after that keep them carefully. As it is impossible but there must remain some *Cloves* upon the Trees after the Crop is got, these grow to the Size of a Man's Thumb, and contain a black Gum, of a pleasant Smell and fine aromatick Taste. I never had any so large, but only of the Bigness of one's Little Finger's End. We now and then meet with some of these among the *Cloves*, but very seldom; because the *Dutch* sell them separately, by the Name of the *Mother-Clove*; and these large ones are known in Physick by the Name of *Antophylli*; but the little Use of them is not a sufficient Encouragement to the Apothecaries to enquire after them, otherwise they are proper for Use, as abounding with a Gum, that is vastly more fragrant and aromatick, and endow'd with much greater Virtues than the common *Clove*.

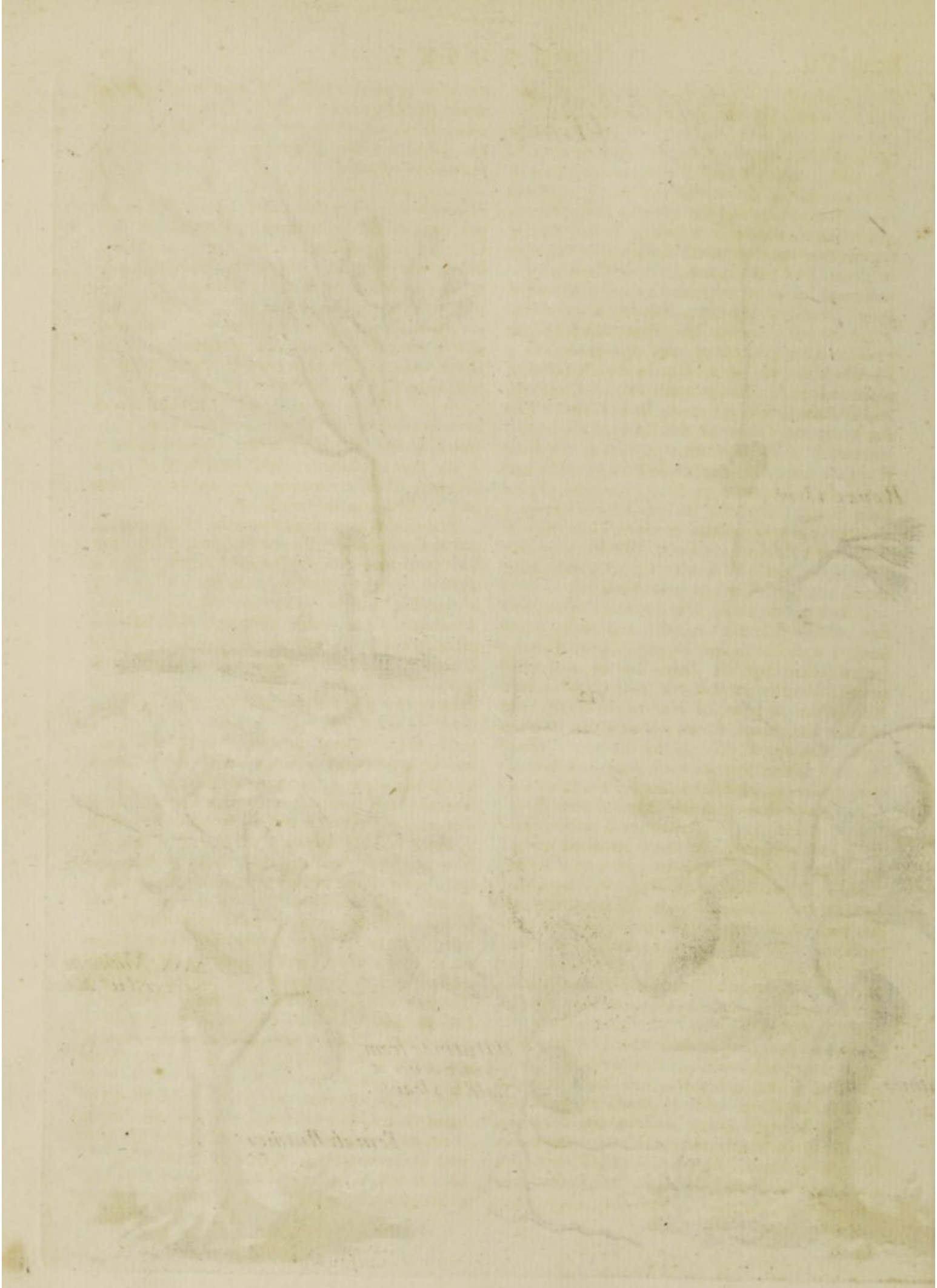
It is observable, that near to where the *Clove-Trees* grow, no other Tree or Plant will thrive; because the great Heat of these Trees consumes all the radical Moisture of the Earth round about them. It is observable likewise, that there are no Trees or Plants in the whole World that afford so sweet a Smell as the *Cloves* when they first appear.

Chuse such *Cloves* as are well fed, or oily, dry, brittle, or easy to break; of a tawny red, well furnish'd with the Top, or Head, to which some improperly give the Name of *Antophyllus*: I mean, that little Head at the Top of the *Clove*, which is very tender, and of a clear tawny Colour; and which, being put into the Mouth, has a hot, piquant, aromatick Taste. Reject such as are lean, blackish, soft, and without Taste or Smell; taking Care that such as are good are not mix'd with such as have had an Oil or Tincture extracted from them, which renders them of a flat, bitter, earthy Taste. The Use of this Drug is too well known to need any Account of its Virtues, which are so considerable, as to give it a Rank among the best Cordials.

The *Dutch* candy *Cloves* when they are green, and they make an excellent Confect, which is of great Use to carry to Sea, to correct and expel Wind, prevent Crudities of the Stomach, Fainting, Swooning, *&c.* as also to restore Nature where decay'd, and recover a weak and languid Constitution, giving Heat and Vigour to the Body, and Motion to the Limbs.

The *Dutch* distil a great deal of essential Oil from the *Cloves*, and too often impose them on Strangers afterwards for a true Commodity. This Oil is used by the Perfumers, Surgeons and Apothecaries, in several Compositions, and as a Corrective for many Sorts of Purges, as *Pilulæ ex duobus*, *&c.* There is a white Oil of *Cloves* made by Means of Fire, a Drinking-Glass, and the Bottom of a Scale, as observ'd by Mr. *Lemery*, but it is scarce worth the Time of doing it, and it is not better than the other Sort.


11
Royal Clove.
10
Clove.
12
A
A
A
A
AAAA. Nutmegs Cover'd wth Mace.
A Nutmeg from whence arises a Stalk & 2 leaves.
utmeg.
Female Nutmeg



11. *Of the* Royal Clove.

THERE is another *Clove* expreſs'd in the Figure, which we meet with now and then in *Holland*, tho' it is but ſeldom; which is a ſmall Fruit of the Shape and Bigneſs of a Barley-Corn, and which terminates in a Point, ſticking five or ſix together upon one ſmall Branch; ſo that they reſemble, in ſome Meaſure, a little Crown.

This *Clove* is of an Iron Colour, and has the ſame Taſte and Smell as the common *Clove*. They ſay there is but one Tree that bears this Fruit in all the Country, and that grows in the Middle of the Iſle of *Maſſia*, in the *Eaſt-Indies*, where it is call'd, by the Inhabitants of the Iſland, *Thinca Radoi*, which ſignifies *Royal Clove*. This Fruit, by the Order of the King of the Iſland, is guarded by Soldiers, that no Perſon may have it but himſelf. They pretend likewiſe, that when this Tree is loaden with Fruit, the other Trees bend down towards it, to pay their Homage; and the Flowers of the common *Clove* fall off when theſe begin to appear. They ſtring this Fruit, and make Beads of it, to carry about them, becauſe of its agreeable Smell.

I ſhall ſay no more of this *Clove*, having nothing certain that I can collect, and having never ſeen it, notwithſtanding all the diligent Enquiry I have made: But the Thing has been certified to me by a Perſon who ſaw it in *Holland*, and *Piſo* ſpeaks of it in his Natural Hiſtory, from whence the Figure is taken; and Mr. *Wormes* quotes it in expreſs Words, in the 203d Page of his Book; the Senſe of theſe Authors I have already given you in *Engliſh*, but for the more Curious I ſhall deliver it in the Original from *Piſo*.

Garyophillus Regius fructus eſt à nemine quod ſciam hactenus deſcriptus, florem potiùs quàm fructum figurâ referens, longitudine eſt grani hordei, ejuſdemq; ferme latitudinis, oblongus, anguloſus, ſex vel octo cuſpidinibus alternatim è lateribus erumpentibus, & in ſummitate quaſi coronulam conſtituentibus; colore ferrugineo, odore Garyophillorum aromaticorum, ſapore acri & planè Garyophyllaceo. Provenit in inſula Macciam Indiæ Orientalis; ab incolis vocatur Thinca Radoi, *quod exponunt Garyophillus regius.*

Magno in pretio apud Indos ſunt hi Garyophylli, & ad nos raro deferuntur. Unicam ſaltem ferunt eſſe hujus fructûs arborem in tota India in medio dictæ inſulæ ſitam. Flores ubi producit hæc arbor decidunt flores reliquarum arborum, quæ communes ferunt Garyophyllos. Arbores etiam reliquæ verſus hanc ſe incurvant, honorem quaſi deferentes, ut aiunt qui viderunt. Rex inſulæ Satellitibus hanc arborem ſtipat, quamdiu fructum fert, ne quis præter ipſum eo gaudere poſſit. Hæc ex ore ejus qui in inſula fuit & arborem ſe vidiſſe teſtatur; quæ, ſi vera, mira. Fructus filo per longitudinem trajicere ſolent, ut Armillarum loco, ob odoris gratiam, in brachiis geſtentur.

Caryophylli, ſive Garyophylli, in *Engliſh*, *Cloves*: They are call'd a Fruit, but are rather an aromatick Flower from an *Indian* Tree, whoſe Leaves are long, broad, and pointed. When the Fruit begins to appear, their Colour is of a whitiſh green; afterwards they grow red, and at laſt, when ripe, are of a dark brown, as we ſee them of. The large *Cloves* are call'd, in *Latin*, *Antophylli*, or the *Mother-Cloves*, but they are very ſcarce. There is alſo the *Caryophillus Regius*, or the *Royal Clove* [*deſcrib'd by* Pomet *from* Piſo.] It has this Name from bearing on its Top a Sort of Crown; for which Reaſon the King of the Country keeps it in his own Poſſeſſion; and becauſe there is a common fabulous Opinion, that the other Trees bow towards this as their King. *Lemery.*

The *Cloves*, in general, are cephalick, neurotick and cardiack, proper for the Epilepſy, Palſy, and Vertigo; are good in Wind and Cholick, and are allow'd, eſpecially the Oil, to be the beſt Specifick in the Tooth-Ach. They are uſed in Powder, Tincture, Water, Spirit, Oil, *&c.* The Way to make an Oil by Diſtillation, is to make a Kind of Putrefaction firſt, in order to diſſolve all the Parts of the *Cloves*, and to force the volatile Salt and oily Parts more effectually from the earthy Parts, thus: Take *Cloves* groſly bruiſed, one Pound; put to them Fountain or Rain Water, lukewarm, two Quarts; cover it with a Veſſel cloſe, ſo as to lute it well; put it into a gentle Heat in Sand for fourteen Days; then put all the Matter into a Copper *Veſica*, tinn'd within, which cover with its Head and Refrigeratory; add a fit Receiver, lute the Junctures, and diſtil with an immediate quick Coal Fire, ſhifting as Occaſion requires; continue 'till you have diſtill'd about two Thirds of the Humidity: This done, and the Veſſels being half cold, ſeparate the ſpirituous Water which ſwims above the Oil, putting up that into a Glaſs Vial, which keep cloſe ſtopp'd for Uſe: Cohobate the diſtill'd Water upon the *Fæces*, and diſtil again as before, ſo will you have more Oil, which the firſt Diſtillation could not raiſe, which add to the former Oil, keeping the diſtill'd Water alſo for other Uſes.

Or, Take Powder of *Cloves*, one Pound; warm Water, two Quarts; macerate them for a Fortnight; then put all into a Glaſs Retort, and diſtil in a Sand-Heat, with a moderate Fire, ſo will Oil and Water come over; which ſeparate as before, and cohobate the Water, as in the former

former Operation; ſo will you have all that the Clove contains of Oil and volatile Salt, which is cephalick and cordial, beſides its other Virtues. It is given from one Drop to three, incorporated with double refin'd Sugar, and mix'd with ſome proper Vehicle, either liquid or ſolid; as in Bolus's, Opiates, Pills, Tablets, or the like, as you ſee Occaſion. It may be alſo mix'd with Oil of Nutmegs by Expreſſion, to anoint the Temples for the Head-Ach, and the Stomach, to ſtrengthen that Part, and procure Digeſtion. A pretty cephalick Balſam is made with Oil of Nutmegs, one Ounce; Oil of Cloves, one Dram; Muſk and Ambergreaſe, each ſix Grains; Oil of Cinnamon, ten Drops; Oil of Mace, two Scrupies; mix, and make a Balſam for internal and external Caſes.

[The common Clove is the unripe Fruit of the *Caryophyllus aromaticus fructu oblongo.* Breyn. Prod. 2. 25. *Caryophyllus aromaticus Indiæ orientalis, fructu clavato monopyreno.* Pluk. Alm. 88. The ripe Fruit, the *Antophilli* of the Shops, are ſeldom ſeen. It is a Secret among ſome, who deal largely in Cloves, to keep them in a Cellar or other damp Place, where they will ſwell and encreaſe conſiderably in Weight, and look much better, tho' they really are much worſe, than before ſuch Management. The other Trees bending to the Royal Clove, is a Tale too abſurd to bear any Animadverſions.]

12. *Of the* Nutmeg.

Pomet. THE *Nutmeg*, or *aromatick Nut*, which the *Latins* call *Nux Moſchata*, *Myriſtica* or *Aromatica*, is properly ſpeaking the Kernel of a Fruit, of the Size of a green Walnut: We diſtinguiſh the *Nutmegs* into two Sorts; to wit, into the Male or long *Nutmeg*, and the Female, or round, common *Nutmeg*.

The Tree that bears the *Nutmeg* is of the Bigneſs of the Peach-Tree, and the Leaves have a very near Reſemblance to thoſe of the ſame Tree, according to *Dalechamp*, except that they are ſhorter and narrower; after which comes the Fruit of the Size of a Walnut or Abricot. This Tree, according to Mr. *Tavernier*, is not planted, but grows by Means of certain Birds, or Fowls, which ſwallow the Nutmegs whole, and throw them out again without having digeſted them; and the *Nutmeg* being then cover'd with a viſcous and gluey Matter, and being caſt upon the Ground, takes Root, and produces a Tree, which it would not have done, if ſet in the Manner of others.

The *Nutmeg* is likewiſe a Commodity which none but the *Dutch* are Maſters of, becauſe it grows no where but in the Iſles of *Nero*, *Lontour*, *Pouleay*, *Roſgain*, *Poleron*, *Granapuis*, and *Dame Iſland* in the great Iſland of *Banda* in *Aſia*, and not in the *Weſt-Indies*, as a late Author ſays. It is remarkable, that ſo little a Quantity of Land ſhould furniſh all the World with *Nutmegs*; but it is not hard to be believ'd, when one conſiders, that theſe Iſles are ſo ſtock'd with *Nutmeg-Trees*, that it is almoſt incredible; and beſides, they lie in ſo good a Climate, that the Trees are always loaden with Flowers and Fruit, and they have three Crops a Year; to wit, in *April*, *Auguſt*, and *December*; but that of *April* is much more valued than thoſe which are got in *Auguſt* or *December*; and the Climate is ſo temperate, that the Men live to a hundred and twenty Years of Age, and have nothing to do but eat, drink and ſleep, and walk about, while the Women employ themſelves in ſeparating the outer Fruit from the *Nutmeg*, drying the Mace, and breaking the Shells wherein is the *Nutmeg*; being the chief Commodity of the Country, and almoſt all they live by.

The *Nutmegs* we ſell are nothing but the Kernels of the Fruit, which are cover'd with a hard, thin, and blackiſh Shell. Without this Shell there is found a covering, which is thin and reddiſh, of a ſweet Smell, and aromatick Taſte, and is what we call Mace, but vulgarly, and improperly, the *Nutmeg-Flower*. After the Mace there is a green Pulpy Fruit, that is of no Uſe. From this it is to be obſerv'd, that the *Nutmeg* has three Wrappings, or Coverings; to wit, the Shell, the Mace, and the Pulpy Fruit, and not barely two, as a late Author has obſerv'd; and the Thing is ſo evident, that if any Perſon will give himſelf the Trouble to cut a preſerv'd *Nutmeg* in two, he will find the three Parts, about which I have been ſpeaking.

The Trees which bear the Female, or common *Nutmegs*, grow not but in cultivated, or improv'd Lands; but thoſe which produce the long *Nutmegs*, grow in Woods and Foreſts, which makes the *Dutch* call 'em wild *Nutmegs*; but they are litt'e uſed, becauſe they are almoſt without Taſte or Smell, and void of any Virtue, and for this Reaſon they are ſeldom brought hither: Theſe Male *Nutmegs* were call'd by the Ancients *Azerbes*.

As to the common *Nutmegs*, we ought to chuſe ſuch as are heavy, firm, hard, and of a full Plumpneſs, of a light grey, whoſe Inſide is finely marbled, and reddiſh, and ſuch as are of a fat, oily Body, which are the Signs of their Newneſs, and which being grated afford a ſweet Flavour, and put into the Mouth, yield a warm, piquant, aromatick Taſte. As to the little Hole that is met with ſo very common in *Nutmegs*, 'tis a vulgar Error to believe, that that makes them

loſe

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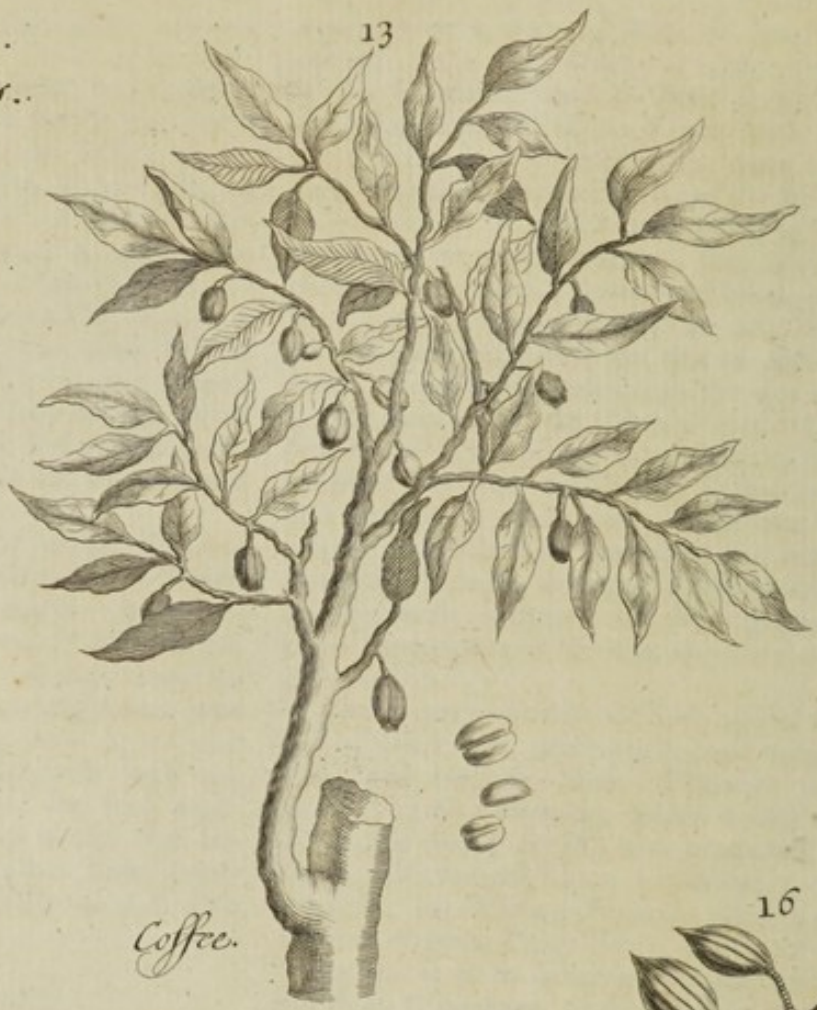

Coffee.

16

The Vanilla's.

14

Cacao Nut.

loſe their Virtue; for there is no *Nutmeg* without it, as may be ſeen when the thin Rind is raiſed.

The Uſe of the *Nutmeg* is ſo well known, it would be needleſs to ſay any Thing of it; I ſhall only add, that it is valued in Medicine, and being beat up with Sugar, there is a Powder made of it, which is admirable, taken in warm White-Wine, for curing of Catarrhs and Rheums, that proceed from cold Cauſes; and this is call'd the Duke's Powder. The uſual Quantity is to put two Ounces of *Nutmegs* to a Pound of Sugar, and ſome add Cinnamon. The Inhabitants of the Iſle of *Banda* make a Confection of the green *Nutmegs*, which is brought to us by the Way of *Holland*, ſometimes with Syrup, and ſometimes without. Theſe are one of the beſt Preſervers we have, being very proper to ſtrengthen and invigorate the Stomach, and to reſtore a natural Heat to Age; but their chief Uſe is to carry to Sea, particularly by the Inhabitants of the northern Parts, where they are much eſteem'd; the People there being great Lovers of theſe Sorts of warm Sweet-meats.

As to the Oil of *Nutmegs*, by Expreſſion, that which is brought us from *Holland* is no better than freſh Butter; for which Reaſon the Apothecaries ought to make it themſelves, rather than buy it at ſuch a cheap Rate, when it is good for nothing. The true Oil of *Nutmegs* ought to be of a thick Conſiſtence, of a golden yellow, a ſweet aromatick Smell, and a warm, piquant Taſte. The Manner of making this Oil is ſo eaſy, and hath been ſo long known to every Artiſt, that it would be ſuperfluous, at this Time of Day, to pretend to teach it; only this may be obſerv'd, that when it is expreſſed, it will be liquid and clear; but when cold it coagulates, and becomes yellowiſh, of a ſolid Conſiſtency, and that it will yield a double Quantity of Oil this Way, from the ſame Weight, of any other Spice, Fruit, or Seed whatever. There is likewiſe another Oil made by Diſtillation, which is a white, clear Oil, very fragrant, and has double the Strength and Virtue of the Former; and whatever the *Nutmeg* has ſingly in itſelf, is hereby highly exalted; ſo that four or five Drops is a Doſe in any proper Vehicle; wherein it becomes cephalick, neurotick, ſtomachick, cordial, hepatick, uterine and alexipharmick; good againſt all cold Diſeaſes of the Head, Nerves, Womb, *&c.* expels Wind, and cures griping of the Guts. The Mace that grows round the *Nutmeg* has all the ſame Virtues; diſcuſſes Wind, helps Concoction, cures ſtinking Breaths, ſtrengthens the Child in the Womb, ſtops Fluxes and Vomiting: It is of thinner Parts than the *Nutmeg*, and therefore more piercing. The Oils, by Expreſſion and Diſtillation, are made the ſame Way as thoſe of *Nutmegs*. Chuſe ſuch as has the largeſt Blades, the higheſt and freſheſt Colour, and that is the cleaneſt you can get. As to the Bark of the Trunk, and the Branches of the *Nutmeg-Tree*, it is ſo little uſed, that it is not worth ſpeaking of, and is ſeldom brought hither; by Reaſon of its great Likeneſs to the white *Coſtus*, both in Figure and Taſte. Some ſell *Coſtus* for the *Nutmeg* Bark, but that you ought to beware of.

Nux Moſchata, *Moſchocaryon*, *Nux Unguentaria*, or *Nutmeg*, is a Kind of Nut, or Fruit, of a foreign Tree, as large as a Pear-Tree, with Leaves like the Peach, but much ſmaller. The Flower is in the Shape of a Roſe, of a pleaſant Smell; after the Flower is fallen off, a Fruit appears as large as a green Wallnut, cover'd with two Barks; the firſt, which is very thick, is pull'd off when the Fruit is ripe; the ſecond is much thinner and finer, reddiſh or yellowiſh; it is ſeparated from the *Nutmeg* in order to dry, and is what we call Mace, not the *Nutmeg* Flower; this yields a great deal of Oil and volatile Salt. *Lemery.*

When the *Nutmeg* is ſeparated from the Barks, they dry and preſerve it. The Tree which bears this grows plentifully in the Iſle of *Banda*, where there are two Sorts, the wild and the cultivated, or male and female: The male, which is a long and large Nut, is ſeldom uſed: The female, which is the rounder and leſſer Nut, is that generally ſold in the Grocers Shops. When gather'd, ſome ſay they are laid in Quick-Lime, in the *Indies*, for two Reaſons: *Firſt*, that being carried into other parallel or proper Climes, they might not grow, for ſo in Time it might prove to their Damage. *2dly*, that being thus cur'd, the Worm, might not take them. The beſt are thoſe of a reaſonable Size, freſh, heavy, firm, not ſpungy, of an Oilyneſs when grated, and of a pleaſant Smell and Taſte, not too bitter or acrid. They fortify the Brain, Nerves and Stomach, aſſiſt Digeſtion, expel Wind, provoke the Terms, and reſiſt Putrefaction.

Chuſe your Mace freſh, whole, of a yellow Colour, a good Smell, and agreeable Taſte, being a little acrid. It has the ſame Virtues with the *Nutmeg*, but more exalted, and it acts with greater Penetration and Efficacy. The Mace Bark or Wood of the Antients, is the Bark of the Trunk of a Tree of the ſame Name, which grows in *Barbary*, and is thick, reddiſh, and of a bitter, ſmart Taſte. Its Virtue is aſtringent, and proper to ſtop the Bloody-Flux, and other Fluxes of the Belly; but this Bark is ſeldom

brought among us; they impoſe it inſtead of Mace, tho' the Qualities are different, and ſo confound the Mace Bark with the true Mace.

[The Tree which produces the *Nutmeg* and Mace, is the *Nux Moſchata fructu Rotundo*. Jonſ. Dendr. 158. *Nux Moſchata ſive Myriſtica, Nuciſſa*. Mont. Exot. 9.

What we call Oil of Mace by Expreſſion, is the expreſſed Oil of *Nutmegs*, brought from the *Eaſt-Indies* in Jars, but this is of late become ſcarce, becauſe we have from *Holland* a much cheaper, but much worſe Kind of the ſame Oil.

There is indeed a true Oil of Mace by Expreſſion, made in the *Indies*, but it is ſeldom or never brought into *Europe*; it is expreſs'd from the Mace while freſh, and is fluid, of a reddiſh Colour, a ſtrong Smell of Mace, and is uſually ſomething thicker at the Bottom than at the Top of the Veſſel it is kept in.

What is ſold in the Shops of our common Retailers of Medicines who call themſelves Chymiſts, under the Name of Oil of Mace by Expreſſion, is a baſe Mixture of Sewet and Palm Oil ſcented with a little of the *Dutch* Oil of *Nutmeg* by Expreſſion.]

13. *Of* Coffee.

Pomet. *Caffe*, *Coffe*, *Coffi*, *Buna*, *Bon*, *Ban*, or *Elkaire*, is, according to a modern Author, the Fruit or Berry of a Plant, whoſe Stalk reſembles that of our Bean; but as he is a Perſon on whom we can have no Dependance, I ſhall hold with that celebrated Author, *Caſpar Bauhine*, who ſays, that Coffee is the Fruit of a Tree, whoſe Berries are brought from *Arabia Felix*, and that the Tree is like the Spindle-Tree, or Euonymus, and that the Leaves are thick, and always green, of the Shape repreſented in the Figure, which is taken from the ſaid *Bauhinus*.

Chuſe your Coffee greeniſh, freſh or new, and that does not ſmell muſty, but whoſe Berry is of a middle Size; in ſhort, the cleaneſt, dryeſt and plumpeſt that can be had. As to thoſe who buy whole Bales together, let 'em take Care that the Bottom of the Bales be not mouldy, which will ſpoil and damage the whole Cargo. *Coffee* is uſed for little or nothing that I know of, but to make a Liquor with Water and Sugar, which is more or leſs eſteem'd, by different Nations; where it is valued, there is a great Conſumption made of it, in the prepar'd Berry; which is done by drying it in an Oven or Kiln, ſo long, 'till it is well parch'd, or rather half calcin'd, and looks not of an abſolute Black, but rather of a dark Purple, inclining to black; if it be well burn'd, and not over high, it has a grateful Flavour; but if over much or too little done, or if afterwards it be ground any Time before it be uſed, it loſes all its Virtue; ſo that in making Coffee, the Powder is to be freſh ground, and uſed immediately; for an Hour's Time will pall and flat it, ſo as it ſhall loſe all its volatile Parts, which float like an Oil upon the Liquor, when freſh; but upon the leaſt keeping, after reduc'd to Powder, its eſſential Particles are ſo ſubtle as to fly away, or be deſtroy'd by the corroſive Nitre of the Air, which being expos'd to but for a few Minutes, they inſtantly imbibe.

Caſſe, *Coffe*, or *Coffee*, is a ſmall Berry, longiſh and round, like a Pine Apple Kernel, of a dark brown Colour; its Bark is a Kind of Huſk that is a little hard and woody; it encloſes a Berry as large as a Pea, of an oval Figure, dividing itſelf into two Parts, yellowiſh, inclining to white; the Fruit grows upon a Tree of the ſame Name, which is common in the *Arabia Felix*, from whence it is tranſported through all the Dominions of the great *Turk*, and from *Turkey* brought to us, as is ſuppoſed, cur'd, that it may not be planted in other Countries. *Lemery.*

It is of an excellent drying Quality, comforts the Brain, and dries up Crudities in the Stomach: Some Author ſays, it cures Conſumptions, Rickets and Swooning Fits; it helps Digeſtion, eaſes Pains of the Head, rarifies the Blood, ſuppreſſes Vapours, gives Life and Gaiety to the Spirits, hinders Sleepineſs after Victuals, provokes Urine and the Courſes, and contracts the Bowels; it is an excellent Dryer, fit for moiſt Bodies, and moſt Conſtitutions, but that of young Girls, ſubject to the Green-Sickneſs; and likewiſe is prevalent in ſuch as are apt to have running Humours, Sores, or King's Evil upon them: It prevents Abortion, and confirms the Tone of the Parts drunk after eating; but with this Obſervation, that this Liquor be always made freſh; for if it ſtands but two or three Hours, it will be pall'd and grow naught. It is an effectual Remedy againſt Worms in Children; ſo that if the Mother drink but frequently of it, when with Child, the Infant ſhall not be afflicted with Worms, during its Infancy.

[The Tree which produces *Coffee*, is the *Jaſminum Arabicum Caſtaneæ folio flore albo odoratiſſimo cujus fructus Coffe, in officinis dicuntur*. Com. Pl. Uſ. 85. *Bon Arbor cum fructu ſuo Buna*. Park. 1622. It is a Native of *Perſia* and *Arabia Felix*, but is now become common in the Gardens of the Curious, and flowers and bears its Fruit with us; it grows to about ſix Foot high, the Leaves are like the Bay Leaf, but longer, the Flowers

Flowers pentapetalous, and the Fruit like Bay Berries within; which is the *Coffee* we uſe.

The greateſt Part of the *Coffee* we ſell, is brought to us from *Mocha*.]

14. *Of the* Cacao, *or* Chocolate-Nut.

Pomet. THE *Cacao* is the Fruit of a Tree which grows in the *Indies*, of the Bigneſs of the Orange-Tree, but with Leaves longer, and more pointed; the Flower is large and yellow, which when fallen, leaves long, lanuginous, green Filaments, from which grow pointed yellow Fruits, which, as they ripen, become of the Size of a Melon; each of theſe Fruits contains twenty or thirty Kernels, as large as Piſtachia Nuts, and ſometimes there are as far as fourſcore Kernels in one Fruit. Each of theſe is cover'd with a yellowiſh Pellicle, which being taken off, there appears a tender Subſtance, divided into ſeveral irregular Parcels, of an oily rich Taſte, leaving ſomething of a Sharpneſs behind them in the Mouth.

Wormius, in *Page* 191 of his Book, makes mention of four Sorts of Trees which bear the *Cacao Nut*; the firſt and ſecond whereof are call'd *Cacahuaquahuitl*, the third *Xuchicacahuaquahuitl*, the fourth *Tlacacahuaquahuitl*; which Account agrees very well with the four Sorts of *Cacao* we ſell, which certainly come from different Trees; the firſt and beſt Sort are call'd the large and ſmall *Carack*, from the Province of *Nicaragua*, from whence theſe Sorts of *Cacao*'s are brought: The third and fourth are call'd the large and ſmall Iſland *Cacao*'s, becauſe they come from the *American* Iſles, as St. *Domingo*, &c. The moſt valued of the four Kinds of *Cacao*'s is the large *Carack*, eſpecially for making *Chocolate*, which is their chief Uſe; for the ſmall Quantities that are eat of them as they come over, are not worth ſpeaking of; they ought all to be choſen freſh, plump, weighty, blackiſh without, and of a deep red within, well taſted and not of a muſty Smell: The ſmall *Carack* is as near approaching to the Qualities of the large as can be. As to the Iſland *Cacao*, eſpecially the large, the nearer it comes to the *Carack*, the better it is. Some Authors ſay, that the *Cacao* is in ſuch Uſe in *Mexico*, that it is the chief Drink of the Inhabitants of the Country, and that they give it as Alms, or Charity to the Poor: The other Sorts alſo that come from the Iſles, are ground to make Bread of different Sizes, for the Uſe of different Sorts of People.

Lemery. The *Cacaos*, or *Cacao*, is a Kind of Almond that is made the Baſis or Foundation of *Chocolate*, and from whence it takes its Name.

It grows in all the *Spaniſh Weſt-Indies*, *Guatimala*, *Hiſpaniola*, *Cuba*, *New-Spain*, *Jamaica*, *&c.* in hot, but ſhadowy Places, being planted in Ranks and regular Walks, ſhady Plantane-Trees are rang'd with it; the one to ſhelter the other, leſt the parching Sun, by its exceſſive Heat, ſhould kill it, or the boiſterous Wind injure it. This *Cacao*-Tree, not exceeding our Cherry-Tree for Bigneſs; as it is a Tree of ſingular Beauty, having large, broad, oblong, green Leaves, which fall back, and hang like ſo many Shields, to preſerve and defend the tender Fruit; ſo it is a Tree of great Profit to the Owner, ariſing from its moſt deſirable Fruit, which grows after an admirable Manner in Cods; ſtudded, as it were, in the very Body of the Tree, as well as the Arms and Boughs, from the very Earth upwards; each Cod containing about thirty or forty Nuts, regularly ſet in a Maſs of ſoft, ſlimy Pulp, to preſerve, as well as nouriſh, the tender Fruit. The Nuts, among the *Indians* and *Spaniards*, go for current Money, even in thoſe Countries where Gold and Silver are naturally produced; there is in them Food and Raiment, Riches and Delight all at once!

The Cod is ſaid to be very like the Pear or Pear-faſhion'd Gourd. Each Nut is about the Bigneſs of an Almond Stone, and cover'd with a thin Shell, blackiſh without, containing within a browniſh red, or almoſt Cheſnut-colour Kernel, with browniſh Aſh-colour'd Veins, which to the *Indians* is pleaſant in Taſte, tho' not altogether ſo to us. The Cods being gather'd, they break them, take out the Nuts, and lay them upon Mats to dry in the Sun, 'till the Moiſture within them be conſum'd, and then keep them both for Meat and Merchandize.

This Fruit is cooling, as may eaſily be diſcern'd by their cold nitrous Taſte. They open Obſtructions, reſtore in deep Conſumptions, ſtimulate to Venery cauſing Procreation and Conception, facilitate Delivery, preſerve Health, help Digeſtion, make People inclinable to feed, eaſe Coughs of the Lungs, Gripings of the Bowels, and Fluxes thereof, cauſe a ſweet Breath, and aſſiſt in a Difficulty of making Urine. The chief Uſe of them is in Chocolate, which is ſo well known, there needs no longer Diſcourſe about it.

[The *Cacao* is the Fruit of the *Arbor Cacavora*. Piſ. Mant. A. 197. *Cacava Quavit ſive Arbor Cacari Cacavifera*. Hern. 79. It is cultivated in *Cuba*, *Jamaica*, and other Parts of the *Weſt-Indies*. It is a tall Tree, with a ſmooth even Bark, the Leaves are long, ſmooth, and pointed, and the Flowers pentapetalous, and of a very beautiful yellow.]

15. *Of* Chocolate.

Pomet. WE ſell ſeveral Sorts of *Chocolate*, which have no other Difference but according to their Fineneſs and Goodneſs, the Drugs that compoſe them, and the Countries where they are made. But the beſt *Chocolate*, and the fineſt, is what is made with the largeſt *Carack Nut*, and wrought up with the fineſt Sugar, good Cinnamon, and the pureſt and beſt *Vanillas*: In ſhort, what is made by an honeſt Man, who underſtands how to prepare it, and will neither ſpare Labour nor Coſt; it is impoſſible to afford good *Chocolate* at a low Price; and the moſt of thoſe who ſell their *Chocolate* at ſuch eaſy Rates could ſcarcely buy the fine Sugar they ought to make Uſe of at the Price. Although ſome ſtill cry up the *Weſt-India*, *Spaniſh*, *Portugal*, and *St. Malo's Chocolate*, at this Time there is no Place in the World where they make better *Chocolate* than at *Paris*. I did not think it proper to give you the Compoſition here, ſince there are ſo many Books that treat of it, and the Compoſitions are ſo various, that every one is for pleaſing his own Fancy. Nevertheleſs, I cannot forbear acquainting you with what is propoſed by the Sieur *Blegny*, in his Book, who mentions the Flower of *Orejeuclas*, to be added to the Compoſition, becauſe it is a Drug which I believe to be imaginary, as not being able to know what it was, after the moſt diligent Search I could make. And the Sieur *Blegny*, who calls himſelf the Author of that little Book which I have juſt mention'd, had Reaſon to ſay he could not meet with it among the Druggiſts; for he could not give me any Account of it. When I aſk'd him, before a certain Perſon, what the *Orejevalla* Flower was? he told me, it was what went into the Compoſition of the *American* or *Indian Chocolate*, which I ſuppoſe was what he had read ſomewhere. As to the *Achiotl*, that is nothing elſe but what we call the *Rocou*, which is not made, as the ſaid Author ſays, but as it is ſet forth in its proper Place in this Treatiſe; and if he had known that the *Achiotl* was the *Rocou*, there are very few Grocers but could have furniſh'd him with it; ſo that he needed not have put it in his Book, that he could not meet with it at the Druggiſts.

[*Chocolate* is made by attenuating the Oil of this Fruit by Heat; and, according to the different Degree of Heat, uſed in the making it, and the Spices mix'd with it, it is ſeen to have very different Effects in heating, or in only nouriſhing and ſtrengthening. The beſt and niceſt Judges are of Opinion, that the two Kinds of *Cacao*, mix'd together, make the fineſt *Chocolate*. The *Orejeuclas* Flower, which our Author thinks an imaginary Drug, is the Flower of the *Xochinacaſthe ſeu flos Auriculæ*, Hern. 30. R. Hiſt. 2. 1671. *Orejeuclas ſeu Orichelas*, Hughes. *Fructus oblongus cineraccus acidulus*, C. B. Pin. 406. It grows in *New Spain*; the Flower is very fragrant, and is there uſed ſometims in *Chocolate*.]

16. *Of* Vanilla's.

Pomet. THE *Vanilla's*, according to the Sieur *Rouſſeau*, are Pods of about half a Foot long, of the Thickneſs of a Child's little Finger, which hang upon a Plant of twelve or fifteen Foot high, that climbs like a Creeper; for which Reaſon it grows moſt frequently along Walls, or at the Roots of Trees, or ſome other Kind of Props, or the like, whereby it may be ſupported. The Plants have round Stalks, diſpoſed in Knots like the Sugar Cane; from each Knot there put forth large thick Leaves, about a Finger's Length, which are green, of the Colour of the Stalk, and very like thoſe of the great Plantane, after which come Pods, which are green at firſt, yellowiſh afterwards, and grow browner as they ripen. When they are ripe, the People of *Mexico*, thoſe of *Guatimala*, and *St. Domingo*, gather them, and hang them up by one End in the Shade to dry, and when they are dry enough to keep, they rub them with Oil, to hinder them from drying too much, and prevent their breaking, and then they put them up in little Bags, of fifty, a hundred, or a hundred and fifty, to bring them hither. Nevertheleſs, there are ſome who value their Gain more than their Conſcience, who let them hang upon the Stalks 'till over-ripe, and receive from them a black fragrant Balſam, that flows 'till the eſſential Parts of the *Vanilla* are exhauſted, and it can run no more; and then they gather the Pods, and pack them up for Sale, as aforeſaid.

The great Lords of *Mexico* are mighty Lovers of theſe Plants, as well becauſe of the pleaſant Smell of their Fruit, as they mix it plentifully in their Chololate, as becauſe of the great Profit they yield them in Trade. The *Spaniards* bring us this rich Commodity, and give it the Name of *Vanilla*, which ſignifies a Sheath, becauſe the Pod reſembles the Figure of a Sheath. It is of a pleaſant Taſte and Smell. Chuſe ſuch as are well fed, thick, long, new, heavy, not wrinkled, or rubb'd with Balſam, and which have not been kept moiſt, but are of a good Smell; and beware of thoſe that are ſmall and dry, and of little Smell; the Seed which is very little, is black and ſhining. The *Vanilla's* are much uſed in *France* for making up Chocolate, and ſometimes

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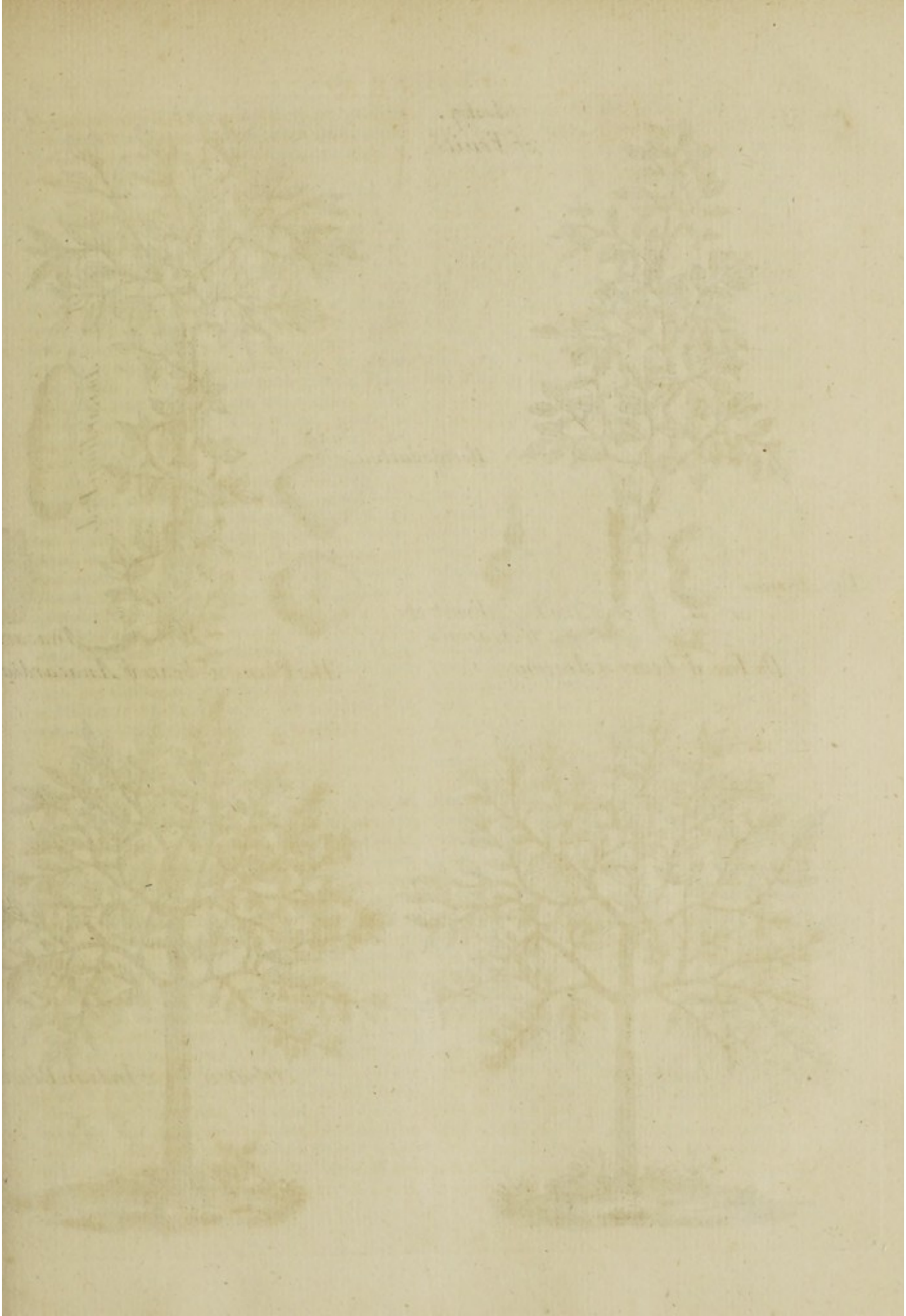

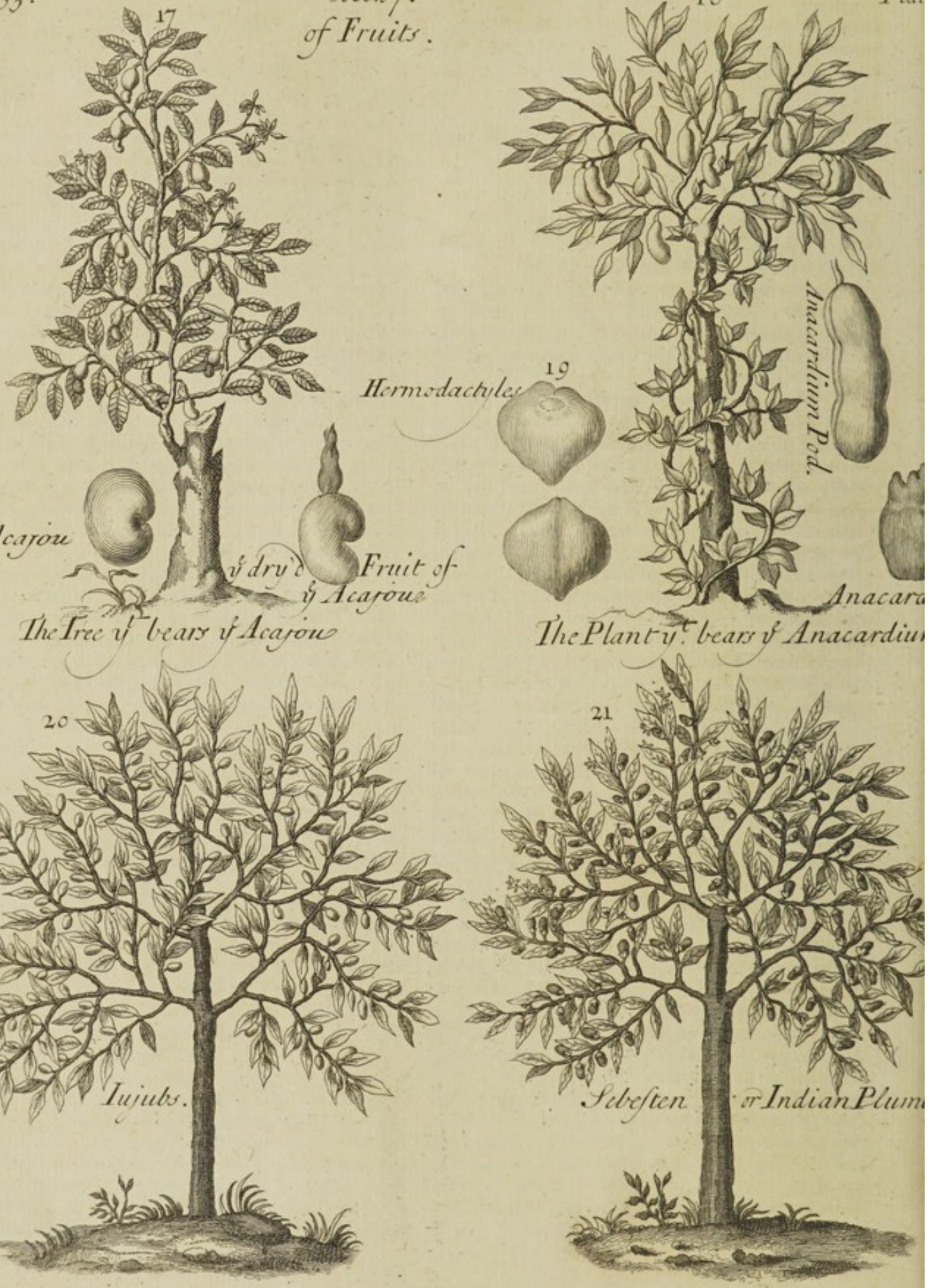
17
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Hermodactyles
Anacardium Pod.
The Acajou
& dry'd Fruit of & Acajou
The Tree y^t bears y^e Acajou
The Plant y^t bears y^e Anacardium
Anacard
Jujubs.
Sebesten or Indian Plum

to perfume Snuff. Some ſay they are good to ſtrengthen the Stomach. As to the Balſam, the *Spaniards* keep that, for we have none of it brought to us.

Vanilla, or *Vanilla's*, is a Pod, of about half a Foot long, and the Thickneſs of a Child's Finger, ſharp at both Ends, of a dark Colour, a pleaſant balſamick Taſte and Smell, a little acrid, containing very ſmall, black, ſhining Seeds: This Pod is the Fruit of a kind of *Volubilis*, or a Plant of four or five Foot high, which the *Spaniards* call *Campeche*. It riſes like a Creeper, and winds about the neighbouring or adjacent Trees, upon Poles, or climbs upon Walls. The Leaves reſemble thoſe of Plantane, but they are larger and more fleſhy. The Flowers are blackiſh. This Plant grows in *Mexico*, where the *Indians* call it *Tlixochitl*, and the Pod *Mecaſuthill*. *Lemery.*

Chuſe ſuch *Vanillas* as have the longeſt Pods, pretty thick and heavy, well fed, of a good Taſte and pleaſant Smell. It yields a great deal of Oil and volatile Salt; is cordial, cephalick, ſtomachick, carminative, aperitive. It attenuates viſcous Humours, provokes Urine, and Womens Courſes; is mix'd in Chocolate, and makes it agreeable both to the Taſte and Smell.

[The *Vanelloes* are the Pods of the *Volubilis ſiliquoſa Mexicana folis plantaginis*, R. Hiſt. V. 2. p. 1330. The Plant grows in *New Spain*, and other hot Countries; the Pod it flat, and contains a Multitude of ſmall Seeds. Its principal Uſe with us is as an Ingredient in Chocolate.]

17. *Of the* Acajou.

THE *Acajous*, or *Caſhew Nuts*, or *Weſt-Indian Anacardiums*, are the Fruit, or rather the Seeds of a yellow Fruit, inclining to red, of the Size of a *Magdalen* Pear, or an Orange. The Tree which bears theſe is, according to the Sieur *Rouſſeau*'s Letter, five or ſix Foot high, adorn'd with Leaves of a yellowiſh Green, and ſomething of the Shape of the Ivy. The Flowers are ſmall, and grow in Tufts, of a Carnation Colour, from whence comes a yellow Fruit, as ſaid before; at the Bottom of which are placed the Seed, of the Bigneſs of a Cheſnut, of the Shape of a Kidney, and of an Olive-Colour, and conſiſting of a white Kernel cover'd with a tough Skin; which, after it has been roaſted, like a Cheſnut in the Fire, is pleaſant to eat. There is contain'd beſides the Kernel of theſe *Acajous*, a black cauſtick Oil, which is a good Remedy to cure Corns upon the Feet, and take away red Spots in the Face. *Pomet.*

The *Americans* cut the yellow Fruit in Slices, and eat it with Sugar, as we do a Lemon; as well to revive the Spirits as to cool them; they are full of a well-taſted Juice. Chuſe ſuch *Acajous* as are large and new, of an Olive-Colour, with white Kernels, which are certain Signs they are freſh, and not of a Cheſnut Colour, which is a Token of their Age and over Ripeneſs.

[The *Caſhew Nut* is the Seed of the Fruit of the *Anacardus Zeylanica folio nucis Juglandis*, Hern. Muſ. Zeyl. p. 55. It hangs to the Bottom of the Fruit.

The Juice of the outer Rind is of ſome Uſe to take away Freckles, and the Kernel is eatable; but it is very little known as a Medicine.]

18. *Of* Anacardiums.

THE *Anacardium* is a Kind of a Fruit, brought from the *Eaſt-Indies*; the Tree which bears it has greeniſh Leaves, that are roundiſh; after which come Pods, of the Size of the large Bean, in which are uſually incloſed two *Anacardiums*; which, when half ripe, are of the Colour of burnt Coffee; but when full ripe, they are of a ſhining Black. Chuſe ſuch as are large, well fed, new, dry, and have in them a white Kernel. They pretend that the green Fruit of theſe are a dangerous Poiſon, but otherwiſe when dry: After they are prepar'd in Vinegar, they become a good Purgative; but nevertheleſs they ought not to be meddled with, without the Advice of an able Phyſician. They yield an Oil like the *Caſhew Nut*, which has the ſame Virtues. *Pomet.*

Anacardium is a Kind of large Fruit, like the Cheſnut, being in ſome Meaſure of the Shape of a Bird's Heart, whence it derives its Name: It is of a ſhining, black Colour, containing in it a white Kernel. This Fruit grows on a Tree in the *Indies*, whoſe Leaves are almoſt round, and the Fruit in Pods, of the Size of a *Windſor* Bean; holding each, not above two *Anacardiums*, which afford Oil, and are ſold in great Plenty; they rarify and purge the pituitous Humours; are reſolving; refreſh the Brain, and ſtrengthen the Memory, being taken in Decoction. *Lemery.*

[Theſe are the Fruit of the *Arbor Indica fructu conoide, Cortice pulvinato, nucleum unicum, nullo oſſiculo tectum Claudente*, R. Hiſt. V. 2. p. 1566. It is a warm cordial Medicine, but is very little taken Notice of in the preſent Practice, and rarely to be met in our Shops.

19. *Of*

19. *Of* Jububs.

Pomet. THE *Jububs* are the Fruit of a Tree which grows commonly in *Provence*, but chiefly in the Gardens of *Hyeres*, near *Toulon*, where it is in ſuch great Quantities, that almoſt all we ſell comes thence by the Way of *Marſeilles*: The Tree that bears them is of a moderate Height, and the Leaves are greeniſh, thin and fibrous; after which comes Fruit, of the Bigneſs of one's Thumb End; green at firſt, and ſomething reddiſh as they ripen.

Chuſe your *Jububs* freſh, large, well fed and fleſhy, of a good Kind, that have been well dry'd, that they may keep without Danger of rotting; and take Care that they be not kept in Places too moiſt, or gather'd when they are too ripe, for that is the Way to loſe them all: They taſte, when gather'd, and rightly manag'd, like Raiſins of the Sun, with one Stone, like a Prune Stone, in the Middle. *Dodonæus* ſaith, they are of two Sorts, *viz.* the Red and White; and the Red are of three Kinds, to wit, *Jujuba major*, *Jujuba minor*, and *Jujuba Agreſtis*; the firſt, which grew originally in *Africk* and *Egypt*, and were thence tranſplanted into *Italy*, *France*, *&c.* are thoſe which we chiefly uſe, being moderately hot and moiſt. This Plum is an exellent Pectoral, and opens the Body, temperating the Sharpneſs of the Blood and Humours; it expectorates tough Flegm, and is good againſt Coughs, Colds, Hoarſeneſs, Shortneſs of Breath, Wheezings, Roughneſs in the Throat and Wind-Pipe, Pleuriſies, Heat of Blood, Exulceration, or Excoriation of the Kidneys and Bladder, cleanſing them; and by their mucilaginous Quality, making the Paſſages ſlippery: They are uſed, in a Decoction, for Stone, Gravel, *&c.* or for opening Obſtructions in the Liver, Spleen, Dropſy and Jaundice, by Urine.

Lemery. *Jujuba*, or *Zizipha*, a large Fruit of the *Ziziph* Tree, is like a moderate ſiz'd Prune or Plum, oblong or oval, red without, yellow within, fleſhy and tender, of a ſweet and vinous Taſte, having a tough Skin, and a hard, ſtrong Kernel: The Fruit grows upon a Tree call'd *Ziziphus*, by *Tournefort*, and wants little of the Plum-Tree in every Reſpect; but is crooked, cover'd with a rough uneven Bark, that cracks or ſplits: The Branches are hard, furniſh'd with ſtrong Thorns; the Leaves oblong, ſomething hard, terminating in a blunt Point, of a fine, ſhining, green Colour, ſlightly indented on their Sides; the Flowers growing among the Leaves, being ty'd by ſhort Stalks, each of which, according to Mr. *Tournefort*, is commonly compoſed of five Leaves, like a ſmall Roſe, which is placed in the Middle of the Cup, of a graſſy or pale Colour: When the Flowers are gone, the Fruit, or *Jububs*, ſucceed; being green at firſt, and reddiſh as they ripen. This Tree grows in the hot Countries, and is very common in *Provence*, and in the Iſles of *Hyeres*, near *Toulon*, from whence the dry'd Fruit are brought. They are pectoral and aperitive, being uſually employ'd in Ptiſans for Diſeaſes of the Breaſt; they ſweeten the Sharpneſs of the Humours, by their ſweet and glutinous Subſtance, and provoke Spitting.

[The *Jujubes* are the Fruit of the *Jujube arabum*, *ſive Zizyphus Dodonæi*, Ger. 1318.

They are eſteem'd warm and moiſtening, and are recommended in Stranguries, *&c.* but are at preſent little uſed.]

20. *Of* Sebeſtens.

Pomet. *Sebeſtens* are a blackiſh Fruit, that are brought by the Way of *Marſeilles*, from the *Levant*, *&c.* The Tree that bears this Fruit is about the Height of our common Plum-Trees; the Leaves green, and almoſt like them, but that they are a little rounder: The Flowers are whitiſh, in Form of a Star, from whence comes the Fruit, about the Size of one's Finger's End; it hangs to the Branch by a little white Cup, as it is brought to us.

Chuſe your *Sebeſtens* freſh, plump, moiſt, and full of Pulp, of a black brown Colour outwardly, adorn'd with white Caps, which is an eſſential Sign of their Newneſs, and ſuch as have neither been waſh'd nor rubb'd; the ſweet, viſcous, and fleſhy; therefore reject ſuch as are otherwiſe, and whoſe Caps are gone, which is a Token they have been waſh'd or rubb'd; and alſo take Care not to chuſe thoſe that are hard, ſmall, and of a reddiſh Colour.

The Way of uſing the *Sebeſtens* is much the ſame as that of the Jujubs, and their Virtues alike, ſo that one is frequently uſed for the other. The *Egyptians* make a gluey Sort of Birdlime of this Fruit, which is call'd *Alexandrian Birdlime*; but as this ſeldom comes amongſt us, we uſe that which is made in ſeveral Parts of *France*, in *Normandy*, and about *Orleans*. This Birdlime is prepared from the Holly-Tree, ſteep'd in a Pond or Pit, and afterwards beat together in a Mortar, 'till it is reduced into a Paſte, and then well work'd with the Hands, and waſh'd in Water; it is put up in Barrels, to be ſent to ſeveral Parts: The Choice of it is, to take ſuch as is the greeneſt, the leaſt fœtid, and freeſt from Water

that

that can be got; the Uſe of it being to catch Birds, and other Creatures of the like Nature.

Schroder ſays, the Plums of the *Sebeſten-Tree* are ſmall, with a three-corner'd Stone; temperate in reſpect of Heat, and moiſt, ſoften and prevent, or allay the Acrimony of Humours; are uſed chiefly in Defluxions of Rheum, Obſtructions of the Belly, and quench Thirſt. You may make a Decoction of them with Wine and Water, to move the Belly gently to Stool; or make an Electuary of them thus: Take *Sebeſtens* without the Stones, Prunes ſton'd, Pulp of Tamarinds, of each five Ounces; Violet Water two Pints; Juice of the Herb Mercury, clarify'd, four Ounces; Sugar Penids half a Pound; of the four greater cold Seeds, blanch'd, of each two Ounces; Diagridium three Drams: Boil the *Sebeſtens*, Prunes and Tamarinds, in the diſtill'd Water, which being diſſolv'd, mix with the Juices; then add the Penids and Pulp of Prunes, which being diſſolved alſo, mix the Diagridium and make an Electuary. It purges, and carries off the Sharpneſs of Humours, and provokes to Urine.

Sebeſtena, or *Prunus Sebeſten*, is a Fruit of the Size of a ſmall Acorn, that is oblong, roundiſh and black, wrinkled as a little Prune, of a ſweetiſh, viſcous, or clammy Taſte, cover'd at the upper End with a ſmall woody Cap, of a whitiſh Grey. The Fruit grows upon a Tree of the ſame Name, reſembling the Plum-Tree, only that the Leaves are a little more indented; the Flowers are ſmall, white, and like thoſe of the *Geranium*. This Tree grows in *Syria*, *Egypt*, *&c.* Make choice of your Fruit according to the Directions given by *Pomet*; they contain in them much Oil, and ſome eſſential Salt; are moiſtening, emolient, ſweetening, pectoral, and ſerve to open the Breaſt, cleanſe the Reins, provoke Spittle, and relax the Bowels. *Lemery.*

[*Sebeſtens* are the Fruit of the *Myxeis Domeſtica*. J. B. 1. 198. *Prunus Sebeſtina Domeſtica*. Jonſ. Dendr. p. 85.

The Tree is common wild in *Egypt* and *Aſia*. The Fruit is emolient, and recommended to blunt the Acrimony of the Humours; but is very little now in Uſe.]

21. *Of* Dates.

THERE are three Sorts of *Dates* which we ſell; the beſt are thoſe which grow in the Kingdom of *Tunis*. There are ſome that come from *Sally* in *Africa*; but they are lean and dry, and differ much from thoſe of *Tunis*, which are fat and fleſhy. We have others that are brought from *Provence*, which ſell well, being large, fleſhy, fair without, and white within; but theſe are very ſubject to damage in keeping. The Tree that bears this Fruit is the Palm, which is ſo well known throughout the whole World, it would be unneceſſary to deſcribe it. *Pomet.*

Chuſe ſuch *Dates* as are large, full and fleſhy, of a golden, yellow Colour without, and white within; the Taſte ſweet and pleaſant; let the Pulp be firm, white about the Stone, and reddiſh towards the Bark; of a *Malaga* Wine-like Taſte, and ſuch as, being ſhaken, make no Noiſe: If they are ſmall, hard, without Pulp, or rattle, they are naught: Thoſe of *Tunis* are worth much more than thoſe of *Sally* or *Provence*, as obſerv'd before. *Dates* are ſo common, in ſome Parts of the World, that they ſerve for the daily Subſiſtence of more than an hundred Millions of Souls; but for medicinal Uſes, they are not much employ'd, ſaving in the *Diaphœnicon*, ſome pectoral Ptiſans, with *Sebeſtens* and *Jujubs*, *&c.* beſides which, they are frequently eat as other Fruit.

Dactyli, or *Fructus Palmæ*, the *Dates*, are an oblong, roundiſh Fruit, a little larger than one's Thumb, fleſhy, of a yellowiſh Colour, ſweet and agreeable to the Palate, being cloſed in a long, round, ſtrong, hard Nut, of an aſh-colour'd Grey, cover'd with a little, thin, white Skin: They are brought chiefly from *Tunis* in *Barbary*; where they grow upon a large Tree, called *Palma Major*, or *Palma Dactylifera*, whoſe Trunk is large, round, ſtreight, high, cover'd with a thick Bark, riſing all the Way, with ſeveral ſcaly Knots, which make it advantageous to climb; the Leaves only grow at the Top longwiſe, pointed as thoſe of the Flower-de-Lis, ſpiring, and oppoſite one to the other, about four Foot long, and as thick as one's little Finger; triangular, hollow, ſpungy, and bending Archwiſe; the Flowers are white, and grow together on a Cluſter, like a Bunch of Grapes, and are ſucceeded by the *Dates*; which, when ripe, ſerve for the Food, or Supply, of vaſt Numbers of People in the *Indies*, *Syria*, *Africa* and *Egypt*; but what are brought hither, ſerve only for phyſical Uſes, being deterſive and ſomething aſtringent; they allay the Acrimony of the Stomach, ſtrengthen the *Fœtus* in the Womb, moderate the Scouring of the Guts, and are cooling in inflammatory Fevers: They are reckon'd peculiarly ſerviceable to deſtroy all tartarous Mucilage, and other groſs Humours, that breed the Stone, Gout, and Rheumatiſm. *Lemery.*

[*Dates* are the Fruit of the *Palma vulgaris*, Park. 1545. *Palma major*, C. B. Pin. 506. *Palma Dactylifera major vulgo*, Hern. Par. Bat. Pr. 366. It is common in *Egypt*, and other hot Countries.

Countries. Before the Fruit is ripe it is ſomething aſtringent, but when thoroughly mature it is of the Nature of the Fig, and ſometimes uſed in Cataplaſms, as Figs are; but they are ſeldom ſeen in Preſcriptions at preſent.]

22. *Of* Palm Oil.

Pomet. *Palm Oil*, or Oil of *Senega* is an unctuous Liquor, as thick as Butter, of a gold-colour'd Yellow, and a Violet or Orrice Smell, eſpecially when it is new and right. This Oil is made by Decoction or Expreſſion from the Kernel of a Fruit that grows by Cluſters, of the Size of an Egg. The Tree which produces this, is a Sort of Palm that is common in *Africk*, eſpecially at *Senega*, and in *Braſil*. The *Africans* make this Oil in the ſame Manner as they make Oil of Bay-Berries at *Calviſſon* in *Languedoc*; and it ſerves them to eat, as we do Butter: As to that which is old made, they burn it in Lamps.

Chuſe your *Palm Oil* freſh and new, of a good Smell, and ſweet Taſte; ſo that it be as pleaſant and grateful as the beſt freſh Butter we have, and of the higheſt Colour you can get. The white Colour it acquires by Age, has made ſome People fanſy that the *Palm Oil* is white: Take care you do not buy ſuch as is compounded of Wax, Oil Olive, Orrice Powder, and Turmerick, as it happens to ſome you may meet with, where the Seller underſtands how to counterfeit it; but the Cheat is eaſy to detect; becauſed the true *Palm Oil* loſes all its Colour, if it is expoſed to the Air, which the Counterfeit Oil will not do; beſides, the true *Palm Oil*, that becomes white, in courſe of Time, will recover its natural Colour, by melting it over a gentle Fire, which happens not to the adulterate Compoſition. They uſe this Oil to eaſe the Gout, and cure cold Humours.

[The *Palm Oil* is made from the Fruit of the *Palma Guineæ*, I. B. 1. 369. *Palma major Dactylifera et vinifera Guineenſis*, Jonſ. Dendr. 139. It grows plentifully wild in *Guinea*. The Oil is good as a Liniment in Rheumatiſms and Palſies, and to ſtrengthen the Nerves.]

23. *Of* Cokar Nuts.

Pomet. THESE are Fruit of various Sizes and Shapes, as repreſented in the Figures of them, which are engrav'd from the Originals which I have in my Hands. They are proper for ſeveral Sorts of Works; as Bowls, Beads, Snuff-Boxes, *&c.* The Place in *Europe*, where they trade moſt in theſe Kind of Fruit, is at *Dieppe*. I ſhall not here deſcribe the Trees which bear them, but ſhall only ſay, that they are different Sorts of Palm Trees; but as ſo many Authors have treated of them, I ſhall add nothing more. The middle-ſiz'd *Cocos*, which we have from the *Antills Iſlands*, make a conſiderable Trade, and furniſh the Workmen with conſiderable Buſineſs, that deal in *Beads* and *Snuff-Boxes*; and the larger Sort is of ſuch vaſt Uſe in *Africk*, *Arabia*, and ſeveral other Parts of the World, that many Millions ſubſiſt by Means of it only, as it produces ſo many Neceſſaries of Life; which were I to enter into a Detail of, it would ſwell this Chapter to too great a Bulk. There is another Sort, but much more ſcarce, which *J. Bauhinus* calls *Nux Indica ad Venena celebrata*; *ſive Coccus Maladivæ*; the *Indian* Nut, famous againſt Poiſon, or the *Maldive* Nut. I have one of theſe, which differs from the common Kind, in that it is more long ſhap'd, and pointed, and has a browner Shell: The high Virtue aſcrib'd to this, is the Reaſon why it is ſo very ſcarce and rare.

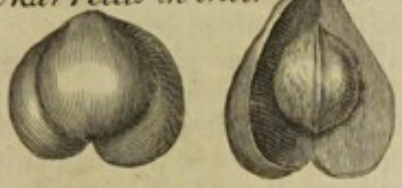
Lemery. The *Cokar-Nut* grows plentifully in the *Spaniſh Weſt-Indies*; as *New Spain*, *Campechy*, *Bay of Mexico*, *Cuba*, *Hiſpaniola*, *Guatimale*, *Jamaica*, *&c.* as well as in the *Eaſt-Indies*. The Tree aſcends direct and high, having on its Top a Tuft of Palm-like Branches, of a moſt beautiful Figure, bringing forth monthly Cluſters of very large Nuts; containing within a very large Kernel, which eats as pleaſant as an Almond, with a milky Juice, which is drank for quenching Thirſt.

The Kernel is cover'd with a very hard Shell, of which the Turners make Veſſels and drinking Cups; ſome ſo large as to hold a Quart, three Pints, or more; and the Shell is cover'd with a thick Rind, which being beaten, becomes hard like Flax or Hemp, of which Cloathing is made, Cords, Ropes, and the like; ſo that the *Cokar-Nut* Tree ſeems to be well provided with all Neceſſaries for human Life; as Cloathing, Veſſels of Uſe, Meat, Drink, *&c.* The milky Water, within the Nut, is pleaſant, both to quench Thirſt, and alſo to nouriſh the Body; and by the Heat of Fire it will thicken into a Jelly, like a Cuſtard made of Cows Milk; otherwiſe it is an excellent pleaſing Liquor, cooling, moiſtening, and ſweetening the Juices; for which Reaſon it is ſaid to be good againſt Conſumptions and Hectick Fevers, abating all preternatural, and irregular Heats. The Branches of the Trees being cut, yield a pleaſant Liquor, which being diſtill'd, gives a ſtrong *Aqua Vitæ*: The Kernel, beſides its ſerving for Meat, yields, by Expreſſion, an Oil, which is better than any Oil Olive, not inferior to the beſt Oil of Sweet Almonds. Of the Branches they make Houſes; of the Trunk their Boats and Ships; of the

22

The Palm bearing Dates.

24.
Cokar Nuts in their Shells.



The Tree bearing the Cocos.

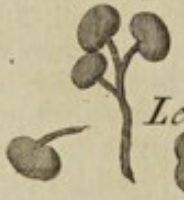
25
ux Vomica.

Long Cokar.

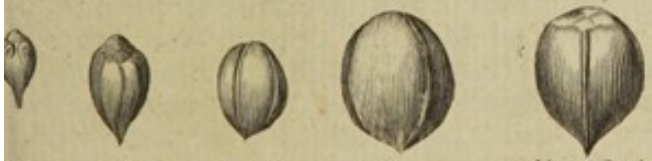
23

The Palm fruit of wch Palm Oil is made.

Palm fruit of ye Isle of Ceilan.



26
Levant Nut



Nuts of diverse Sizes without their Shells.

The Maldive Nuts.

the coarſe Hards, on the Outſides, their Cables; and of the finer Stuff, Sails for Ships, and Cloth, as aforeſaid.

[The common *Coco* or *Cocker* Nut is the Fruit of the *Palma Indica nucifera Coccys dicta*, R. Hiſt. 2. 1356. *Palma ſive nux Indica vulgaris ferens Coccos*, Park. 1596. This grows both in the *Eaſt* and *Weſt Indies*.

The *Maldive* Nut is the Fruit of the *Coccos de Maldiva ſive nux Indica ad Venena celebrata*, R. Hiſt. 2. 1359. *Palma Coccifera figura Ovali*, C. B. Pin. 509. This grows only in the *Eaſt Indies*, and has the Character of a very great Medicine in Palſies, Epilepſies, *&c.* beſides its Virtues in reſiſting Poiſons, but is little us'd at preſent.]

24. *Of the* Vomiting-Nuts.

THE *Vomiting-Nuts* are round flat Nuts, of the Size and Shape repreſented in the Figure; they are of a greyiſh Colour on the Outſide, and being ſlit in two, are of divers Colours, as yellow, white, brown, *&c.* within. Theſe Nuts, according to the Relation of ſome Perſons, are the Kernel of a Fruit of the Size of our Rennet Apples, which grow upon a large Plant in ſeveral Parts of *Egypt*, from whence come the *Vomiting-Nuts* we now ſell. The beſt Relation we have of the Growth of them, as well as their Deſcription, is given by Mr. *Paul Hermans*, Phyſician and Botaniſt of *Leyden*, one of the moſt able Men of his Age. This Relation of his has a great deal of Analogy with what I have ſaid of them, except that he ſays they grow in the Iſle of *Ceylon*, which may be, and yet they may alſo grow in *Egypt*, for every Body knows the ſame Fruit may grow in ſeveral different Places. He ſays likewiſe, that there is another Sort of *Nux Vomica*, which comes from the Iſle of *Timor*, and that the Fruit is four Times ſmaller than that of *Ceylon*; and that the Plant is called *Lignum Colubrinum*. *Pomet.*

They are brought from *Egypt*, the *Levant*, and *Eaſt-India*, and are generally flat, round, and of the Thickneſs of a Crown Piece, almoſt like Lupins, but larger, hollowiſh on the one Side, and a little bunch'd round on the contrary; of a greyiſh Colour, with a Kind of Freeze, or ſoft Cotton, covering the whole; but of ſo hard and horny a Subſtance, that it cannot eaſily be beaten into Powder, but muſt be grated, or ground in a Horſe-Mill: The chief Uſe of them is to infatuate Birds, as Crows, Ravens, Pigeons, *&c.* It is ſaid it will kill Dogs, Cats, and other Creatures, if it be given mix'd with their Meat: And it is probable, that if it kills not ſuch Creatures as Wolves, Foxes, Tygers, *&c.* yet poſſibly it may ſo ſtupify them, that they may the more eaſily be maſter'd and kill'd by Mankind: It is alſo mix'd with Paſte, and given in a Bait to catch Fiſh withal. It has been given inwardly, to three or four Grains, for ſeveral Intentions, but is much better let alone, ſince there are ſo many Remedies that may be uſed with leſs Danger.

Nux Vomica is a little flat Fruit, as round as a Farthing, downy or lanuginous, of a greyiſh Colour, hard as Horn, of various Colours within, ſometimes yellow, ſometimes white, and ſometimes brown: Some People believe this to be the Kernel of a Fruit as large as an Apple, that grows upon a great Plant in ſeveral Parts of *Egypt*; but the Truth is, no Body as yet truly knows the Origine of the *Vomiting-Nut*, and there is nothing to be depended on in the Hiſtories concerning it. Chuſe ſuch as is large, clean and new; it is employed chiefly for intoxicating of Birds and Fiſh, though it is not poiſonous if given to Men, but may be uſed in ſmall Quantities; and is reckon'd deterſive, drying, reſolutive, being applied externally and internally: It is commended as uſeful to reſiſt Poiſon, and drive away Melancholy and Vapours by Perſpiration. *Lemery.*

[The *Nux Vomica* is the Seed of the *Nux Vomica major et Officinarum*. Par. Bat. Prodr. 357. *Malus malabarica fructu cortice Amaricante ſemine plano compreſſo*. R. Hiſt. 1661. *Solanum aboreum indicum maximum foliis Ænopliæ ſive Napecæ majoribus fructu rotundo*. Breyn. Prodr. 2. 92.

The *Lignum Colubrinum* is the Root of a ſmaller Species of this Plant, as mention'd before in its proper Place.

It is probable that the *Nux Vomica* becomes a Poiſon by its extreme Bitterneſs, which muſt make an inſupportable Impreſſion upon the nervous Syſtem, as we find all bitter Drugs are poiſonous to ſome Kinds of Animals, and even Bitter Almonds to Birds.]

25. *Of the* Coculus Indus, *or* Levant *Nut or Berry.*

THE Berries which we ſell by the Name of the *Levant*, or *Eaſtern Berry*, are a ſmall Fruit, of the Size of a good large Bead, roundiſh, and ſomething of the Shape of a Kidney, as you will ſee repreſented in the Figure. They are of a reddiſh Colour, and hang to the Plant which bears them, by a little Stalk of the ſame Colour. In theſe Fruits is found a little Kernel, which is divided into ſe- *Pomet.*

veral Parts, very ſubject to be worm-eaten, and the greateſt Part of theſe Fruits come to us, for that Reaſon, empty; therefore chuſe thoſe that are heavy, freſh, the higheſt colour'd, largeſt, and leaſt fill'd with Dirt that may be; they are ſerviceable to deſtroy Vermin, being uſually mix'd with Staveſacre. Some Authors alſo ſay, that they will intoxicate Fiſh, ſo that they may be eaſily taken.

There is another Fruit call'd the *Fagara* of *Avicenna*, which is almoſt like the *Levant Berry*, or *Coculus Indus*, and whoſe Figure is ſhewn with that of the Date, of which there are two Sorts. The firſt is ſo like the *Coculus Indus*, that if it were not for a thin greeniſh Covering that it has, it wou'd be hard to diſtinguiſh them. The ſecond is of the Figure and Size of a *Cubeb*, of a brown Colour, and aromatick Smell, and the Taſte a little bitter and piquant; both partake of the Nature of the *Cubebs*, being good to ſtrengthen the Stomach, aſſiſt Digeſtion, and expel Poiſon.

Some Authors call the *Levant Nut*, or the *Coculus Indus*, the *Baccæ Orientales*; they are Berries brought from the *Eaſt-Indies*, as alſo from *Turky*; round, and a little larger than Bay-Berries, hollow within, and of a browniſh Colour, or rather blackiſh-aſh Colour on the Outſide; having a white Kernel within, and of a hot Taſte, drawing Water into the Mouth; and as is reported, grow many together like Ivy-Berries, yet each by itſelf on a Stalk. Some will have them to grow on a Kind of Night-Shade, others on a Kind of Tithymal or Spurge; but the Truth is ſcarcely yet known: They are chiefly uſed for Baits to catch Fiſh withal, or in a Powder to kill Lice and Vermin in Children's Heads.

[The *Cocculus Indus* is the Fruit of the *Solanum racemoſum Indicum arboreſcens, Cocculos Indos ferens.* R. Hiſt. 115. *Arbor indica Coculos indicos ferens.* Breyn. Prodr. 2. 19. it is common in *Malabar*. Four Grains of this Fruit taken inwardly, cauſe Hick-ups, Nauſea's and Faintings, and a larger Doſe is poiſonous. The Powder, mix'd with Flour and New Cheeſe, intoxicates Fiſh ſo, that they may be taken with the Hand. Some People are afraid of eating ſuch Fiſh; but Experience has prov'd that their Apprehenſions are without Foundation.

The *Fagara* is the *Cubebis Affinis Fagara major*. C. B. Pin. 412. *Fagara ſeu Cayutona Luzonis*. Com. Syll. 74. Theſe are brought to us from the *Philippine-Iſlands*; but ſeldom uſed in Medicine.]

26. *Of* Caſſia.

Pomet. WE have four Kinds of *Caſſia*, 1. That of the *Levant*. 2. That of *Egypt*. 3. That of *Brazil*; and 4. The *Iſland Caſſia*: They are all the Fruits or Pods of different Species of the ſame Tree, which have Leaves ſome longer ſome ſhorter, and yellow Flowers. The firſt and moſt eſteem'd is that of the *Levant*. This *Caſſia* grows plentifully in ſeveral Parts thereof, from whence it is now brought by the Way of *Marſeilles*. The Leaves of this are green, and the Flowers yellow.

Chuſe this *Caſſia* freſh, in thick Pieces, that are heavy, not hollow, of a brown Colour, whoſe Bark appears fine and white within, and ſuch as is furniſh'd with a black Pulp, and a white hard Stone or Kernel in Form of a Heart. This Pulp ought to be ſweet, without being either ſharp or muſty, and ſuch as will eaſily ſeparate from the Pod. Beware that the Pods be not knotty or crooked, but even, and ſuch as will not ſhake or rattle. Some will have it, that the true Way of diſtinguiſhing the *Levant Caſſia*, is by a Ridge that runs the Lengthway of the Pods; which nevertheleſs is no general Rule, becauſe there are Pods with this Mark frequently met with in the *Antilles*, or *Weſtern-Iſlands*. The beſt Way is to take that of *Marſeilles*, becauſe there is none comes that Way but from the *Levant* and *Egypt*.

27. *Of* Egyptian Caſſia.

THE *Egyptian Caſſia* is a Fruit like the former, only that it is thinner, and a great deal tenderer. The Tree that bears this *Caſſia* grows to a prodigious Size; it is as large as any Tree we have in *France*, and differs not from the former but as the Leaves are much ſmaller. They meet with ſuch vaſt Quantities of theſe Trees throughout *Egypt*, that the *Caſſia* they produce goes for almoſt nothing there, eſpecially at *Grand Cairo*. The *Egyptian Caſſia* ſhould be choſen as that of the *Levant*; it ſhou'd be ſuch as will break under the Thumb in cleaning. The *Levantines* and *Egyptians* make a Confection of the *Caſſia*, while freſh, which they keep to looſen the Belly, it being a Medicine very convenient, and eaſy to take. The *Caſſia* Confect ought to be new, and neither aigre nor muſty. Some People uſe it here, in Imitation of the People of the *Levant*, to keep the Body open.

28. *Of* Brazil Caſſia.

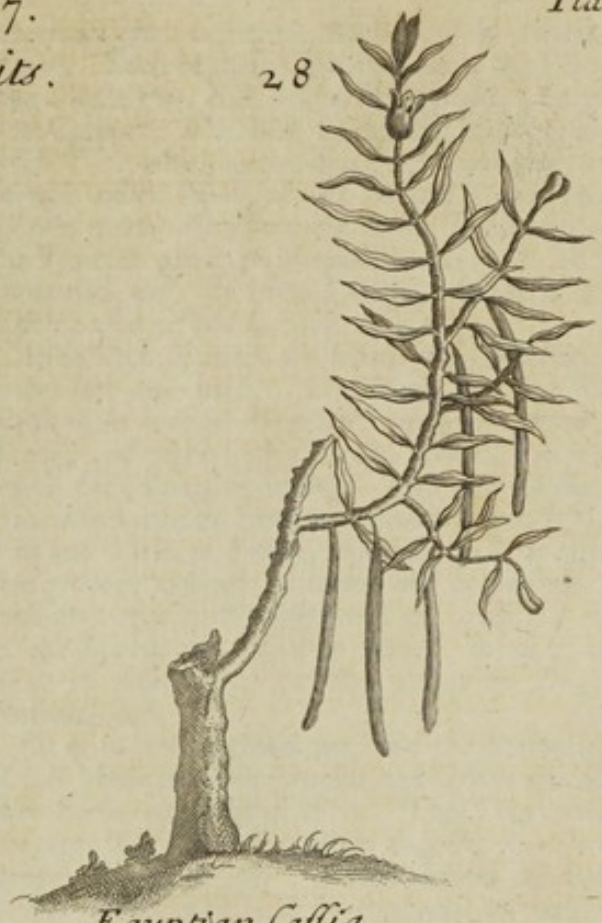
THIS grows in *Brazil*, on Trees whoſe Leaves, Flowers, and Fruit, are as in the Figure repreſented. The *Caſſia* which theſe Trees produce is ſo large, that if I had not ſeen a Piece in M. *Tournefort*'s Hands of about a Foot and a half long, and the Thickneſs of a Man's Wriſt

of Fruits.

27

Cassia of ye Levant.

28



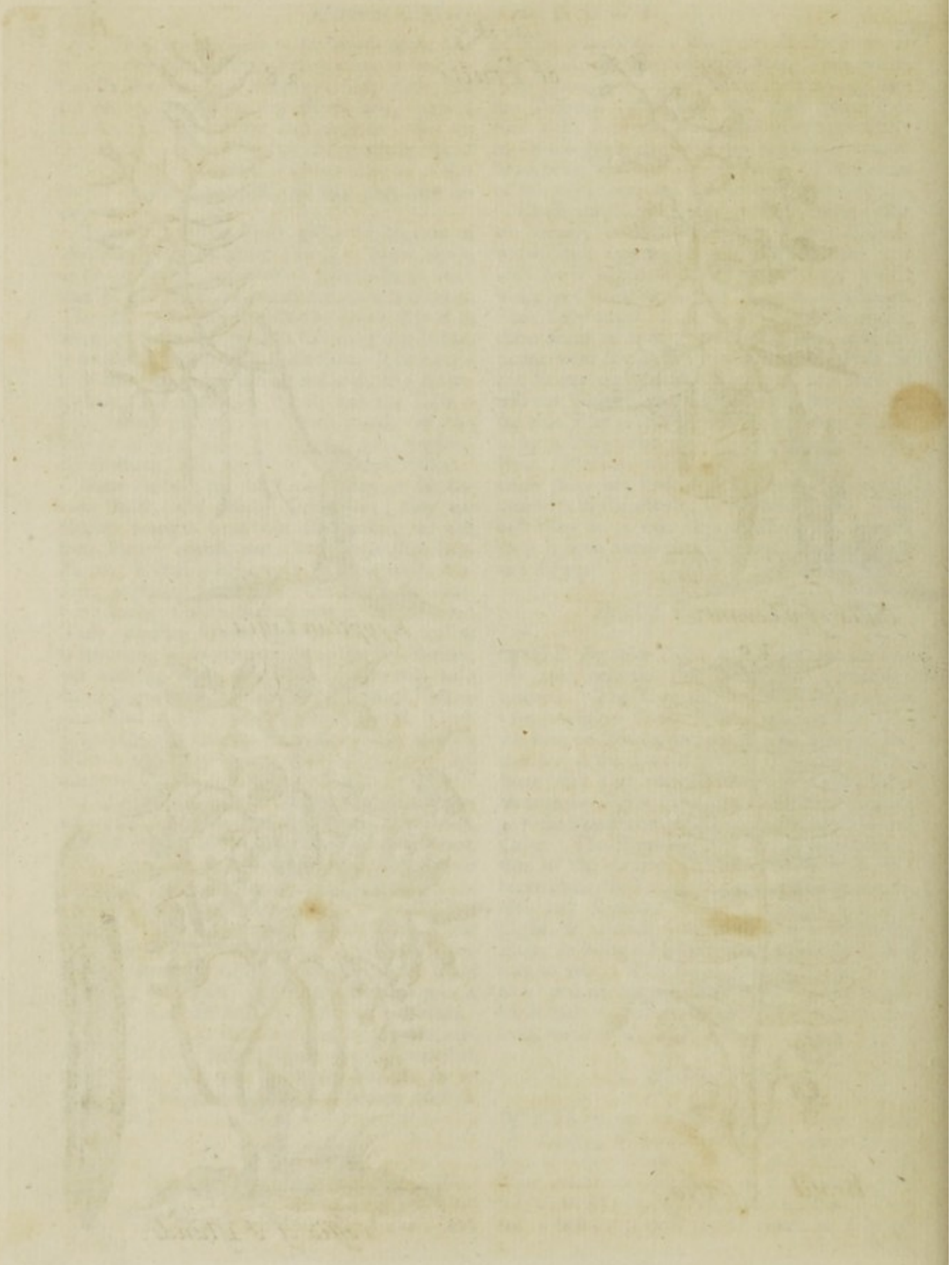
Egyptian Cassia.

29

Brasil Cassia.

30

Cassia of ye Islands.



Wriſt, I cou'd not have believ'd that there was any *Caſſia* ſo thick. But this Fruit is of little Uſe: But the *Caſſia* we have the greateſt Dealings in, is that we have from the *American Iſlands*.

29. *Of the* Iſland Caſſia.

THE *Caſſia* of the Iſles is that which at preſent is moſt uſed, and is a Fruit of the ſame Nature with the former; all the Difference is according to the Places where it grows. The *Antilles* are ſo full of theſe Trees, that the *Caſſia* of thoſe Parts coſts them nothing but the Trouble of gathering. It is the Profit or Perquiſite of the Seamen who gather it, and ſtow it at the Bottom of the Ship and amongſt other Goods; which is the Reaſon why it oftentimes comes ſo dirty, being full of Sugar and Filth that it gathers from the other Ladings in the Ship: Chuſe ſuch as comes neareſt to the Fineneſs and Goodneſs of the *Levant Caſſia* that you can get.

Schroder ſays, that which comes from *Brazil* purges more in one Ounce, than than that from *Egypt* in two; yet that brought from the *Eaſt-Indies* and by the *Levant*, is accounted the beſt. That from the *Weſt-Indies* is generally large and thick rinded, and not ſo pulpy, and therefore worth much leſs than the *Eaſt-India*. The Pulp gently looſens the Belly, and brings forth the Excrements without griping; it is temperate in reſpect of Heat or Cold, and moderately moiſt. It is good for ſuch as are troubled with Fevers, the Pleuriſy, or any Inflammation of the Liver or Spleen, being mix'd with Water, and Drinks of a cooling Nature. It is good to cleanſe the Reins and Ureters, to bring forth Gravel and Stone, if drank in a Decoction of Cicers, Parſley-Roots and Liquorice. It is extracted by forcing the Pulp, taken out of the Cane, through a Sieve, under which is a Veſſel of hot Water, that by the Help of the Vapours, the Pulp being ſtirr'd about in the Sieve, may the eaſier paſs thorough, when hot; you ought to extract it but juſt at the Time of uſing, becauſe it grows ſour with keeping. There are ſeveral compound Extracts of it, according to the Nature of the Occaſion.

Caſſia fiſtula Alexandrina, ſive purgans, Lemery. or *Canna fiſtula*, is a Pod, the Length uſually of a Man's Arm, thicker than one's Thumb, and almoſt round or cylindrick, woody, of a blackiſh Colour. The Bark is as hard as Wood, compoſed of two Parts, equally join'd together, which cannot be ſeparated but by breaking their Junctures. The Hollows or Cells are divided by thin Partitions, but very hard ones; and are fill'd with a Pulp or Subſtance like Marrow, that is liquid, black, and as ſweet as Sugar. Each of theſe Cells contains a thick Seed, like a little Pea, flat, and almoſt round, of a yellow Colour. This Pod is the Fruit of a large thick Tree which grows in *Egypt*, the *Indies* and ſeveral other Parts of the World; the green Leaves much reſemble thoſe of the Walnut-tree; the Flowers grow in Numbers upon one Stalk, compoſed each of five Leaves, diſpoſed in a Circle, of a yellow Colour.

When the Flowers are fallen, the *Caſſia* Sticks grow out and harden themſelves, ſo that they break one againſt the other, when the Wind is ſtrong, and make ſuch a Noiſe, that they may be heard two Leagues round. The beſt *Caſſia* is that which comes from the *Levant*; but it is ſo dear and ſcarce in *France*, eſpecially in War-time, that we are obliged to make uſe commonly of ſuch as comes from *Egypt* and the *Antilles*; that of the *Levant* and *Egypt* is brought to us by the Way of *Marſeilles*, but the others by *Dieppe*, *Rochelle*, &c.

[It is to the *Arabians* we owe the Knowledge of this Medicine; for neither the *Greeks* nor *Romans* knew any Thing of it. The Tree which produces it is the *Caſſia fiſtula vulgaris flore luteo.* Breyn. Prodr. 2. 26. *Arbor Caſſiam ſolutivam ferens.* Bont. 101. It is common as well in *Egypt* as in both the *Eaſt* and *Weſt-Indies*.

The *Alexandrian Caſſia* is the beſt, but is very ſcarce: What we uſe now is the *American*, which is more acrid and griping than the *Alexandrian*; not that it is the Fruit of a different Tree, for the Tree that produces *Caſſia* is the ſame in all Places; but the different Degrees of Heat make a Difference in the Fruit, for the Trees that now flouriſh in *America*, were firſt tranſplanted from the *Levant*, which is a Proof of the Truth of this.

The *Brazil Caſſia* is aſtringent while green, but purges twice as ſtrongly as any other Kind when ripe. The great Value of *Caſſia* is, that it is a proper Purge in all Inflammatory Caſes, which cannot be ſaid of any other known Cathartick.]

30. *Of* Tamarinds.

TAmarinds are a ſharp acrid Fruit, which are brought from the *Levant*, ſometimes in Bunches, but more commonly freed from their Stalks. *Pomet.* The Tree which bears them has very ſmall Leaves; after which come white Flowers, almoſt like Orange Flowers, from whence ariſe Huſks that are green at firſt, and grow brown as they ripen, when the Inhabi-

tants of thoſe Parts gather them in Cluſters, and dry them a little before they are ſent hither.

Chuſe your *Tamarinds* fat or oily, freſh, of a Jet Black, and a ſharp pleaſant Taſte, and ſuch as have not been laid in a Cellar, which may be known by their too great Moiſture, their Smell of the Vault, and their Kernels being ſwell'd. Avoid ſuch as are adulterated with Molaſſes, Sugar and Vinegar. They are much uſed in Medicine, becauſe of their cooling purgative Quality, and are Ingredients in many Officinal Compoſitions.

There grow a great many *Tamarind* Trees at *Senega*, where the Negroes make the Fruit into Cakes, after they have ſtoned them and freed them from their little Stalks, which they make frequent uſe of to quench their Thirſt. Theſe *Tamarind* Cakes are very ſcarce in *France*. They cleanſe *Tamarinds* like *Caſſia*, and with Sugar make a Confection of them which is not unpleaſant.

Tamarindi, or *Oxyphœnica*, is a Fruit about the Length of one's Finger, as broad and thick as the Thumb, cover'd with a green Bark at the Beginning, but that grows brown as it ripens, and is ſo tender that it eaſily falls off or ſeparates. The Fruit affords a black, ſouriſh, or ſharp Pulp, that is grateful to the Taſte; it hangs by long Fibres, or woody Strings, form'd in the Nature of a Bunch. They take this Pulp from the Seeds as they do that of *Caſſia*. *Lemery.*

The Tree which bears the *Tamarinds* is call'd *Tamarindus*, by *Gerard*, *Parkinſon*, *Bauhinus* and *Ray*; or *Siliqua Arabica*, *quæ Tamarindus*; or *Balam Pulli*, *ſeu Mederam Pulli*. It is as big as an Aſh or Cherry-Tree. The Trunk is large, cover'd with a thick Aſh-colour'd Bark. The Wood is hard, the Branches furniſh'd with a great many Leaves, like thoſe of Fern, long as one's Hand, compoſed of ſeveral ſmall Leaves, ranged on each Side, hard, nervous, or ſtringy, green, of a pleaſant Taſte. The Flowers ſpring from Wings of Leaves join'd eight or ten together, like thoſe of the Orange; white-colour'd, ſtrip'd with red Veins. The Roots, are long, large and red. This Tree grows in ſeveral Parts of *India*, as *Cambaya*, *Senega*, *&c.* The Leaves are proper for quenching Thirſt, and cooling in burning Fevers, being taken in Decoction.

The *Indians* ſeparate the *Tamarinds* from the Bark and the Bunch, after having dried them a little; we have them frequently among us hanging one to another. Chuſe the neweſt, that are hard as Paſte, pulpy, black, of a ſharpiſh grateful Taſte and vinous Smell. They yield a good deal of acid Salt, Oil and Flegm; are deterſive, gently laxative and aſtringent. They allay, by their Sharpneſs, the too great Motion of the Humours, abate feveriſh Heat, cool, and quench Thirſt. They are given in continual Fevers and Looſeneſs, being taken in Decoction, Bolus, *&c.* or a Pulp may be made, as of *Caſſia*. Doſe from an Ounce to two. It ſtrengthens the Stomach, creates an Appetite, reſiſts vomiting and cuts tough Flegm. An Extract is made thus: Take *Tamarinds*, boil them in fair Water, ſtrain, clarify with the White of an Egg, and thicken by conſuming the Water to a due Conſiſtence. Doſe from two Drams to half an Ounce. It cools Inflammations of the Stomach and Liver, Reins, Back and ſeminal Veſſels; is good in Catarrhs, Rheums, Eruptions of the Skin, ſalt and ſharp Humours, St. *Anthony*'s Fire, *&c.*

[*Tamarinds* are the Fruit of the *Tamarindus*, Rai. Hiſt. 2. 1748. *Tamarindus Derelſide Proſperi Alpini.* Breyn. Prodr. 1. 51. The Tree is common in *Arabia* and in both the *Indies*.

What we uſe in Medicine is the blackiſh Pulp taken out of the Pod of this Tree, which is ſomething like a Bean; this Pulp lies between two Shells, one of which is woody and the other membranous. We owe the Knowledge of this alſo to the *Arabians*; for neither the *Greeks* nor *Romans* knew any thing of it. The Pulp is very properly mix'd with *Caſſia* as a Purge, and may be given alone as an Alterative. It is very proper to be mix'd in Juleps, *&c.* to quench Thirſt in Fevers.]

31. *Of* Myrobalans.

Myrobalans are a Fruit of the Bigneſs of a Plum, which are brought to us dry from ſeveral Parts of the *Eaſt-Indies*. There are five Kinds of them; the *Citrine*, the *Indian*, the *Chebulick*, the *Bellerick*, and the *Emblick*.

32. *Of* Citrine Myrobalans.

THE *Citrine*, or yellow *Myrobalans*, are Fruit which grow in ſeveral Parts of the *Indies*, eſpecially about *Batacala* and *Goa*. When theſe Fruit are ripe they are of the Figure or Likeneſs of the *Mirabel* Plum, encloſing a Stone. The *Indians* candy this Fruit while green, as we do Plums, and they ſerve to looſen the Bowels. The *Portugueſe* and *Dutch* bring us this Fruit thus candied for the ſame Purpoſe; but the greateſt Quantity is brought us dry, which the Apothecaries keep for ſeveral *Galenical* Compoſitions, after the Stone is taken out. Chuſe your *Citrine Myrobalans* of a reddiſh Yellow, long, well fed, heavy, and hard to break, *Pomet.*

of

# of Fruits.

31
32
33
34
36
35
Tamarinds.
Citron Myrobalans.
M. Indian.
Chebulick M.
Emblick M.
Bellerick M.

of an aſtringent diſagreeable Taſte; and beware of being impos'd upon by any of the other four Sorts, to wit, the *Indian*, *Chebulick*, *Emblick*, or *Bellerick*.

33. *Of* Indian Myrobalans.

THE *Indian Myrobalans* are a ſmall long Fruit, of the Size of a Child's Finger End, black without and within, without Stone, and very hard, that are brought from the *Eaſt-Indies*, where they grow in great Quantities, and from whence they take their Name. The Tree which bears theſe has Leaves like a Willow, after which comes Fruit of the Size and Shape of a *Spaniſh* Olive, which are green at the Beginning, and grow browner as they ripen, and blacken in drying. As we have them now brought to us, they are hard, and black as Ebony. Chuſe thoſe that are well fed, dry, blackiſh, of a ſharpiſh aſtringent Taſte, and the heavieſt you can get.

34. *Of* Chebulick Myrobalans.

THE *Chebulick Myrobalans*, or thoſe call'd *Quebuli*, are a Fruit very like the *Citrine*, except that they are bigger, blacker and longer. The Tree which bears them is as high as an Apple-Tree, and has Leaves like the Peach, with Star-Flowers of a reddiſh Colour. Theſe Sorts of Trees are met with about *Bengal*, where they grow without Culture. Chuſe theſe *Myrobalans* fleſhy, the leaſt wrinkled and black that is poſſible, ſuch as are reſinous within, of a brown Colour, and ſuch as have an aſtringent and bitteriſh Taſte.

35. *Of* Bellerick Myrobalans.

THE *Bellerick Myrobalans* are a ſmall Fruit of the Bigneſs of a Nutmeg, of a reddiſh Yellow without and yellowiſh within, in which is a Stone ſupply'd with a Kernel of no Virtue. The Tree which bears theſe is large, and has Leaves like thoſe of the Bay-Tree. The Fruit is faſten'd to the Branches in Shape of little Gourds, of a yellow Colour. Theſe ought to be choſen well fed and new, ſmooth, high colour'd, and of an aſtringent Taſte.

36. *Of the* Emblick Myrobalans.

THE *Emblick Myrobalans* are a blackiſh rough Fruit, of the Bigneſs of *Galls*, eaſy to divide into Quarters; for which Reaſon almoſt all we have brought are after this Manner. The Trees that bear them are as high as the Palm, and the Leaves are almoſt like the Fern. Chuſe ſuch as are leaſt fill'd with Stones and other Traſh, which they are very ſubject to; but, on the contrary, the moſt fleſhy and blackeſt you can meet with. The *Indians* do not uſe the *Emblick Myrobalans*, either candied or raw, as the other four Kinds, except ſometimes while they are unripe, for their Tartneſs; but they employ them to dye Skins green, as the Leather-dreſſers do *Sumach*, and alſo to make Ink. Some hold that all the *Myrobalans* grow upon one and the ſame Tree, which is far from Truth, as I have ſhewn; for, though they all grow in the *Eaſt-Indies*, ſome of them grow fifty Leagues from one another. The *Citrine Myrobalans*, which the *Indians* call *Arare*, purge Bile: The *Indian*, which thoſe People call *Rezenuale*, and *Bellaris Gotin*, purge Melancholy: The *Emblick*, call'd *Annual* by the *Indians*, and the *Chebulick*, *Areca*, purge Flegm: Beſides theſe five Species of *Myrobalans*, uſed ſometimes in Pharmacy after the Stones are taken out, there there is alſo a ſixth Kind of *Myrobalan*, call'd *Dieacque-Nut*, which reſemble *Citrine Myrobalan* in Figure and Size, but is black. This Kind, however, is never brought to us.

Myrobalani, or *Myrobalanes*, are a Fruit the Thickneſs of a Prune, which are brought to us from *India* dry. There are five Kinds of them; the beſt call'd *Myrobalani Citrini*; the ſecond *Myrobalani Indici*; the third, *Chebuli*; the fourth, *Emblici*; the fifth, *Bellerici*. The *Citrine*, or yellow Sort, are ſmall, oblong or oval, of the Size of an Olive, or a little bigger, raiſed on ſeveral Sides, containing each a longiſh Stone. They grow upon a Tree reſembling a Prune or Plum, but that bears Leaves like a Service-Tree. It grows without Management or Care in *India*, and particularly near *Goa*. This Kind of *Myrobalan* is the moſt uſed of all the Sorts in Phyſick. It ought to be choſen fleſhy, heavy, hard, of a reddiſh yellow Colour, and an unpleaſant aſtringent Taſte. *Lemery.*

Myrobalani Indici ſive nigri, *ſive Damaſcii*, the *Indian*, or black *Myrobalans*, are an oblong Fruit, of the Size of a ſmall Acorn, rough and ridged lengthways, of four or five Sides, very hard, hollow within, and void of a Stone. They grow upon a Tree whoſe Leaves are like thoſe of the Willow.

Myrobalani Chebuli, *Quebuli*, *Chepuli*, *Cepuli*, or *Chebulick Myrobalans*, are a Fruit like Dates, oblong and ſharp, or pointed at the End which grows to the Tree, having five Corners or Ridges, of a yellowiſh brown Colour. They grow upon a large Tree like a Plum-Tree, in *India*, without Culture. The Leaves are like thoſe of the Peach-Tree; the Flowers form'd Star-wiſe, of a Colour

lour tending to Red. Make choice of large, fleſhy, hard *Chebule Myrobalans*, of a dark yellow Colour, and an aſtringent Taſte, inclining to bitter.

Myrobalani Emblici, *Embelgi*, *Emblegi*, *Ambegi*, *Dyſeni*, or *Emblick Myrobalans*, are a Fruit that are almoſt round, and about the Size of a Gall-Nut, rough on the Outſide, and ridg'd on the ſix Sides, of a dark brown Colour, containing each a thick Nut, like a Filbert, rais'd on ſix Corners, of a yellow Colour. The Fruit grows upon a Tree of the Height of a Palm, having long Leaves cut ſmall and indented like the Ferns; we have theſe brought to us cut in Quarters, ſeparated from the Stone, and dried. You ought to chuſe them clean, without Shells, blackiſh without, grey within; of an aſtringent Taſte, attended with a little Sharpneſs. The *Indians* dye Skins and make Ink with them.

Myrobalani Bellerici, *Belleregi*, *Bellegu*, or *Bellerick Myrobalans*, are Fruit of the Size of the common Sort, oval, or almoſt round, hard, yellow, more united, and leſs angular, or corner'd, than the others, containing each an oblong Stone, or Nut, as long as an Olive; the Stone encloſes a little Kernel. The Tree that bears this has Leaves like the Bay, and is as big as a Plum-Tree. All theſe Sorts of Fruit yield a great deal of eſſential Salt and Oil, a moderate Quantity of Earth and Flegm: They are all gently purgative and aſtringent, ſomething like *Rhubarb*; but the *Citrine* Kind are eſteem'd more particularly for purging the bilious Humours; the *Indian* the Melancholy, and the others for the Serous and Flegmatick. They may be given from ſix Drams to double the Quantity, either in Pills, a Decoction in Wine, or an Extract made of the pulpy Part, by keeping them in Wine, then ſtraining out the Infuſion, and inſpiſſating, or thickning, to a Conſiſtence.

[Many have been of Opinion that the *Citrine* and *Chebule Myrobalans* were the ſame Fruit, only in different Degrees of Maturity, the *Citrine* being ſuch as were gather'd before they were ripe, and the *Chebule* ſuch as were ſuffer'd to remain on the Tree 'till perfectly mature: Others have thought all the Kinds to be produced by the ſame Tree; but the Truth certainly is, that they are the Fruit of five entirely different Trees.

The *Citrine* is the Fruit of the *Myrobalanifera Sorbi foliis*. Jonſ. Dendr. 83.

The *Indian* is the Fruit of the *Myrobalanifera Salicis folio*. Jonſ. Dendr. 82.

The *Chebule*, of the *Myrobalanifera Perſicæ folio*. Jonſ. Dendr. 83.

The *Bellerick*, of the *Myrobalanifera Lauri folio ſubcinereo*. Jonſ. Dendr. 84.

And the *Emblick*, of the *Myrobalanifera foliis minutim inciſis*. Jonſ. Dendr. 83. *Canna indica arborea Zanon. Myrobalanus Emblica foliis Securidacæ*. Breyn. Prodr. 2. 74.

The *Bengal Bean*, ſometimes uſed in Medicine as an Aſtringent, is no other than the Fruit of the *Citrine Myrobalane*, hurt while young by the Puncture of an Inſect, and growing by that Means of an uncommon Shape, as Plums, *&c.* will with us.]

37. *Of the* Areca.

THE *Areca* is ſuppoſed to be the Fruit of a Kind of Palm-Tree of that Name. This Fruit is alſo call'd *Fanfel*, the *Eaſt Indians* make a great deal of Uſe of it: It is of various Shapes, ſometimes roundiſh, but flat at the End, ſometimes oblong; and there is beſides a Kind that is ſlender and black, very hard, and of an inſipid Taſte. They ſeldom ſend us the *Areca* with its outer Subſtance; and what we have of it is ſo hard, that if all Accounts did not aſſure us of it we could hardly conceive it could be eatable. The *Areca* is generally call'd *Mut*; it however is only a Kernel, commonly of the Shape of a Coat Button, but ſomething more pointed, and is marbled within with black and white Veins like a Nutmeg. The Subſtance is ſo hard that it is like Horn. *Pomet.*

The *Indians* make a Kind of Confect of the *Areca*, *Betel*, and Oyſter-Shells burnt, which is in great Uſe among them. So many Authors have given the Preparation of this Mixture that I ſhall not repeat it here.

The Tree which bears the *Areca* is figur'd in the ſame Plate with the Peppers.

Areca Palmæ Species. Scalig. Areca ſive Fanfel Cluſ. in Garz. Ludg. Palma cujus fructus ſeſſilis Fanfel dicitur. Avellana Indica. The Palm, whoſe Fruit is call'd *Fanfel*, or the *Indian Filbert*, is a Species of the Palm-Tree, very high and ſtreight, that grows in *Malabar*, and ſeveral other Parts of *India*. The Flowers are ſmall, white and almoſt without Smell; the Fruit is of an oval Figure, the Size of a Nut, having a green Bark, or Peel, at firſt, which becomes very yellow as it ripens, ſoft and very hairy. The Bark, or Rind, being taken away, there appears a Fruit the Size of a Filbert, ſometimes half round, ſometimes pyramidal; which being broken, reſembles that of a Nutmeg in Fineneſs. *Lemery.*

The Fruit which the *Indians* call *Chofool*, not being as yet half ripe, make thoſe that eat it giddy and drunk: When ripe it is inſipid and aſtringent. They reduce it to Powder after having dried it in the Sun, and having mix'd it with Betle, burnt Oyſter-

Oyſter-Shells, Camphire, Aloes Wood, and a little Ambergreaſe, they form all into Troches, which they chew in their Mouths to make them ſpit and purge the Head.

[The *Areca* is the Fruit of the *Palma Arecifera nucleo verſicolore nuci moſchata ſimili*, Par. Bat. Pr. 361. *Palma ſanſelifera*. Jonſ. Dendr. 151. The Fruit is never uſed with us, but its inſpiſſated Juice is what we call *Terra Japonica*, to be treated of hereafter.]

38. *Of* Coloquintida.

Pomet. *Coloquintida* is a Fruit of the Size of our Rhennet Apple, that grows upon a climbing or viny Plant, that has green Leaves, very like thoſe of the Cucumber. The Fruit, being upon its Stalk, is of the Colour of the *Callebaſh*, and grows plentifully in ſeveral Parts of the *Levant*, from whence it is brought to us, freed from the fine Skin, or outward Shell, which is yellow.

Chuſe the fineſt white *Coloquintida* Apples, that are light, round, and as little foul and broken as may be. Thoſe who have their *Coloquintida* from *Marſeilles*, or other Parts, order their Correſpondents, if they wou'd ſerve them well, to take care that the Apples be not broken, and the Seed ſhak'd out; otherwiſe, out of an hundred Weight of *Coloquintida* they ſhall find ſixty Pounds of looſe Kernels, which are to be thrown away.

Coloquintida is one of the bittereſt and moſt purgative Drugs in Phyſick; therefore it ought not to be uſed but with great Precaution, and eſpecially not without throwing away the Seeds. It is a ſtrong Purge, and is an Ingredient in many Compoſitions. The Troches of *Alhandal* made of it purge in a very ſmall Doſe, and an Extract is made from it which purges ſtrongly in three, ſix, twelve, or fifteen Grains. The Confectioners cover theſe Seeds with Sugar, and ſell them to catch or delude Children with. The Apothecaries keep them by them to powder, and put into their purging Compoſitions, eſpecially the common *Lenitive Electuary*; which is a great Abuſe, and a very wicked Practice.

Lemery. *Colocynthis, vel Colocynthie fructu rotundo minor, vel Cucurbita Sylveſtris fructu rotundo minor:* The leſſer *Coloquintida* with the round Fruit, or the leſſer wild Gourd with the round Fruit, is an *Indian* Plant which bears ſeveral Stalks that creep upon the Ground, hairy and rough. The Leaves grow ſingly, ty'd to long Stalks, running one from another, large, indented, hairy, rough and whitiſh, eſpecially on the Outſide, mark'd with ſeveral white Spots; the Flowers are of a pale Yellow, ſucceeded by a Fruit about the Size of a moderate Orange, almoſt round, and naturally pretty dry and light, cover'd with a hard Bark, or entire Shell, that is of a yellowiſh ſhining Green. The *Indians* ſeparate, or pull off this Bark, and having dry'd the fleſhy Part of the Fruit, they bring theſe Apples of different Sizes, white, ſpungy, light, and of an intolerable Bitterneſs, which is what we call *Colocynthis Officinarum*, or the *Coloquintida* of the Shops. There are ſeveral Cells, or Apartments, fill'd with large Seeds, like thoſe of *Melon*, but ſhorter, more fleſhy, and a great deal harder, of a yellowiſh Colour, inclining to White. They cultivate this Plant in ſeveral Parts of the *Levant*.

Chuſe ſuch as are fine, large, white Apples, fleſhy, well dry'd, light, that will eaſily break, and are very bitter; they yield a great deal of Oil, together with volatile and eſſential Salt. The *Coloquintida*, ſeparated from the Seeds, is call'd Pulp of *Coloquintida*, and is often uſed in Phyſick: It purges violently by Stool, is proper to evacuate the ſerous Humours of the more groſs Parts of the Body, and is recommended in the Epilepſy, Apoplexy, Lethargy, Small-Pox, overflowing of the Gall, Sciatica and Rheumatiſm: but ought never to be adminiſter'd alone, but uſed in Compoſitions, as Pills, Confections, Troches, and the like.

[*Colocynth* is the Fruit of the *Colocynthis vulgaris*. Park. 160. *Colocynthis fructu rotundo minor*. C. B. Pin. 313. It is brought to us from *Aleppo* and the Iſland of *Crete*. It is the rougheſt Purge we know; taken in a large Doſe it not only often brings away pure Blood, but alſo produces Cholicks, Convulſions, Ulcers in the Bowels, and fatal Hypercatharſiſis. It is uſed in Clyſters in Apoplectick Caſes; and mixed with *Ox Gall* will purge Children if apply'd to the Navel.

There is a larger Species of this, the *Colocynthis fructu rotundo major*, C. B. Pin. 313. Hiſt. Ox. 2. 27. which is ſaid to poſſeſs the ſame Virtues, but is never uſed.]

39. *Of the* Grana Tiglia, *or* Indian Kernels.

THE *Grana Tiglia* are the Fruit of a Species of the *Ricinus*, very common in the *Antilles* Iſlands, which grows to the Height of a Fig-Tree, and is ſomething like it in Figure: The Wood is ſoft and brittle, the Leaves are ſomething like thoſe of the Fig, green, ſoft, roundiſh, ſet irregularly on the Branches, and ending in three Points. Both the Wood and Leaves yield a milky Juice. The Flowers are compoſed of

of ſeveral yellow *Stamina*, ſupported by a five-leav'd green Cup. The Fruit are of the Shape and Size of a middling Nut; they are green at firſt, afterwards yellowiſh, and black when quite ripe: Each Fruit is compoſed of three *Capſulæ*, each including a white Kernel, cover'd with a black cartilaginous Film.

The Plant that pears this Fruit is call'd, in Mr. *Herman*'s *Paradiſus Batavus*, *Ricinus arbor fructu glabro Grana Tiglia Officinis dicto*, which ſignifies the *Ricinus* with the ſmooth Fruit, call'd in the Shops, *Tyle-Seed*, or *Tilli-Berries*. The Kernels ought to be choſen freſh, plump and fleſhy; the leaſt fill'd with Huſks, Shells, or other Filth and Dirt that can be. Take care that they be the true Nuts, and that thoſe of the *Palma Chriſti* be not impoſed upon you in their Stead, which is difficult enough to diſtinguiſh, when the *Palma Chriſti* is not ſpeckled; for when it is ſo, you can ſcarce be deceiv'd; otherwiſe when it carries the Colour of the *Grana Tiglia*, 'tis not eaſy to know the Difference.

The Uſe of theſe Kernels is to purge, and they are indeed one of the greateſt Purgatives we have, which makes it that we ought not to meddle with them, but with great Care and Precaution, not venturing to adminiſter them but to ſtrong and robuſt Bodies. As to the Quantity, one may give ſix, eight, or ten Grains in Weight, according to the Conſtitution. Some affirm that it is nothing but the thin Membrane, or Skin that covers the Kernel, which gives it the purgative Quality, which I cannot affirm poſitively, as I am not quite certain of the Truth of it.

Beſides theſe, which we improperly call the ſmall Kernels, we ſell another Sort, call'd *Barbary* Kernels, large *Indian*, or *American* Kernels; which are the Seeds of what *Caſpar Bauhinus* calls *Ricinus Americanus, ſemine nigro*; the *American Ricinus* with the black Seed.

Beſides theſe, there are two Sorts of *Indian Kernels*, which we do not trade in at all, by Reaſon of their great Scarcity. The firſt are Kernels of the Size and Shape of the Filbert, extremely white, and are cover'd with a hard Shell of different Colours; to wit, grey and reddiſh; theſe grow three together in a Shell, of a triangular Figure; the Plant which produces them being call'd *Ricinus fructu maximo*, or the *Ricinus* with the large Fruit.

The ſecond Sort are little long Kernels, of the Bigneſs of a Pin's Head, ſpotted a little, like thoſe of the *Palma Chriſti*, which grow together, in a little three-corner'd Pod, of the Size of a Pea: Theſe little Pods, or Shells, differ from the *Indian Kernels*, in that the Shell is compoſed of five little hairy greeniſh Leaves. The Plant which produces theſe, has Leaves like thoſe of Dittany of *Crete*, only that theſe are greeniſh, and thoſe of Dittany are whitiſh. Theſe little Fruits are extremely ſcarce, and the Plant that bears them may be call'd *Ricinus Indicus fructu minimo*, the *Indian Ricinus* with the leaſt Kernel. As for the *Palma Chriſti*, the great and the ſmall, together with the Fruits of the Spurges, I ſhall ſay nothing of them, becauſe many others have treated of them; and the rather becauſe honeſt People will have nothing to do with them.

Ricinus Vulgaris, according to *Bauhinus* and *Tournefort*, or *Cataputia major Vulgaris*, the common *Ricinus*, or greater Spurge, is a Plant that has the Reſemblance of a ſmall Tree, whoſe Stalk riſes ſix or ſeven Feet high, thick, woody, hollow within like a Reed, branching at the Top, of a dark, purple Colour, cover'd with a white Powder like Meal; the Leaves are in the beginning round, but as they grow bigger they become corner'd, and divided like the Fig-Leaf, but much larger and ſoft to the Touch: The Flowers are ſo many pale *Stamina*, Threads, or Chives, which do not laſt long, and which leave nothing after them, either of Seed or Berry: Theſe Fruits growing ſeparately, either upon the ſame Stalk, diſpoſed in the Nature of a Bunch that is prickly and rough to the Hand: Each has three Sides, and is made up of three *Capſulæ*, which contain ſeverally an oval or oblong Seed; pretty thick, of a livid Colour, ſpotted without, and fill'd with a white tender Pith: When the Fruit is full ripe, it is full of Chinks, or Cracks, by which the Seed ruſhes out with Force; the Root is long, thick, hard, white and ſtringy; they cultivate this Plant in Gardens, not only for its Beauty, but becauſe it drives away the *Moles*; it grows of different Sizes and Heights, according to the Places wherein it is ſet; for in *Spain* one may ſee them of the Height of a Man; and in *Candia* there are others that grow to the Bulk of large Trees, provided there be Poles for them to mount on. The *Ricini*, or Tyle-Berries, are uſed in Medicine, and contain in them Plenty of Oil and Salt; they purge violently all Sorts of Humours, and may be given from one Grain to ſix. *Lemery.*

There is an Oil made of them by Expreſſion, after they have been well beat, call'd in *Latin*, *Oleum de Kerva*, *Oleum Cicinum*, *Oleum ficus infernalis*: It purges only by rubbing the Stomach and Belly with it; it kills the Worms, cures the Itch, deterges old Ulcers, and allays the Suffocation of the Womb. Theſe Berries are brought from *America*, and are call'd in *Latin*, *Grana Tiglia*, Tyle-Berries.

[We

[We have four Kinds of the *Ricinus* Seeds brought over, tho' neither of them are now ever uſed in Medicine; they are call'd, 1. the *Mexico* Nut, or *Mexico* Seed; 2. the *Barbadoes* Nut; 3. the *American* Purging Nut, and, 4. the *Tiglia*.

The firſt of theſe is produc'd by the *Ricinus ſive Caputia major vulgatior*, Park. 182. *Nhambu Guachu ſive Ricinus Americanus*, Piſ. 180.

The ſecond by the *Ricinus Americanus*, Ger. 399. *Ricinus major Americanus Curcas dictus & faba Purgatrix Indiæ Occiduæ*, J. B. 3. 643.

The third by the *Ricinus Americanus tenuiter Diviſo folio*, Breyn. Cent. 116. *Ricinoides arbor Americana folio multifido*, Tourn. Inſt. 366.

And the fourth, the *Grana Tiglia* of the Shops, by the *Ricinus arbor fructu glabro Grana Tiglia Officinis dicto*, Par. Bat. Pr. 370. *Palma Chriſti Indica*, Tourn. Mat. Med. 75.

The firſt of theſe Plants is a *Ricinus*, but the others are *Ricinoides*.

The ſecond Species is common in *America*; the Seeds of it are diſtinguiſh'd from the *Grana Tiglia* by a ſmall black Speck at the End, which the others have not: They purge violently, but if the Skin that covers them be taken off, they loſe their purgative Quality, and may be eaten with Safety. New-comers into *America* are often catch'd by the Natives, for want of knowing this Secret.

The *Grana Tiglia* are the moſt violent of them all; two Grains of them will work vehemently, othupwards and downwards.

40. *Of the* White Pine Kernels.

Pomet. THESE are a white Sort of little, longiſh, round Kernel, of a ſweet Taſte, to which they give the Name of ſweet Pine Kernels. Theſe ſmall Kernels are cover'd with a thin Pellicle or Skin, that is light and reddiſh, and with a very ſtrong Nut like Shell; theſe Nuts, with their Kernels, are found in the Pine Apples, and are call'd, for that Reaſon, Pine Nuts, Pine Kernels, or Almonds of the Pine Fruit: Thoſe we now ſell come from *Catalonia*, as likewiſe from *Provence* and *Languedoc*, and ſeveral other Parts of *France*. To get the Kernels from the Pine Apples, they are thrown into a hot Oven, where the Heat makes them open; after which they break the Nuts, and take from thence the Kernels, which are ſent into different Parts of the World: Chuſe them white, the largeſt and leaſt mix'd with Shells and Skins that you can get, and which are of a ſweet Taſte; in a Word, which neither ſmell of Oil or Muſtineſs: They are much uſed, eſpecially in *Lent*, to make ſeveral Sorts of Ragous: The Confectioners cover them with Sugar, after having ſtoved them ſome Time to take out the Oil: They make an Oil of them by Expreſſion, which has the ſame Virtues with Oil of Sweet Almonds, eſpecially when the Kernels are freſh and new: They are ſometimes uſed to feed Canary-Birds; and the Paſte, after the Oil is preſs'd, is good to waſh the Hands with.

Lemery. There are ſeveral Sorts of *Pine Kernels*, from the ſeveral Sorts of Pines which produce them; I ſhall give you an Account of four; one whereof is cultivated, and the other three wild.

The cultivated Pine is call'd *Pinus*, or *Pinus Sativa, vel Domeſtica*, by *Bauhinus*, *Raius*, *Tournefort* and *Gerard*: The Trunk of which is large, upright, and tall; naked, or bare at the Bottom, and full of Branches at the Top, cover'd with a rough, reddiſh Bark; the Wood is firm, ſtrong, yellowiſh and ſcented; the Branches are diſpoſed in Order; the Leaves grow two and two, long and ſmall like Threads; hard, durable, and conſtantly green; pointed or prickly at their Tops; ſurrounded at the Bottom with a membranous Sheath. The Huſks or Shells, are of ſeveral membranous Foldings, which contain two Cells, fill'd with nothing but a light Duſt; theſe Huſks leave no Fruit behind them; that growing upon the ſame Stalks with the Leaves, begins by a Button, and arrives to be a large ſcaly Apple, almoſt round, or pyramidal, of a reddiſh Colour: The Scales which form it are hard, woody, thicker commonly at the Point, or Top, than at the Bottom; hollow lengthwiſe, with two Cavities, each of which contains a hard Shell, or oblong Nut, cover'd or edg'd with a thin, light, reddiſh Rind; they call theſe in *Latin*, *Strobili Pinei, ſeu Nuces pineæ*, or Pine Nuts, which encloſe in each an oblong Kernel, half round, white, ſweet to the Taſte, and tender.

The ſecond Sort is call'd *Pinus Sylveſtris*, by *Raius*, &c. or *Pinus Sylveſtris vulgaris Geneveniſis*, by *Bauhinus* and *Tournefort*, the common wild *Geneva* Pine; this grows, uſually, leſs high than the cultivated, but ſometimes it attains to the ſame Height and Size; its Trunk more frequently ſtrait, but is ſometimes crooked; the Leaves are long and narrow; the Fruit much ſmaller than the firſt, more reſinous, and falls eaſily when ripe: This Tree grows in mountainous and rocky Places.

The third Sort is call'd *Pinus ſylveſtris Mugo, ſive Crein*, or *Pinaſter Auſtriacus*, the *Auſtrian wild Pine*, being a diminutive Pine, which grows not above the Height of a Man; it divides itſelf from the Root into ſeveral large Branches, that are flexible and pliant, ſpreading wide, cover'd with a thick, rough Bark; the Leaves are of the

ſame Form, and diſpoſed like the cultivated Pine, but much ſhorter, thicker, fleſhy, leſs ſharp at their Ends, and greener; the Fruit are not ſo big as thoſe of the *Larix*, or *Cyprus*, but they are ſcaly, form'd pyramidally like other Pine Apples; the Root is thick and woody: This Plant grows in mountainous and ſtony Ground, as about the *Alps*, and among other Rocks.

The fourth Sort is call'd *Pinus ſylveſtris Maritima, conis firmiter ramis adhærentibus*, by *Bauhinus*, *Ray* and *Tournefort*, or *Pinus ſylveſtris altera Maritima*, the wild Sea Pine: This is a ſmall Tree whoſe Wood is white, ſtrong-ſcented and reſinous; the Leaves are like thoſe of other Pines; the Fruit are in Pairs, and ſhap'd like thoſe of the cultivated Pine, but a great deal leſs, being ty'd ſtrongly to the Branch, by their woody Stalks: This Plant grows in mountainous Parts, near the Sea.

All the Pines that grow in the hot Countries yield Plenty of Roſin, by Inciſions made in their Bark; they afford Abundance of Oil and eſſential Salt: The Bark and Leaves of the Pine are aſtringent and deſicative. We have *Pine Kernels* from *Catalonia*, *Languedoc* and *Provence*, which are taken from the Pine Apples, as taught by *Pomet*. Chuſe ſuch as are new, plump, clean and white, that have a good ſweet Taſte; they contain a great deal of Oil, and ſome Salt; are pectoral, reſtorative, ſweeten and correct the Acrimony of Humours, increaſe Urine and Seed, cleanſe Ulcers of the Kidneys, reſolve, attenuate, and mollify, and may be uſed internally and externally.

[The *Pine Kernels* uſed in Medicine are produced by the *Pinus ſativa ſive Domeſtica*, Ger. 1173. *Pinus Urbana ſive Domeſtica*, Park. 1534. They are emollient, agglutinant, and very nutritive, and therefore very good in Conſumptions, and make a pleaſant Emulſion, like Almonds.]

41. *Of the* White Ben Nut.

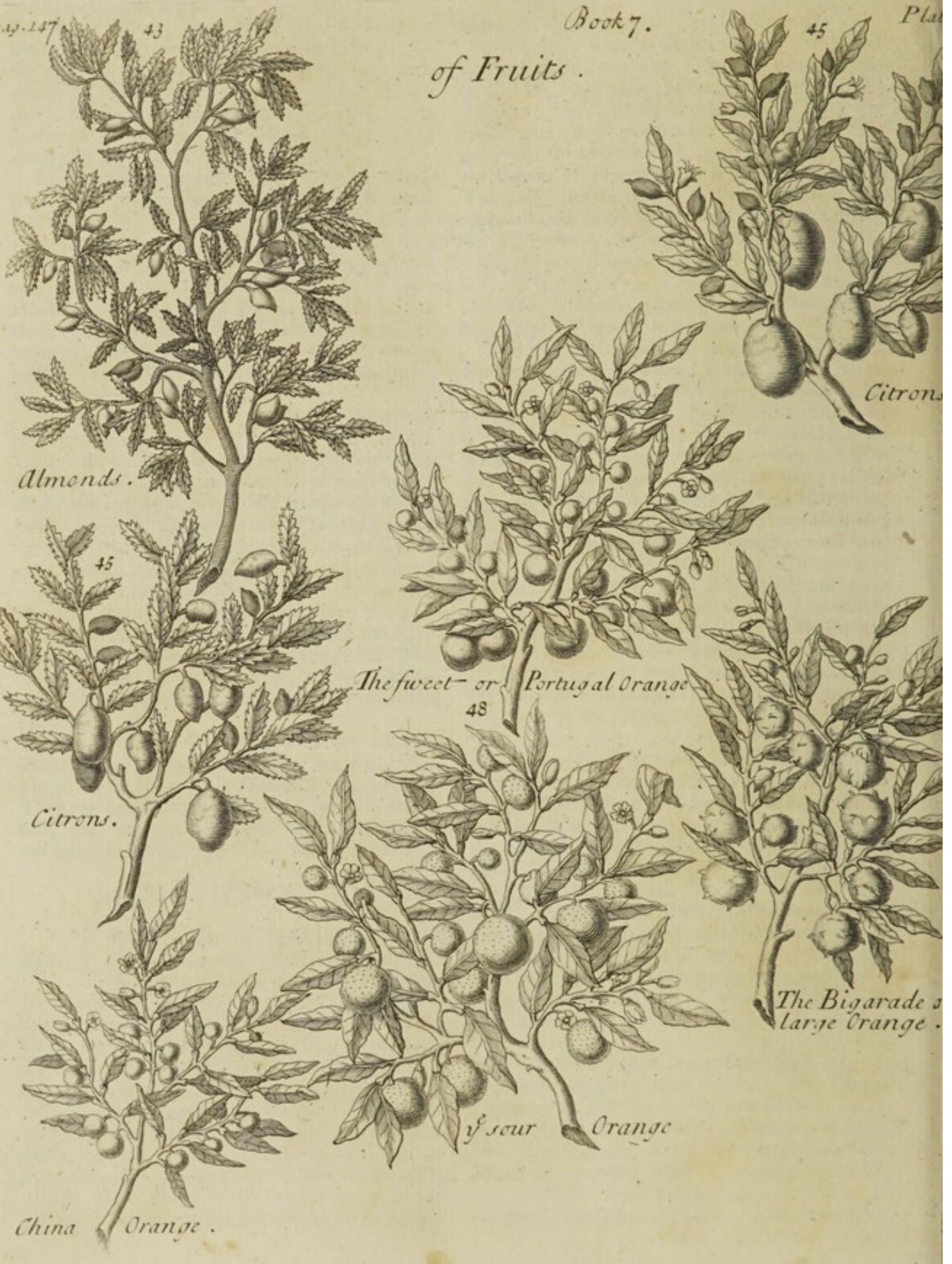
Pomet. THE *Ben*, or *Behen*, is the Fruit of a Tree that grows in *Arabia*; it riſes to the Height of the Birch Tree; the Leaves are roundiſh, very ſmall in Proportion to the Bigneſs of the Tree, rang'd by Pairs on Ribs, and at Diſtances from one Pair to another; the Fruit is a Pod, or Huſk, five or ſix Inches long, compoſed of two furrow'd tough Pieces, of an inſipid rather than aſtringent Taſte, and encloſing, in different Cells, white triangular Seeds, as large as Hazel-Nuts, which have, under a thin Skin, a bitter oily Kernel, like that of a Nut, but whiter. The Tree which bears the *Ben* is very ſcarce in *Europe*, and the Figure I here give you, is taken from that which is at *Rome*, in the Garden of Cardinal *Farneſe*.

Chuſe ſuch Kernels as are white, freſh, and the heavieſt you can get. They are uſed to make an Oil of, which has a great many good Qualities; the firſt is, that it has neither Taſte nor Smell, and never grows rank, which makes it of great Uſe to the Perfumers and others, for taking the Scents of Flowers, as Jeſſamine, Oranges, Tuberoſe, and the like. With this Oil it is they make all their ſweet Eſſences, adding to the Flowers aforenam'd, as they fancy, Ambergreaſe, Muſk, Civet, Benjamin, Storax, Balſam of *Peru*, *&c.* They grow in *Syria*, *Arabia*, *Ethiopia*, and *India*, where they come to Perfection, which they ſcarcely ever do in *Europe*.

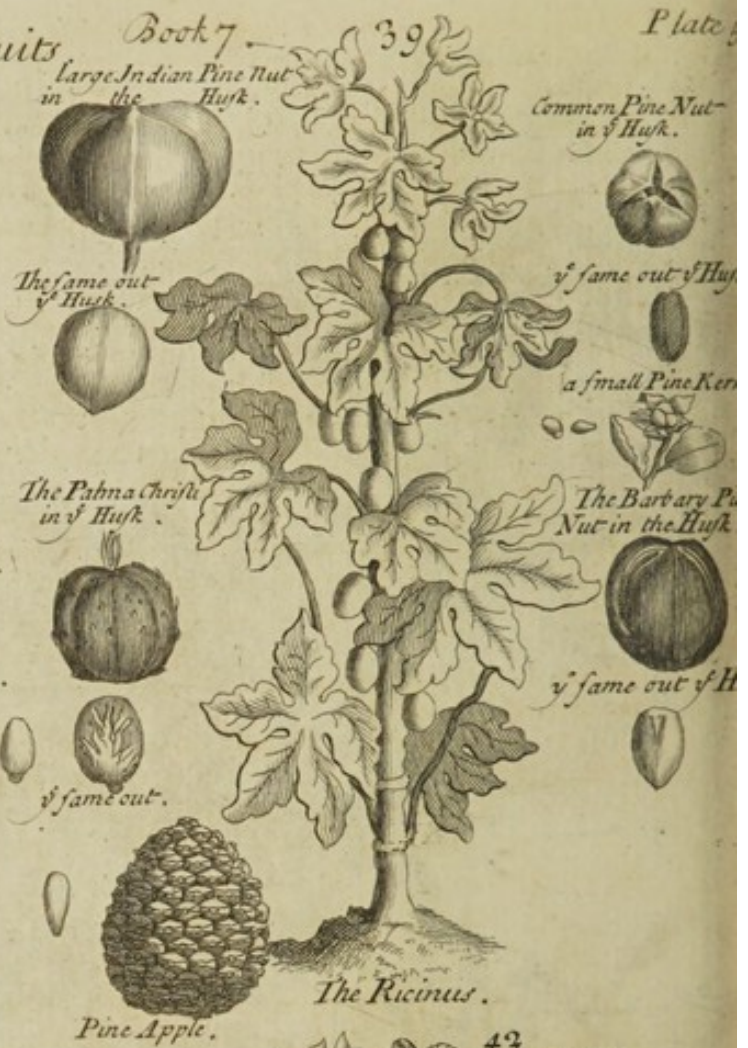
The whole Nut is of a purging Quality, and the dry Preſſing, or Powder, after the Oil is taken out, is cleanſing and drying; the Shells, or Huſks, bind extremely; the Kernels bruiſed, and drunk with a little Ale, purge the Body from groſs and thin Flegm; the Oil, which is drawn out of the Nut, does the ſame, provokes vomiting, and cleanſes the Stomach of foul Matter gather'd therein; but the Nut itſelf, in its groſs Body, does much more trouble the Stomach, unleſs it be roaſted at the Fire, for then they loſe much of their emetick Quality, and only purge downwards; they are given in Clyſters with very good Effect to cleanſe the Bowels and cure the Cholick; the Kernels, taken in Poſſet-Drink to a Dram, mollify the Hardneſs of the Liver and Spleen. The Oil, beſides its excellent Uſe to the Perfumers, is employ'd by the Glovers and Skinners to preſerve their Leather from Spots or Stains, or from ever growing mouldy, as thoſe perfum'd with Oil of Almonds do. It more eaſily extracts, and longer retains the Perfume of any thing infuſed in it, than any other Oil whatſoever; being dropp'd into the Ears, it helps the Noiſe in them, and Deafneſs. The Kernel uſed with Vinegar and Nitre, is good againſt the Itch, Leproſy, running Sores, Scabs, Pimples, and other Defedations of the Skin. Mix'd with Meal of *Orobus*, and apply'd plaiſterwiſe to the Side, it helps the Spleen, and eaſes the Gout, and Nerves which are pain'd with Cramps, Spaſms, Colds and Bruiſes. Mix'd with Honey, it diſſolves Nodes, Tophes, Knots, and hard Tumours.

Ben parvum vel Balanus Myrepſica, *Pharagon incolis ad montem Sinai*, or *Lemery*. *Granum Ben*, the *Ben Berry*; is a Fruit like a Hazel Nut, oblong, triangular, or raiſed with three Corners, cover'd with a Rind, or thin Scale, pretty tender, and of a grey or white Colour. Within the Bark, or Rind, is a white oily Almond, of a ſweetiſh Taſte. The Fruit grows upon

# of Fruits.

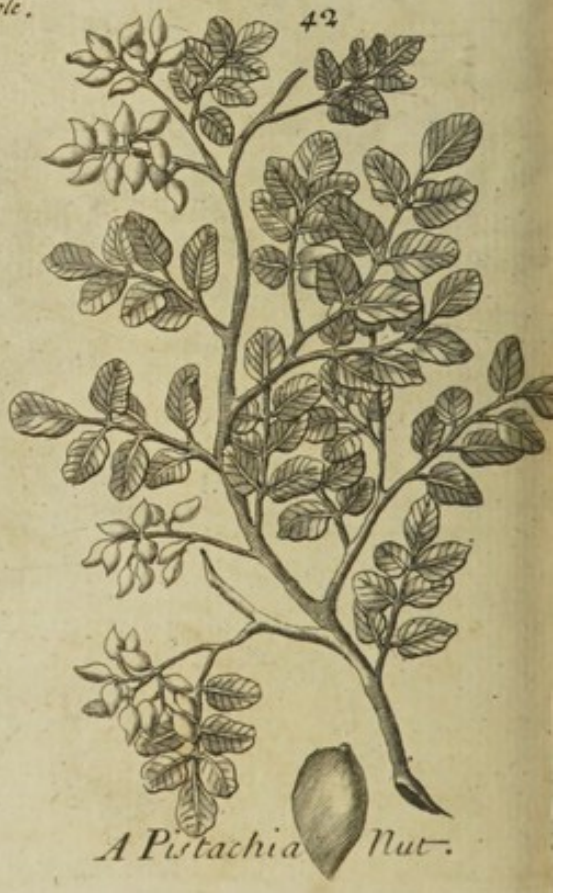

43
Almonds.
45
Citrons.
45
Citrons
The sweet- or Portugal Orange
48
The Bigarade a large Orange.
ℌ sour Orange
China Orange.

Coloquintida.


large Indian Pine Nut in the Husk.
Common Pine Nut in ye Husk.
The same out of Husk.
ye same out ye Husk
a small Pine Kern
The Barbary Pine Nut in the Husk
The Patna Christi in ye Husk.
ye same out.
ye same out of H
The Ricinus.
Pine Apple.

41
a branch of ye Ben Tree.
The Ben Fruit.

A Ben Husk.


42
A Pistachia Nut.

upon a certain Tree in *Æthiopia*, reſembling the Tamariſk. Chuſe ſuch as is new, large, and well fed: There is an Oil made of it, as of Almonds, by Expreſſion, call'd *Oleum Balaninum*, and which has this particular Quality, not to grow rancid with keeping. The *Ben* purges upwards and downwards all bilious and pituitous Humours, given from half a Dram to a Dram and a half: Externally it is deterſive, reſolutive, and drying.

Beſides this, there is another Species of *Ben*, that is much larger than what I have been ſpeaking of: It is call'd by *Monard*, in his Hiſtory of Drugs, *Ben magnum, ſeu Avellana purgatrix*, the great *Ben*, or purging *Filbert*: It grows in *America*, and is brought ſometimes from *St. Domingo*, but is very ſcarce in *France*: It purges vpwards and downwards; the *Indians* uſe it for the Wind-Cholick, the Doſe from half a Dram to a Dram; they weaken its Force by roaſting of it.

[The *Ben Nut* is the Fruit of the Tree whoſe Wood is the *Lignum Nephriticum*, deſcrib'd in the third Book.

The *Avellana Purgatrix* of *America*, which *Lemery* mentions here as another Species of the *Ben Nut*, is the Seed of the *Ricinoides arbor Americana folio multifido*, Tourn. mention'd in the laſt Chapter.]

42. *Of* Piſtachia Nuts.

Pomet. THE *Piſtachia* is a Fruit of the Size and Shape of a green Almond, which we bring from ſeveral Parts of *Perſia*, and other Places in *Aſia*, eſpecially from about a Town call'd *Malover*; the Tree which bears them is much of the Height of a Nut-Tree, and the Leaves almoſt round; after which come Fruit in Cluſters, very beautiful to look upon, being green mix'd with red. Under the Skin, or Huſk, is found a hard white Shell, which contains a Kernel of a green mix'd with red on the Outſide, and green within; of a ſweet pleaſant Taſte. Chuſe your *Piſtachias* in the Shell, very heavy and full; in ſhort, ſuch that three Pound Weight of them in the Shell may yield a Pound when broken, that is, a Pound of Kernels.

As to the ſhell'd *Piſtachias*, chuſe the neweſt, that are red without and green within, and the leaſt bruiſed that can be. As to their Size, ſome eſteem the largeſt, and others the ſmall, eſpecially the Confectioner, when he is to uſe them for candying over with Sugar, in order to make what they call *Piſtachia* Comfits. They are very little uſed in Phyſick, except that they put them into ſome Galenical Compoſitions, being a proper Reſtorative in old Age. They make an Oil of the *Piſtachia*, but it is of ſo little Uſe, I ſhall ſay nothing of it.

Piſtachia, Phiſtachia, Fiſtici, or the *Piſtachia*, is a Fruit of the Shape and Bigneſs of the green Almond, which is brought from *Perſia*, *Arabia*, *Syria*, and the *Indies*. They grow in Cluſters upon a Kind of Turpentine Tree, call'd *Terebinthus Indica* by *Theophraſtus*, or the *Piſtachia* of *Dioſcorides* by *Tournefort*, *&c.* and by *Parkinſon*, *Nux Piſtacia*. This Tree bears Leaves made like the common Turpentine Tree, but larger, which are fibrous or ſtringy, and ſometimes pointed, ranged ſeverally upon a long Rib, terminated by a ſingle Leaf. The Flowers are diſpoſed in Bunches, in which are fix'd at the Bottom, Chives or Threads, which riſe to the Top of the Flower, of a purple Colour; theſe leave no Fruit behind them, the Fruit growing upon Stalks that bear no Flowers at all. *Lemery.*

The *Piſtachia* has two Barks, or Rinds; the firſt is tender, of a greeniſh Colour, mix'd with red; the ſecond is hard as Wood, white and brittle; they encloſe a Kernel, of a green Colour, mix'd with red on the Outſide and green within, of a ſweet agreeable Taſte. They are pectoral, aperive, moiſtening, reſtorative, fortify the Stomach, and procure an Appetite. The ripe Nut in Subſtance is freely and liberally eaten by People of Quality, as well to gratify the Palate, as for phyſical Uſes.

[The *Piſtachia Nut* is the Fruit of the *Piſtachia Peregrina fructu racemoſo, ſive Terebinthus Indica Theophraſti*, C. B. Pin. 401. *Piſtachia fructu racemoſo*, Jonſ. Dendr. 128. It is common in the hot Countries. The Fruit is frequently eaten, but has little Uſe in Medicine.]

43. *Of* Almonds.

Pomet. WE ſell two Sorts of Almonds, the ſweet and the bitter. The Trees which produce theſe are ſo common, I think it needleſs to give any Deſcription of them, contenting myſelf only to ſay that both Sorts of Almonds come from ſeveral Parts, as *Provence*, *Languedoc*, *Barbary*, and *Chinon* in *Touraine*; but the moſt valued of all, are thoſe that grow about *Avignon*, becauſe they are uſually large, of a high Colour, that is to ſay, reddiſh without, and white within, of a ſweet pleaſant Taſte, which is contrary to thoſe of *Chinon* and *Barbary*, that are ſmall and roundiſh. As to the Uſe of the ſweet Almond, it is ſo conſiderable, and ſo well known throughout the World, it would be needleſs to mention it. I ſhall only treat of the Oil, as being a Commodity of great Conſequence, conſidering the vaſt Conſumption that is made of it. There are beſide ſweet Almonds ſold in the Shell, call'd, tho' improperly, *Florence* Almonds, for the

greateſt Part of what are ſold of them, are brought from *Languedoc* and *Touraine*; the beſt of theſe are reckon'd thoſe that break eaſily under the Thumb. Theſe are of ſcarce any other Uſe than to furniſh Gentlemens Tables as Part of the *Deſert*.

Lemery. *Amygdala* or the Almond, is the Fruit of a Tree call'd in *Latin Amygdalus*, or the Almond-Tree, which is cultivated in our Gardens. The Leaves are long, narrow, and ending in a ſharp Point, of a bitter grateful Taſte; they reſemble the Peach Leaves, and are hardly to be diſtinguiſh'd from them when pluck'd from the Trees, except that they are tougher or more pliant. The Flower is alſo very like that of the Peach, but much whiter, and leſs purgative. It is ſucceeded by a hard woody Fruit, oblong, cover'd with a hairy greeniſh Huſk that is fleſhy. It contains within it an oblong flat Almond, which all the World knows. There are two Kinds of Almonds, the firſt whereof, or the ſweet, are pleaſant to eat, of good Nouriſhment, and proper againſt Laſks and the Bloody-Flux; they are pectoral and opening, good againſt Coughs, Cold, Aſthma's and Conſumptions. An Emulſion or Milk made of them with Barley-Water, is a good Drink in Fevers, Diarrhœas and Dyſenteries. The Virtues of the Oil will be mention'd under that Head.

[The ſweet Almond is the Kernel of the Fruit of the *Amygdalus ſativa fructu majore*. Boerh. Ind. 2. 245. C. B. Pin. 441. *Amygdalus Dulcis*. J. B. 1. 174.

And the Bitter of the *Amygdalus Amara*. Boerh. Ind. 245. C. B. Pin. 441.

The Sweet make an exceeding pleaſant Emulſion, good in all Diſorders from acrimonious Humours.

The Bitter are aperient, deterſive, and diuretick, good in Obſtructions of the Liver, Spleen, Meſentery and Womb, and are alſo ſaid to take off the Effects of Drunkenneſs.

Our preſent Race of Chymiſts, as they call themſelves, make what they ſell under the Name of Black Cherry Water from theſe, as they give the ſame Kind of Flavour by Diſtillation as the Kernel of the Cherry Stone; and they uſe for this Purpoſe only the Refuſe Almond Cakes, from which the Perfumer has before expreſs'd what he ſells under the Name of Oil of *Sweet Almonds*.]

44. *Of Oil of ſweet* Almonds.

Pomet. OIL of ſweet Almonds is prepar'd ſeveral Ways: Some do it by blanching, and others by pounding them as they are; ſome uſe good Almonds, and others bad ones, and every one according to his Capacity and his Conſcience; the Method of expreſſing the Oil is ſo commonly known, that it wou'd be trifling to pretend to give any Account of it at this Time of Day; I ſhall therefore only inform you that there are two Sorts, the one drawn by the Fire, and the other without, which is call'd the cold drawn Oil, and is only proper for internal Uſe, the hot being ſubject in a ſhort Time to grow rank and ſtinking. After the ſame Manner Oil of bitter Almonds is made, chiefly for external Uſe; as likewiſe Oil of Walnuts, Hazel Nuts, Ben, white Pine-Kernels, and of the Ricinus Seeds call'd Oil of the infernal Fig, which is much uſed by the Savages to kill Vermin; as alſo from white Poppy Seeds, the four cold Seeds, Linſeed, and the like, by Expreſſion, and without Heat. As to the Way of chuſing all theſe Sorts of Oils, the beſt Advice I can give you is to deal with honeſt People that are above putting a little Cheat upon you, and not to deal with Hawkers, but give a Price for that which is good in its Kind.

Beſides the Oil, there are Mackaroons made by the Confectioners out of the Almonds blanch'd and beat up to a Paſte with Sugar, *&c.* The Almond-Paſte which remains after the Expreſſion of the Oil, ſerves the Perfumers to ſell for waſhing the Hands, and making the Skin ſmooth. The Oil by Expreſſion new drawn, is good againſt Roughneſs and Soreneſs of the Breaſt and Stomach, Pleuriſies, Coughs, Aſthma's, Wheeſings, Stitches, hectick Fevers, Ulcers in the Kidneys, Bladder, Womb, and Guts; and helps Scalding of Urine. Oil of bitter Almonds helps Deafneſs, if dropt into the Ears, as alſo Pains and Noiſe therein. Outwardly it takes away Spots in the Skin, and brings down the great Bellies of Children. Oil of bitter Almonds given inwardly with *Manna* and *Sugar-candy* is good againſt Cholick and Stone, Gripes in Children, dry Coughs, and for Women in Labour. Some ſay that the Oil of ſweet and bitter Almonds both may be preſerv'd from being rank by the Help of Spirit of Wine tartariz'd.

[The Oil of ſweet *Almonds* is generally more carefully prepar'd than that of the bitter; the *Almonds* are blanch'd, and beat to a Paſte in a Marble Mortar, and the Oil preſſed out without the leaſt Aſſiſtance of Heat.

That of the bitter is generally made from them Skins and all, and they are thoroughly heated before they are put into the Preſs, and this is commonly ſold and uſed under the Name of Oil of *Sweet Almonds*.]

45. *Of* Citrons.

Pomet. THE *Citrons*, both the ſweet and ſour, are Fruit ſo common, and ſo well known in moſt Parts of the World,

World, that I ſhall paſs by their Deſcription, and content myſelf to ſay that what we ſell comes from *St. Rhemes* about *Genoa*, *Nice*, and *Manton*, a little Village belonging to the Duke of *Savoy* from whence they are brought by Sea and Land to *Marſeilles*, *Lyons*, *Roüen* and *Paris*. The Sale of *Citrons* is not made in the Cities aforeſaid, except *Nice*, but by the Determination of the Council of the Place, it happens twice a Year, that is to ſay, in *May* and *September*; ſometimes three Times a Year, according as the Crop or Harveſt is conſiderable, and when the Time of the Sale is, they ſell only ſuch as will not paſs through an Iron Ring made round for that Purpoſe, all that go through ſerve to make into Juice, which they tranſport to *Avignon* and *Lyons*, for the Dyers in Grain. As to the choice of ſweet or ſour *Citrons*, the Commodity is too well known to need any Deſcription.

46. *Of Oil of* Citron.

WE ſell two Sorts of *Citron Oil*, to wit, the common, and that which is call'd the Eſſence of *Cedre*. The firſt and moſt valued is that which bears the Name of the *Cedre* Eſſence or *Bergamot*, which is made two Ways, either by the *Zeſt*, or the raſping or grating of the Citron-peel freſh; with an Alembick and Water they draw this Way a white odoriferous Oil, like the Oil of ſweet Almonds, but that it is not ſo groſs and fat. The ſecond Sort is the common Oil of Citrons, which is greeniſh, clear, and fragrant, and is made by the Alembick, with the Lee or Settlings that are found in the Bottom of the Caſk, wherein Juice of Citrons has been kept; fifty Pounds whereof will afford three Pounds of clear Oil, more or leſs, according to the Goodneſs and Newneſs of the Citrons. Theſe Oils are uſed by the Perfumers, becauſe of their agreeable Smell, eſpecially the eſſential Oil. As to the ſour *Cedre*, or *Bergamot*, 'tis a Juice made from a certain Kind of half-ripe Citrons that come from *Bourgaire* near *St. Rhemes*, from whence it is carry'd into ſeveral Parts. The Uſe of it is likewiſe for the Perfumers, and it is alſo uſed by ſeveral other Perſons.

47. *Of candied* Citrons.

WE have ſmall *Citrons* brought from the *Madeiras* of different Sizes, candied two ſorts of Ways, to wit, dry and liquid. They are very pleaſant to eat, and ſhould be choſen tender, green and new. There is beſides, the Citron-peel, that comes from the *Madeiras*, candied dry, the beſt of which is the freſheſt, in little Pieces, clear and tranſparent, very green on the Outſide, and the moſt froſted with the Candy within that can be, very fleſhy, eaſy to cut, and well dried, not full of black Spots, which happens not to it but by Moiſture, which it gets by Age.

The Citron-peel is much uſed, becauſe it is excellent to eat. There is, beſides, what we call Chips, that are cut into little Pieces. The *Turks* with the Juice and Sugar make what they call *Sorbec*, the beſt of which comes from *Alexandria*. With the clarified Juice and fine Sugar we make Syrup of Citron, to cool the Blood, and quench Thirſt. The Citron Juice which is made at *Paris*, is not fit for any Thing, being made chiefly of decay'd Citrons.

Citron-peels come alſo to us from *Spain* and *Portugal*; thoſe which look freſh and of a lively yellow Colour, and that have a fragrant Smell, are beſt; if the Colour and Smell be decay'd, they are not of much Value. They are cephalick, neurotick, ſtomachick, cardiack, hyſterick, and alexipharmick, good againſt all cold and moiſt Diſeaſes of the Head and Nerves, Bitings of Serpents and mad Dogs, and all Sorts of malign and peſtilential Diſeaſes; Meaſles, Small-Pox, Plague, Surfeits, *&c.*

Under this Head it may not be improper to ſay ſomething of *Lemons*, which are much of the ſame Nature. They grow in all the ſouthern Parts of *America*, as alſo in *Spain*, *Portugal*, *Italy*, and *France*, and with much Care and Houſing in the Winter in *England*. The Juice, which is that we intend to ſpeak of here, is ſharper than that of Citrons, and therefore dryer and cooler. It is of good Uſe in Weakneſs of the Stomach, Vomitings, violent burning Fevers, as alſo in malignant and peſtilential Fevers, and in Diſeaſes of the Kidneys and Bladder. It is alſo uſed as a *Menſtruum* to diſſolve Bodies, and in ſome Mixtures and Drinks. A Syrup of Lemons for the ſame Purpoſe is made with an equal Quantity of Sugar, and thus the Juice is preſerv'd; for if it be kept long by itſelf, it will be apt to grow muſty, and loſe its Acidity.

Citreum vulgare, as Mr. *Tournefort* calls it, is a little Tree that is always green, whoſe Branches ſpread wide, and are pliant, cloath'd with a ſmooth green Bark. The Leaves are plain, long, and large as the Walnut, pointed like thoſe of the Bay-Tree, but more fleſhy, indented on their Sides, of a fine green ſhining Colour, eſpecially on the outſide, and of a ſtrong Flavour. The Flower is made up of five Leaves, round, the Colour white, inclining to red or purple, of a pleaſant Smell, ſupported by a round hard Cup. When the Flower is gone, the Fruit forms itſelf uſually *Lemery.*

oblong,

oblong, ſometimes oval, and ſometimes almoſt round, as thick as a large Pear, cover'd with a rough uneven Rind, fleſhy, thick, of a green Colour at the Beginning, but as it ripens it becomes of a light Yellow without, white within, of a very agreeable Smell, and a biting aromatick Taſte. This Rind covers a veſiculous Subſtance, divided into ſeveral Cells, or Partitions, full of a Juice that is acid and very pleaſant to the Taſte, and with ſome oblong white pithy Seeds, of a Taſte that is a little bitter. The Fruit carries the Name of the Tree that bears it, which is the *Citron* Tree, cultivated in the hot Countries, as *Italy*, *Provence* or *Languedoc*; the Fruit is chiefly uſed in Phyſick, the Leaf and Flower very rarely.

Theſe two latter, namely the Leaf and Flower, afford abundance of Oil, volatile and eſſential Salt; they are cordial and ſtrengthen; the Rind, eſpecially the very outward Part that is yellow, yields a good deal of volatile Salt and Oil: It is proper to fortify the Heart, Stomach and Brain, and to reſiſt Poiſon. The Juice contains in it a Quantity of eſſential Salt and Flegm, but very little Oil: It is cordial, cooling, proper to abate the Heat of the Blood, to precipitate the Bile, to quench Thirſt, and reſiſt Poiſon. There is a Way of ſticking a Citron all over with Cloves, to carry in the Pocket to ſmell to in any epidemical Sickneſs, in order to drive away the Contagion. There is another Kind, call'd the *Sweet Citron*, becauſe not ſharp as the other; but in no Eſteem either for its Uſe or Beauty.

[The *Citron* is the Fruit of the *Malus Citria ſive Medica*. Rai. Hiſt. 2. 1654. *Citrum vulgare*. Boerh. Ind. Alt. 2. 420. It is cultivated in *Spain* and *Italy*; and the *Lemon* of the *Malus Limonia*. Rai. Hiſt. 2. 1656. *Malus Limonia acida*. C. B. Pin. 436.

The *Citron* and *Lemon* have much the ſame Taſte and Virtues, but the *Lemon* is the ſharper of the two..

48. *Of* Oranges.

Pomet. THE ſweet and ſour *Oranges* come from *Nice*, *Aſiouta*, the Iſles of *Hyeres*, *Genoa*, *Portugal*, the *American* Iſlands, and *China*; but the largeſt Store of thoſe we uſe now come from *Provence*. *Oranges*, as well as *Citrons*, are ſo well known that I ſhall make no Deſcription of them,

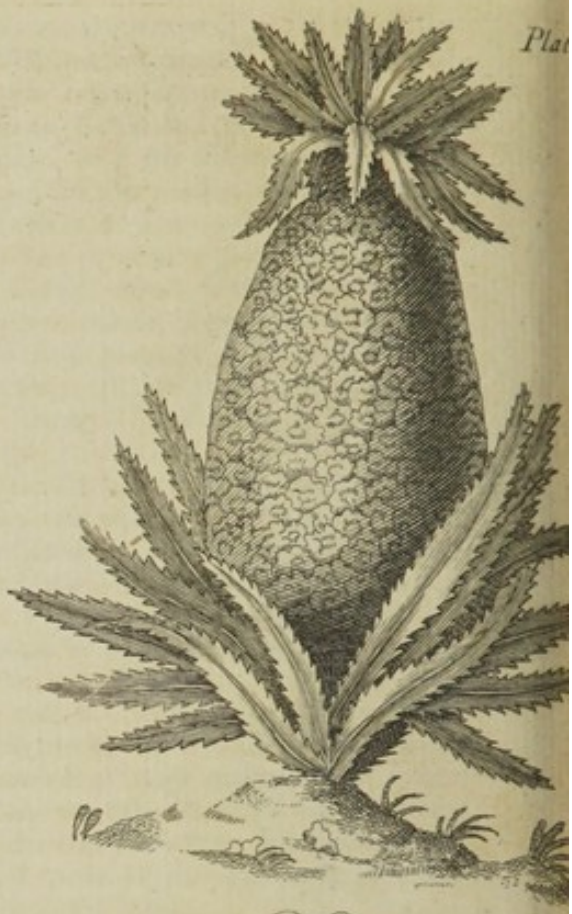
Oranges are candied whole, after having been ſcoop'd; and theſe are what we call *whole Oranges*, or *whole Candied Orange Peel*. The fineſt is that which is made at *Tours*, becauſe it is clearer, more tranſparent, and of an higher Colour than any other. We have *Orange Peel* cut in Chips from *Lyons*, which is what we call *Orangeat*, and cover'd with Sugar is the *Orangeat Comfit*.

Beſide the large Trade we have in the ſweet and ſour *Oranges*, and the *Bigarrades* or large *Oranges*, we alſo ſell the *candied Orange Flowers*, which come chiefly from *Italy* and *Provence*; and the diſtill'd Water is what we call *Naptha* and *Orange Flower Water*, which is uſed by the Perfumers; that which is beſt ought to be of a ſweet Smell, bitter Taſte, very pleaſant, and of that Year's Diſtillation; for what is kept above the Year loſes its Smell. Thoſe who diſtil *Orange Flowers* draw alſo a clear Oil of a ſtrong Fragrancy, which the Perfumers call *Neroli*; the beſt is made at *Rome*, and the next in *Provence*: This is the common Opinion; but we may aſſure ourſelves it is erroneous, for that it is eaſy to make better at *Paris* than either in *Italy* or *Provence*; the Reaſon is, that *Italy* and *Provence* being hotter than our Climate, the Sun more readily exhales the Odour; but we cannot draw the ſame Quantity of Oil as in the hot Countries, for in *Italy* and *Provence* they may make ſeveral more Diſtillations than we can, becauſe the Flowers that are in Prime one Month in *Paris* hold two in *Provence* and three in *Italy*, becauſe of their greater Nearneſs to the Sun.

The Difference between *Naptha* and *Orange Fower Water* is, that the *Naptha* is diſtill'd from the Leaves of the *Orange Flowers*, pick'd clean from the Filaments, *&c.* and the *Orange Flower Water* from the whole Flower as it is gather'd; the *Naptha Water* therefore, truly prepar'd, is much finer and more fragrant than the common *Orange Flower Water*

The People of *Provence* bring us an Oil which they make from the *Zeſts* and the outward thin Rind of the *Oranges*, by means of an Alembick and Water, and this Oil is of a ſtrong ſweet Smell. They bring beſides another Sort we call *Orangelette Oil*, which is made of the little *Oranges*, which they diſtil in an Alembick, with a ſufficient Quantity of Water, after having infuſed it five or ſix Days in the ſaid Water. This Oil is of a golden Yellow and a ſtrong fragrant Smell. The Oils of *Oranges* are excellent Remedies for curing Worms in little Children, and likewiſe the Water made in drawing the Oil ſerves for the ſame Purpoſe; upon this Account the Perfumers of *Provence* tranſport a great deal in Bottles and Barrels to ſeveral Parts to give to young Children. The greateſt Quantities of this Oil are made at *Grave*, *Biot*, three Leagues from *Grave*, and at *Nice*. I ought to inform you, that moſt of the Oils which come from *Provence* are adulterated or mix'd with Oil of Ben, or Sweet Almonds; for

The Ananas or King of Fruits.



51

Dog Wort-Cotton.

50

Cotton.

for which Reaſon they ought not to be bought but of honeſt People.

Lemery.

Aurantium, Arantium, Aureum malum, Pomum Nerantium vel Anerantium, is a Kind of a fine yellow, ſweet ſcented Apple, that grows upon a Tree call'd in *Latin, Malus Arantia, ſive Arangius*; the Leaves are of the Shape of thoſe of the Bay-Tree, but much larger, always green, having a fine white Flower of a fragrant Smell, compoſed uſually of five Leaves that ſtand round, and are ſupported by a Cup. This Tree is cultivated in all our Gardens, but eſpecially in the warm Countries.

There are generally two Sorts of *Oranges*, one ſmall, yellow, greeniſh, bitter and ſharp; the other large, of a fine golden Colour, and ſweet to the Taſte: The Bitter is moſt uſed in Phyſick, from the outward Rind of which they make *Zeſts*, which are endow'd with a great deal of exalted Oil and volatile Salt, which contains almoſt all the Scent of the Fruit; the Juice is acid, and conſequently full of eſſential Salt. The Rind of the bitter *Orange* is much eſteem'd to recreate the Spirits, ſtrengthen the Stomach and Brain, reſiſt the Malignity of Humours, and excite Womens Courſes.

The Juice of the bitter *Orange* is cordial, and the Flower cephalick, ſtomachick, hyſterick, and proper againſt Worms: The other *Orange* contains in it a ſweet and pleaſant Juice, compos'd of a great deal of Flegm, a little Oil and eſſential Salt, whereof the Rind likewiſe partakes in the ſame Degree: The Fruit is moiſtening, cordial, cooling, and good to allay Thirſt in continual Fevers: The Seed has the ſame Virtue as that of the *Citron*, but is ſeldom uſed in Phyſick.

Others there are who divide the *Oranges* into three Sorts; the *Crab*, or ſour *Orange*; the *Bitter*, or *Seville*; and the *China*, or ſweet *Orange*; Of all which, the *Seville*, or bitter *Orange*, is of moſt Virtue, and moſtly uſed in Phyſick; as the Peel for Confections, the Oil for Perfumers, Juice for Syrups, Flowers for candying, Seed, or Kernel, for Emulſions; and the Water, or Spirit, for a Cordial; in all which Forms they are ſtomachick, cephalick and anticholick.

[The ſweet *Orange* is the Fruit of the *Aurantium Medulla dulci vulgare.* Fer. Heſp. 377.

The Sour, of the *Aurantium acri medulla vulgare.* Fer. Heſp. 377.

The Peel of the ſecond Kind is what is moſt uſed in Medicine: It is a very agreeable aromatick Bitter, and gives a very agreeable Flavour to bitter Tinctures and Infuſions, in which it is generally made an Ingredient.]

49. *Of the* Ananas, *or* Pine-Apple, *the King of Fruits.*

Pomet.

WE may very juſtly, according to Father *Du Tertre*, call the *Ananas*, or *Pine-Apple*, the King of Fruits, becauſe it is much the fineſt and beſt of all that are upon the Face of the Earth. It is certainly for this Reaſon that the King of Kings has placed a Crown upon the Head of it, which is as an eſſential Mark of its Royalty: and at the Fall of the Father it produces a young King, that ſucceeds in all his admirable Qualities. It is true, there are other young Shoots beſides that Bud underneath the Fruit, and at the Bottom of the Stalk, that produce the *Ananas* in leſs Time, and with the ſame Eaſe, with that which makes the Crown; but it is alſo true, that the Fruit which is produced from this is incomparably much finer than the other.

This Fruit grows upon a round Stalk, the Thickneſs of two Thumbs, and about a Foot and half high, which grows in the Middle of the Plant, as the Artichoak in the Midſt of its Leaves. The Leaves are about three Feet long, four Fingers broad, hollow like ſmall Pipes, briſtly on the Edges, with little ſharp Prickles, and ending with a ſharp Thorn like a Needle. At firſt the Fruit is not ſo big as one's Fiſt; and the Cluſters of Leaves, which is the little Crown born upon the Head, is red as Fire; from every Scale or Shell of the Rind of the Fruit, which in Shape, though not in Subſtance, is very like the *Pine-Apple*, there ariſes a little purpliſh Flower, which falls off and withers as the Fruit encreaſes.

They are diſtinguiſh'd into three Sorts, namely, the large white *Ananas*, the *Sugar-Loaf*, and the *Rennet-Apple Ananas*: The firſt is often eight or ten Inches Diameter, and fifteen or ſixteen high; the Fleſh is white and fibrous, but the Rind of a golden Yellow; when it is ripe it ſends forth a raviſhing Smell, which is ſomething like that of the Quince, but much more delicate; but though this Kind is much larger and finer to Appearance than the others, the Taſte is not ſo excellent, neither is it ſo much eſteem'd; it ſets the Teeth on Edge, and makes the Gums bleed more than the others.

The ſecond Sort bears the Name of the *Sugar-Loaf* from its Shape and Form, that entirely reſembles it: It has Leaves a little longer and narrower than the former, and not ſo yelloviſh: The Taſte is better than that of the former, but it makes their Gums bleed that eat much of it. I have found in this Kind a Seed like that of the Garden-

Garden Creſs; though it is the general Opinion that the *Ananas* does not ſeed at all.

The third is the leaſt, but the beſt, and is called the *Rennet* Apple, becauſe of its Taſte and Smell, that both have ſome kind of Reſemblance to that Fruit; it ſeldom ſets the Teeth on Edge, or makes the Mouth bleed, if it is not eat to a great Exceſs indeed; this is what each of them has particular, but they all grow after the ſame Manner, bearing their Tufts of Leaves, or their Crown upon their Head; their Rind looks like that of the Pine-tree Apple, but ſeparates, and cuts like that of the Melon; and though the Fleſh, like that of all the others, is fibrous, it altogether melts into Water in the Mouth, and is ſo elegantly taſted, that I know not how to deſcribe its Flavour better than by ſaying, that it partakes of the Peach, the Apple, the Quince, and the Muſcadine Grape, all together.

Some, to take away the Quality of making the Gums bleed, and inflaming the Mouths of ſuch as eat too much of them, or eat them before they are full ripe; after having pared off the Rind, and cut the Fleſh into Slices, they leave it a little while to ſteep in *Spaniſh* Wine; and this not only frees the *Ananas* from this ill Effect, but it communicates to the Wine a moſt agreeable Taſte and Smell. There is a Wine made of the Juice of this Fruit, almoſt as ſtrong as *Malmſey*; and which intoxicates full as ſoon as the beſt and ſtouteſt Wine in *France*. If you keep this Wine above three Weeks it will ſeem dead and ſpoil'd; but if you will have Patience with it for a little Time longer, it will recover itſelf perfectly, and be ſtronger and better than before. When moderately uſed, it is good to exhilerate the Spirits when oppreſſed, and prevent the Nauſeatings of the Stomach; is good to relieve the Suppreſſion of Urine, and is a Counter-Poiſon for thoſe who have drank of the Juice of the *Yucca* or *Manihot* Root. Women with Child, however, muſt take Care how they drink the Wine or eat the Fruit in great Quantity, leſt it ſhould cauſe Abortion. We ſell at preſent the preſerv'd *Ananas* at *Paris*, brought from the *Indian* Iſlands, which are very good, eſpecially for aged People to reſtore the natural Heat, and comfort feeble Spirits.

Ananas, *Nanas*, or *Jayama*, is a very fine *Eaſt-India* Fruit, which grows upon a Plant, and of the Size of the *Artichoke*. This Fruit is adorn'd on the Top with a little Crown, and a Bunch of red Leaves like Fire: The Rind appears with a Shell like the Pine-Apple, but ſeparates like that of the Melon; the Fleſh is fibrous, but diſſolves in the Mouth, having the delicious Taſte of the Peach, the Quince, and the Muſcadine Grape, all together. *Lemery.*

There are three Sorts, as Mr. *Pomet* has deſcrib'd them from Mr. *Du Tertre*: They make a Wine from the Juice, which is almoſt equal to *Malmſey* Sack, and will fuddle as ſoon. It is proper to ſtrengthen the Heart and Stomach againſt Nauſeating, to refreſh and recruit the Spirits; it excites Urine powerfully; but Women with Child ought to avoid it, becauſe it procures Abortion: They make a Confection of the *Ananas* upon the Spot, which is brought hither whole; this is good to warm and reſtore a weak and aged Conſtitution.

[The *Ananas*, or *Pine-Apple*, is the Fruit of the *Pinea Braſiliana Ananas dicta*, Hiſt. Ox. 3. 171. There are a vaſt many new Species of it found out ſince the three deſcrib'd by our Author; but as they have no Uſe in Medicine, it would be foreign to the Intent of this Work to enter into a Detail of them here.

They have long been produced in the Gardens of the Curious here, and are at preſent regularly ſold as other Fruits of the Production of our own Climate.

The *Yucca* Root they make their Bread of when dry; but the Juice of it is poiſonous.]

50. *Of* Cotton.

COTTON is a white ſoft Wooll which is found in a kind of brown Shell, which grows upon a Shrub in Form of a Buſh; what Father *Du Terre* ſays of it is as follows: At firſt, when the Iſlands were inhabited by the *French*, I ſaw them, ſays he, fill their Plantations full of *Cotton* Shrubs, in hopes the *Cotton* would yield them great Profit in Trade; but moſt of the Merchants would not meddle with it, becauſe it took up too much Room, and was ſubject to take Fire, decay and the like. *Pomet.*

This Shrub grows in Form of a Buſh, and the Branches that ſtretch wide are well charg'd with Leaves, ſomething leſs than thoſe of the Sycamore, but almoſt of the ſame Shape: It bears a great many fine, yellow, large, Flowers; the Bottom of the Flower is of a purple Colour, and it is all ſtrip'd on the Inſide; it has an oval Button that appears in the Middle, and grows in Time to the Size of a Pigeon's Egg; when ripe it becomes black and divides itſelf into three Parts at Top; and the *Cotton* or *Down* in it, looks white as Snow: In the Cluſter of Down, which ſwells with the Heat to the Bigneſs of a Pullet's Egg, there are ſeven black Seeds, as large as Lupines, ſticking together; their Inſide is white, oily, and of a good Taſte.

This

This *Cotton* grows in great Quantities in all the Iſlands, and the Natives take great Care in the cultivating of it, as a Thing very uſeful for their Bedding: I have obſerv'd one Thing of the *Cotton* Flower not known to any Authors yet, or at leaſt not taken Notice of; which is, that the Flowers, wrapp'd up in the Leaves of the ſame Tree, and bak'd or roaſted over a Fire of burning Coals, yield a reddiſh viſcous Oil, that cures in a little Time old ſtanding Ulcers. I have often experienced it with very good Succeſs: The Seed of this Shrub will make the Parroquets ſuddled; but it is beneficially uſed againſt Fluxes of Blood and Poiſons.

We ſell ſeveral Sorts of *Cottons*, which only differ according to the Countries from whence they come, and the various Preparations. The firſt is the *Cotton* in the Wooll, that is to ſay, that which is as it comes from the Shell, only with the Seeds taken out; this comes from *Cyprus*, *Smyrna*, *&c.* The ſecond is the *Cotton* in the Yarn, which comes from *Damaſcus*, and the *Jeruſalem Cottons*, which are called *Bazac*. There are ſeveral other Sorts; as, the *Demi Bazacs*, the *Beledin Cottons*, thoſe of *Gondezel*, *Motaſin*, and *Genequin*; but of all the Cottons, we ſell ſcarce any but that of *Jeruſalem* and the Iſlands. The true *Bazac*, or *Jeruſalem Cotton*, ought to be white, fine, ſmooth, the beſt ſpun, and moſt equal, or eveneſt that can be. As to the *Cotton* in Wooll, the whiter, longer, and ſweeter it is, the more valuable it is. Thoſe who buy in whole Bales, ought to take care it be not damag'd with Mould, Muſtineſs, or wet. *Cotton* has many Uſes, too well known to need being related here. As to the black Seed which is found in the *Cotton*, an Oil may be made of it, admirable for taking away Spots and Freckles, and for beautifying the Face; and which has the ſame Virtues with Oil of the Cokar Kernels, made after the ſame Manner by the *Indians*, eſpecially in the Iſland of *Aſſumption*, from whence almoſt all the Cokars we now ſell are brought.

Xylon, *Coto*, *Goſſipium*, *Cotoneum*, *Lemery*. *Bombyx Officinarum*, or the *Cotton* of the Shops, is a Plant whereof there are two Kinds: The firſt is called *Xylon ſive Goſſipium herbaceum*, by *J. Bauhinus*, *Ray* and *Tournefort*; *Goſſipium fruticeſcens annuum*, by *Parkinſon*; and *Goſſipium fruticeſcens ſemine albo*, by *C. Bauhinus*; which ſignifies either the Herb *Cotton*, the Annual Shrub *Cotton*, or that with the white Seed: It bears a Stalk of a Foot and a Half, or two Foot high, that is woody, cover'd with a reddiſh hairy Bark, divided into ſeveral ſhort Branches; the Leaves are a little leſs than the Sycamore Leaves, ſhap'd almoſt like thoſe of the Vine, hanging to long Stalks, adorn'd with a Nap or Hair; the Flowets are numerous, fine and large, having the Shape or Form of a Bell, ſlit or cut into five or ſix Diviſions to the Bottom, of a yellow Colour, mix'd with Red or Purple: When the Flower is fallen, it is ſucceeded by a Fruit of the Bigneſs of a Filbert; which being ripe, opens into three or four Quarters or Partitions; from whence appears a Flake of *Cotton*, white as Snow, which ſwells up or tumifies by Heat, to the Size of a little Apple. It contains in it groſs Seeds like ſmall Peas, oblong, white, and cottony; each having in it a little oleaginous Kernel that is ſweet to the Taſte.

The ſecond Sort is called *Xylon Arboreum*, or the Tree *Cotton*, by *J. Bauhinus*, *Ray* and *Tournefort*; it differs from the former in Bigneſs, for this grows into a Tree or Shrub of four or five Foot high. The Leaves approach, in ſome Meaſure, to thoſe of the *Linden* Tree, indented deep into three Parts, without Nap or Down: The Flowers and Fruit are like thoſe of the other Kind. The two Species of *Cotton* grow in *Egypt*, *Syria*, *Cyprus*, *Candia*, and the *Indies*: The Flowers are vulnerary; the Seed pectoral, proper for Aſthmas, Coughs, to procure Seed, conſolidate Wounds, for Dyſenteries, Scourings of the Belly, Spitting of Blood, *&c.*

[The Shrub which produces the *Cotton*, is the *Goſſipium fruteſcens Annuum*, Park. 1553. *Goſſipium fruteſcens ſemine nigro*, C. B. Pin. 430. The Seeds are commended by many Authors in various Intentions; but they are never heard of in the preſent Practice. The *Cotton* itſelf is ſaid to do Wonders in the Gout, being burnt upon the Part; but its Efficacy can be no other than that of Fire, or Quick Lime; whatever Good attends this Practice being wholly owing to the Burning.

The *Xylon Arboreum* is never heard of in Medicine.]

51. *Of* Apocynum; *or* Dog's-Bane Cotton.

THE *Hoüette*, or *Dog's-Bane Cotton*, is a Kind of *Cotton* taken from the Huſk of a Plant which the *Botaniſts* call *Apocynum*, which ſignifies *Dog's-Bane*; which is repreſented in the ſame Plate with the *Cotton*; this grows plentifully near *Alexandria* in *Egypt*, eſpecially in moiſt and marſhy Grounds, from whence we have what is now ſold amongſt us. This has no other Uſe than to fur the Robes of Perſons of Quality. *Pomet.*

Apocynum Ægyptiacum lacteſcens, ſiliqua Aſclepiadis C. Bauhinus, vel Apocynum Syriacum, ſeu Palæſtinum, ſive Ægyptiacum, *Lemery.*

Ægyptiacum, the *Syrian*, *Paleſtine* or *Ægyptian* Dog's-Wort; *Apocynum Ægyptiacum floribus ſpicatis*, *Tournefort*, *Ægyptian* Dog-Wort with Spike Flowers; and by ſome *Eſula Indica*, or the *Indian* Spurge. This is a Plant which grows in the Nature of a little Shrub, with ſtrait Shoots, of about three Foot high, whoſe Leaves are long, large and thick as thoſe of Aloes, ſet againſt the Stalks, white and full of the ſame Liquor with the other Parts of the Plant; to wit, with a white Juice like Milk, that is acrid and bitter. The Flowers grow at the Tops of the Branches in the Nature of an Ear, Bell-faſhion'd, indented, and yellow. When the Flowers are gone, a Fruit ſucceeds as thick as one's Fiſt, oblong like a large Sheath or Caſe; theſe hang two and two upon a hard crooked Stalk; the Fruit is call'd, in *Egypt*, *Beidelſax*, and is cover'd with two Rinds or Barks; the firſt or outermoſt of which, is a green membranous one; the ſecond reſembles a thin Skin that has been dreſſed or ſmoothed, of a Saffron Colour. This Rind contains a ſtringy or fibrous Matter, like the Moſs of a Tree, with which all the Fruit is full, in the Nature of a fine Cotton, that is very ſoft and white, which is call'd *Hoüatte*, or *Hoüette*. They find in this Cotton Seeds made like thoſe of Pumkins, but leſs, reddiſh, full of a whitiſh Pulp, and of a bitter Taſte. The Root is long, ſtrong, ſurrounded with Fibres; this Plant is beautiful to the Eye. The Stalk and Leaves are cover'd with a ſort of Wooll, and are full of Milk, It grows in *Egypt* about *Alexandria*. The Leaves being ſtamp'd and apply'd as a Cataplaſm, are reckon'd proper to reſolve cold Tumours. The Juice makes the Hair come off, and is a Remedy for cutaneous Caſes uſed externally: But it is a Poiſon given inwardly, for it purges with that Sharpneſs and Violence, that it cauſes mortal Bloody-Fluxes.

[This *Cotton* is the Product of the *Apocynum majus Ægyptiacum flore luteo Spicato*, Breyn. Prodr. 2. 14. *Beidel-oſſar*, *et Beidelſar*, Alp. 36. *Apocynum Ægyptiacum floribus Spicatis*. El. Bot. 78. It is cultivated in the Gardens of the Curious, and flowers in *Auguſt*. The Leaves are a Poiſon to Dogs, Wolves, and other Animals.

The *Pſeudo Ipecacuana fuſca*, a poiſonous Root, brought out of a *America* for the true *Ipecacuana*, and ſometimes unhappily uſed as ſuch, is the Root of another Species of this Plant, the *Apocynum Erectum Salicis latiori folio umbellatum floribus Aurantiis*, Pluk. Alm. 36. *Apocynum Canadenſe anguſtifolium flore Aurantio*, Hort. Bleſſ. 232.]

52. *Of* Olives.

WE ſell at *Paris* three Sorts of *Olives*, which do not differ but in Size, and according to the Country from whence they come. *Pomet.* Thoſe of *Verona* are moſt valued, of which there are three Kinds. The next in Goodneſs are the *Spaniſh Olives*; and the third Sort are the *Provence Olives*, which are called the *Picholine*, or the *Pauline*, and very improperly *Lucca Olives*; for they are not brought from thence.

The Tree that bears the *Olives* is uſually ſmall, as may be ſeen by the Cut of it. As to the Leaves, they are thick and green, the Flowers white, and the Fruit green at the Beginning, but reddiſh when ripe. I ſhall not take up your Time to deſcribe the ſeveral Works that are made of the *Olive* Wood, but content myſelf only to ſpeak of the Oil that is made from the *Olives*, and the Manner in which they pickle them for eating.

As ſoon as the Peaſants ſee that the *Olives* are ready to be gather'd for keeping, which is about *June* and *July*, they gather them, and carry them to Market as the Country People with us do Cherries. Thoſe who would preſerve or pickle them, throw them into freſh Water, and after they have lain there ſome Time, they take them out, and put them in Brine, which they have made with Potaſhes, and the Aſhes of burnt *Olive* Stones, or Lime; and after they have remain'd there a ſufficient Time, they barrel them up, according to what Size beſt fits them, with a Brine or Pickle of Salt and Water, upon which is thrown a little Eſſence or Tincture, made of Cloves, Cinnamon, Coriander, Fennel, and other Aromaticks. And the whole Knowledge of managing theſe *Olives* depends upon underſtanding this Mixture, which they keep as a Secret amongſt them.

Chuſe your *Olives*, eſpecially the *Verona*, new, right or true, firm, and well cover'd with Pickle; for as ſoon as the Brine or Pickle leaves them, they grow ſoft and black, and, in a Word, good for nothing; which is of ſome Conſequence, becauſe they are a pretty dear Fruit. For the *Spaniſh Olives*, they are as big as a Pigeon's Egg, of a pale Green, and bitter Taſte, which does not pleaſe every Body; but for the *Provence*, eſpecially the *Picholine Olives*, they are reckon'd the beſt, becauſe it is pretended that Meſſieurs *Picholini*, of *St. Cherne*'s, knew how to pickle them better than other People, which is perhaps no Miſtake; ſince thoſe are the fineſt and beſt *Olives*, as they are much greener, and of a better Taſte than the *Pauline*, and other *Olives* of *Provence*. They are of

52

Olives

Capers.

55

Capuchins.

58

Damask Raisins.

59

Currans.

73

Figs.

Chesnut.

75

Filbert.

of delicate Nutriment, ſtomachick, pectoral, antiſcorbutick, gently looſen the Belly, and are chiefly uſed in eating.

Lemery. *Olea onæus*, the *Olive-Tree*, is of a moderate Bulk or Size, whereof there are two Sorts, one cultivated, and the other wild. The firſt is called *Olea Sativa*, by *Dod*, both the *Bauhines*, *Ray*, and *Tournefort*, the planted or cultivated *Olive*, whoſe Trunk is knotty, the Bark ſmooth, of an Aſh Colour, the the Wood pretty ſolid, of a yellowiſh Colour, the Taſte a little bitter; the Leaves are longiſh and narrow, almoſt like the Willow, pointed, thick, fleſhy, oily, hard, and of a pale Green without, and whitiſh underneath, but without Hair or Down, hanging by ſhort Stalks oppoſite to one another. There ariſe betwixt the Leaves, Flowers diſpoſed in white Bunches, that are ſupported upon Stalks, conſiſting each of a ſingle Leaf, ſlit in four Parts, that grows narrower, or contracts itſelf at the Bottom into a Pipe. When the Flower is gone, there follows an oblong or oval Fruit, green, fleſhy, ſucculent, which is called *Oliva*, or the *Olive*. This is leſs or bigger, according to the Place where it grows. That which grows in *Provence* and *Languedoc* is as big as an Acorn; that which *Spain* produces is larger than a Nutmeg: Both Sorts have a little acrid bitter Taſte, and contain under the fleſhy Part an oblong ſtony Nut, which has a Kernel encloſed within it. This Tree is cultivated in *Spain*, *Italy*, *Languedoc*, and *Provence*.

The wild Olive is call'd *Olea Sylveſtris*, by *Gerard* and *Ray*; or by *Tournefort*, and others, *Olea ſylveſtris folio duro ſubtus incano*. It differs from the former in that it is much leſs in all its Parts, and that the Leaves are much whiter underneath. They grow likewiſe in the hot Countries, and they pickle them up with Salt and Water to make them fit for eating; for as they are taken from the Trees, they have an unſufferable Taſte. They likewiſe make Oil Olive from them by Expreſſion, as may be ſeen in *Lemery*'s *Univerſal Pharmacopœia*. This Oil is emollient, anodyne, reſolutive, deterſive, proper for Bloody Fluxes, and the Cholick. The *Olives* abound with a great deal of Flegm and eſſential Salt, which they loſe in being ſqueez'd, or paſſing through the Preſs; the Leaves are aſtringent. The *Olive Branch* was always the Emblem of Peace, as the Laurel is of Glory. There are certain wild *Olives* that grow near the Red Sea, that throw forth a Gum very proper to ſtop Blood, and cure Wounds.

[The *Olive* is the Fruit of the *Olea ſativa* of moſt Authors; it is common in the hot Countries, and flowers in *June*. The pickled Fruit is much eaten, but is apt to pall and relax the Stomach too much.

The wild *Olive* is the *Oleaſter ſive Olea Sylveſtris*. Park. 1438. *Olea Sylveſtris*. Ger. 1206.

And the Kind mention'd by *Lemery* as growing near the Red Sea, and affording a Gum proper to ſtop Blood and heal Wounds, is the *Gum Elemy-Tree*, as will be ſeen in its proper Place.]

53. *Of* Oil Olive.

Pomet. BEſides the Olives, we have a conſiderable Trade in the Oil, which is ſo neceſſary to Life, that we may bring it in Competition with Bread and Wine. The Way of making *Oil Olive* is little different from that of Almonds, ſince there is nothing elſe neceſſary towards the making of good Oil, than after the gathering of the Olives, when they begin to redden, that is to ſay, when they are full ripe, which is in *December* and *January*, to preſs them in Mills made for that Purpoſe. The Oil which they produce is ſweet, and of a pleaſant Taſte and Smell; and this Oil is what we call *Virgin Oil*, the moſt valuable of which is that of *Graſſe*, *Aramont*, *Aix*, *Nice*, and ſome other Places. But as the new gather'd Olives do not yield the Quantity of Oil which thoſe do which lie ſome Time upon the Floor, thoſe who wou'd have a great deal of Oil, leave the Olives to rot, and afterwards preſs them; but the Oil which they produce is of an unpleaſant Taſte and Smell. Some alſo, to make them yield the more, throw boiling Water upon what remain'd of the firſt Preſſing, which they ſqueeze over again; and this Oil, made thus, is what we call *Common Oil*, not varying in Goodneſs, but according to the Places from whence it comes. The beſt *Common Oils* come from *Genoa*, *Oneille*, and other Parts of *Italy* and *Provence*; and the worſt comes from *Spain*, but eſpecially from *Majorca* and *Portugal*.

The Choice of Oil is ſo well known to all the World, it wou'd be uſeleſs to inſiſt upon it. And *Oil Olive* is ſo much uſed, that we have no Sort of Commodity whereof we make a greater Conſumption, in that few can be without it; beſide that it is of Uſe in Medicine, as being the Baſis of all compound Oils, Cerecloths, Balſams, Ointments and Plaiſters. Beſides the other great Qualities that are in *Oil Olive*, I ſhall not ſtop to ſay, that it is a natural Balſam for the Cure of Wounds, being beat up with Wine; and it is of Wine and this Oil, that the *Samaritan Balſam*, with which the *Good Samaritan* in the Goſpel, heal'd the Wounds of the Traveller, is made, which is a Medicine in Uſe at this Day, as well with the Rich as the Poor. *Oil Olive* is

alſo uſeful for burning, eſpecially in Churches and the like, becauſe it does not ſtink ſo bad as other Oils, beſides that it laſts longer; but its Dearneſs makes it that the Poor cannot uſe it. We likewiſe have a conſiderable Trade in *Nut-Oil*, which we have brought us from *Burgundy*, *Touraine* or *Orleans*, which bears a Price, becauſe it is much uſed by Painters, and other Workmen, as Printers, Rolling-Preſs Workers, and the like; beſides that a great many uſe it for the Cure of Wounds, as being a natural Balſam. As to its Uſe for burning, it is a very ill Practice, becauſe it is quickly conſum'd, and is reduced to a Coal. We alſo have conſiderable Dealings in Oil of Rapes, which we have from Flanders, and a common Sort from *Champagne* and *Normandy*. So likewiſe we have Oil of Hempſeed, Camomile and Linſeed from *Flanders* and other Parts, eſpecially when Train or Whale Oil is dear. Beſides the ripe or compleat Oil of Olives, which is, as I have ſaid, what is preſs'd out of ripe Olives, and is brought to us frequently from *Florence* as well as from *Genoa*, there is the Oil *Omphacine* preſs'd out of unripe Olives, for which Reaſon it is cooling, drying, and binding, uſed in ſeveral Compoſitions for ſtrengthening the Stomach, healing Exulcerations, cooling the Heat of Inflammations, and repercuſſing Tumours in their Beginning; hereof is made Oil of Roſes, *Omphacine* and Oil of Quinces. The Oil of ripe Olives heats and moiſtens moderately, whereof the old mollifies more than the new, but the laſt is beſt for internal Uſes, and looſens the Belly, taken in warm Ale, or the like, to an Ounce. It corrects the Dryneſs or Huſkineſs of the Breaſt, and allays the Pains of the Belly, relaxes the Ureters, cleanſes and heals them. It is uſed with warm Water to provoke vomiting, and cleanſe the Stomach. A Linctus is made of it with Syrup of Violets againſt Hoarſeneſs, Shortneſs of Breath, and to open Obſtructions of the Breaſt or urinary Paſſages. It is uſed in Clyſters to looſen the Belly, and mollify the harden'd Excrements. The diſtill'd *Oil Olive* is that which is call'd Oil of Bricks, which is a ſubtil and piercing Oil, and of great Virtues, but not much uſed, becauſe it ſtinks ſo egregiouſly, though good in both Gout and Palſy.

[*Olive Oil* is an excellent Ingredient in Ointments and Cataplaſms, intended as Ripeners, in which it acts by relaxing the ſwell'd Part: But it is little uſed inwardly, becauſe of the greater Sweetneſs and Excellency of the Oil of Almonds.]

54. *Of* Soap.

BESIDES the great Conſumption made of Oil Olive for Works in which it is neceſſary, for different Foods and for Phyſick, it is the Baſis of ſeveral Sorts of *Soap* which we ſell; I mean of the beſt Sorts, the moſt valuable of which is the *Alicant Soap*; the next the *Carthagena*; the third is the true *Marſeilles Soap*; the fourth that of *Gayette*; the fifth the *Toulon Soap*, which we falſly call *Genoa Soap*. All theſe *Soaps* are Compoſitions of Oil Olive, Starch, Lime-Water, and a *Lixivium*, or Lye of Pot-Aſhes, mix'd all together by boiling into a Paſte, which is made into Balls or Cakes, in the Form and Figure as they are brought to us. As to the Mixture of their Green and Vermillion I ſhall ſay nothing, it being a Secret the Soapboilers keep among themſelves; nevertheleſs I have been aſſur'd that they uſe Red Oker, Copperas, and the *Caput Mortuum* of Vitriol, call'd *Colcothar*; but as I am not certain, I ſhall ſay nothing further of it.

The Choice of *Soap* is to have it dry, well marbled or ſtain'd, and true from the Place whence it derives its Name: that is to ſay, that ſuch as is ſold for *Alicant*, be true *Alicant*, and ſo of the reſt. The *Toulon Soap* ſhou'd be dry, of a white, tending to a little bluiſh Colour, cut even, gloſſy, and of a good Smell, and the leaſt fat or oily that can be. As to the marbled Sort, that which is of a red Vein on the Side, and of a fine Green and Vermillion within, is moſt eſteem'd, becauſe it is beſt mark'd, of moſt Uſe, and the beſt Sale. As to the Virtues of *Soap*, they are well enough known; but as few will imagine it is of any great Uſe in Medicine, I muſt nevertheleſs declare, that it is uſed with Succeſs in the Cure of cold Humours, being diſſolv'd in Spirit of Wine; and there is a Plaiſter compoſed of it, call'd the *Soap Plaiſter*, which has very great Virtues, as many Authors do affirm. Beſides the Sorts of *Soap* that I have been ſpeaking of, there is a Kind made at *Roüen*, which is made with a certain Greaſe that is found upon the Kettles and Pots of the boiling Cooks; but as this is a very bad *Soap*, I ſhall ſay no more of it. We ſell a liquid or ſoft *Soap*, which we call *Black Soap*, made at *Abbeville* and *Amiens*, of the Remains of burnt Oil; but as this *Soap* is of a brown Colour, there comes from *Holland* a Sort ſomething like it, but green, becauſe inſtead of the burnt Oil they make Uſe of Hemp-Oil, which is green. The *Black Abbeville Soap*, which we ſell in little Barrels, is much in Uſe amongſt the Cap-Makers, and ſeveral other Workmen or Artificers. The green, liquid, or

ſoft

ſoft *Soap* from *Holland*, is uſed by ſeveral to rub on the Soles of the Feet of ſuch as are in Fevers, and is ſaid to be a Cure; the Uſe of this ought not to be entirely rejected, ſince I have known Perſons who have been cured by it. But as this *Soap* is very ſcarce in *France*, ſince none comes there in Time of War, they muſt content themſelves with that of *Abbeville*.

[The Kinds of *Soap* we have in Uſe in *England* are,

1. The *Common Soap*, which is made of coarſe Oil, Sewet, and a Lixivium of Pot-Aſhes, of each an equal Quantity, boil'd to the Conſiſtence we ſee it of.

2. *Black Soap*, which is made by adding Soot to the former Compoſition.

3. *Caſtile Soap*; this is made like the common *Soap*, only a better Oil is uſed, and it is boil'd to a higher Conſiſtence and better mix'd; this is colour'd in Streaks with Indigo. And

4. *Venice Soap*, which is altogether white, ſomething ſofter than the *Caſtile Soap*, and made of the beſt Oil of any of the four.

All of them are Diureticks and Deobſtruents; the propereſt for internal Uſe are the *Venice* and *Caſtile*.

55. *Of* Capers.

Pomet. CAPERS are Buds of Flowers which grow upon a Plant that is a Shrub, about *Toulon* and other Parts of *Provence*, from whence come almoſt all the *Capers* we now ſell. They likewiſe come from *Majorca*, as you will find hereafter.

We ſell ſeveral Sorts, that ſcarce differ but as to their Size, and not from the ſeveral Countries from whence they take their Name; for 'tis a certain Truth, that all the *Capers* eaten in *Europe*, except thoſe of *Majorca*, come from *Toulon*; ſo that inſtead of being call'd *Nice* or *Genoa Capers*, as they always have been, they ought to be call'd *Toulon* or *French Capers*. When they are ready to be gather'd, it ought to be done in four and twenty Hours; for if they are not gather'd exactly during the Time of budding, they open themſelves, and are neither proper for pickling or making Vinegar: When the Peaſants have gather'd their *Capers*, before they pickle 'em, they run 'em through Sieves whoſe Holes are of different Sizes, by which Means they have *Capers* of ſeveral Sorts, which nevertheleſs come from the ſame Plant. The leſſer *Capers*, and ſuch as have their Stalks on, are the moſt valued. As to the *Majorca Capers*, they are little ſalted ones, whereof there is ſome Sale in Times of Peace. At *Lyons* they eat another Sort of flat *Capers*, with a rank ſalt Taſte; yet this Sort being ſeldom or never demanded, we ſell but very few of them; but much more of two other Sorts of Flowers pickled in Vinegar, one whereof is call'd *Monks Hood*, and the other *Broom*, or *Broom Buds*; which Plants are ſo well known, they need no Deſcription.

Lemery. *Capparis ſpinoſa fructu minore, folio rotundo*; the *Round leav'd Caper with the leſs prickly Fruit.* This is a little Shrub, furniſh'd with crooked Prickles; the Branches are bending, the Leaves round, and ſomething bitter to the Taſte. It bears Sprigs, or little diſtinct Stalks, carrying on their Tops ſmall Heads, or green Buds, which are gather'd when at their full Growth, before they are blown, to pickle for preſerving: When the Bud is full blown, there appear four white Leaves like a Roſe, ſupported on a Cup likewiſe of four Leaves, in the Middle of which riſes a Spire that ends in a Bud. When the Flower is gone, this Bud, according to M. *Tournefort*, produces a Fruit whoſe Shape reſembles that of a Pear, which encloſes in its Pulp ſeveral ſmall Seeds, lodg'd each in a ſmall Nich or Corner. The Roots are long and thick, from whence the Rind is ſeparated to dry; it ought to be thick, hard, whitiſh, difficult to break, and of a biting Taſte. The *Caper-Tree*, or Shrub, is cultivated in *Provence*, eſpecially about *Toulon*.

There is another Species or Kind of *Caper*, which differs from that we have been ſpeaking of, in that it is not prickly, and that the Fruit is larger. It is call'd by *Caſp. Bauhinus*, *Capparis non Spinoſa fructu majore*; the *Caper without Prickles, with the larger Fruit.* This grows in *Arabia*, of the Height of a Tree, and retains its Leaves all Winter. The *Caper*, and the Bark thereof, are both uſed in Phyſick, and yield a great deal of eſſential Salt and Oil. They excite or promote an Appetite, ſtrengthen the Stomach, are aperitive, and particularly ſerviceable in Diſeaſes of the Spleen. The Bark of the Root is very aperitive, and proper to open Obſtructions of the Spleen and other Viſcera, to diſſipate Melancholy, and reſiſt Poiſon. The Pickle is uſed as Sauce with Meat, and is made of Vinegar, Salt-Water, and a proportionable Quantity of Spirit of Wine, which preſerves the Pickle and the Things pickled.

[*Capers* are the Flower-Buds of the *Capparis Rotundiore folio*. Ger. 748. *Capparis ſpinoſa folio rotundo*. Park. 1023. The Bark of the Root is uſed in Medicine as an Aperient.

The Buds, preſerv'd in Pickle, are eaten as a Sauce; they are gather'd for this Uſe juſt before the Time of their opening into Flowers, and laid in

in the Shade for three or four Hours, 'till they begin to wither, that they may not open; they are then put into a Veſſel and cover'd with Vinegar, in which they are ſuffer'd to lie eight Days; that is then pour'd off and freſh Vinegar put on, and left for eight Days more; that is then pour'd off and they are put into Barrels with freſh Vinegar, and kept for Uſe.]

56. *Of* Bay-Berries.

Pomet. *BAY-Berries* are Fruit of the Bigneſs of one's little Finger's End, green at the Beginning, and which grow browner as they ripen: Theſe *Berries* are as well known as the Tree that bears them, of which it wou'd be needleſs to give a Deſcription; I ſhall therefore only obſerve, that they ought to be choſen freſh, well dried, the beſt fed, and the blackeſt that can be; take this Precaution, that they be not worm-eaten, to which they are very ſubject.

Theſe *Berries* are of ſome Uſe in Phyſick, but more conſiderably with the Dyers and the Farriers. They are much uſed in *Languedoc*, where an Oil is made from them, as I ſhall ſhew in the next Chapter; and though they grow plentifully in ſeveral Places of the *Streights*, yet they are brought to us from *Port O Port*, of a blackiſh brown Colour, having a Kind of hot oleaginous Taſte. They are cephalick, neurotick, alexipharmick, and anticolick; they mollify, diſcuſs, expel Wind, open Obſtructions, provoke Urine and the Terms, facilitate the Travel of Women in Labour, and help Crudities in the Stomach. They are good for the Nerves in Convulſions and Palſies, give Eaſe in the moſt extreme Cholicks, and take away the After-Pains of Women in Child-Bed; they are uſed in Powder, Decoctions, Tincture, Spirit, Electuary, Plaiſter, and Oil; the laſt of which is made by Diſtillation, which diſcuſſes Wind, cures the Cholick, Cramps, Convulſions, Palſies, Pains, old Aches, Gout, Lameneſs, Numbneſs, Sciatica. Doſe inwardly, from four Drops to ſix; outwardly, a Drop or two put into the Ear, helps the Hearing. It is alſo excellent for Diſeaſes of the Skin; as Dandriff, Morphew, ſore Heads, Scabs, *&c.*

Lemery. *Laurus*, or *Laurus Vulgaris*, the *Bay*, is a Tree which grows uſually of a moderate Height in temperate Climates, but which riſes higher in the hot Countries, as in *Italy*, *Spain*, &c. The Stem is ſmooth without Knots; the Bark ſomething thick, the Wood porous and eaſy to break; it bears long Branches, and its Leaves are the Length of one's Hand, two or three Fingers broad, pointed, hard, always green, a little ſucculent, ſtringy, ſmooth, and fragrant, of an acrid, aromatick Taſte, and a little bitter, tied by ſhort Stalks; the Flowers are each of a ſingle Leaf cut into four or five Parts, of a white or yellowiſh Colour, ſucceeded by *Berries* of the Bigneſs of a ſmall Cherry, oblong, green at firſt, but brown as they grow riper. Theſe *Berries* are odoriferous, aromatick, oily and bitter; the Roots thick and uneven; the Tree grows in hot dry Places, and is cultivated in Gardens; the Leaves are uſeful in Medicine, and yield a good deal of Oil and volatile Salt.

[*Bay Berries* are the Fruit of the *Laurus vulgaris*. C. B. Pin. 460. *Laurus domeſtica tenuifolia*. Jons. Dendr. 229. It is common in Gardens, and flowers in *April*.

There is another Species of this Tree mention'd in ſome Catalogues of Officinal Trees, and there call'd the *Laurus latifolia*; which is the *Laurus latifolia platytera Dioſcoridis* C. B. Pin. 460. *Laurus major ſive latifolia*. Park. 1486. The Leaves of this are more fragrant than thoſe of the common Kind, and have been given in Powder to cure Agues.

The Berries of this are not uſed in Medicine; the *Berries* of the common *Bay* are carminative and diſcutient; their principal Uſe is in Clyſters.]

57. *Of* Oil *of* Bays.

Pomet. THE *Oil* of *Bays*, or *Olium Laurinum*, is an Oil made of the Bay-Berries, by bruiſing them and boiling them in Water; when it is cold it is barrel'd up to be tranſported to ſeveral Places. That which is moſtly ſold in *France*, is brought from *Provence* and *Languedoc*, eſpecially from a Place call'd *Calviſſon*, near *Montpellier*, from whence we have the beſt; for that of *Provence* is nothing elſe but Fat and Turpentine colour'd with Verditer or Nightſhade Juice; therefore uſe none but that from *Languedoc*, as being the beſt of all, when it has all its requiſite Qualities, which are to be new, well ſcented, granulated, and of a green Colour, tending ſomething towards a yellow; and meddle not with that which is green, ſmooth, liquid, and of another Smell than the Bay, ſuch as that of *Provence*, or what is made at *Lyons*, *Roüen*, or *Paris*, by knaviſh People, who have no Conſcience, but wou'd impoſe their Rubbiſh upon the World for a good Commodity. Such are thoſe who counterfeit and ſell Roſin for Scammony, Arcanſon for Gum Guajacum, fat Pitch for Benjamin, and Kitchen-Stuff diſcolour'd with green for *Oil* of *Bays*, Turmerick for Saffron-

Saffron-Powder, and Honey boil'd up with a Hodge-Podge of powder'd Roots for Treacle; and in a Word, all Sorts of Drugs ſophiſticated to deceive the Publick, and to make a better Advantage than their Fellow-traders; which is a Thing I fear too much practiſed all over *Europe* as well as in *France*.

[The Method of making this Oil is thus: Gather the *Berries* when ripe, and bruiſe them in a Marble Mortar, boil them in as much Water as will keep them from burning, and after half an Hour's boiling, put them into a Preſs; when all is ſqueez'd out that will run, take out what is left in the Bag, and beat it, and boil it again with more Water, then preſs as before.

The Oil will be found ſwimming on the Water preſſed out, and muſt be taken off with a Spoon, and kept for Uſe.]

58. *Of* Damaſcus Raiſins.

Pomet. THE *Raiſins* call'd the *Damaſcus Raiſins*, are flat, of the Length and Thickneſs of one's Thumb's End; we have them brought from *Damaſcus*, the Capital of *Syria*, in roundiſh Boxes. Chuſe the neweſt, largeſt, and beſt fed, and beware they are not *Calabrian Raiſins*, as it happens but too often with ſeveral Grocers, who make no Difficulty to ſell the one for the other, or Jubes flatted, and put up on Purpoſe in *Damaſcus Raiſin Boxes*, which are nevertheleſs eaſy to be diſtinguiſh'd, becauſe the *Damaſcus Raiſins* are thick, large, fleſhy, dry and firm, and have commonly two Kernels; they alſo are of a faint diſagreeable Taſte, which thoſe of the *Calabrian Kind* are not, but are of a fat, ſoft, and ſweet ſugary Taſte, as are alſo the *Jube Raiſins*.

The *Damaſcus Raiſins* are much uſed in Pectoral Ptiſans, and Decoctions, and are frequently join'd with Jujubs, Sebeſtens and Dates; likewiſe in Syrup of Marſh-Mallows, in the healing Lohoch, Lenitive Electuary, Confection of Hamech, and in the Electuary of Fleawort. *Raiſins* are nothing elſe but Grapes dipp'd ſeveral Times in boiling Water, and dry'd in the Sun. *Damaſcus Raiſins* are moſt approv'd of; but we commonly uſe thoſe that are prepared at *Narbon* in *France*, and out of which there is a ſtrong Spirit extracted, or a good Sort of Brandy; they are endued with much the ſame Properties as Figs. Take *Raiſins* of the Sun half a Pound, boil them in a ſufficient Quantity of generous Wine, pulp them through a Hair Sieve, and add two Ounces of Hyſſop in Powder, of the cooling Species, or Powder of Pearls one Ounce, and make an Electuary, to be taken to the Quantity of two Drams, in an Aſthma.

[The *Damaſcus Raiſins* are the Fruit of the *Vetis Damaſcena*. Hort. Reg. Par. 186, Tourn. Inſt. 613. They are the largeſt, fleſhyeſt, and firmeſt *Raiſins* we know of, and are the propereſt of all others to be uſed in Pectoral Decoctions.]

59. *Of* Currans.

Pomet. THE *Raiſins of Corinth*, or *Currans*, are little *Raiſins*, or *Grapes*, of different Colours, being Black, Red and White, and commonly the Size of the red Gooſeberry: The Vine that bears this is low, furniſh'd with thick Leaves very much indented, and grows plentifully in a vaſt ſpacious Plain that is ſituated behind the Fortreſs of *Zant* in *Greece*. This Plain is ſurrounded with Mountains and Hills, and is divided into two Vineyards, in which are abundance of Cypreſſes, Olives, and Houſes of Pleaſure, which make, together with the Fortreſs and the Mount *Diſcoppo*, a Proſpect perfectly beautiful.

When theſe little *Raiſins* are ripe, which is in *Auguſt*, the People of *Zant* gather and ſtone them, then ſpread them upon the Ground to dry, and when dry'd carry them into the Town, where they are thrown through a Hole into great Magazines, call'd *Seraglios*; where they are queez'd ſo cloſe by their Weight, that thoſe who own them are oblig'd to uſe Iron Inſtruments to pull them out, and when they are pull'd out they put them into Caſks, or Bales, of different Bigneſs; and to make them ſo tight as they are brought to us, they employ Men to tread them with their Feet, which they rub well with Oil beforehand.

Sometimes alſo we have theſe *Raiſins* from *Natolia*, *Lepanto*, *Meſſalongi* and *Patras*, as well as *Corinth*, from whence they take their Name: The *Engliſh* have a Factory at *Zant*, govern'd by a Conſul and ſix Merchants, to carry on their Commerce, which brings in no ſmall Advantage, for they conſume more *Currans* in a Year than all the reſt of *Europe*. The *Dutch* have a Conſul and two Merchants, and the *French* a Commiſſary that does the Duty of the Conſul and Merchants under one. The People of *Zant* believe to this Day that the *Europeans* uſe theſe *Raiſins* to dye Cloths, not knowing that they are for eating.

The Fruit is ſo common upon the Spot, that they ſell not for above three Livres a hundred Weight; but they pay as much alſo to the *Venetians* for Leave to export them; ſo that at *Marſeilles* they are not ſold under nine or ten Livres, according to the Crop and Hazard of the Sea; the

the *Engliſh* and *Dutch*, when the Seas are free, bring them plentifully from thence to *Bourdeaux*, *Rochelle*, *Nantes* and *Roüen*, where we buy them at an eaſier Price than at *Marſeilles*. Chuſe ſuch as are the neweſt and freſheſt, ſmall and in a cloſe Maſs, unpick'd and not rubb'd over with Honey. They open Obſtructions, and nouriſh much, being of excellent Uſe to reſtore in Conſumptions and Hecticks; they are good in Coughs, Colds, or Aſthmas, either in Decoction, Honey, Syrup or Conſerve.

Vitis Vinifera, the Wine-bearing Vine, is a Shrub whoſe Stem, or Stalk, is winding or crooked, cover'd with a cracking Bark, reddiſh, bearing ſeveral long Shoots, furniſh'd with Wires, that creep and cling to the neighbouring Trees or Props. The Leaves are large, fair, broad, almoſt round, jagged and cut in, green, ſhining, and a little rough to the Touch. The Flowers are little, compoſed uſually of five Leaves each, diſpoſed round, of a yellowiſh Colour, and fragrant. The Fruit are round or oval Berries, preſſing cloſe one againſt the other in a thick Bunch, green and ſharp at the Beginning, but in ripening they become of a white, red or black Colour; and are fleſhy, full of a ſweet agreeable Juice. They are call'd in *Latin*, *Uvæ*, and in *French*, *Raiſins*, as we now call them when dry. *Lemery.*

When in Spring Time they cut the Tops of the Vines there naturally diſtills, or drops, a Liquor in Tear, call'd *the bleeding of the Vine*, and in *Latin*, *Aqua Vitis*: which is aperitive, deterſive, proper for the Stone and Gravel, being taken inwardly: The Eyes are likewiſe waſh'd with it to clear the Sight.

The Vine Buds, tender Leaves and Clingers, which they call in *Latin*, *Pampini ſeu Capreoli*, are aſtringent, cooling, proper for the Flux of the Belly and Hemorrhages, being taken in Decoction; they are likewiſe made into Fomentations for the Legs, and to procure Reſt. The Shoots and Wood of the Vine are aperitive, being made into a Decoction. The *Raiſins*, while green, are call'd in *Latin*, *Agreſtæ*, being aſtringent, cooling, and provoking to an Appetite: when ripe they quicken the Stomach, looſen the Belly, and when preſs'd become Muſt, which is afterwards made into Wine.

Raiſins are either dried in the Sun or before the Fire, to deprive them of their Flegm, and make them capable of keeping; they are call'd *Uvæ Paſſæ*, *ſeu Paſſulæ*, or dry'd *Raiſins*. There are ſeveral Sorts, all prepared after the ſame Manner as the large, which are call'd *Uvæ Damaſcenæ*, or *Damaſk Raiſins*, and the ſmall call'd *Uvæ Corinthiacæ*, the *Corinthian* Grapes, or Currans: They are all proper to ſweeten the Aſperity of the Breaſt and Lungs, to ſoften the Bowels and relax the Belly, and to promote Expectoration, being cleanſed from their Stones, which are aſtringent.

The Huſk, or Skin of the Grape, which remains after the laſt Expreſſion, from whence they draw the Muſt, is call'd in *Latin*, *Vinacea*: They throw this on Heaps, to the End that it may ferment and grow hot; then they wrap it round the Member or the whole Body of the Patient afflicted with the Rheumatiſm, Palſy, or Hyp-Gout, to make him ſweat, and to ſtrengthen the Nerves; but it ſometimes raiſes the Vertigo, by Means of the ſulphureous Spirit that aſcends to the Brain.

[The *Damaſcus Raiſins* were ſpoke of in the laſt Chapter, and the *Currans*, or *Corinthian Raiſins*, are the Fruit of the *Vitis Corynthiaca ſive Apyrena*. J. B. 2. 72. Boerh. Ind. Alt. 2. 232. They are not much uſed in Medicine, unleſs ſometimes in Broths and Gruels, to eaſe and relax the Bowels.]

60. *Of* Jube Raiſins.

THE *Jube Raiſins* are a Kind which we have brought from *Provence*, eſpecially from *Roquevarre* and *Ouriol*: When the Grapes are ripe they gather the Bunches, dip them in Lye made hot, and afterwards put them upon Hurdles, and the like, to dry in the Sun, turning them from one Side to the other, by which Means they dry equally; and when they are dry they put them up in little Cheſts of white Wood, ſuch as they are brought over in: To anſwer the Quality requir'd, they ought to be new, dry, in fine Bunches; that is to ſay, the leaſt fat and ſtony that may be, but clear and bright, of a ſweet Sugar Taſte. *Pomet.*

There are other Sorts of *Raiſins*, which we call *Picardans*, which are much leſs, drier, and ſkinnier: In a Word, worſe than the *Jubes*. We ſell great Quantities of *Calabrian Raiſins*, which are fat and of a very good Taſte: As alſo the *Maroquins*, which are black *Raiſins*; the *Raiſins* of the Sun which come from *Spain*, which are thoſe whereof they make their *Spaniſh* Wine; theſe are dry'd red and bluiſh, and of a very good Taſte. The *Spaniſh Raiſins*, of the leſſer Sort, are ſomething larger than thoſe of *Corinth*.

Beſide the *Raiſins*, there is a very great Trade in the different Wines; as thoſe of *Spain*, *Alicant*, *St. Laurence*, *Frontignan*, *Hermitage*, *Burbataume* or *Languedoc*, and ſeveral others; and as great in Brandy, which we have from *Cognac*, *Blois*, *Saumur*, and other Parts; beſides which, there

there are ſeveral other Kinds of Brandy, made from Beer, Cyder, Fruits, Sugar, Corn, *&c.* but as they do not properly relate to this Head I ſhall paſs them by.

The Uſe of Brandy is ſo common at this Time we have no Occaſion to enter into a Detail of it any further than as it relates to Medicine, in which it is uſed to ſtrengthen the Nerves, abate Pain, refreſh the Spirits, and diſpoſe the Parts to Perſpiration. We make from Brandy, by an Alembick, a ſpirituous Liquor that is clear and tranſparent, call'd Spirit of Wine; which, if good and true, ought to be white, and, when ſet on fire, to burn off without any Moiſture remaining. The beſt Way to know whether it is truly deflegmated, is to try it with Gunpowder in a Spoon; if it burns dry, and afterwards fires the Gunpowder, it is an infallible Sign of its Goodneſs.

[*Raiſins* are the dry'd Fruit of the *Vitis Vinifera*, J. B. 2. 67. Mont. Ind. 55. brought from different Countries: Thoſe uſed in Medicine with us are the *Raiſins of the Sun* and thoſe call'd *Malaga Raiſins*; the firſt of which are not ſuffer'd to ripen regularly, but the Stalk that ſupports the Bunch is cut half through when they have attain'd about half their Bigneſs, ſo that they receive afterwards but a Part of the Juices they otherwiſe would; and when they are become dry enough, by the want of Juices and the Heat of the Sun, they are cut down and preſerved for Uſe.

The other Kind, or *Malaga Raiſins*, are ſuffer'd to ripen naturally, and afterwards dried in the Shade.

In all detergent and purging Compoſitions the *Raiſins of the Sun* ought to be uſed; and in all Pectoral and Vulnerary, the *Malagas*.

The Wines uſed in Medicine are ten. 1. *Canarienſe*, *Canary* Sack. 2. *Malacenſe*, *Malaga* Sack. 3. *Xeranum*, Sherry Sack. 4. *Alonenſe*, *Alicant* Wine, commonly call'd Tent. 5. *Portuenſe*, *Porto Port* Wine, the Red and the White. 6. *Ulyſſiponenſe*, *Liſbon* Wine. 7. *Gallicum Album*, *French* White Wine. 8. *Gallicum rubrum Claretum dictum*, Claret. 9. *Rhenanum*, Rheniſh. And 10. *Cretica ſive Moſchatellina rubra*, Red Muſcadine, which is commonly ſold for Tent.]

61. *Of* White *and* Red Tartar.

Pomet. *TARTAR* is a Sort of Stone which is found ſticking to the Caſks of white or red *German* Wines, and is denominated according to the Place from whence it is brought. The fineſt *Tartar* is that of *Germany*, becauſe of its Thickneſs, which is owing to the Time that it remains in the Caſks. It ought to be thick, eaſy to break, white without and brilliant within, and as little earthy or dreggy as may be; and the Red is the better the nearer it approaches to the former. The next Sort is what comes from *Provence* and *Languedoc*, which comes neareſt to that of the *Rhine*. The third Sort is what we now call the Gravel of *Lyons*, which differs not from that of *Paris*, ſave only that it is a little thicker and of a higher Colour. The Uſe of *Tartar*, and the Gravel, is for the Dyers, Goldſmiths and Refiners, to whiten Silver; and likewiſe for ſeveral Chymical Operations mention'd hereafter: The White is preferr'd to the Red, as being much better.

62. *Of* Cryſtals *of* Tartar.

THE Cream, or *Cryſtals*, of *Tartar*, is a white or red *Tartar* reduced to Powder, and by Means of boiling Water converted into little white *Cryſtals*, after the Manner as will be ſhew'd hereafter. The beſt Cream of *Tartar* is brought us from *Montpellier*, and other Parts about *Niſmes*, where they make great Quantities; but the laſt is leſs fine than that of *Montpellier*.

To purify *Tartar*; take good white *Cryſtalline Tartar*, ten Pounds, beat it into fine Powder, and diſſolve it in ſix Gallons of boiling Spring Wa- and continue the Boiling 'till it is diſſolved; then preſently ſtrain it hot through a Bag, and ſtir the ſtrained Liquor conſtantly round with a wooden Slice 'till it is cold; then let it reſt, and in two or three Hours after the pure and fine *Tartar* will ſink to the Bottom of the Veſſel, in the Form of a ſhining Powder. This *Tartar* is good to attenuate and diſſolve groſs and tartarous Humours, which cauſe Obſtructions in the Regions of the Belly, Liver, Spleen, Meſentery, Pancreas, Reins and Womb. It is an univerſal Digeſtive and Deoppilative, and for this Reaſon is commonly given as a Preparative to ſtronger Purgations; and it is good for all ſuch as are naturally hot and coſtive, and do not eaſily go to Stool, gently opening and looſening the Bowels, without offending the Stomach or diſturbing the other Functions of Nature. Doſe from two Drams to half an Ounce and upwards.

For cryſtallizing and making Cream of *Tartar*: Diſſolve what Quantity you pleaſe of the beſt white *Tartar*, in a large Quantity of boiling Water; which Liquor paſs hot through a Bag, into an earthen or glaſs Veſſel; evaporate about half of it away, and then ſet it in a cool Place to cryſtallize for two or three Days; evaporate again half the Liquor, and cryſtallize again, 'till you

have got all the Cryſtals. What ſwims on the Top is call'd the Cream of *Tartar*, and the Shooting on the Sides are call'd Cryſtals of *Tartar*. The Virtues of both theſe are the ſame with the former, being aperitive and purgative, good for cachectical, hydropical, and aſthmatical Perſons, and excellent againſt *Tertian* and *Quartan Agues*; and the Doſe and Way of giving are the ſame.

63. *Of* Soluble Tartar, *or the* Vegetable Salt.

THE *Vegetable Salt*, or *Soluble Tartar*, is made from the Cream and Salt of Tartar diſſolv'd together; it is lately come into Uſe, and is ſaid to be the Invention of Friar *Auge*, the Capuchin; the Sale of which has been incredibly great. Take Cryſtals of Tartar in Powder, eight Ounces, pure Salt of Tartar four Ounces; mix them, and, in a glaz'd earthen Pipkin, put upon them three Pints of pure Spring Water; boil it gently for half an Hour, then letting it cool, filtrate, and evaporate to Dryneſs, ſo will you have eleven Ounces and ſix Drams of a white Salt, which keep in a Glaſs cloſe ſtopp'd for Uſe: This will diſſolve in any cold Liquor, and is call'd the *Vegetable Salt*; it has all the Virtues of purified Tartar aforegoing, and may be given from a Scruple to a Dram, in any proper Liquor; but becauſe this Remedy is appropriated to open Obſtructions of the Liver, Spleen, Womb, *&c.* and that Iron is one of the chief Specificks for this Purpoſe, you may by the following Method unite the two Ingredients into one.

64. *Of* Chalybeated Tartar.

TAKE of the purified Tartar beforemention'd, one Pound; clear Filings of Iron or Steel two Ounces; pure Rain Water, eight Pints; boil all in a clean Iron Kettle, as long as you boil an Egg for eating, or ſomewhat longer; then paſs it thro' a Woollen Strainer, and ſtir the Liquor 'till it be cool'd, and you ſhall have a Powder of a *Chalybeate Tartar*, of a greeniſh Colour, and ſhining when dry, containing in it the Vitriol of *Mars*. This is incomparably more aperitive than the foregoing Preparations, and has all the Virtues of them exalted to a high Degree, and therefore a moſt prevaling Thing againſt the Green-Sickneſs, and other hyſterick Diſeaſes; but if you prepare it of the purified Tartar that is ſoluble, it will eaſily diſſolve in any Liquor, and ſo be more fit for Uſe. Doſe from half a Scruple to half a Dram. *Note*, That the Artiſt had beſt prepare the purified Tartar of which this is made, by itſelf, becauſe moſt of what is ſold in the Shops is adulterated with Alum or Nitre, or both: Or you may make it thus:

Take of Tartar cryſtalliz'd one Pound; Ruſt of Iron, three Ounces; Water, ſix Quarts; boil all together for half an Hour, or ſo long as to diſſolve the Tartar; ſtrain it hot thro' a Bag into an Iron Kettle, and in twelve Hours it will ſhoot into brown Cryſtals at the Sides and Bottom of the Kettle; decant the Liquor, evaporate it half, and ſet it to cryſtallize again in the former Kettle: Continue theſe Operations 'till you have all your Tartar, which dry in the Sun, and keep for Uſe. It is a good Remedy for Obſtructions, eſpecially againſt Quartan Agues, having all the Virtues of the purified Tartar, but much more powerful. Doſe from fifteen Grains to two Scruples, in Broth or other proper Liquor.

65. *Of* Soluble Tartar chalybeated.

TAKE of Tincture of *Mars*, one Pint; of the purified ſoluble Tartar, four Ounces; mix, diſſolve by boiling, and evaporate to Dryneſs; ſo will you have eight Ounces of a ſoluble chalybeate Tartar in a black Powder, which keep for Uſe in a Glaſs cloſe ſtopp'd. It has all the Virtues of the chalybeate Tartar before, and of the Tincture of *Mars*, being powerful to remove all Kinds of Obſtructions, cure Cachexies, Dropſies, nephritick Cholicks, Obſtructions of Urine, and Stoppages of Terms in Women. Doſe from ten Grains to thirty.

66. *Of* Emetick Tartar.

TAKE purified Tartar, or Cryſtals of Tartar in Powder, four Ounces; Spirit of Urine, or *Sal Armoniac*, as much as to cover it two Inches; mix and diſſolve; then add Glaſs of Antimony in fine Powder, one Ounce; pure Spring Water, ten Ounces; boil in a Sand Heat ſeven or eight Hours, putting in more Water as the Liquor conſumes; then filtrate and evaporate to Dryneſs. Or thus; Take of the ſoluble Tartar, four Ounces; Glaſs of Antimony in fine Powder, one Ounce; fair Water, a Quart; mix and boil ſeven or eight Hours, putting in more Water as the Liquor conſumes; then filtrate and evaporate to Dryneſs, ſo will you have a grey Powder, which is a good Emetick.

It is a moſt powerful Thing againſt chronical Diſeaſes, diſpoſing the Patient to Health; it prevails againſt melancholy Madneſs, Frenzies, Deliriums, and particularly againſt all inveterate Pains of the Head, whether *Idiopathetick*, or by Conſent of Parts; it is powerful againſt the Vertigo,

tigo, Epilepſy, Apoplexy, Difficulty of Hearing, Ringing and Noiſe in the Ears, Loſs of Memory, Nauſeouſneſs and Loathing at the Stomach, Weakneſs thereof, Want of Appetite, Wind and Pain in the Stomach and Bowels, the Yellow Jaundice, Dropſy, tedious and long continued Tertian and Quartan Agues, putrid and acute Fevers, Poiſon immediately receiv'd, a bilious Pleuriſy, and all Diſeaſes ariſing from Choler, virulent Dyſenteries, and the like. It is an Emetick that works with little Violence, and may be given from five Grains to fifteen, in Mutton, Chicken, or Veal Broth.

67. *Of the* Diſtillation of Tartar.

Pomet. THE *Diſtillation of Tartar* is made by the bruiſing white or red Tartar to a Powder, and putting it in an earthen Retort, to draw off, by the Force of the Fire, a Flegm, which is a white Water, without Taſte, and is to be thrown away. When the Flegm is ſeparated, there comes over a reddiſh Water, which is the Spirit of Tartar, and after that a black Oil that is fœtid and very thick, which is what we call black Oil of Tartar, or Oil of Tartar by the Retort. That which remains in the Retort like Coal, after having been calcin'd and whiten'd, by the Means of hot Water, is made into a very white Salt, which is the true Salt of Tartar. The Spirit of Tartar rectified, that is to ſay, diſtill'd or drawn over again, is very proper to cure the Epilepſy, Palſy, Aſthma, and Scurvy. The Doſe is from one Dram to three, in a convenient Liquor.

The black Oil of Tartar by the Retort is admirable for the Cure of Scabs, and is a good Medicine in all the Caſes before-mention'd; but as it is too fœtid, they rectify it with dry'd Clay before they make uſe of it. The Salt of Tartar is neceſſary to make the vegetable Salt with; and is beſide ſomething conſiderable in Phyſick, as well to take out the Tincture of Vegetables, and to make the white Oil of Tartar, call'd the *Oleum Tartari per Deliquium*, or Liquor of Tartar.

Moſt of thoſe who make the Salt of Tartar never trouble themſelves about drawing off the Spirit or Oil, but only calcine the red Tartar over a Coal Fire, 'till it comes to a Whiteneſs, and ſo extract the Salt, and put it up into Bottles for Uſe. The true, fix'd, or alkaline Salt of Tartar ought to be pure, white, dry, piquant to the Taſte, attended with a little Bitterneſs; and when it is thrown on a Coal Fire, not to ſparkle at all.

Abundance of Chymiſts, eſpecially the meaner Sort, ſell a Salt of Tartar made with Salt-petre, which takes the Eyes of thoſe who know no better, in that it is extremely white; but the Uſe of it is very improper in the Place of true Salt of Tartar; the Cheat is eaſy to diſcover, becauſe this will ſparkle upon the Fire, which the true will not do.

They make of the true Salt of Tartar, after they have ſet it in a Cellar, a white clear Liquor, which is what we improperly call Oil of Tartar *per Deliquium*; for it is only a diſſolv'd Salt. Thoſe who would make this Oil, may take the calcin'd Tartar, and place it in a Cellar or Vault, in a Glaſs hung up in the Air, and the Oil which flows from it is clear and fine as if it had been made from the Salt. There are ſome People who make this Oil by diſſolving Salt of Tartar with Water, and ſell it for true Oil; but it is weaker than that made the true Way, and is ſomething reddiſh.

This Oil has the ſame Virtues with the Salt, as it is indeed only the Salt in a Liquid Form. The Doſe is from ten to thirty Drops.

68. *Of* Tincture of Salt of Tartar.

THE *Tincture of Salt of Tartar* is made of Salt of Tartar that has undergone the ſtrongeſt Degree of Fire, and afterwards is diſſolv'd in Spirit of Wine tartariz'd, which, after it has ſtood in Infuſion ſome Time, is pour'd off, or decanted into a Bottle to be ſtopp'd and kept for Uſe. This Tincture, when rightly prepar'd, ought to be of a good Red. It is uſed in Phyſick chiefly for the Scurvy, and to cleanſe the Blood. Doſe from twenty to forty Drops. It is obſervable, the better Colour this Tincture is of, the better it is prepar'd; and the older it grows, the more decay'd and fainter the Colour is. *Pomet.*

69. *Of* Tartar Vitriolate.

MAgiſtery of Tartar, or *Tartar Vitriolate*, is compoſed of Salt of Tartar, or Oil of Tartar *per Deliquium*, and good Spirit or Oil of Vitriol mix'd together, and dry'd by a Sand Heat to a very fine white Salt, which ought to be as dry and light as poſſible; but take care that it be not made of Cream of Tartar boil'd in Spirit of Vitriol, as happens too often, and ſometimes of Salt-Petre or Cryſtal Mineral: That made with Cream of Tartar is eaſy to diſcover, when not in Powder, by the Hardneſs of the Grains met with in it; and the laſt, becauſe it will ſparkle on the Fire, and eaſily diſſolve. This is frequently uſed in Phyſick as a good Aperitive, *&c.* and ought to *Pomet.*

be kept in a Glaſs Vial cloſe ſtopp'd, becauſe it is apt to run to Water.

70. *Of the* Volatile Salt of Tartar.

Pomet. THE *Volatile Salt of Tartar* is made from the Lees of White Wine expreſs'd and dry'd in the Sun, or otherwiſe, put into a Retort and diſtill'd with a gradual Fire: Mr. *Charas* was the firſt who prepar'd this Salt in the true Manner. This Volatile Salt is of a ſtrong diaphoretick Nature, but is more particularly aperitive and diuretick; it ought to be very white, and of a Smell almoſt as quick and penetrating as the Volatile Salts of Animals. It may be given to five or ſix Grains in good Wine or other Liquors.

71. *Of the* Gravell'd Aſhes.

THE *Gravell'd Aſhes* are the dry Wine Lees calcin'd; that this may have the due Quality it ought to be in a Stone, new made, of a greeniſh white Colour, and of a ſaltiſh bitter Taſte. This is uſed by the Dyers and other People, that have occaſion for it; and the beſt is that which comes from *Burgundy*, becauſe it is made of the beſt Wine Lees, and therefore muſt needs be much better than what our Vinegar-Brewers make.

As this is Wine Lees calcin'd, they make a Salt from it by Means of hot Water, which has the very ſame Virtues with Salt of Tartar, except that it is more corroſive, as well as the Oil *per Deliquium* that is made from it. This is alſo employ'd with quick Lime to make a Salt, which, after it has been fus'd in a Crucible, is caſt upon a Stone, or into a Baſon, and after it is cold, is cut into little Tablets, and put into a Bottle well ſtopp'd; and theſe little Stones are true Cauſtick Stones. There are ſome likewiſe made with Oak-Aſhes, Alum, and quick Lime, by the Aſſiſtance of hot Water and Fire; and theſe are call'd Velvet Cauſticks, becauſe they operate more gently.

Lemery. *Tartarum*, or Tartar, is a hard ſtony or cruſty Matter, which is found ſticking to the Inſides of Wine Caſks: This Tartar is compoſed of the groſſeſt and moſt ſaline Part of the Wine, which is ſeparated by Fermentation, and harden'd to a ſtony Subſtance on the Sides of the Caſk. There are two Sorts of Tartar, one call'd White Tartar, that is made from White Wine; and the other Red Tartar, that is made from Red Wine.

The White Tartar is ſeparated in much leſs and thinner Pieces than the Red Tartar, but is much finer, and fuller of Salt. Chuſe the thickeſt, heavieſt, and moſt brittle, of a greyiſh or aſh-colour'd White, clean, cryſtalline, and ſhining within, and of a ſharpiſh pleaſant Taſte.

The Red Tartar is divided into large thick Pieces, being to be choſen pure, dry, reddiſh and weighty; this Tartar is coarſer than the White, but of the ſame Taſte, and contains the ſame Principles, but leſs of Salt; the beſt Sort comes from *Germany*, *Languedoc*, and *Provence*. White Tartar is purified by boiling in Water, and ſtraining it thro' Woollen Bags, then evaporating and cryſtallizing the Liquor, which makes what we call Cryſtals of Tartar; the Scum or Cream that floats on the Top during the Evaporation, is call'd Cream of Tartar; this when dried, is confounded with the Cryſtals, which ought to be in little clear ſhining Bodies, pure, white, heavy and dry, of a ſharpiſh agreeable Taſte: It is uſed to blanch Wax, and alſo to clarify Whey, a Dram being ſufficient for a Pint; this White Tartar yields a great deal of eſſential acid Salt, and ſome Oil.

Red Tartar yields leſs Salt than White, but more Oil and Earth; they both make Vinegars when diſſolv'd in Wine. The Cryſtals differ not from the Tartar itſelf, but that they contain leſs earthy Parts in them. All the Tartars from Wine are aperitive, and ſomething laxative, open Obſtructions, and excite to Urine, allay or abate Fevers, and are proper to diſſolve tough Flegm in the Glands. The Doſe of Tartar depurated is from a Dram to three Drams.

72. *Of* German Black.

WE have brought from *Mayence*, *Francfort*, and *Straſbourg*, a Black in Stone and Powder, which is made from Wine Lees burnt and caſt into Water, and, after having been dry'd, ground in a Mill and ſifted, having burnt Ivory, Bones, or Peach-Stones added to it; and when they are all well ground and mix'd together they make what we call *German Black*. The beſt is ſuch as is moiſt and of a ſhining black Colour, and has been truly prepar'd with burnt Ivory, which exceeds that made of Bones and Peach-Stones, and the worſt Sort of Lees; for it is on the Goodneſs of the Lee that the Fineneſs of the Colour depends. There are other Blacks made at *Troyes*, *Orleans*, and *Paris*, which bear the Name of the Places where they are made; they are all of them of no other Uſe than for the Rolling-Preſs Printers. *Pomet.*

[*Tartar* conſiſts of the acid, oily, and earthy Parts of Wine, and the Lees of Wine are *Tartar* attenuated, and divided by Fermentation; *Tartar* may therefore be call'd the Eſſential Salt of Wine.

White

White Tartar contains the greateſt Proportion of Acid, and *Red Tartar* moſt Oil and Earth.]

73. *Of* Figs.

Pomet. *FIGS* are Fruit that are of ſeveral Colours; to wit, the Green, the Violet, the White, and other Colours; but of all the Sorts we ſell none but the Violet and the common *Fig*. When *Figs* are ripe, the People of *Provence* gather them, and dry them upon Sieves and Hurdles. We diſtinguiſh the *Provence Figs* into three Kinds, *viz.* the Violet, the *Marſeilles Fig* in ſmall Frails, and the great or fat *Fig*. The Violet *Figs* ought to be large, dry and freſh; thoſe of *Marſeilles*, ſmall, new and dry; and the great or fat *Figs* as like thoſe of *Marſeilles* as poſſible, not tough, and in ſmall Frails of different Colours.

The *Fig-Tree* is ſo common in hot Countries, that there is not any other ſo frequently to be met with either about their Houſes or in the Fields: It has a large Trunk, full of Branches ſpreading largely abroad; the Wood is very ſpungy, of a white Colour, the Leaves pretty much reſembling thoſe of the Vine, but are a great deal larger, and pour forth a Quantity of milky Juice. The Fruit comes from the Wing of the Leaves, being three-corner'd, and of the Shape of a Pear, in which are contain'd Flowers by the ſingular Contrivance of Nature, as *Valerius Cordus* firſt of all obſerv'd; theſe Flowers are ſingle-leav'd, ſmall, concave like a Spoon, ending in a ſmall Point, and of a whitiſh Colour, inclining to a Purple, with a Pointal or Rudiment of a Seed in the Cavity of the Flower; the *Fig* is outwardly of a greeniſh Colour, inclining to a Violet; theſe being ripe and dry, ſtop Catarrhs or Defluxions falling upon the *Uvula* and Windpipe, and qualify the acrimonious *Serum* trickling down upon the Lungs. In *Portugal*, eſpecially in the Kingdom of *Algarve*, there is a hot, fiery, inflammable Spirit drawn from *Figs* by Diſtillation, which they uſe inſtead of *Aqua Vitæ*, or Brandy.

Theſe ſeveral Preparations of *Figs* are good: Take four Ounces of dry'd *Figs*, boil them in a ſufficient Quantity of fair Water, and make a Ptiſan to be aromatiz'd, with ſome Drops of Oil of *Saſſafras*, or the like; to be given in the Small Pox, Meaſles and Aſthma: Or, take fat *Figs*, two Ounces, bruiſe and infuſe them in a Pint and a Half of Spirit of Wine a whole Day, then ſtrain out the Liquor, burn it away to the Conſiſtence of a Syrup, to be given in a Cough, Hoarſeneſs and Shortneſs of Breath: Or elſe, take of the Roots of Marſh-Mallows and white Lillies, of each two Ounces; of Mallows, Violets and Pellitory Leaves, of each a Handful; Fenugreek Seeds, two Ounces; twenty fat *Figs*; Flowers of Camomile and Melilot, one Pugil; boil them in a ſufficient Quantity of Water, and then pulping or forcing them thro' a Hair-Sieve, add of the Ointment of Marſh-Mallows two Ounces, of the Oil of Worms one, and make a Pultice to help Suppuration.

Ficus, *Ficus Communis*, or *Ficus Sativa*, the Fig-Tree, is of a moderate Height, whoſe Stalk is not ſtrait, but the Bark is ſmoother than ordinary Trees, of an Aſh-colour, the Wood is ſpungy and ſoft, and white within; the Leaves are large, broad, thick, cut in five Diviſions or angular Parts, like thoſe of the Vine, but much larger and harder, rougher and blacker, hanging by a Stalk that throws out a milky Liquor when broke. This Tree neither bears Flower nor Huſk nor Shell that appear; but many Botaniſts pretend that the Flowers are encloſed in the Fruit, and that they are certain Threads like *Stamina* found in the young Figs. *Lemery.*

This Fruit, when no bigger than a Pea, is call'd *Groſſolus*; when ſomething larger encreaſed, but yet not ripe, *Groſſus ſeu Groſſa*; and when entirely ripe, *Ficus*: It grows of the Size and Shape of a Pear, of a greeniſh Colour, whitiſh without, and reddiſh within; fleſhy, ſucculent, viſcous, and of a ſweet delicious Taſte: It affords a flat and almoſt round Seed. The Roots of the Tree are numerous, long, fair, hard to break, ſupply'd with Filaments of a yellow Colour. They propagate the Figs preſently in temperate Climes, but the beſt grow in *Languedoc*, in *Provence*, and other hot Countries. There are two Species, which differ in Figure, Size, Colour, and Taſte; they are all hard of Digeſtion, becauſe of their viſcous and tough Subſtance: When they are dry'd in an Oven, they are call'd dry'd Figs, *Caricæ* or *Ficus Paſſæ*; then they ſerve for Food and Phyſick, being eaſy of Digeſtion, ſince they have loſt great Store of their viſcous Flegm by the Heat of the Oven in drying: Figs yield a great deal of Oil and eſſential Salt; theſe ſoften the Acrimony of the Humours, fortify or ſtrengthen the Breaſt, haſten the Birth, eaſe Diſeaſes of the Kidneys or Bladder, being taken in Decoctions, or elſe they relieve ſore Mouths and Throats in Gargles, or apply'd externally to any Part, give Eaſe and promote Suppuration.

Ficus Indica, *vel Ficus Indica foliis Mali Cotonëi ſimilibus*, *fructu ficubus ſimili in Goa*, according to *C. Bauhinus*. This is a Tree that grows near *Goa* in *India*; it is large, very high, and thick, extends its Branches very wide, from whence ariſe Fibres, like thoſe of the *Cuſcuta*, of a golden

golden Colour, which being come to the Ground, grow ſtrong and take Root by little and little from the great Trees, which ſtretch themſelves over all the new Filaments, that adhere likewiſe to the Earth, and produce Trees after the ſame Manner, and ſo on perpetually; ſo that theſe Figs multiply in ſuch a Manner as to fill a large Country with Trees of ſuch a large Kind and Height, that they form a ſpacious maſſy Foreſt, which becomes a great Relief and advantageous Shade againſt the Sun-Beams. The Leaves of the young Branches are like thoſe of the Quince, green without, and white and lanuginous underneath, and ſerve for Food for the Elephants. The Fruit of the ſmall Fig is made like ours, but red as Blood without and within, ſweet and good to eat, but nothing like the *European* Fig. The *Indian* Fig is moiſtening, cooling, pectoral, and the Bark of the Tree ſerves for Cloathing.

[*Figs* are the Fruit of the *Ficus vulgaris*, Park. 1494. *Ficus communis*, C. B. Pin. 457. Externally they are an excellent Suppurative, and internally are much eſteem'd as Pectorals and Detergents.

The other Species, mention'd by *Lemery*, is the *Ficus Indica arcuata*, Park. 1499. It is of no Uſe with us, being never brought hither.]

74. *Of* Brignole Prunelloe, *and* Prunes.

Pomet. BEſides Figs, we have conſiderable Dealings in the *Brignole Prunelloes*, which are brought from *Provence*, eſpecially *Brignole*, a little Village near *St. Maximin*, from whence they take their Surname. Theſe *Prunelloes* are brought in long Caſes, but more uſually in Boxes that are cover'd with white Paper, artificially cut; they ought to be dry, fair and fleſhy; when the Paper that covers them is dry, it is a certain Sign that they are good.

We ſell alſo Abundance of *Prunes*, as the large and the ſmall, St. *Catharine Prunes*, and the little black Damaſk, and St. *Julian Prune*, which we have from *St. Maure*'s, *Chinon*, and other Parts of *Touraine*. Beſides, we ſell a great Quantity of *Prunes*, which are longiſh and come from *Bourdeaux*, and ſeveral others from *Monturel*, *Perdrigon*, *Imperial*, and in general all Sorts of Fruits, dry and liquid, which we have brought from other Parts, but eſpecially *Tours*, as dry'd Pears, Apples and Cherries, with Variety of others that are kept for eating in *Lent*. The Choice of all theſe Fruits is to have them new in Boxes, or little Cheſts, and as freſh and good at the Bottom as at the Top of the Parcel.

Prunum or *Prune*, is a Fruit of ſeveral Kinds, according to the different Places where it grows, both as to Shape, Size, Colour and Taſte; but they are all ſo well known, I ſhall only mention the black Damaſk *Prune*, which we uſe in Phyſick, call'd in *Latin*, *Pruna parva dulcia atro-cærulæa*, the little, blueiſh, black ſweet *Prunes*; they are of a moderate Size, round, fleſhy, cover'd with a black Skin; their Subſtance red, ſucculent, not ſticking to the Stone, of a good Smell, and ſweet pleaſant Taſte; the Stone is ſmall and longiſh, encloſing a little Kernel, almoſt round or oval, of an agreeable Taſte, inclining to bitter. Theſe *Prunes* grow upon a Kind of Plum-Tree, of a moderate Height and Size, call'd *Prunus ſativa fructu parvo dulci atro-cæruleo*; the Leaves are longiſh, pretty broad, ſlightly indented on the Sides; the Flower is compoſed of five Leaves, diſpoſed like a Roſe, of a white Colour; this Tree is cultivated in the Gardens.

Lemery.

The Damaſk *Prunes* ripen towards Autumn, and are to be choſen pretty large, well fed, ripe, new gather'd, of a good Taſte and Smell; they yield a great deal of Flegm, Oil and eſſential Salt; they dry great Quantities of theſe *Prunes* in their Ovens about *Touraine*, and near *Bourdeaux*, and diſperſe them all over *France* and other Parts in the Winter. That which is call'd the *Prunelle* ought to be taken freſh, fleſhy, dry, ſoft and of a good Taſte. Freſh or dry'd Damaſk *Prunes* are moiſtening, emollient, laxative, being taken in Infuſion, Decoction, or eaten in Subſtance. They find ſometimes upon ſome Sorts of *Prunes*, a white, ſhining, tranſparent Gum, like Gum-Arabick, which the Merchants frequently mix among that Drug, as it is like it in Colour and Virtues. It is given in Powder or Mucilage.

[The *Prunelloes* of *Brignole* are the dry'd Fruit of the *Prunus Brignonienſis fructu ſuaviſſimo*, Tour. Inſt. 632. *Prunus Brignolenſis*, Rup. Flor. Jen. 106.

The Damaſk *Prune* is the Fruit of the *Prunus fructu magno dulci atro-cæruleo*, Tourn. Inſt. 622. Boerh. Ind. alt. 2. 241.

And the common *Prune* is the Fruit of the *Prunus fructu parvo dulci atro-cæruleo*, Tourn. Inſt. 622. *Prunus domeſtica*, Ger. 1311.

To theſe ought to be added the *Prunellus* of the Shops, the common Sloe-Tree. *Prunus ſylveſtris* of *Gerrard*, *Parkinſon*, *&c.* of the Pulp of the Fruit of which we make the Conſerve of Sloes, and the inſpiſſated Juice of which is the *Acacia Germanica*, which at preſent is generally ſold for the true *Acacia*.]

76.

Miſseltoe.
Moſs.
A
Bazdyendge
Polipody of ye Oak.

78

Aleppo Galls.

light Galls.

Bourdeaux Galls

75. *Of the large* Chesnuts, *call'd by the* French, Marons.

Pomet. THESE are Fruit which we trade in as well as the *Limosin Chesnuts*; but as they are very common, I shall not insist upon a Description, only inform you, that the best Sort are those which grow about *Lyons* and the *Vivarez*; which when good, should be large, fresh, firm and Ash-colour'd. As to the small *Chesnuts*, they should come near to the large, only be clearer and redder; their Use is to eat as well as the other *Chesnuts*, as all the World knows: Besides, these are of some Use in Physick, because they are astringent.

Lemery. *Castanea*, or the *Chesnut-Tree*, is of two Kinds, one Domestick and the other Wild. The Domestick is call'd *Castanea Sativa* by *Casp. Bauhin:* This is a great spreading Tree, at this Day cultivated by all People as well for its Beauty as its Profit, and so well known to every Body, we may be excused a Description. The Wild *Chesnut* is call'd *Castanea sylvestris, quæ peculiariter Castanea*, or *Castaneæ minores*, the lesser *Chesnut:* This differs no otherwise from the former, but as it grows wild instead of being improv'd: It is much less in Size, and the Fruit smaller: It grows plentifully in the *Limosin*, in *Languedoc*, and supports a great many Persons in the World, and especially the Poor. The large Sort of *Chesnuts* that grow in the hot Countries are call'd *Maronæ*, or *Marons*, most of which are brought from the *Vivarez* and the *Limosin*. Chuse such as are largest, the most fleshy, and of the best Nutriment; they all abound with a good deal of Oil and a little Salt. The *Chesnuts*, especially the small, are astringent, and the Rind is used to stop the *Fluor Albus* in Women.

[*Chesnuts* are the Fruit of the *Castanea Sativa*, Ger. Park. &c.

The Wild *Chesnut*, mention'd by *Lemery*, is the *Castanea sylvestris*, Jonst. Dendr. 118. *Castanea sylvestris quæ peculiariter Castanea*, C. B. Pin. 419.

The first is cultivated in Walks, &c. the other is wild in some of our Woods.]

76. *Of the* Oak.

Pomet. THE *Oak* is a Tree known to all the World, as well because of its Durableness, as for the different Uses made of it. This Tree is the Emblem of Virtue, Strength, Firmness and Duration, and was therefore by the Antients dedicated to *Jupiter*. Some pretend that this Tree is a mortal Enemy to the Olive and the Walnut-Tree; so that neither of them can live near it.

The first Thing, and the most considerable we have from the *Oak*, is the Misseltoe, which is an Excrescence that is found growing to the said Tree: This Production appears extraordinary, in that the *Oaks* do not produce the Misseltoe in all Places: There are few that I know of in this Respect like those that are met with betwixt *Rome* and *Loretto*, especially near a little Village nam'd *Foligni*, about the Mid-way. This Excrescence resembles the Branches of Trees, and is of a solid, heavy Substance, of a greenish brown outwardly, and of a yellowish white within.

The Branches are hard and compact, and bear several little Sprigs which intermingle with each other, and from whence arise a great many long-ish, thick Leaves, that are semi-circular, of a pale green; the Berries are white, resembling our little white Currans, and these Berries contain a viscous Humour which the Antients used to make Glue with. The Misseltoe continues always green during the Time it remains upon the Tree, Chuse the largest, heaviest, and best fed: You may know if it be true by the deep Colour within, but the surest Way is to see that some Part of the *Oak* hangs to it. They attribute a great many Virtues to the Misseltoe of the *Oak*, and the Antients rever'd it, and held it sacred as well as the Tree itself. *Julius Cæsar* and *Pliny* say, that the *Druids* assembled themselves under these Trees to perform their Devotion; these *Druids* inhabited the Countries we now call *Ville de Dreux*, near *Chartres*, whence it is evident that there have been *Oaks* which bore Misseltoe in *France*.

This Misseltoe, taken inwardly, is esteem'd an excellent Remedy against the Palsy, Apoplexy, Falling Sickness, and Worms: It is also an Ingredient in many Compositions for external Use, as Ointments, Plaisters, &c. as a Resolvent. The Berries are acrid and bitter, and their Juice is good to ripen Abcesses, and hasten their Suppuration.

Misseltoe is also the Basis of the *Pulvis ad Guttetam.*

It is found growing upon many other Trees as well as the *Oak*; but its Virtues are supposed not to be so great when it is taken from any other Tree.

All the Parts of the *Oak* contain a great deal of Oil and essential Salt; the Bark and Leaves are astringent and resolvent, good in the Gout, Sciatica and Rheumatisms, used in Fomentations, and taken inwardly in Decoctions to stop Diarrhæas and Hemorrhages.

The

The ſecond Thing we have from the *Oak* is a little Plant we call Polypody of the *Oak*, which is like what we have from Walls: This Sort of Plant grows from Places where the Branches of the *Oak* are forked, by Means of ſome ſmall Earth that lights there, and the Water which drops upon it: It grows likewiſe upon the Stump of the ſaid Tree. We rarely uſe this Polypody, becauſe it is not ſo proper, ſince that is much better which grows upon old Walls, which is the Sort that is brought to us about *Paris*. Chuſe the Root ſuch as is new, plump, dry, brittle, of a reddiſh, tawny Colour on the Outſide, and greeniſh within; ſweet and Sugar-like, inclining ſomething to a Liquorice Taſte.

Quercus vulgaris, the *common Oak*, *Lemery*. is a thick, ſtrait, durable Tree, ſpreading its Branches wide; the Trunk is cover'd with a thick rugged Bark; the Leaves are large, longiſh, and broad, deep ſlaſh'd or indented, hanging upon ſhort Stalks; the Flowers are in long Shells or Huſks, compoſed of little Threads hanging upon one another by a fine Fibre or String; theſe Huſks leave no Fruit behind them, the Fruit growing in different Parts, which are the Acorns; that are about the Size of the Olive, of an oval or cylindrical Figure, contain'd in a hard grey Cup, call'd in *Latin*, *Cupula ſeu Calix*; this Acorn is cover'd with a hard Rind, that is ſmooth and ſhining; green at firſt, but yellowiſh as it grows riper; within this Rind we meet with a Sort of Kernel, or hard fleſhy Seed, compoſed of two Lobes. The Acorns hang upon the Tree by long or ſhort ſlender Stalks, and their Taſte is aſtringent.

All the Parts of the *Oak* contain in them a good deal of Oil and eſſential Salt: The Acorn, call'd in *Latin*, *Glans Quercina*, is likewiſe employ'd in Medicine. Chuſe ſuch as are large, and plump, ſeparated from the Rind, and dry'd gently; but take care of Worms, to which they are ſubject, let them be reduc'd to Powder before uſing; they are aſtringent, and proper to appeaſe Wind Cholicks, and the Fluxes of Women newly deliver'd.

Polypodium, or common Polypody, hath a Root taking a very ſlight and ſuperficial Hold of the Earth; it is pithy and brittle, about the third Part of an Inch thick; within, it is of a pale green Colour, but outwardly a little reddiſh, and cover'd over with fine thin Scales when it is freſh and green; but being dry, it becomes of a more red Colour: It is knotty, or full of round Knobs, and adorn'd with ſeveral ſmall Filaments, like Hairs: Its Pith is ſweetiſh, with ſomewhat of a ſharp, auſtere, or ſtyptick Taſte. The Leaves ſpring out of the Knots or hollow Knobs of the Roots; they are ſingle, about nine Inches in Length, and parted into ſeveral Jags or Scollops, cut cloſe into the Ribs; they are ſharp-pointed, of a light green Colour; it bears no Flowers, but there ariſe ſeveral ſmall Knobs, like Bliſters, upon the lower or under Part of the uppermoſt Jags of the Leaves, rank'd in a double Order; they are round, and about the ſixth Part of an Inch thick, conſiſting of a fine Duſt, that is firſt a little yellowiſh, and turns of a bright Golden Colour: Every Grain of this Duſt is a Sort of ſmall Seed-Veſſel, being of a round Figure, and membranous, which, when ripe, breaks into two equal Parts, and pours forth ſeveral Seeds, ſo ſmall that they can ſcarcely be diſcern'd by the naked Eye.

Polypody grows upon Rocks, old Walls, and antient decay'd Trees; but that which grows upon old *Oaks* is reckon'd the beſt; upon which Account Polypody of the *Oak* is commonly preſcrib'd, and is rank'd among the purging Medicines: Yet *Dodonæus* denies its carthartick Quality; neither ought we to diſſemble the Matter, for the Decoction of it ſcarcely moves the Belly, but the Powder of it does ſomething, being given from one Dram to two Drams.

This Root contains a great deal of Oil, and no ſmall Quantity of an acid Flegm; but this is, as it were, ſuffocated by the Oil, which is the Cauſe that it produces no Alteration of Colour on blue Paper, when it is dipp'd in the Infuſion of it. There is likewiſe a large Quantity of Earth extracted from Polypody by a chymical Reſolution. 'Tis from this Earth that its ſtyptick and brackiſh Taſte proceeds. The Roots are very properly adminiſter'd in all Diſtempers proceeding from a ſaltiſh Diſpoſition of the Blood; ſuch as the Scurvy, Rickets, and Hypochondriack Paſſions; they alſo help to abate an inveterate Cough, when it is attended with a ſaltiſh Spittle. They are preſcribed in Potions and Apozems.

Take of Polypody of the *Oak*, two Ounces; Salt of Prunella, one Dram; infuſe them in a Quart of warm Water; ſtrain it: To be taken by Cupfuls or Spoonfuls. as an Apozem. Or, take Polypody of the *Oak*, one Ounce and a half; Elecampane-Roots, three Ounces; infuſe them all Night in a Quart of warm Water; in the ſtrain'd Liquor add two Ounces of *Calabrian* Manna; mix and make a Ptiſan to be drank. Take of the Decoction of Polypody Roots, ſix Ounces, in which infuſe two Drams of Sena-Leaves; in the ſtrain'd Liquor diſſolve the Electuary of *Diacarthamum*, three Drams; mix and make a purging Potion. Polypody Roots are uſed in the Catholick Electuary, the Lenitive Electuary,

Electuary, the Confection of *Hamech*, the Panchymagog Extract of *Hartman*; *Quercetan*'s Pills of Tartar, and in the Hiera of Coloquintida.

[The *Oak*, whose Bark, *&c.* are used in Medicine, is the *Quercus vulgaris*, Ger. 1156. *Quercus latifolia*, Park. 1386. The Mistletoe is the *Viscus Quercus et aliarum arborum*, J. B. 1. 89. *Viscum vulgare*, Park. 1392.

And the Polypody is the *Polypodium vulgare*, C. B. Park. *&c.*

It is to be observ'd, that both these are much more frequently found on other Trees, than on the *Oak*.

The other Species of the *Oak*, mention'd in the Catalogues of Officinal Trees, are,

1. The *Phagus*, *sive Esculus*, Park. 1387. J. B. 1. 2. 74. the Esculent or *Sweet Oak*, the Acorn of which is eatable, not being so bitter as those of the rest.

2. The *Cerrus*, Aldrov. Dendr. 253. *Cerris majore glande*, Ger. 1162. *Quercus Calyce echinato, glande majore*, C. B. Pin. 420. the *Bitter Oak*. And,

3. The *Robur tertia Clusii*, J. B. 1. 2. 76. *Robur sive Galla major altera*, Ger. Em. 1348. the *Gall Oak*.

The common *Oak* grows naturally in many Kingdoms; the *Esculus* is found in *Greece* and *Dalmatia*, the *Cerrus* in *Italy*, and the last in *Smyrna* and other Places.]

77. *Of the* Oil of Acorns.

Pomet. BEsides the Polypody, the Oak produces *Acorns*, which are its proper Fruit, and People pretend to make and sell the Oil of them; but as I never could succeed in the making it, I shall only observe, that all the *Oil of Acorns* that the People of *Provence* send us, is nothing but the Ben or Nut Oil, in which the *Acorn* has been infused. The great Scarcity of the true Oil, is the Reason that the World attributes such great Virtues to it, as they do to the Oil of Talck. There may be a true *Oil of Acorns* drawn by the Retort, but it will be black, and of an ill Smell.

The Oak produces, beside the *Acorn*, the Missletoe, and Polypody, a Moss which is what we call *Usnea*; it enters the Compositions of the *Cyprus* Powders; those of *Frachipane* and *Le Mareschale*, or the Farriers Powder, which we have brought from *Montpellier*. The true Description of making these Powders is unknown to me, which obliges me to refer the Reader to a Description made by the *Sieur Barbe* in a little Treatise of his printed at *Lyons*.

78. *Of* Galls.

Pomet. GALLS are produc'd by a Kind of Oak that grows plentifully in the *Levant*, especially about *Aleppo* and *Tripoli*, which are those we call *Aleppo* and *Tripoli Galls*: Besides, they are brought from *Smyrna*. There are also some grown in *France*, in *Provence*, and in *Gascoigny*, but much inferior to those of the *Levant*, in that they are usually reddish, light, and altogether smooth; and those of the *Levant* are prickly, from whence they are denominated the *Prickly Galls*; they are also more heavy, and are either blackish, or greenish, or whitish. The Variety of these Fruit occasions that they are put to different Uses; those of *Aleppo* and *Tripoli* are for dying black, and making Ink; the White for dying or staining Linnen, and the Light *French Galls*, for dying Silk: All the Sorts are of some Use in Physick, especially the more astringent and styptick they are; being good to draw together and fasten loose Parts, to dry up Rheums and other Fluxes, especially such as fall upon the Gums, Almonds of the Throat, and other Parts of the Mouth; used in a Decoction, in Water or Wine, they cure Diarrhœas, Dysenteries, and are good against all Weaknesses of the Bowels: A Fumigation in Claret is good for Women to sit upon, that are troubled with a Flux of Reds or Whites, or falling down of the Womb; as also of the Fundament: The Ashes quenched in Wine or Vinegar, being apply'd, stanch Blood; and the Powder of the crude *Galls* may be given inwardly from ten Grains to a Scruple, to all the Purposes aforesaid.

There grows upon a Species of Oak in *Turky* a little reddish Fruit, of the Bigness of the Hazel-Nut, call'd by the *Turks*, *Bazgendge*, whose Figure is represented by the Impression of the Oak. The *Levantines*, especially those of *Aleppo*, take a hundred Drams of Cochineal, which they call *Cormeti*; fifty Drams of *Bazgendge*, and fifty Drams of Tartar; and after powdering them all, they make a very fine Scarlet. This Fruit is very scarce in *France*, for which Reason it is not used there, tho' some of it is frequently found among the *Galls* and thrown away, because it is not known.

Lemery. *Galla*, or the *Gall-Nut*, is an Excrescence which grows upon an Oak in the *Levant*, whose Origin proceeds from this, that certain Insects bite the tendrest Part of the Tree; so that an Humour flows out into a Shell or Bladder, which fills and hardens as it grows on. There are several Sorts of *Galls*, that differ according to their Size, Shape, or Co-

our, and by the Surface of them being ſmooth or ugged; they are uſually round, and as big as the common Nut, ſome as the Filbert, rough or prickly, white, green, or black; the beſt comes from *Aleppo* and *Tripoli*. Chuſe the beſt fed and weightieſt.

There are alſo *Galls* grow in *Gaſcoigny*, and in *Provence*, which differ from thoſe of the *Levant*, being ſmooth, light, reddiſh, and affording a leſs Tincture. They are aſtringent, and enter ſeveral medicinal Compoſitions; as Plaiſters, Ointments, Injections, Fomentations, *&c.*

[The Species of Oak from which we have the greateſt Quantity of *Galls*, is the laſt of thoſe mention'd at the End of the foregoing Chapter; the Inſect whoſe Puncture produces them, is a ſmall black Ichneumon Fly, which leaves its Egg within them, which afterwards hatches into a Maggot, and from that, after a Week's Reſt in its Chryſalis State, becomes a Fly, like that whoſe Egg produced it.

79. *Of* Agarick.

Pomet. *AGarick* is an Excreſcence that is found upon the Trunks and large Branches of ſeveral Trees, but chiefly upon the Larch-Tree, call'd by the *Latins*, *Larix*, and upon ſeveral Sorts of Oaks; the beſt is white, light, tender, brittle, and of a bitter Taſte, pungent, and a little ſtyptick; and this is the *Agarick* the Antients uſed to call the Female: As for that which is term'd the Male, it is uſually heavy, yellowiſh, and woody, and ought to be entirely rejected from phyſical Uſes. The beſt *Agarick* is that from the *Levant*, it being abundantly better than what comes from *Savoy* or *Dauphiny*. We have likewiſe ſome from *Holland*, that is raſp'd and whiten'd on the Outſide with Chalk, which ought alſo entirely to be rejected; in ſhort, none is fit for Uſe but that of the Larch-Tree and what we have from the *Levant*: The Dyers uſe this to dye Black with.

The *Agarick* of the Oak is generally reddiſh and heavy, and of very little Value; for which Reaſon I ſhall ſay nothing more about it.

Agarick was a Medicine ſo familiar to the Antients, that they made uſe of it not only for purging Flegm, but likewiſe in all Diſtempers proceeding from groſs Humours and Obſtructions; ſuch as the Epilepſy, Vertigo, or Giddineſs of the Head, Madneſs, Melancholy, Aſthma, and Diſtempers incident to the Stomach, and the reſt of that Kind; yet they complain'd that it weaken'd the Bowels, and purg'd too churliſhly; upon which Account *Galen* ſteep'd the Powder of it with Ginger, and gave it, to a Dram, in Oxymel, or Honey of Squills. It is preſcrib'd in Powder, tho' rarely, from a Dram to two; but in Decoction, or Infuſion, from two Drams to half an Ounce.

By a chymical Diſſolution it paſſeth almoſt all away into Oil: It yields no volatile Salt, but abounds with a Sort of ſcaly Earth, and an acid Flegm; the Infuſion of *Agarick* makes the blue Paper of a purple Colour. It ought to be corrected with Cloves, Cinnamon, Mace, Mint, Wormwood, and others of this Kind. Its Slowneſs in working may be help'd or promoted with Scammony and Calomel; or it may be wet in ſome purging Decoction made of Aſarabacca, Sena, and other Purgatives, and then dry'd again, and form'd into Lozenges, adding Balſam of *Peru*, or Oil of Cinnamon to correct it.

Theſe Lozenges are commonly kept prepar'd in the Shops: But we muſt not forget to take notice, that *Luſitanus* admoniſhes us to make uſe of the Troches of *Agarick*, or Lozenges, while they are freſh, and new made, leſt their Virtue be weaken'd by long keeping. Beſides the Troches, there is an Extract and Roſin prepar'd from *Agarick*: It is likewiſe uſed in the Confection of *Hamech*, Hiera Picra, the Bleſſed Extract, and Pills of *Euphorbium*.

[*Agarick* is the *Agaricus ſive Fungus Laricis*, C. B. Pin. 375. *Agaricum*, J. B. 1. 268. It is cover'd with a yellow Bark, and is white within; it taſtes ſweet at firſt, but bitter after a Moment's holding in the Mouth; this is

The Female, which is uſed in Medicine.

The Male is yellow, hard, and woody, and is uſed in Dying.]

80. *Of the Confection of* Hamech.

Pomet. *AGarick* being one of the Ingredients of this Compoſition, which we have brought from *Montpellier*, together with Confect of Hyacinth and Alkermes, Treacle and Mithridate, I thought it it not improper to mention it in this Place: Tho' it is almoſt out of Practice in ſome Countries, it is a good Medicine if faithfully prepar'd; however, I ſhall only give you the Receipt, and leave you to conſult the Method of preparing it in the Diſpenſatories of Mr. *Charas* and others.

Take Polypody of the Oak, Raiſins ſtoned, Damaſk Prunes, of each four Ounces; Citrine, Chebulick, and *Indian* Myrobalans, Violet-Seeds, Coloquintida, White Agarick, Sena, of each two Ounces; Wormwood, Thyme, of each one Ounce; Red Roſes, Aniſeed, and Fennel, of each ſix Drams; Juice of Fumitory depurated, a Quart; Sugar and pure Honey, of each three

three Pounds; Caſſia and Tamarinds pulp'd, and pure Manna, of each four Ounces; Rhubarb, White Agarick, *Alexandrian* Sena, of each ſix Ounces; the five Myrobalans and Epythymum, of each ſix Ounces; Cinnamon and Ginger, of each two Drams: Mix all together according to Art, and make a ſoft Electuary, working it well and preparing it truly, and it will keep a long Time. This Confect, thus artfully made, is of a ſhining black, and a good Conſiſtence. This, with the other before-mention'd, we reckon the five great Compoſitions of the Shops.

We ſell likewiſe dry'd Morells and Truffles, and black Sow-bread, which are brought from *Provence* and *Languedoc*, with the Bulbs of Tuberoſe, Ranunculus's, and Junquils, which come from *Italy*, *Provence*, and ſome from *Conſtantinople*, together with Jews-Ears, which is a fungous Excreſcence found on the Stumps of Elder-Trees, before their Leaves appear, ſomething in the Form of an Ear, from whence it had its Name, *&c.* And they bring us from *St. Fleur* in *Auvergne* a certain grey Earth, in little Shells, which is what we call *Perelle*, and the People of that Country tear it from the Rocks: This Earth is lodg'd there by the Winds, which carry the Earth upon the Rock, and by the Rain and the Sun is calcin'd after being wet. The Uſe of it is to make *Orſeille*, of which mention was made in the Chapter of *Turnſol*. We ſell, beſides, a certain Herb which we call *Preſſe*, and the Botaniſts *Equiſetum*, or Horſe-tail, which the Cabinet-makers, and Artificers in Wood, uſe to poliſh their Works withal.

[The Confection of *Hamech* is now entirely out of uſe.

The Jews-Ears are in great Eſteem among the common People, as a Remedy for Sore Throats; but I have obſerv'd that they are never ſeen in the Shops: What is conſtantly ſold under that Name, is the *Fungus membranaceus expanſus*, R. Syn. Ed. tert. Pag. 18. which our Druggiſts employ People to gather from the old Water-Pipes about *Iſlington*, and elſewhere.

The true Jews-Ear is the *Peziza Auriculum referens*, R.Syn. 195. *Fungus membranaceus Auriculam referens ſive Sambucinus*, C. B. Pin. 372. of which I have ſome fair Specimens, which I found about three Years ſince on the Elders near the *Neat-Houſes* in the Way to *Chelſea*, and which are entirely different from what is ſold under that Name.]

The End of the Book of FRUITS.

BOOK the Eighth.

Of GUMS.

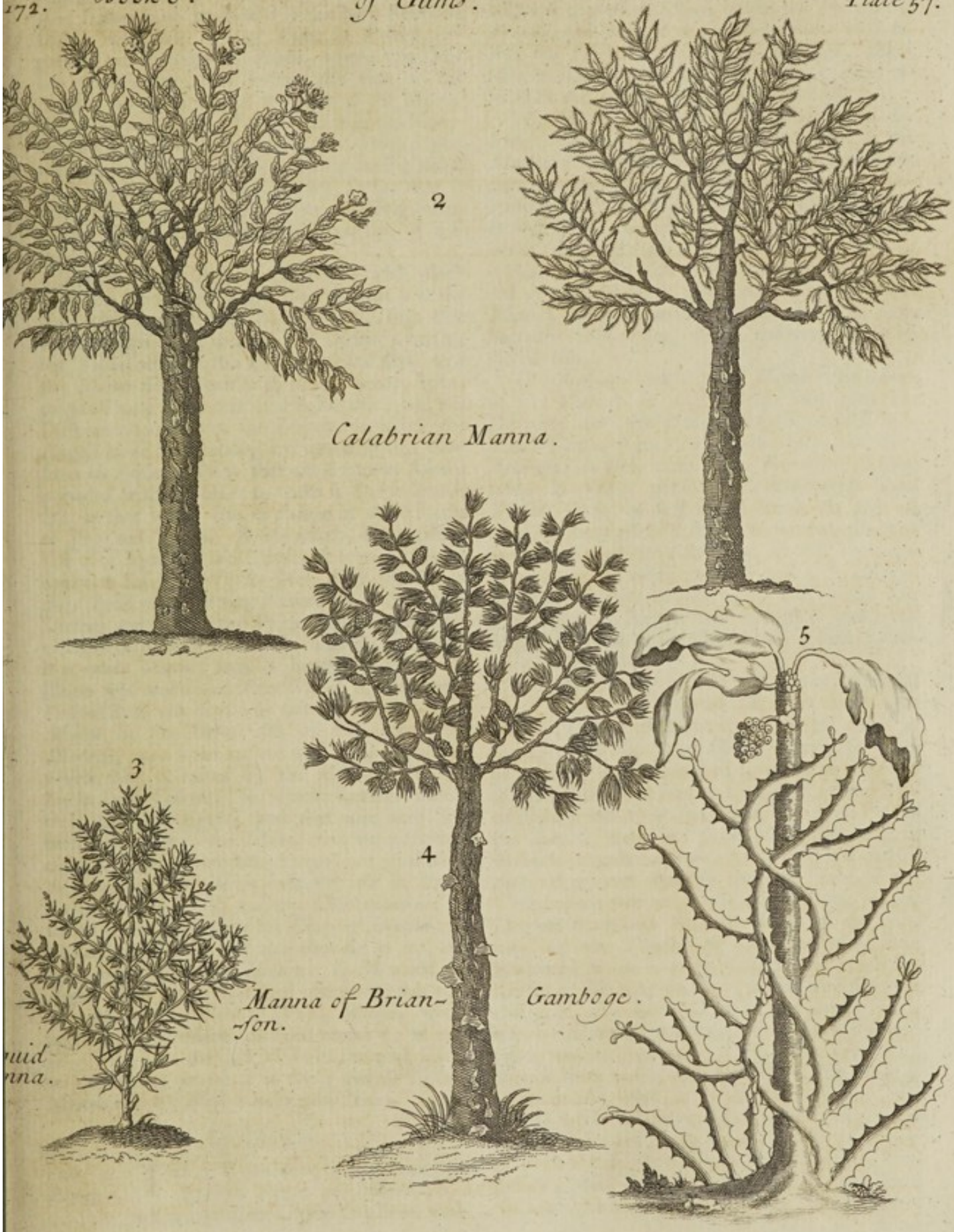
PREFACE.

WE diſtinguiſh Gums *into two Sorts; namely, ſuch as are aqueous, and ſuch as are reſinous. We underſtand by the aqueous* Gums *thoſe that will diſſolve in Water, Wine, or other the like Liquids; as* Manna, Gum Gutta, *or* Gamboge; *and by the reſinous, thoſe that will not diſſolve but in Oil, as* Gum Elemy, Tacamahaca, *and the like, as you will find by the ſubſequent Diſcourſe. There are ſome who will add to theſe two Sorts a third, which they call the Irregular, and which they pretend will not readily diſſolve either in Water or Oil, as* Myrrh *and* Benjamin. *If Seeds, Roots, Woods, Barks, Flowers, Leaves, and Fruits, are ſo difficult to diſtinguiſh one from the other,* Gums *are not the leſs ſo; and as the Knowledge of them is difficult, there are Subſtitutes of one Kind or other ſold at Times, either thro' Deceit or Ignorance, for almoſt every* Gum *in Uſe.*

1. *Of the* Manna *with which God fed the* Iſraelites *in the* Deſart.

WHEN the *Iſraelites* had paſs'd the *Red Sea* in a miraculous Manner, and were deliver'd from their Enemies, the Famine purſued them into the Deſart, and they murmur'd againſt *Moſes:* But that faithful Miniſter of God made his Supplication to Heaven, and God delay'd not to give them Food; for there fell a great Quantity of Quails in their Camp, and the next Morning it rained *Manna* upon the Earth, which was continued for forty Years, during the Time the *Hebrews* remain'd in the Deſart. The People were preſently ſurprized when they beheld the Earth all cover'd with a Kind of Grain they were Strangers to: And the Scripture informs us, that not knowing what it was, they cried out with Admiration, *Man hu! Quod eſt hoc!* What is this! But *Moſes* told them it was the Bread of God that was ſent from Heaven, and appointed them to come every Morning before Sun-riſe, to gather this divine Food; becauſe when the Day was advanc'd, it was no Time to gather the *Manna*, which melted away after the Riſing of the Sun.

The Jewiſh, as well as the Chriſtian Interpreters, do not agree about a great many Things relating to this *Manna:* They are divided about the Etymology of the Word *Manna*; ſome will have it that it comes from the *Hebrew*, *Man hu*, which the Jews pronounc'd when they ſaw the Earth cover'd with little white Grain or Seeds, which fell during the Night; nevertheleſs ſeveral others, of which Number *Buxtorf* is one, ſay, that the Word *Manna* ſignifies Food prepar'd, as if he ſhould ſay, the Food which God had prepar'd for his People. Neither are they at all better agreed about the Nature of this *Manna*; ſeveral maintain that it was the ſame with the purging *Manna* now uſed in Phyſick; that is to ſay, a Liquor which falls in the Nature of Dew, and which is congeal'd into little Grains, like thoſe of Coriander. *Valeſius*, Phyſician to the Emperor *Charles* the Fifth, is of this Opinion. *Cornelius à Lapide*, a very learned Jeſuit, ſays, in his Commentary upon *Exodus*, that he had ſeen in *Poland* little Seeds like Millet, ſomething long and reddiſh, which fell, during the ſerene Nights, in *June* and *July*, and that they were eaten when boil'd,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Calabrian Manna.
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Manna of Brian-
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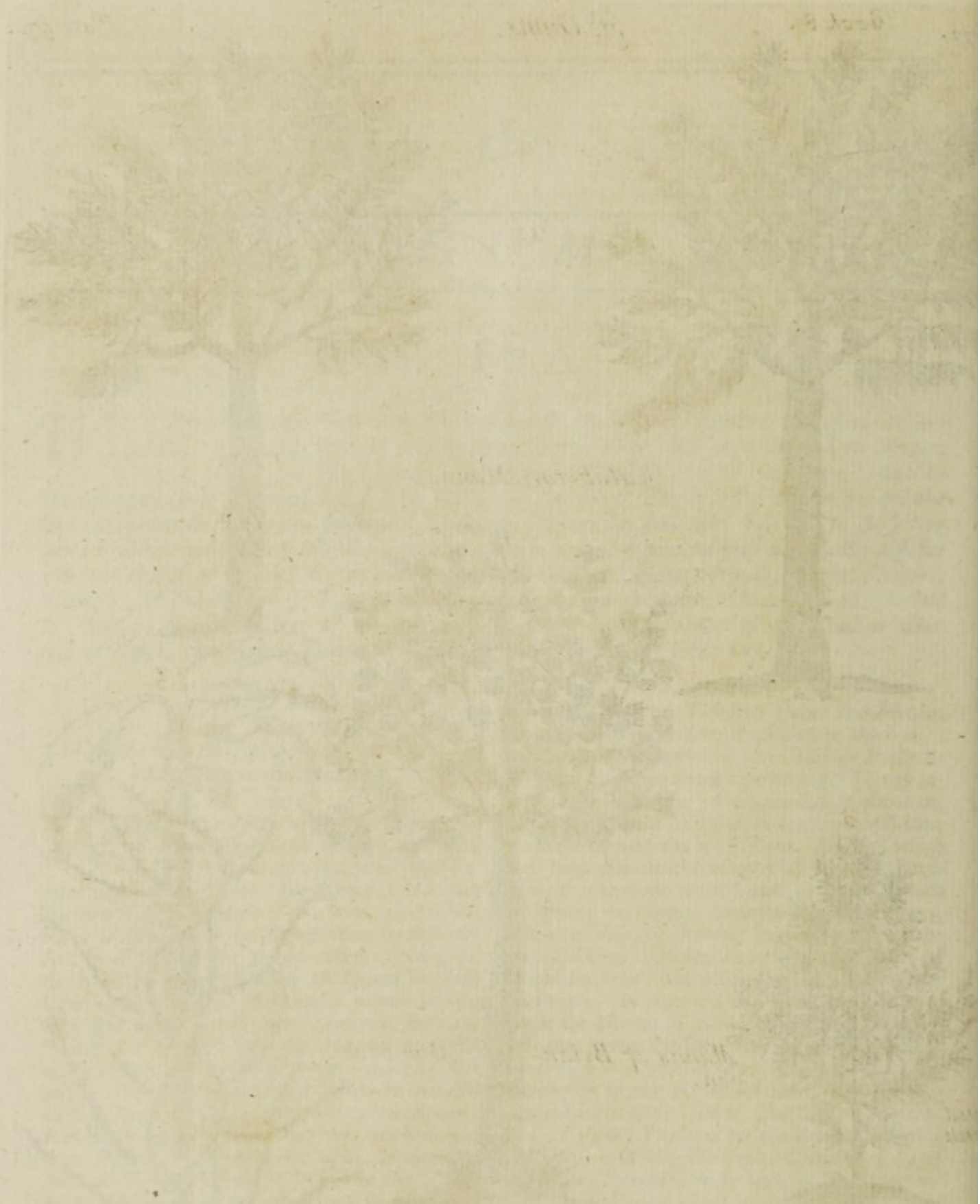


boiled, having the ſame Taſte as the Panick. And I have been confirm'd in this by a Friend of mine, who was a long Time in *Poland*, eſpecially on the Side of *Sileſia*, where this Dew falls plentifully. And I have alſo ſeen on the Heights of *Dauphiny*, at the Foot of the Mountain of *Geneva*, about Four o'Clock in the Morning, a large Quantity of this *Manna*, which I have taken at firſt Sight for Hail, but after having taſted it, I found, by its ſweet ſugary Taſte, that it was a Dew like that ſpoke of in the Holy Scriptures; for as ſoon as the Sun was up, it diſſolv'd.

Thoſe who hold that the *Manna* with which God fed the *Jews* in the Deſert, was not the ſame with that uſed in Phyſick, ſay, that that which purges muſt weaken and cannot nouriſh; but *Voſſius* anſwers this Difficulty, and ſays, that this *Manna* differ'd not at all in its Nature, but as to Accidents, from that uſed in Phyſick; and this Difference aroſe from the Preparation which the Angels made in ſweetning and cleanſing this Dew from its Aqueous Parts that the common *Manna* is loaded with, in order to make it fit for Bread, *&c.* as that which falls in *Poland* in the Months of *June* and *July* is. Beſide which, the conſtant Uſe of a Medicine will hinder it from having its common Effect. We ſee Men daily who make their Food out of ſtrong Poiſons by a continued Cuſtom and Habit; and Wine ſhall be highly ſerviceable to Perſons when ſick, who do not drink it at other Times; ſhall be hurtful to Perſons in Illneſs who make a conſtant Uſe of it when well. *Valeſius* does not doubt in the leaſt but that the *Manna* in the Deſert did at firſt purge the *Hebrews*, who were replete with groſs Humours, which they collected by the Uſe of Garlick, Leeks and Onions, of which they fed during their Abode in *Egypt*; and that after they had been duly purged, the *Manna* became nutritive, eſpecially after having been prepar'd or purified by the Angels; for it is expreſly ſaid in *Pſalm* lxxviii. *ver.* 23, 24, and 25. *God commanded the Clouds above, and opened the Doors of Heaven; he rained down* Manna *alſo upon them for to eat, and gave them Food from Heaven: So Man did eat Angels Food.* And this Explication appears very agreeable to the *Hebrew* Word *Manna*, which ſignifies Nouriſhment, or Food prepar'd; as may be inferr'd from the 31ſt Verſe of the 11th Chapter of *Exodus*, where it is ſaid, *And the Taſte of* Manna *was like Wafers made with Honey.*

2. *Of* Manna.

Pomet. THAT which we call and ſell now by the Name of *Manna*, is a white cryſtalline Liquor that flows without Inciſion, and with Inciſion from both the wild and domeſtick Aſhes, which the *Italians* call *Fraxini* and *Orni*, that grow plentifully in *Calabria* and *Sicily*, but chiefly at *Galliopoli*, about Mount Saint *Angelo*, and *Tolfe*, from whence almoſt all the *Manna* we now ſell is brought.

We ſell ſeveral Kinds by the Name of *Calabrian Manna*. The firſt and beſt Sort is the *Manna* of Mount St. *Angelo*, but that is fatter than the other Kinds, and therefore very little demanded by People who do not underſtand it: The ſecond is the *Sicilian Manna*, which is uſually white, dry, and teary. The third Sort of *Manna* is that of *Tolfe*; this is the worſt of the three, and is that which is improperly call'd *Brianſon Manna*, which is another Kind, as will be ſeen hereafter; this is dry, white, and very apt to be full of Dirt.

The *Arabians* look'd upon *Manna* to be a Sort of airy Honey, or a Dew that falls from the Heavens: And this was a common receiv'd Opinion for many Ages; but *Angelus Sala*, and *Bartholomæus ab Urbe veteri*, two *Franciſcan Friars*, who, in 1545, publiſh'd Commentaries upon *Meſue*, were the firſt that I know of, that in their Writings affirm'd *Manna* to be truly the concreted Juice of the Aſh-Tree, as well the common as of the wild, generally call'd *Quickbeam*. *Donatus Antonius ab alto mari*, a Phyſician and Philoſopher of *Naples*, who flouriſh'd about the Year 1685, has alſo confirm'd this Opinion by ſeveral Obſervations.

For firſt, having cover'd Aſh-Trees for ſeveral Days and Nights together all over cloſe with Sheets, ſo that no Dew cou'd poſſibly come at them; yet he has found *Manna* upon theſe Trees ſo cover'd, under the Sheets, when at the ſame Time not the leaſt Sign or Impreſſion of any Dew or Honey was to be ſeen upon the upper Part of the Sheets. 2*dly*, All thoſe who make it their Buſineſs to gather *Manna*, freely own and confeſs that it drops out again of the ſame Places of the Trees, from whence it was before taken, and by Degrees coagulates with the Heat of the Sun. 3*dly*, In the Trunks of the Aſh-Trees, little Bladders, or as it were Bliſters, are often obſerv'd, or riſe near the Bark, which are fill'd with a Liquor of a white Colour, and ſweet Taſte, which afterwards thickening, is turn'd into a very good Sort of *Manna*. 4*thly*, The very ſame Liquor flows out of the Bark of the Aſh when it is wounded: And it is very obſervable, that Graſhoppers and other ſmall Inſects very often bore through the Bark of this Tree, that they may ſuck this ſweet Tear; and when they have left it, the *Manna* ſweats out of the ſmall Wounds that they have made. 5*thly*, Wild

Aſhes

Aſhes being cut down by Coopers to make Hoops for Wine Veſſels, it often happens that no ſmall Quantity of *Manna* flows out of their Stocks or Boughs, being cloven or ſplit lengthways, and expoſed to the Heat of the Sun. *6thly*, Such as are employed in the making of Charcoal, confidently aſſure us, that they have often obſerv'd *Manna* ſweat out of the Aſh-Wood, after it has been kindled and thrown in the Fire.

The ſame Author further takes Notice, that the ſame Trees yield *Manna* every Year, but not all of them indifferently; upon which Account there are a great many that make it their Buſineſs, for the Sake of Gain, to bring up theſe Trees: Yet there are in theſe Places Trees of the ſame Kind, that afford no *Manna*. Moreover the ſame Author tells us, that the *Manna* runs chiefly out of that Part where the Foot-ſtalks of the Leaves are inſerted into the Branches; for in theſe Parts the Veſſels being thinner and finer, are the more eaſily divided; wherefore he does with very good Reaſon obſerve, that *Manna* never drops out of the Leaves of this Tree, unleſs it is at Noon, or about the hotteſt Time of the Day; becauſe there is a large Degree of Heat requir'd for the fetching of this Juice out of its proper Veſſels, and conveying or tranſlating it unto the diſtant Leaves. In the Kingdom of *Naples* and *Sicily*, *Manna* naturally flows and drops out of the Leaves of the aforeſaid Trees in the Form of a clear Liquor, and afterwards thickens and becomes a little hard; but eſpecially in the Month of *June*, when the Weather is very hot and dry; next Day, with a Knife, they ſcrape and pick it off the Leaves, leſt it ſhou'd be diſſolv'd and waſh'd away by the falling of Rains, or the Moiſtneſs and Dampneſs of Air; then they carefully put it up in Veſſels, well glazed; and after that they expoſe it to the Heat of the Sun, 'till it will not ſtick nor cleave any more to the Fingers; otherwiſe it wou'd melt and loſe its Whiteneſs.

Manna flows ſpontaneouſly from the Middle of *June* to the End of *July*, unleſs Rains happen to fall; after the Month of *July*, the Country People or Peaſants make an Inciſion into the Bark of the Aſh-Tree, even to the Wood, from whence the Liquor of *Manna* continues to flow and drop, from Noon-Time to Six o'Clock in the Evening inceſſantly, which afterwards runs together into thick Lumps or Clots, but of a darkiſh Colour. This ſpontaneous *Manna*, by the *Italians* is call'd *Manna Di fronda*, upon Account that it drops from the Leaves of the Aſh-Tree, like Sweat in the Dog Days or Heat of Summer. But that Sort of concreted *Manna*, that proceeds from the Bark of thoſe Trees being wounded, is call'd by the *Italians Sforſatella* and *Stoiſata*, or *Manna Dicorpa*. This Opinion of *Altomarus* has been defended by *Gropius*, *Labellius Cæſalpinus*, *Coſtæus*, *Cornelius Conſentinus*, *Boccone*, and others; who have given more Credit to their Eyes than to Authority.

Manna is approv'd of when it is fat and a little clear, of a ſweet Taſte like Sugar, and biting to the Tongue. Chuſe that which is freſh and light, from a white Colour inclining to be a little brown, and when the Clots or Lumps being broken, look as if they were ſprinkled with Syrup. That is to be rejected which is dry, and as it were ſpungy, without any Manner of biting Taſte; and that is good for nothing that is nauſeous, impure and adulterated.

The *Calabrian Manna* is moſt eſteem'd; but beſides that, there is a Sort of it ſold in the Shops, call'd the *Larch*, or *Briançon Manna*, becauſe it flows from *Larch Trees* growing nigh *Briançon* in *Dauphiny*, of this we ſhall ſpeak in the next Chapter, but it is but little uſed, becauſe it is much inferior to the *Neapolitan Manna*. *Calabrian Manna* purges moderately in the Doſe, from one Ounce to two or three; it allays the Acrimony of Humours, and is very uſeful in bilious Diſtempers, and others attended with Inflammations, ſuch as Hæmorrhoides, Pleuriſy, and Peripneumony. It is ſeldom preſcrib'd dry, or by itſelf, but very often in Potions, *&c.* As for Example: Take an Ounce or two of this *Manna* and diſſolve it in five or ſix Ounces of warm Water, Broth, Whey, or the like; to which add an Ounce of Syrup of Succory with Rhubarb, or Roſes purgative, or Violets, for a Doſe. When Patients are afflicted with vomiting, or a Diſpoſition to it, take of *Calabrian Manna* two or three Ounces, Tartar Emetick eight or ten Grains, diſſolve them in a Quart of Whey, and let the Patient drink this by Cupfulls, now and then taking a little warm Broth betwixt.

Monſieur *Charas* and others likewiſe agree, that the true *Manna* is not found upon all Plants, Trees, Rocks, and Earths promiſcuouſly, as ſome believe, but only upon the ordinary *Fraxinus*, or Aſh-Tree, and upon the *Ornus*, or wild Aſh. That it is gather'd from the Aſh or wild Aſh is evident; for that upon ſome large Tears, the very Print of the Leaf upon which they grow is to be ſeen, and oftentimes Aſh-Tree Leaves are found mix'd with it.

That which comes from the Body of the Aſh, and iſſues voluntarily and freely, as alſo from the biggeſt Branches of the Tree, is the pureſt and faireſt, and comes forth in a chryſtalline Liquor, beginning to diſtil in *June*, forming itſelf into Tears bigger or leſſer, as the Part of the Tree is more or leſs full of it; this is gather'd the next Day

Day after it is diſtill'd forth, for in that Space of Time it hardens by little and little, and becomes white; this, if it ſhou'd meet with Rain and Wet, will melt and come to nothing. They take the Bark from it with a thin pointed Knife, putting it into glazed Earthen Pots or Pans, then ſpreading it upon white Paper, they expoſe it to the Sun, 'till it ceaſes to ſtick to the Fingers, leſt it ſhou'd diſſolve by Addition of any ſuperfluous Moiſture, and loſe its Whiteneſs: This gathering continues about ſix Weeks.

The next Kind of *Manna* is that which is forced, which is drawn forth when the former *Manna* ceaſes to flow voluntarily: They wound the Bark of the Trunk to the Wood itſelf, with ſharp Inſtruments, and ſo from Noon 'till Evening you will ſee the *Manna* flow from thoſe Wounds, which is ſometimes clotted together at the Bottom of the Tree, like little Sticks of Wax. This they gather the next Day after the wounding, and it is yellower than the former, and therefore not ſo much eſteem'd, being apt to grow brown if kept any Time, yet nothing leſs purgative.

Thirdly, There is a *Manna* of the Leaf; this flows voluntarily from the Leaf or Leaves of the Aſh, like little Drops of Water, and appears in the Nature of a Sweat upon the nervous Part of the Leaf, during the Heat of the Day, and extends itſelf all over the Leaf; but the Drops are bigger at the Stalk, than at the End or Point of the Leaf, and harden and become white in the Sun as the former, being ſomething larger than Grains of Wheat. In *Auguſt* the great Leaves of the Aſh will be ſo loaden with theſe Drops, as if they were cover'd with Snow: This is as purgative as any of the reſt.

Manna is an excellent Purge for Children, and others that are of weak Conſtitutions, and abound with ſharp ſalt Humours; it is temperate, inclining to Heat, mollifies or ſoftens the Throat and Windpipe, opens Obſtructions of the Breaſt, Lungs, and other Bowels, purges watry Humours, and keeps the Belly ſoluble; being an excellent Thing for ſuch as are apt to be coſtive. *Hoffman* ſays, it ought not to be given crude, but boil'd, not being leſs flatulent than Caſſia, and therefore ſhou'd not be adminiſter'd without Correctives.

There is a Spirit of *Manna*, made by Diſtillation in a Retort. M. *Charas*'s Spirit of *Manna* is prepar'd thus: Put *Manna* into a Retort, filling it two Parts in three full, diſtil in Sand; firſt, with a gentle Fire, then increaſing by Degrees; diſtil to Dryneſs, cohobate the Liquor, and repeat the Diſtillation, ſo will you have a ſpirituous Water, containing all the beſt of the *Manna*, which is not only an excellent Sudorifick, but a wonderful Specifick againſt all Sorts of Agues or intermitting Fevers, giving it at the Beginning of the Fit; Doſe two Drams or more in Carduus Water. *Schroder's* Spirit of *Manna* is thus made: Diſſolve *Manna* in *May Dew*, and cohobate 'till it ſublimes to the Head of the Alembick, like Snow; ſo the Mercury of the *Manna* being brought to the fluid Nature of a Spirit, becomes a Solutive for Minerals: But this I dare not affirm for a Truth, never having ſeen it tried.

3. *Of* Briançon Manna.

THE *Manna* of *Briançon* is a white dry *Manna*; but as it is of no Uſe, and little of it is ſold, I ſhall therefore not dwell long upon this Subject. This *Manna* flows from the large Branches of the *Larix* or *Larch-Tree*, for which Reaſon it is call'd *Manna Laricæa*, and it is met with plentifully in the Hills of *Dauphiny*, eſpecially about *Briançon*, from whence it takes its Name.

Beſides the *Briançon Manna*, there are other Sorts; the ſcarceſt and moſt valuable of which is the *Maſtich Manna*, from the *Levant*, or that of *Syria*: This is a *Manna*, which in Colour comes near that of *Calabria*, and is in Grains like *Maſtich*, whence it was ſo call'd; this flows from the *Cædars* of *Lebanon*.

This *Manna* is very ſcarce in *France*; though I have about three Ounces, which was affirm'd to me to be true, which is of the Colour and Figure already deſcribed, of a bitter and unpleaſant Taſte, which is very different from *Fuchſius*'s Account, who ſays, the Peaſants of Mount *Lebanon* eat it. This Variety of Taſtes probably proceeds from its Age, or the Change of the Climate: The People of *Mexico* have a Kind of *Manna* which they eat as we do Bread; and there is a Kind of *Manna* which the *Africans* have in conſtant Uſe inſtead of Sugar or Honey.

There is alſo a *Perſian* Kind in large Lumps; but as none of them ever come to us, it wou'd be but unneceſſary to write any Thing more about them.

4. *Of* Liquid Manna.

THE *Liquid Manna*, or *Tereniabin*, is a white *Manna* that is glewy like white Honey; it is met with upon certain Plants, garniſh'd with Leaves of a whitiſh green, and beſet with reddiſh Thorns; the Flowers are alſo reddiſh, and are followed by Pods like thoſe of the Colutea, or Bladder Sena: It grows plentifully in *Perſia*, and about *Aleppo* and *Grand Cairo*, whither it is brought in Pots, and ſold to the Inhabitants, who uſe it as we do *Calabrian Manna*.

This

This Liquor is very rare in *France*. In the Year 1683, a Friend of mine, who had been in *Turky*, made me a Preſent of about four Ounces, which I keep to this Day; and which was, when given me, according to the Deſcription I have made of it; but as Time deſtroys all Things, the Colour is chang'd to a grey, and it is become a Syrup of a good Conſiſtence, and of a reddiſh brown; and that which is moſt remarkable is, that the Taſte is ſweet, Sugar-like, and pleaſant, and that it is not turn'd ſharp.

There is met with, beſides, in the *Aſia major*, upon ſeveral Trees like the Oak, a *Liquid Manna*, eſpecially near *Ormus*, whence it is brought into the Towns in Goat-Skins, where they make ſo conſiderable a Trade of it as to tranſport it to *Goa*: This *Manna* is of the ſame Figure and Colour with the former, but it will not keep ſo long.

Lemery. *Manna* is a white or yellowiſh concrete Juice, which inclines much to the Nature of Sugar or Honey, melting or diſſolving eaſily in Water, of a ſweet Honey-taſte, and a faint weak Smell; it flows either with Inciſion or without, in the Nature of a Gum, from the large Branches and Leaves of the Aſh-Tree, both wild and cultivated.

The fineſt and moſt pure *Manna* flows without Inciſion in *June* and *July*, when the Sun is the hotteſt; it drops in cryſtalline or fine tranſparent Tears, almoſt like Gum Maſtich, ſome larger and ſome leſs, according to the Nature of the Soil, and the Trees that it grows upon. In a Day's Time it hardens by the Heat, and grows white, unleſs it happens to rain that Day, for then it is all ſpoil'd; they take it from the Place when it is condenſed, and dry it in the Sun again, to render it whiter and fitter for Carriage.

The ſecond Sort of *Manna* is taken from the ſame Trees in *Auguſt* and *September*. When the Heat of the Sun begins to decreaſe, then they make Inciſions into the Bark of the Aſh-Trees, and there flows a Juice which condenſes into *Manna*, as the firſt Sort; there runs a greater Quantity than the firſt, but it is yellower and leſs pure; they remove it from the Tree and dry it in the Sun. In rainy or dripping Years they make very little *Manna* from the Trees; becauſe it liquifies and ſpoils by the Wet, which is the Reaſon that ſome Years the *Manna* is dearer than others.

When *Manna* is kept it loſes much of its Beauty, and does not loſe a little of its Virtue. Several People believe that the older it is the more purgative it grows, which I cannot at all underſtand, and therefore adviſe you not to uſe the red or brown decay'd and ſoft *Manna*, which ſometimes you meet with at the Druggiſts, but take the pureſt you can meet with. It is a gentle Purger, and proper for the Head, from an Ounce to two Ounces. The Word *Manna* comes from the *Hebrew* Word *Man*, which ſignifies a Kind of Bread, or ſomething to eat; for it has been receiv'd among the Antients, that the *Manna* was a Dew of the Air, condenſed upon certain *Calabrian* Plants, reſembling that which God rained down upon the *Iſraelites* in the Deſart for Food.

[*Manna* is the condenſated Juice of the *Fraxinus rotundiore folio*. C. B. Pin. 416. *Fraxinus Alepenſis*. Herm. Cat. Lugd. Bat. 261. It grows plentifully in *Calabria* and *Italy*.

Beſide what has been already mention'd to prove that *Manna* is not a Dew, as had been believ'd for many Ages, the greateſt Proof of all that is not ſo, is, that all Dews melt in the Sun, whereas *Manna* is very well known to dry and harden by its Heat.

The *Arabians* were the firſt who diſcover'd this Medicine; it was unknown to the antient *Greeks* and *Romans*.]

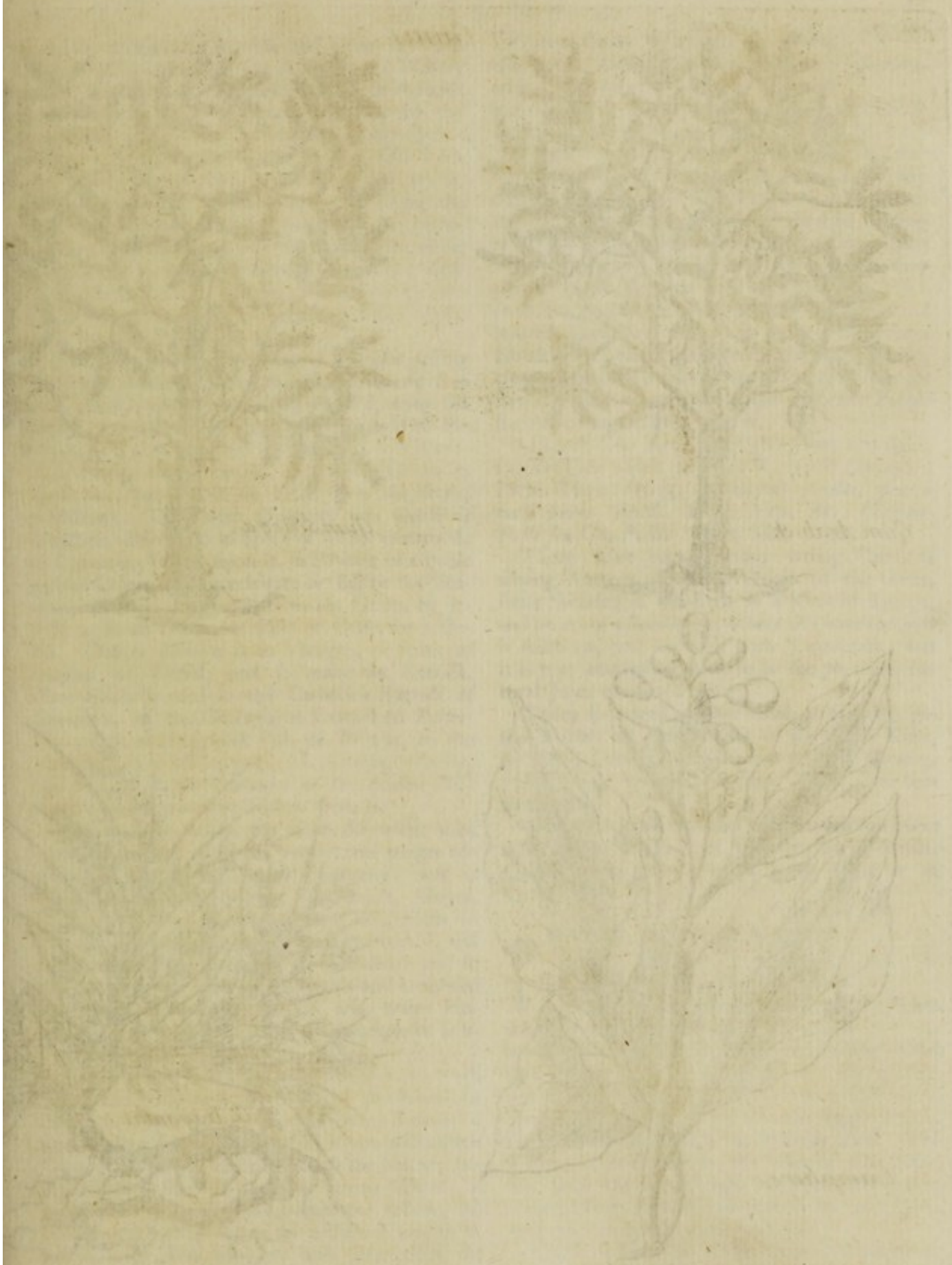
5. *Of* Gamboge, *or* Gum Gutta.

Pomet. GUM *Gutta*, or *Gutta Gamba*, *Gamboge*, *Gamandra*, or the *Peruvian Gum*, is a *Gum* that flows from the Trunk of a creeping Plant, that is of a particular Nature; it has neither Leaves, nor Flower nor Fruit; and produces nothing but a Quantity of prickly or thorny Branches, which ariſe one among another, according to the Figure repreſented in the Plate: Or elſe, according to an Account I have receiv'd ſince the firſt Publication of this Work, from a *Chineſe Tree*, call'd by the *Indians*, *Codelampulli*, or *Cantopuli*, which bears reddiſh Apples, of a nauſeous ſour Taſte, and without Smell. The Gum is gather'd from the wounded Bark of the Tree, and the *Indians* afterwards diſſolve it, and form it into Cakes, as we receive it.

The People of *Siam*, and the adjacent Countries, cut the thick Trunk of the Plant, from whence proceeds an inſpiſſate milky Juice, of a moderate Conſiſtence, which after it is left ſome Time in the Air, thickens and grows yellow, and then the People roll it up like Paſte, and afterwards make it into Cakes, as we have it brought to us. The Peaſants about *Odia*, or *Ondia*, the Capital of *Siam*, bring it to Market to ſell.

It is moſt commonly brought into *Europe* from *Peru* and *China*, and other Places of the *Eaſt*; being of a pure fine Body like Aloes, but of the Colour of the fineſt Turmerick, being a good yellow, inclining to an Orange-Colour, without

Rubbiſh



6

Gum Arabick.

10

Gum Senega.

Camphire.

12

G. Traganth.

Rebbiſh or Filth in it, fine and clean in round Rolls or Cakes, and eaſily diſſolving in Water, being almoſt all of it Tincture. That it abounds with Sulphur plainly appears, not only by the chymical Reſolution of it, whereby a large Quantity of Oil is extracted from it, but alſo from that bloody Colour, which the Solution acquires, when Lime-Water is pour'd upon it; ſeeing the very ſame Colour will be produced in Lime-Water, if you boil common Sulphur or Brimſtone along with it; and that *Gum Gutta* is not altogether deſtitute of a pungent or ſharp Salt, manifeſtly appears by its producing a greeniſh Colour, upon the blue Paper.

Gamboge ought to be choſen of a bright yellow Colour, a little inclining to red, clean and free from Sand, and which being chew'd, dyes the Spittle of a yellow Colour, and being held to the Flame of a Candle is apt to take Fire. It is preſcrib'd crude or unprepar'd, from three Grains to ſix or ten; but it will do better in a Magiſtery, as follows: Take what Quantity you pleaſe of *Gamboge*, diſſolve it in Spirit of Wine tartariz'd, then pouring Water upon it, a Powder of a noble yellow Colour will precipitate or fall to the Bottom: This is given from ſix to ten Grains by itſelf, or in an Ounce of Pulp of Caſſia for a Bolus. Others diſſolve it in Vinegar, or Spirit of Sulphur or Vitriol, and ſo make an Extract. *Gum Gutta* is uſed in the Catholick Extract of *Sennertus*, in the Cholagogue Extract of *Rolfinchius*, in the Hydropick Pills of *Bontius*, in the Hydragogick Electuary of M. *Charas*. Laſtly, the Pills of *Gutta Gamandra* of the *London Diſpenſatory*, borrow their Names from it.

This was, doubtleſs, the Gum *Monardus* uſed againſt the Gout: It both vomits and purges admirably, carries off watry Humours, and is chiefly uſed againſt Dropſies, Cachexia's, Gouts, Scabs and Itch. *Rolfinchius* ſays, it ſuffices to give this Gum crude, being finely powder'd, and ſprinkled with Spirit or Oil of Anniſeed, and ſo dry'd again. It is an incomparable and beneficial Cathartick for purging ſerous and watry Humours, and may be given to a Scruple in Subſtance in ſtrong Conſtitutions.

There is a yellow ſtaining Colour to waſh Maps and Pictures with, made of this *Gamboge*. Put into Water enough to diſſolve it, it makes a good Colour for Pen or Pencil; if you add a little Gum Arabick it will be ſo much the better; being diſſolv'd likewiſe in clear Spring Water, it yields a very beautiful and tranſparant yellow, eſpecially with the Addition of a little Alum to it, which will both brighten and ſtrengthen the Colour.

Gummi Gutta, *Gutta Gamba*, *Gutta Gamandra*, &c. or *Gamboge*, is a reſinous Gum brought us from *India* in large Rolls or Cakes that are hard, but brittle and extremely yellow: The Gum flows by Inciſion from a Sort of thorny creeping Shrub, that runs up a-height, and winds itſelf about any neighbouring Trees: The Trunk of it is thicker than a Man's Arm; and the *Indians* by cutting of it, get a Juice, which being of the Conſiſtence of a Paſte, they mould into what Form they pleaſe. Some Authors hold that the Plant which produces this Gum, is a Kind of *Lathyri*, and that the Leaves are as thick as thoſe of the greater Houſleek. It ought to be choſen dry, hard, brittle, clean, and of a deep Colour: It purges ſtrongly upwards and downwards, and ignorant People ſhould not be too buſy with it. *Lemery.*

[*Pomet*'s later Account of this Gum was right, for the Tree which produces it, is the *Carcapuli*. Park. Theat. 1635. *Carcapuli Acoſtæ, fructu malo aureo ſimili.* Pluk. Alm. 81. *Coddam-Pulli ſeu Ota Pulli.* Hort. Mal. 1. 41.

There have been various wrong Opinions among Authors about the Origin of this Gum, ſome thinking it the Juice of a Kind of Spurge, and others of a *Scammony*; others alſo have thought it fictitious, and colour'd with Turmerick; but it is now certainly known to be the pure and natural Juice of that Tree.

There is indeed another Kind of *Gamboge* gather'd from an *Indian* Plant of the *Eſula* Kind, and call'd *Lonam Cambodia*; but the only *Gamboge* now brought to us is the Juice of the Tree here mention'd.

It is remarkable that tho' this Gum is ſo violent a Medicine, the Fruit of the Tree has no ſenſible Quality, but may be eaten as an Apple or an Orange.]

6. *Of* Gum-Arabick.

THE *Gum-Arabick*, *Theban*, *Babyloniſh*, or the *Egyptian Acacia Gum*, which is the Name of the Tree which produces it, is a whitiſh, tranſparent *Gum*, which flows from little Trees that are very prickly, whoſe Leaves are ſo ſmall, that it is difficult to count them; and that grow in the happy *Arabia*, from whence it is call'd the *Arabian Gum*. This is brought to *France* by the Way of *Marſeilles*: But ſince the *Gum Senega* has been brought us, the true *Gum Arabick* is become ſo ſcarce at *Paris*, that one can hardly meet with any. *Pomet.*

Chuſe ſuch as is white, clear, tranſparent, and the dryeſt and largeſt Drops that can be got, eſpecially for the Theriaca. This *Gum* is uſed

with good Succeſs for ſeveral Infirmities of the Lungs, and to ſoften the Sharpneſs of Coughs; Gum Senega is often ſubſtituted for it, and ſeveral People make it the Baſis of what they call the Liquorice Juice of *Blois*. It is of the *Moors* that we buy it, who gather it in the Deſarts of *Lybia*, where it runs from the Trees that produce it, as our Cherry and Plumb Tree Gums do from them.

Lemery.

Gummi, Arabicum, Thebaicum, Babylonicum, Achantinum, Saracenicum, is a *Gum* that is brought to us in large Tears, or white Pieces, inclining ſometimes towards a yellow, clear, tranſparent, and glewy in the Mouth, without manifeſt Taſte: It flows by Inciſion from a thorny Tree, call'd *Acacia*. This is a noble Tree growing in *Egypt*, and cultivated in ſeveral Gardens of *Europe*, having Sprigs and ſpreading Roots, and a Trunk riſing ſix Fathom Height, ſolid, full of Branches and Boughs, arm'd with ſtrong and ſtiff Thorns or Prickles; the Leaves are ſmall and fine, growing by Couples on each Side of a Nerve or Rib, that is two Inches long: The Thorns or Prickles are of a bright green Colour, a quarter of an Inch long, and the twelfth Part of an Inch broad; out of whoſe Wings the Flowers come forth in round Heads, reſting upon a Foot-ſtalk an Inch long; they are of a golden Colour, ſingle-leav'd, of a fragrant Smell; and from a ſmall narrow Pipe, enlarging themſelves to a wide-mouth'd Cup with five Notches, adorn'd in the middle with a numerous Train of Threads, or ſmall Chives, and a Colour inclining to a reddiſh, two Inches long, and bending or crooking, after the Manner of a Bow, in whoſe Cavity are ſeveral Partitions, diſtinguiſh'd with fungous or ſpongy Membranes, of a whitiſh Colour, containing Seeds that are of an oval Figure, flat and hard.

The greateſt Part of the Gum we call *Arabick*, that is in the Druggiſts Shops, comes not from *Arabia*, but is only a Gum that is like it in Figure and Property, that is brought from *Senega*, or rather a Collection of ſeveral aqueous Gums, found upon ſeveral Sorts of Trees, as Plums, Cherries, *&c.* all which are in ſome Meaſure, pectoral, moiſtening; cooling, agglutinating and ſweetening; proper for Rheums, Inflammations of the Eyes, Looſeneſs, *&c.* The true *Gum Arabick* falls by little and little from the Trees, eſpecially in Time of Rain; and agglutinates or ſticks together in large Pieces, that are fine, clear, white and tranſparent; and this is call'd *Gum Turick* that is uſed by the Silk Dyers.

[The true *Gum Arabick* is the Product of the *Acacia vera*. Rai. Hiſt. 1. 976. *Acacia vera Ægyptiaca Siliquis Sinuoſis ſive Lupini*. Breyn. Prodr. 2. 2. *Acacia foliis Scorpiordis Leguminoſæ*. C. B. Pin. 392.

But there is indiſcriminately brought over with this, the Gum of the *Acacia Indica Farneſiana*. Ald. 2. Rai. Hiſt. 1. 977. *Acacia Indica ſiliqua tumida tuberoſa*. Breyn. Prod. 2. 2. The Gums of both theſe Species are much of the ſame Nature, but they differ ſomething in Form and Colour, that from the true *Acacia* being in thicker Drops, and ſomething yellowiſh, and that from the *Farneſian* ſlenderer, and perfectly white.

7. *Of* Turick Gum.

THE *Turick*, or *Turis Gum*, is no other than the true *Gum-Arabick*, fallen from the Trees in a rainy Seaſon and maſs'd together; which is brought from *Marſeilles* in great Lumps, that weigh ſometimes more than five hundred Weight a-piece, which happens from their cloſe Stowage in the Ships that bring 'em over. Chuſe the dry, clean, bright and tranſparent *Gum*, and the whiteſt you can get: This *Gum* is much uſed by the Silk Dyers.

8. *Of the* Vermicular Gum.

THE *Vermicular*, or Worm-like *Gum*, is the Gum *Arabick* or *Senega*, which falling from the Trees twiſted, remains in the Figure or Shape of a Worm, from whence it takes its Name. Chuſe the white, clear, and tranſparent, in little Windings; the dry and true *Arabick*, eſpecially for the Treacle, which is the principal Intention of it.

9. *Of* Engliſh Gum.

THE *Engliſh Gum* is a white *Arabick*, or *Senega*, diſſolv'd in a little Water, and reduced into the Form of Paſte, after having ſpread it upon a Stone oil'd, of what Thickneſs they pleaſe, and then leaving it to dry a little; that is to ſay, to the Conſiſtence of *Flanders Glue*; after that they cut it as they pleaſe, and dry it. This *Gum* is made to curl Hair, and upon that Account is call'd the curling and *Engliſh Gum*, becauſe the *Engliſh* firſt made it.

10. *Of* Gum-Senega.

THE *Senega Gum*, which we frequently call *Gum-Arabick*, and which is ſold at this Time in our Shops for it, is a *Gum* which flows from the Trunk and large Branches of Trees, furniſh'd with Thorns and very ſmall green Leaves, and white

white Flowers, from whence arife round and yellow Fruit refembling Figs. Thefe Trees grow plentifully in feveral Parts of *Africa*, in *Guinea*, *&c.* from whence this *Gum* is brought from *Senega* by the Blacks, or the white Men, that come from the Mountains, and who carry it on their Back, or on Camels, in Panniers made of Palm-Leaves, to the *French* Eftabliſhment at *Senega*, from whence it is ſent by the Merchants to ſeveral Ports of *France*.

[The *Gum Senica*, or *Senega*, is brought to us in large Pieces; it is a Kind of *Gum Arabick*, and drops from another Species of the ſame Tree. The *Acacia Siliquis Compreſſis*. Ind. Med. 57. It is much of the Nature of *Gum Arabick*; and commonly what we buy for *Gum Arabick*, is this Gum broken into ſmall Pieces.]

11. *Of the* Country Gum.

THIS is ſuch as the Peaſants bring to *Paris*, which they gather from their Fruit-Trees, as Plums and Cherries, that come forth from the Trees in the ſame Manner with the former, and are ſo much like ſome of them in Colour, Form, Subſtance and Nature, that they are not to be known aſunder; ſo that many People believe that they are all but one and the ſame thing, however they have all one and the ſame Quality and Operation, and are uſed to cure Coughs, Colds, Catarrhs, Hoarſeneſs, Shortneſs of Breath, *&c.* Chuſe it as dry and clean as may be.

[This is bought up by our Druggiſts, who mix it among what they call their *Gum Arabick*.]

12. *Of* Gum-Tragacanth.

THIS *Gum*, which we uſually call *Tragganth*, or *Tragacanth*, is a white curled *Gum* made like little Worms, of an inſipid mucilaginous Taſte. The Shrub which produces it, is ſmall and prickly, ſupply'd with very little Leaves of a whitiſh Green, which the People of *Marſeilles* call *Fox-Beard*, or *Goat's-Thorn*. This *Gum* flows by the cutting of the Trunk, and the thick Roots of theſe little Shrubs; they are numerous in *Syria*, eſpecially about *Aleppo*. *Pomet.*

This Shrub has Roots, according to *J. Bauhinus*, that dive deeply into the Ground, ſpriggy, and of a brown Colour, ſending forth ſeveral Twigs, running and ſpreading along the Surface of the Earth, in a round Figure or Circle, with coupled Leaves growing upon a Rib, ending in a ſharp Thorn or Prickle. They are of a roundiſh Shape, of a whitiſh Colour, and ſoft. The Flowers are papilionaceous, of a whitiſh Colour, inclining to a blue, and running together in round Heads; unto which ſucceed Cods, that are cover'd with white Hairs, and diſtinguiſh'd into two Apartments, in which are contain'd Seeds of the Shape of a Kidney. There is nothing that grows more frequently upon the Sea Coaſt, about *Marſeilles*, and upon *Harper's* Point or Cape, nigh *Toulon*, than this Thorn. This *Gum* iſſues out of the wounded Roots of this Thorn, running together in Lumps of different Sizes, ſome bigger and ſome leſs; ſome very clean and clear like Iſing-Glaſs; others again looking more blackiſh and foul: Both this and Gum-Arabick thicken the Humours, and moiſten; but they are chiefly uſed for the Incorporation of Powders, and are diſſolv'd in Roſe-Water, and the like, and a Mucilage extracted thence.

Tragacanthum, or *Dragacanthum* Gum-*Traganth*, is a white, ſhining, light *Gum*, in little long Pieces, ſlender and curled, or winding, in the Nature of Worms: They get it by Inciſion from the Root and Trunk of a little Shrub, call'd by the ſame Name *Tragacantha*, or *Spina Hirci*, *Goat's-Thorn*: It bears ſeveral hard Branches, cover'd with Wool, and furniſh'd with white Thorns, and very ſmall thin Leaves, rang'd in Pairs, and ending in a whitiſh Thorn. The Flowers grow on the Tops of the Branches, join'd ſeveral together; they are leguminous, and like thoſe of the little Broom, but white. After they are gone ſucceed Pods, divided each into two Partitions, full of Seeds, the Size of that of Muſtard, and the Shape of a little Kidney: The Root is long, and ſtretches wide; it is as thick as one's Finger, white and woody. *Lemery.*

[The Shrub which produces this is the *Tragacantha vera*. Park. 995. *Aſtragalus Aculeatus fruticoſus, Maſſilienſis Tragacantha Dictus*. It is kept in the Gardens of the Curious, and flowers in *June*.

The *Poterium* is another Species of this Shrub. It is the *Tragacantha Granatenſis foliis incanis deciduis flore albo*. Hiſt. Ox. 2. 113. *Tragacantha altera ſeu minor Poterion forte Dioſcoridis*. Park. 996. The Root of this was once eſteem'd good in Nervous Caſes, but at preſent is never ſeen in the Shops, or heard of in Practice.]

13. *Of* Camphire.

Camphire is a reſinous and very combuſtible Gum, of a penetrating Smell, and eaſy to diſſipate into the Air, becauſe of the Sulphur and volatile Salt, of which it is compos'd. It flows from the Trunk and large Branches of great Trees, that *Pomet.*

have Leaves like thoſe repreſented in the Figure hereof, whoſe Original is in my Hands, given to me by Mr. *Tournefort :* Theſe Trees grow plentifully in the Iſle of *Borneo*, and other Parts of *Aſia*, and in *China*.

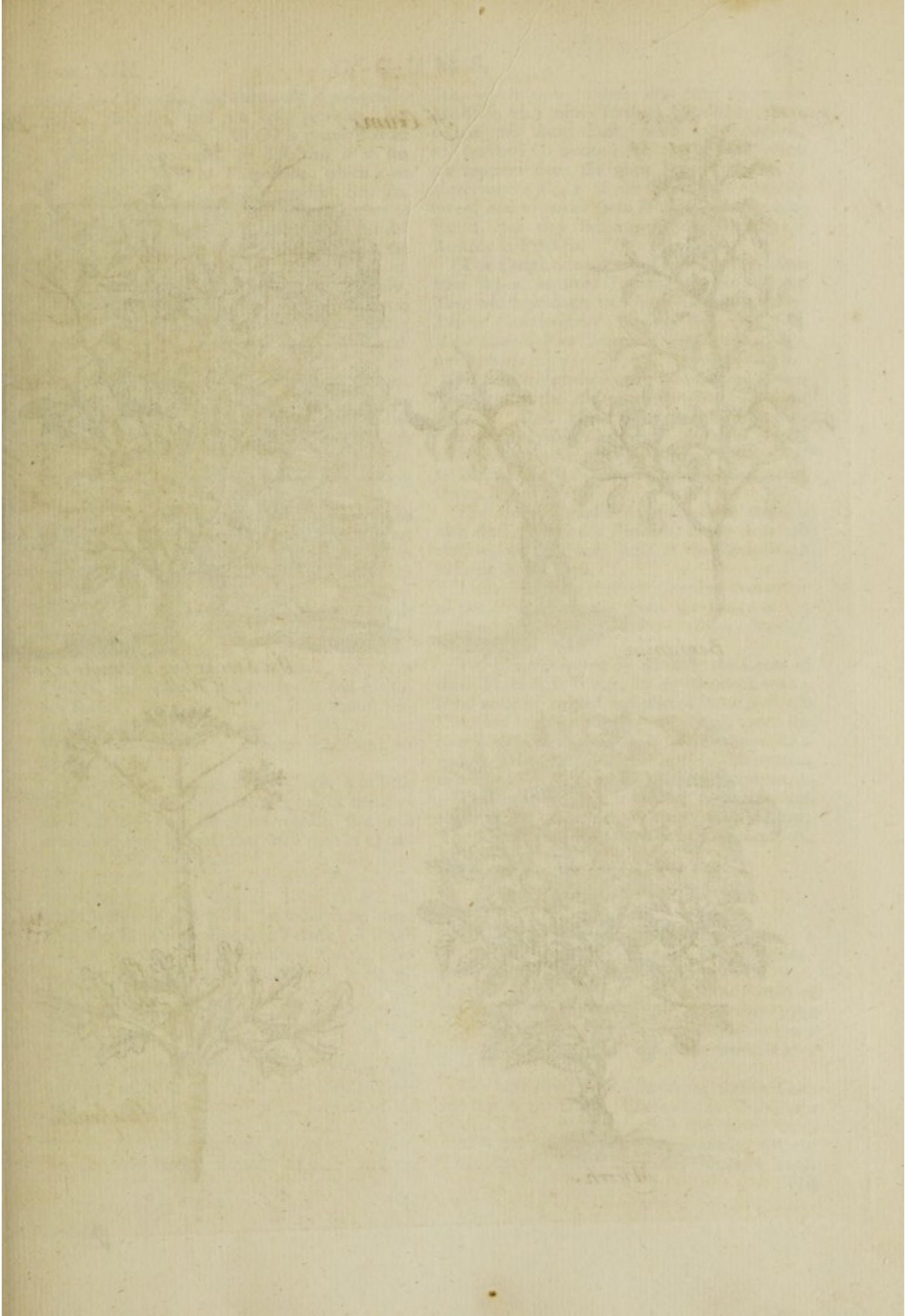
The Inhabitants of the Places where theſe Trees grow, cut the Trunks, from whence flows a white Gum, which is found at the Foot of the Tree in little Cakes, and which is brought into *Holland* to be refin'd. This Gum, as it comes from the Tree, and as it comes out of the Country, is call'd *Rough Camphire* ; which, to have its requiſite Quality, ought to be in brittle Pieces ; and being broken ſhould be like white Salt, of the Smell mention'd before, the drieſt and leaſt impure that may be.

This rough or unrefin'd *Camphire* is ſometimes to be met with at *Rouen* and *Paris*, from whence it is ſent to *Holland* to be refin'd, becauſe no Body elſe will take the Pains or Trouble to do it but the *Hollanders*. I wonder what all our Chymiſts have thought on, that they never yet have inſerted into their Books the Manner and Way of refining *Camphire :* Yet nevertheleſs ſome believe that the *Camphire* we ſell is juſt as it is drop'd from the Tree, which is wide of the Truth ; ſince the rough *Camphire*, as it comes from the Tree, is in Pieces of different Sizes, and like white Salt that is very dirty ; and that we ſell is in Cakes made in cover'd Pots, white, clear, and tranſparent ; which lets us underſtand it has been work'd, and could not come ſo from the Tree : And for the Satisfaction of the Publick, I will lay down the Manner of refining it, which was never told me by any Perſon, but as I diſcover'd it by Experience, by which I have learn'd that,

They refine or purify rough *Camphire* by putting it into a Matraſs, or other ſubliming Veſſel, after it is pounded, and after half the Veſſel is fill'd with the Powder, they ſtop it lightly ; then they place it upon a gentle Fire, and preſently the more ſubtil Parts of the *Camphire* riſe and cling to the Top of the Veſſel ; and when all is ſublimed, they find it fine, white, tranſparent, and thick, according to the Quality of the unrefined *Camphire* that was employ'd. After Sublimation they meet with a *Caput Mortuum* at the Bottom of the Veſſel that is of no Value. There adheres to the refin'd *Camphire* a *Camphire* that is extreamly white, and all in little Grains, which is likely what would not incorporate as the other. As the rough *Camphire* therefore is common enough among us, I know no Neceſſity we lie under, to let it all paſs thro' the Hands of the *Dutch*, to make it either uſeful for Medicine, or other Purpoſes ; as Fireworks, or the like. As to its Virtues, Mr. *Lemery* ſays, the Oil is very valuable for the Cure of Fevers, a Piece of Scarlet Cloth which has been dipt into it, being hung about the Neck. This Oil is made by the Aſſiſtance of Spirit of *Nitre*, that makes it of an Amber Colour ; and this is wonderfully recommended in Pains, and where the Bones are carious.

Other Authors are of Opinion, that the *Camphire* of the Shops, is obtain'd from a Tree that riſes the Height of a Man, furniſh'd with a Number of Branches and Boughs, ſpreading far abroad, and bearing Leaves very thick, and cloſe by one another, not much unlike the Leaves of the common Bay-Tree, bright, ſmooth, and ſomewhat curled and waved about the Edges ; of a dark green Colour, a ſharp aromatick Taſte, and of a ſtrong vehement Smell : None as yet has given a perfect Deſcription of the Flowers of this Tree ; yet it is certain that a Fruit ſucceeds to the Flowers coming out of a longiſh Cup : Within this Fruit is encloſed a round Shell of a blackiſh Colour, inclining to a brown, not very hard, containing a ſouriſh Kernel, cloven in two, being fat, of a biting aromatick Taſte, but not unpalatable. This Tree grows plentifully in the Country of *Japan*. *Camphire* is extracted from the Roots of this Tree ; they cut the Roots into ſmall Pieces, and throwing them into a Braſs Kettle, they cover it with a Lid that is broad at the Bottom, and tapering, ſharp or narrow at the Top, like the Head of an *Alembick*, and putting the Kettle over the Fire, that volatile Salt, the *Camphire*, aſcends and cleaves to the Cover or Lid. This *Camphire*, at firſt, is of a ſordid whitiſh Colour, and very foul ; but after the *Hollanders* have refin'd it by the Help of Fire and Glaſs Veſſels, it is ſo order'd and elaborated, that it becomes tranſparent.

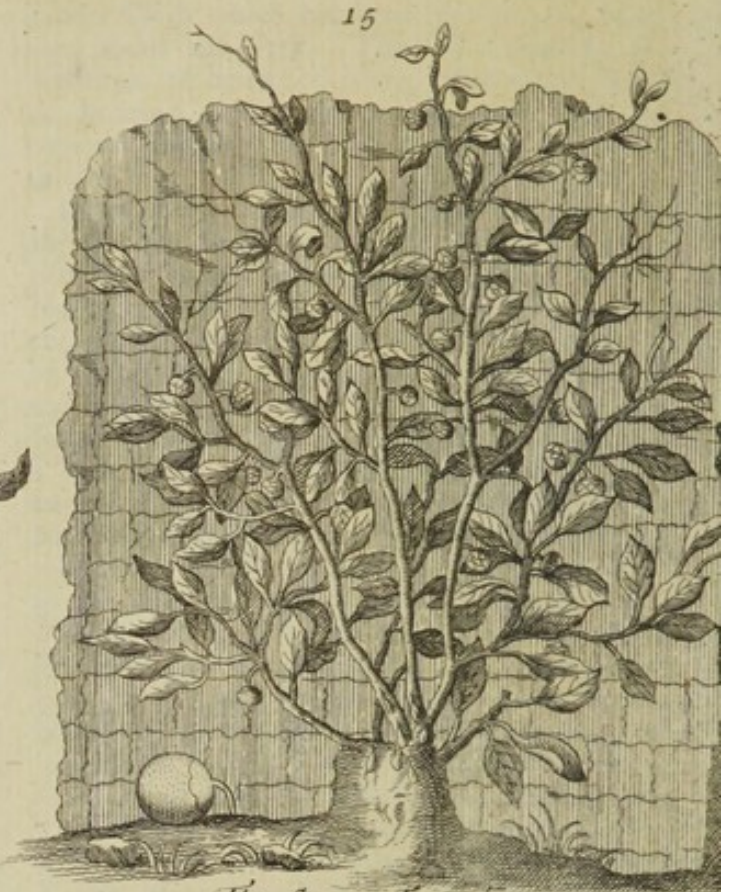
Some ſay that *Camphire* ſometimes flows naturally or ſpontaneouſly from theſe Trees, or elſe by making deep Inciſions into them ; but the beſt *Camphire* is drawn from the Roots of the *Cinnamon-Tree*, as others aver : Chuſe ſuch as is white, tranſparent, brittle, dry, of a biting pungent Taſte, and that ſmells like Roſemary, but much ſtronger : It is a true oleaginous volatile Salt, abounding with Sulphur, whence it eaſily diſſolves in Water and Spirit of Wine. This Medicine provokes the Courſes, and aſſiſts wonderfully in Suffocations of the Womb : Beſides its Faculty of ſubduing Hyſterick Diſtempers, it is alſo anodyne, procures Sleep, and reſiſts Putrefaction ; upon which Account it is often preſcrib'd in malignant Fevers, and after the Uſe of Emeticks, to refreſh and reſtore the fainting and drooping Spirits. Spirit of Wine camphorated, may be taken inwardly



14

Benjamin.

15



The Storax Tree y creeps upon y Wall.

20

Myrrh.

Asa fœtida

wardly to a Spoonful, and outwardly it powerfully reſolves, diſcuſſes, and not only prevents, but alſo cures a Gangrene. An Oil is prepar'd from it beſides that mention'd, by diſſolving it in the highly rectify'd Spirit of Turpentine, which is an efficacious Medicine againſt Rheumatiſm, Sciatica, or Hip-Gout: It is uſed in the white Troches of *Rhaſes*, the Ointment of Ceruſſe, in the red deſiccative Ointment, in the Cerate of Sanders, the Styptick Plaiſter of *Paracelſus*, &c.

Lemery.

Camphora ſeu Caphura, or *Camphire*, is a Kind of white light Roſin, that is very volatile, combuſtible, of a ſtrong penetrating Smell, that flows from the Trunk and large Branches of a Tree reſembling the Cherry Tree, that grows in the Iſle of *Borneo*, and in *China*: This *Camphire* is found at the Root of the Tree, where it is form'd into Pieces or Lumps of different Sizes, which is call'd rough or unrefin'd *Camphire*; this is refin'd by ſubliming it over a gentle Fire, as hath been already hinted.

There are ſome who affirm the *Camphire* to be a Gum that diſtils Drop by Drop, from a great Tree much like a Walnut-Tree in *China*, and in the Iſlands of *Japan*, *Java*, *Borneo*; from which laſt Place, the beſt is ſaid to come, and other Parts of the *Eaſt-Indies*, from whence it is brought to us in *Duppers*, and Cakes unrefin'd; which when purified, is of a white Cryſtalline Colour and a ſtrong odoriferous Smell, volatile in Quality, and ready to diſſolve in oily and ſpirituous Bodies: Being ſet on Fire, it is almoſt unextinguiſhable, burning not only in the Air, but Water, and therefore is a proper Ingredient for all Sorts of Wild-Fire.

That which is brought out of *China*, is in little Cakes, but is not accounted ſo good as the *Bornean*. It is ſo very ſubtil and volatile, that it is difficult to keep it from loſing itſelf even in Quantity and Subſtance, unleſs it be cloſe ſtopp'd up in Glaſs Bottles: This is an excellent Remedy for Hyſterick Fits and Vapours, being ſmell'd to, uſed Clyſterwiſe and given inwardly from three Grains to ſix in any convenient Vehicle; it is alſo good in continual and intermitting Fevers, whether Putrid, Malignant or Peſtilential, being given inwardly, or hung about the Neck; becauſe being of ſuch ſubtil Parts, it inſenſibly enters into the Pores, and cauſes a Rarefaction and Perſpiration.

There are ſeveral Preparations of *Camphire*, but not one of them exceeds the pure Subſtance itſelf, or a bare Diſſolution of it, becauſe of the Purity and Fineneſs of its own Body: As the Oil, ſimple and compound, the eſſential Spirit, the *Camphire* terebinthinated, Troches, and the like, which rather debaſe than exalt this noble Medicine to a higher Pitch of Excellency: It is certain this abates Luſt, reſiſts Inflammations, and prevents Gangrene; the two firſt of which are apparent from the great Power this has to overcome the Force of the *Cantharides* inwardly taken, and to render them ſo far from being dangerous, that they become the moſt efficacious Remedy in Practice.

[The *Camphire* we ſee in *Europe*, comes either from *Japan*, or from *Sumatra* and *Borneo*; the Tree which produces the *Japan Camphire*, is the *Laurus Camphorifera*. Kæmp. Am. Ex. 770. *Arbor Camphorifera Japonica foliis laurinis, fructu parvo globoſo calyce breviſſimo.* Breyn. Prod. 16.

That which produces the *Sumatra* and *Borneo Camphire*, is the *Arbor Camphorifera Sumatrana Grimmii.* Rai. Hiſt. 2. 1679. *Camphorifera Summatrana foliis Caryophylli Aromatici longius mucronatis, fructu majore, oblongo, Calyce Ampliſſimo, Tulipæ figuram quod ammodo repræſentante.* Breyn. Prod. 2. 16.

The *Borneo Camphire* is much more valuable than that of *Japan* or *Sumatra*, but as thoſe are cheaper, we have very little of the *Borneo* Kind brought into *Europe*.

There is a more precious *Camphire* than either of theſe, which comes from the Roots of the Cinnamon Trees in the Iſland of *Ceylon*; but this we never ſee.

The *Camphir* is got by diſtilling the Roots of theſe Trees with Water, in an Alembick with a Head made of twiſted and platted Straw; all the Humidity evaporates thro' the Head, and the *Camphir* ſticks to it. It is in this State of a greyiſh Colour, but after refining by Sublimation in a Sand Heat, it becomes white and tranſparent.

Taken inwardly, it is cordial, ſudoriſick, and anodyne, and uſed externally a powerful Diſcutient. The Antients believ'd it an Enemy to Generation, but that was wholly a Miſtake.]

14. *Of* Benjamin.

Pomet.

THIS is a Gum that flows from the Trunk and large Branches of a great Tree, by Inciſion, which grows plentifully in *Cochinchina*, chiefly in the Foreſts of the Kingdom of *Lao* and *Siam*; from whence the Attendants of the Embaſſadors of *Siam* brought a great Quantity to *Paris*, where it was ſold at a good Price.

We have two Sorts of *Benjamin*, that in Tears and that in the Lump: Chuſe that in Tears, of a golden Yellow without, and White within, with reddiſh and whitiſh clear Veins; brittle, without Taſte, but of a ſweet, agreeable, aromatick Smell.

This

This Deſcription of *Benjamin* will not fail to ſurprize thoſe who have never ſeen *Benjamin* as it comes from the Tree, and ſticks to the Bark, having ſeen no other at *Paris*, but a Quantity of other Kinds of *Benjamin*; the firſt of which is that we call the *Benjamin* in the Tear, though it is in a groſs Maſs, which is uſually clear and tranſparent, of a reddiſh Colour, mix'd with white Spots, as Almonds that are beat; whence it is called the *Amygdaloides*, or Almond *Benjamin*; this is the beſt Sort, and is ſaid to come from *Sidon*, and *Samaria*; but that which is brought to us comes from the *Eaſt-Indies*, from *Sumatra*, and *Siam*, *Malabar*, *Surat*, and *Java*.

The ſecond is the greyiſh, call'd *Benjamin in Sorts*, which if good, ought to be clean, of a good Smell, full of white Bits or Spots, as reſinous and little loaded with Filth as may be; but have nothing to do with the Black, which is earthy, and full of Droſs; and beware of the Artifice of having them all mix'd together, that they may ſell the better. This Gum was not formerly uſed inwardly, either by the *Indians* or *Europeans*; but ſince Chymical Phyſick has been in Vogue, the following Preparations are made from it, a Tincture, Magiſtery, Flowers, Cryſtals, and Oil. The Flowers, according to *Lemery*, are made by putting the *Benjamin* into an earthen Pot, covering it with a Cone of Paper, and tying it round about under the Border; then ſetting it into hot Aſhes or Sand; and, when the *Benjamin* is heated, the Flowers will aſcend. Shift the Cone, and ſweep off the Flowers every Hour or two, and keep them in a Bottle cloſe ſtopp'd. *Note*, That *Benjamin* being very full of volatile Particles, eaſily ſublimes over the ſmalleſt Fire, and the Flowers aſcend in little Needles, very white; but if you give never ſo little Fire more than you ſhould do, they carry along with them ſome of the Oil, which will make them yellow and impure; you muſt therefore perform the Operation gently to have the Flowers fair, which will have a very pleaſant Flavour and Acidity.

Theſe Flowers are, without doubt, the moſt eſſential Part of the *Benjamin*, whoſe principal Virtues are as well to ſubtilize bad Humours and expel them through the Pores of the Skin, as to looſen and expel the thick and viſcous by the ordinary Ways, chiefly thoſe of the Breaſt and Lungs: Doſe from three Grains to ten in any proper Liquor. They are profitable in vehement Catarrhs, Coughs, Colds, Aſthmas, and Obſtructions of the Lungs; procure Sweat excellently in venereal Caſes, given in a Decoction of *Guajacum*, and fortify a weak Stomach. From theſe Flowers a Tincture is likewiſe extracted with Spirit of Wine tartarized, whoſe ſulphureous Parts have a good Agreement with the volatile Salt of the *Benjamin*; ſo that this Spirit not only extracts a Tincture from the Flowers, but from the buttery Subſtance of the Gum, much more pure and ſubtil, and which will work in leſs Quantity than the Tincture drawn out of the crude or groſs *Benjamin*.

Benzoinum officinarum, *Ben Judæum*, or *Aſa dulcis*, the *Benjamin* of the Shops, is a reſinous Subſtance, running together in large Lumps or Clots, being bright, ſhining, of a brown Colour, brittle, and eaſily crumbled into Bits, adorn'd with ſeveral white Flakes or Specks, like the inner Subſtance of Almonds, inflammable and odoriferous. *Lemery.*

Benjamin is moſt eſteem'd when it is very clear, and almoſt tranſparent, of a light brown Colour, inclining to red, and plentifully furniſh'd with white Flakes; that which is black is not ſo much valued: This is brought from the *Eaſt-Indies*, but more particularly from *Sumatra* and the Kingdom of *Siam*. The *Benjamin Tree* is large, tall, and beautiful, as *Garcius ab Horta* relates, bearing Leaves like the Citron, or Lemon Tree, but ſmaller, and not ſhining ſo much, being whitiſh upon their under Side.

A Tree bearing the Leaves of the Citron or Lemon Tree, and dropping *Benjamin*, which ſeems to anſwer the Deſcription of *Garcius*, was not many Years ago ſent out of *Virginia*, by Mr. *Baniſter*, to the Right Reverend *Henry* Lord Biſhop of *London*, which grows now in the Royal Garden at *Paris*, being the Gift of the aforeſaid Biſhop. It flowers in the Beginning of the Spring, but has not produced any Fruit as yet. *Benjamin* promotes Expectoration, and is of great Force and prevalency in the Aſthma, or Stoppage of the Lungs, and a lingering phthiſical Cough; but chiefly the Flowers of it, which being freſh and new made, may be given from ſix Grains to twelve: They are likewiſe endued with a Virtue to provoke Urine and Perſpiration, and the following is admirable in a Pleuriſy. Take *Carduus*, and red Poppy Water, of each three Ounces; Flowers of *Benjamin*, ten Grains; of the Oil of Cinnamon, two Drops; Syrup of red Poppies, one Ounce; make a Potion to be repeated according to the Nature of the Diſeaſe, twice or thrice in twenty-four Hours.

[The Tree which produces the *Benjamin* is the *Arbor Virginiana Piſaminis folio baccata Benzoinum redolens*, Pluk. Alm. 42. *Arbor Benzoinifera*, Breyn. Prodr. 2. 16. *Arbor Benzoini Grimmi*, Ephem. Germ. A. 11. 376. F. 31. It grows both in the *Eaſt* and *Weſt Indies*. We have the *Benjamin* from the *Philippine* Iſlands, from *Siam* and *Sumatra*.

We

We have three Kinds of *Benjamin* in the Shops; the *Amygdaloides*, which is reddiſh, with white Specks; the Grey, and the Black: The firſt we have from *Siam*, the ſecond from *Java* and *Sumatra*, and the laſt from *Sumatra* only.

There is beſide this Difference in that from the ſame Tree; that Part of it is white and yellow, and perfectly fine, and Part browniſh, dark and dirty.

Benjamin was unknown to the antient *Greeks* and *Arabians*; and there were many Diſputes among the later Writers about the Tree that produced it, before the Truth was known.]

15. *Of* Red Storax.

Pomet. THE *Red Storax*, or *Frankincenſe*, of the *Jews*, which is very common among us, is a Roſin, iſſuing from the Trunk and thick Branches of a Tree that is of no great Height, but whoſe Leaves reſemble thoſe of the Quince Tree, only that they are ſmaller, and the Fruit is of the Bigneſs of a Filbert, in which is contain'd a white Kernel that is oily, and of a Smell entirely like the *Storax*; and as the *Storax* is ſometimes found in Pieces in the Shells of this Fruit where it has accidentally got in, it gives Occaſion to ſeveral to believe that the *Storax* runs from theſe Nuts.

This Gum is brought us by the Way of *Marſeilles*, from ſeveral Parts of *Syria* and the *Levant*, where thoſe Trees grow plentifully. Chuſe that which is in Lumps or Clots, of a red Colour, with ſome ſmall whitiſh Lumps interſperſed, ſweet, and of a fragrant Smell; but reject that which is dry, black, branny, or foul, and ſmells like the Liquid *Storax*; as alſo refuſe the *Storax* in the Cake or Roll, which is a Compoſition of Liquid *Storax*, and abundance of other Drugs of little Worth; as alſo that which is in Duſt, being little elſe but the Saw-Duſt of the Wood. *C. Bauhinus* ſays, the Tree which produces it is about the Bigneſs of the Olive Tree, and grows in the Woods of *Provence* in *France*, between *St. Magdalen* and *Toulon*: In its Trunk, Bark and Leaves, it reſembles the Quince Tree. The Flowers grow upon ſmall Twigs, being not much unlike the Flowers of the Orange Tree; but ſingle leav'd, having their lower Part fiſtulous, and their upper Part ſtarr'd like a hollow Cup, and Bell-faſhion'd, containing a round globous Pointal, that paſſes away into a Fruit of the Bigneſs and Shape of a Filbert Nut, being thick and pulpy; at firſt of a ſweetiſh Taſte, but afterwards turning bitteriſh, in which is contain'd a Stone that is very hard, including a white Kernel.

16. *Of* Calamite Storax.

THE *Calamite Storax*, or that in Tear or Grains, which we have from *Marſeilles* or *Holland*, is a reddiſh Maſs, full of white Grains or Bits, and ſometimes they are ſeparate, that is to ſay, it is all in Tears, white within and reddiſh without, of a middling Conſiſtence, and of a ſweet fragrant Smell, almoſt like Balſam of *Peru*. Chuſe ſuch as is in ſeparate Tears or ſmall Pieces, and the drieſt and leaſt ſticking to the Fingers that may be.

Storax Calamita is of a reſinous Subſtance, fat, clammy, ſoft in handling, of a fragrant Smell, and a reddiſh Colour: The beſt is that which is in Grains, and with ſome white Fragments in it, or yellowiſh, with a very ſweet Scent, and that yields like Honey when ſoften'd. That is worſe which is mix'd with Bran, but that which is mix'd with Saw-duſt, or is black and mouldy, or without Scent, is worſt of all, and naught. *Matthiolus* ſays, it is a concreted Roſin from a Tree, dry and ſweet, and is called *Storax Calamita*, from the *Calami*, or *Canes*, in which it was uſed to be brought from *Pamphylia*.

Mr. *Charas* ſays, he believes that the *Storax* which is brought to us, and which they pretend to bring out of the *Eaſt*, is not the true *Storax*, but a Compoſition: The high Price at which it has been ſold for theſe many Years, has encouraged the Villainy of thoſe Cheats, and the Trials which he had made thereof had convinced him. It cannot, however, ſays he, be counterfeited with *Galbanum* or *Ammoniacum*, becauſe of their ſtrong Scent, whereas *Storax* is very pleaſing and odoriferous; but doubtleſs, it may be adulterated with the white Tears of Benjamin, or ſome reſinous Gum without Scent, or which may be eaſily out-ſcented by the *Storax*: To which Purpoſe, continues he, I have thought fit to publiſh what I have experimented, *viz.* That having *Storax* in Tears by me, whoſe Smell, Taſte, Colour, Form, and Body, were ſuch as are required in the true *Storax*, I undertook to ſoften one Tear in my Hand, intending to incorporate it afterwards with other Drugs of a like Subſtance: I was aſtoniſh'd when I found all the good Scent of the *Storax* to be loſt in my Hand, and the ſame Tear not fit to impart any Scent or Virtue to the aromatick Balſam I was making: Therefore, truſting neither to the *Storax* made up like Bowls, which is encreaſed with Liquid *Storax*, nor to the other full of Saw-duſt, which is ſold in the Shops; I choſe a *Storax* of a very delicious and fragrant Scent, full of Grains or little Tears, and free from Dirt, out of which I extracted the Gum thus: Take of this

Storax

Storax eight Ounces; put it into a Pipkin with a Pint of White-Wine; place it over the Fire, and ſtir the Whole gently with a *Spatula*, 'till it is ſufficiently diſſolv'd; put it out immediately hot in a ſtrong Bag, tie it hard juſt above the Gum, and preſs it out between two hot Plates; ſo will you have about two Ounces of pure Gum, both fair and fragrant, and every way exceeding all the Sorts of *Storax* in Tears.

It is emollient, digeſtive, cephalick, neurotick and pectoral; cures Coughs, Catarrhs, Hoarſeneſs, Heavineſs, Barrenneſs, and Hardneſs of the Womb: Taken with Turpentine as a Pill, it opens the Belly, and, after an excellent Manner, eaſes the Pains of the Stone, and takes away all Obſtructions of Urine by Sand, Gravel, *&c.* Outwardly it is vulnerary, diſcuſſes Tumours, eaſes all Sorts of Pains and Aches, and ſtops Catarrhs, uſed as a Fume. The Tincture of *Storax* has all the Virtues of the Gum, ſtops *Gonorrheas*, and is ſaid to be a Specifick againſt Barrenneſs in Women: It is a Cordial againſt fainting Fits, and alſo good in Diſeaſes of the Head, Brain and Nerves. The Pills made up with this Gum and *Chio* Turpentine have all the Virtues of the Gum, ſtop Gleetings in Men and Women, eaſe Pain in making Water, and remove all Obſtructions of Urine. Doſe from a Dram to two Drams. There is an acid Spirit drawn from it, that is aperitive and very penetrating, and the yellow Oil is good againſt Palſies, Numbneſs, Convulſions, *&c.* either inwardly taken to three or four Drops, or outwardly applied to the Part affected. The red Balſam made of the *Storax* has the ſame Virtues, but is not ſo ſubtil and pure, and ſo is ſeldom given inwardly.

17. *Of Liquid* Storax.

Pomet. THE Liquid *Storax* is a thick viſcous Matter, of the Conſiſtence of Balſam. It is compoſed of four Ingredients; which are, *Storax*, the raw Pine-tree Pitch, call'd white Incenſe, Oil and Wine, beat up in Water to the Conſiſtence of an Ointment, of a greyiſh Colour like Potters Clay. Chuſe your Liquid *Storax* as grey as may be, that has the *Storax* Smell, of a good Conſiſtence, and as little of Filth and Dirt as may be: Its Uſe is in Surgery, eſpecially for an Ointment that bears its Name, and is much uſed in the Hoſpitals, eſpecially *Hotel Dieu* in *Paris*, where it ſerves them very ſucceſsfully in the Cure of the Scurvy, Wounds and Gangrene: The Perfumers uſe it but ſeldom, if they can get the other *Storax*.

It is a fat Balſam-like Subſtance, much thicker than *Venice* Turpentine, of a ſtrong Smell and of a whitiſh Colour, which is kept in Water becauſe of its Clammineſs: It is brought to us from the *Streights*; that this *Storax* differs much from the other, is apparent. *Matthiolus*, *Dioſcorides* and *Bauhinus*, are of Opinion it is the Compoſition before deſcrib'd; but *Serapio* will have it to be an Exudation from the Kernels or Fruit of the Tree: *Avicenna* will have it from the Bark; and *Gerard* a Liquor, or Gum, that falls from the *Storax-Tree*, and will never be hard: *Parkinſon* ſaith, that none of the Ancients have made Mention of any ſuch Thing, and ſays, it is aſſuredly ſome other Thing, of which, as yet, we have no Knowledge; but whether we know the Original of it or no, it is leſs Matter, ſince we know the Thing, and, by manifold Trials, the medicinal Uſes thereof. Inwardly taken it opens Obſtructions, diſcuſſes Wind, expels Vapours, helps Hyſterick Fits, eaſes the Cholick, and provokes Urine. Doſe from half a Dram to a Dram, in Pills or a Bolus. Outwardly, it is good againſt Sciatica, Palſy, Contraction of the Joints and Nerves, Bruiſes, Wounds, Ulcers, *&c.* made into a Balſam, or Plaiſter.

18. *Of* Paſtiles.

Pomet. THE *Paſtiles* for burning are a Compoſition of *Benjamin* and *Storax*, diſſolved together over a ſmall Fire as quick as may be: They are form'd into Tables of what Shape you pleaſe, and are in Goodneſs according to the Materials of which they are made; ſome add to them Muſk, Civet and Ambergreaſe. In ſhort, they are made richer and meaner, as the Maker will afford; but the more uſual Additions are *Liquid Storax*, *Rhodium* and *Labdanum*; and to make them black they ſeldom uſe any thing elſe than Charcoal: M. *Charas* mentions three Sorts, which may be found in his Book of Chymiſtry, *Page* 1057, where he calls them *Trochiſci Odorati vel Aviculæ Cypreæ*.

19. *Of* Virgin Milk.

Pomet. BESIDES the *Virgin Milk* made with *Lytharge*, we make another from Tincture of *Benjamin* and *Storax*, which is what the Surgeons and Barbers uſe, by reaſon of its pleaſant Smell. The Tincture of *Benjamin* and *Storax* is call'd *Virgin Milk* Tincture; becauſe when it is put into Water it will turn it white as Milk. Thoſe who would have their *Virgin Milk* fine uſe the dry Balſam of *Peru* in Shells, and *Storax* in Tears; to which they add Muſk, Civet and Ambergreaſe. Some who value

value not the Smell add Myrrh, becauſe good for taking away red Spots in the Skin. This Tincture ought to be very fine, red, clear, and very fragrant, ſmelling the leaſt of the Spirit of Wine that is poſſible.

Lemery.

Styrax, or *Storax*, is a fragrant reſinous Gum, whereof there are three Sorts: The firſt is call'd *Styrax ruber*, or the *Red Storax*; and by ſome *Thus Judæorum*, the *Jewiſh Frankincenſe*, becauſe they believed it was the *Frankincenſe* which the *Magi* carry'd to the Saviour of the World. This Gum is in the Maſs reddiſh or yellow, which they draw by Inciſion from a Tree of a moderate Height, call'd *Styrax Arbor* by *Gerard* and *Ray*, and *Styrax folio Mali Cotonei*, by *C. Bauhinus* and *Tournefort*. This Tree is like that of the Quince, but the Leaves are much ſmaller, oblongiſh, firm, green on the upper Side, and whitiſh underneath, and downy. The Flowers grow upon the Branches, collected ſeveral together; each of which, according to Mr. *Tournefort*, is a Funnel open at the Top, and cut into ſeveral Parts, diſpoſed round, that makes a larged jagged Cup of ſeveral Points: When the Flower is gone there appears the Fruit, of about the Size of a Filbert, that is white and cover'd with a fleſhy Rind, the Taſte ſomething bitteriſh; and under this Rind, or Shell, are two or three hard ſtrong Kernels, full of a ſoft oily Seed, that has a Smell like the Gum of *Storax*, and an unpleaſant Taſte: The Gum ought to be choſen neat, ſoft, fat, of a ſweet pleaſant aromatick Smell, and not too dry: It is ſometimes full of the Saw-duſt of the Wood of this Tree, and other Impurities.

The ſecond Sort of *Storax* is nam'd *Calamita*, becauſe it is often brought in Reeds to preſerve its Beauty and Smell: Sometimes it is brought us in reddiſh Lumps, full of white Specks; ſometimes in ſeparate Tears, which, if fine, you ought to chuſe, or elſe ſuch as come in clean ſmall Bits, that are reddiſh without and white within, and that ſmell like the Balſam of *Peru*: Theſe two Sorts contain a good deal of Oil and ſome volatile Salt, are proper to ſtrengthen and refreſh the Brain, Nerves and Stomach, reſiſt malignant Humours, and mollify the Hardneſs of the Spleen, Glands, *&c.* The third Sort is *Liquid Storax*, which is an oily, viſcous, groſs Matter, having the Conſiſtence of a thick Balſam, being made up of ſeveral Bodies incorporated together; and is emollient and very reſolutive, and revives the Brain by its Smell; but is ſeldom apply'd otherwiſe than externally.

[The *Storax-Tree* is the *Styrax Arbor*. J. B. 1. 341. Rai. Hiſt. 2. 1680. *Styrax Arbor vulgaris*. Park. 1530. *Styrax folio mali Cotonei*. C. B. Pin. 452.

There are two Sorts of the *Dry Storax*, the *Calamita* and the *Rubra*, theſe are both the ſame Gum, but different in Purity; the *Calamita* is that in Grains, and the *Rubra* that in the Lump.

The true *Liquid Storax* is a reddiſh brown Subſtance, of the Conſiſtence of common Turpentine and of a ſtrong Smell, made from the Bark of the ſame Tree which produces the other *Storax*; but this is no where to be found among us at preſent; what is now ſold under that Name is a Bird-lime made with the Bark of the *Indian Roſa Mallos*, boil'd in Sea Water; and even that we can ſeldom meet with, the Mixture deſcrib'd by *Pomet* being generally ſold inſtead of it.]

20. *Of the* Abyſſine Myrrh.

Pomet.

MYRRH is a reſinous Gum that flows from a little Shrub that is very thorny, by Inciſions that are made into it, in clear tranſparent Tears of a white Colour, that in growing older become of a deep Reddiſh. Theſe ſmall Trees, whoſe Leaves come neareſt in Likeneſs to the Elm, grow plentifully in *Happy Arabia*, *Egypt* and *Africa*, eſpecially among the *Troglodytes*, from whence it derives its Name, as well as that from *Abyſſine*; becauſe they gather a great deal in the Kingdom of the *Abyſſines*, or *Preſter John*'s Dominions. Chuſe the fineſt Tears, of a golden yellow Colour, clear and tranſparent, brittle, light, bitter to the Taſte, of a ſtrong agreeable Smell: And thus choſen, it is the true *Myrrh*, or *Stacte* in Tears.

They ought to be undeceived who believe, according to what a late Author has advanced, that all the *Myrrh* the Druggiſts ſell has not the requiſite Qualities it ſhould have; as for the little the Apothecaries ſell, it is not worth ſpeaking of; beſide, that what they ſell they firſt buy of the Druggiſts. However, as we cannot always find *Myrrh* ſo perfectly fine as we could wiſh, we muſt be ſatisfy'd if we get that in ſmall Lumps, or large red Tears, clear and tranſparent, that when broke has little white Spots in it: This is brought out of *Turky* and *Æthiopia*, from whence comes the beſt Kind, being of a bright yellowiſh, or red Colour, ſomewhat clear, brittle, of a biting and very bitter Taſte, a ſtrong Smell, fat, reſinous, and mark'd within with white Specks: It is either firm and ſolid, which is properly call'd *Myrrha*; or liquid, which, according to *Dioſcorides*, is call'd *Stacte*, which is ſo gather'd from the Tree without Force.

There is prepared from it an Extract, an Oil or Liquor of *Myrrh*, Troches, and an Oil by Diſtillation: As to the Liquor, *Lemery* ſays it is the true ſoluble Part of the *Myrrh*, moiſten'd

with the Humidity of the Whites of Eggs, and the moiſt Places in which it is made, which is generally a Cellar; and in his Opinion this is the beſt Oil yet invented; for if it be drawn by Spirit of Wine or Diſtillation in a Retort, it is ſo torrified that it loſes its beſt Parts; whereas *per Deliquium*, what volatile Parts this Gum contains are preſerved in their natural Being, the Humidity joyn'd to it not being able to alter its Nature.

Myrrh opens and removes all Obſtructions of the Bowels, provokes the Courſes, and removes all, or moſt Diſtempers incident to the Womb; being given in a Bole, Electuary or Powder, from ſix Grains to twenty. *Stacte* is that liquid Part which is found in the Centre or Middle of the Lumps or Clots of *Myrrh*, when they are freſh and new, or ſqueez'd from the *Myrrh*, as *Diaſcorides* teaches. Beſides its opening and anti-hyſterick Faculty, it is likewiſe uſed with Succeſs in a Quinſey, Hoarſeneſs, Cough, Pleuriſy, Fluxes of the Belly, and Quartan Agues: Outwardly, in Wounds, Tumours, Gangrenes and rotten Bones: It attenuates, diſcuſſes and reſiſts Putrefaction. *Myrrh* has given a Name to the Troches of Myrrh: It is alſo uſed in *Venice Treacle*, in the Confection of Hyacinth, Pills of Agarick, the Divine Plaiſter, in *Oxycroceum*, and many other Compoſitions.

Myrrha, or *Myrrh*, is a reſinous Gum, that flows by cutting a thorny Tree that grows in *Arabia Felix*, *Egypt* and *Æthiopia*, in the *Abyſſines* Country, and amongſt the *Troglodytes*; for which Reaſon the beſt is call'd *Myrrha Troglodytica*. It ought to be freſh, in fine clear Tears, light, of a golden Yellow, or reddiſh Colour, having little white Specks within, like thoſe upon the Nails, of a fat Subſtance, a ſtrong Smell, and not very pleaſant, the Taſte bitter and acrid; but as this Gum ſo choſen is rare, it ought to be reſerv'd for internal Uſes, and the common may ſerve for Plaiſters, Ointments, *&c.* It is aperitive by Urine, and a little aſtringent by Stool, provokes the Courſes, and haſtens the Birth, is an excellent Vulnerary and proper in Ruptures, both internally and externally apply'd. The *Myrrh* which the wiſe Men of the *Eaſt* preſented to our Saviour, was likely a Drug different from ours; for it is repreſented to us as a very precious aromatick Perfume, inſtead of which our *Myrrh* is common, and has neither Taſte nor Smell that is agreeable. Some hold that it was the *Stacte*, of which I ſhall treat in its Order; others will have it to be the *Storax*; others again pretend that it was a very ſcarce and fragrant Gum, or Balſam, which had then the Name of *Myrrh*, and which is now unknown to us by that Name; but this is a Matter too difficult to decide here. *Lemery.*

[The Tree which produces the *Myrrh* is yet unknown in *Europe*, and *Fuchſius* and many others are of Opinion, that what we ſee under the Name of that Drug was not the *Myrrh* of the Antients, but that what we now call *Benjamin* agrees much better than it with their Deſcription of the *Myrrh*.

The moſt probable Conjecture in regard to the *Myrrh* offer'd by the *Magi* to our Saviour is, that it was an oily Liquor found in the Body of the *Myrrh-Tree*, as we have ſome Sort of Mention of ſuch a Subſtance in ſome old Authors, who ſpeak of it as very precious, and an Ingredient in the richeſt Perfumes.]

21. *Of the* Myrrha Stacte, *or* Liquid Myrrh.

THE *Stacte*, or *Liquid Myrrh*, is that which was preſented to our Lord and Saviour by the *Magi*, or wiſe Men, and which the Ancients call *Stacten*, or *Myrrha Stacte vel Electa*, whoſe Scent was very grateful; as is obſerv'd in the third Leſſon of the Office of the Virgin, where it is ſaid in expreſs Words, *Quaſi Myrrha electa dedi ſuavitatem odoris.* It was a fat unctuous Liquor, which is met with in *Myrrh* newly fallen from the Tree, as alſo that which falls from young Trees, without Inciſion. But as at preſent this precious Merchandiſe, or Commodity, is altogether unknown to us, ſeveral Perſons have invented an artificial *Stacte*, by diſſolving *Myrrh* in Oil, which they call *Stacte Unguent.* Others make it thicker, and give it the Name of *Artificial Stacte.* *Pomet.*

Stacte, *Stacten*, *Myrrha Stacte*, or *Liquid Myrrh*, is a Kind of Balſam, or gummy Liquor, that is of a fragrant Smell, and collected from under young Trees that produce *Myrrh*, and which drops from them without cutting. The Ancients preſerv'd this Drug as a precious Balſam, and believed, with juſt Reaſon, that it was that Kind of *Myrrh* ſpoke of in the Goſpel, and which the *Magi* brought to the Saviour of the World at *Bethlehem*, with Gold and Frankincenſe. This has the ſame Virtues with the other *Myrrh*, but is more efficacious; though the *Stacte* that we have brought us by the Merchants is oftentimes artificial, being made by diſſolving *Myrrh* in Oil, and mixing a little Wax with it, to give it a Conſiſtence. *Lemery.*

[The true *Stacte*, according to *Dioſcorides*, was no other than a liquid *Myrrh*,, either preſs'd out

of

of the common *Myrrh* a little moiſten'd, as he was of Opinion; or, according to *Pliny*, flowing naturally from the *Myrrh-Tree* without Inciſion. It is the common Opinion that this was the *Myrrh* offer'd to our Saviour; but I cannot conceive how any Preparation of *Myrrh*, by Expreſſion, could be ſo precious or ſo excellent as that muſt have been; and if it was only the ſpontaneous Flowings of the Tree I cannot but think we ſhould certainly have been better acquainted with it by this Time, as naturally, among the Quantity of *Myrrh* we receive, we ſhould at one Time or other have ſeem ſome of it.]

22. *Of* Aſſa Fœtida.

Pomet. *ASSA Fœtida* is a Gum that flows, during the Heats, from the Trunk of a ſmall Shrub, whoſe Leaves are like Rue, that grows plentifully in the *Indies*, eſpecially about the City of *Utar*, where it is call'd *Hingt*. It alſo comes from *Perſia*, *Aſſyria* and *Libya*. The Natives of the Place cut the Trees juſt at the Roots, from whence runs a white Gum, inclining to Red, of a very ſtinking Smell; for which Reaſon the *Germans* call it *Stercus Diaboli*, or *Devils Dung*.

Chuſe the *Aſſa Fœtida* in Clots, or Lumps, full of white Tears, dry, and which being freſh cut, will be of a yellowiſh White, that in a little Time after changes into a fine Red, tending to a Violet Colour, and whoſe Smell may be born with; and meddle not with that which is fat, naſty, full of Dirt and Ruſhes that come along with it. Likewiſe reject ſuch as is black, and of ſuch a diſagreeable Smell as is ſcarce poſſible to bear: This Drug is of great Importance in Medicine, and much uſed by Farriers as well as the Phyſicians.

There are ſeveral other Names that *Aſſa Fœtida* goes by; as the *Syrian* Juice, or Liquor, the *Median*, *Perſian*, *&c.* The greateſt Part of it that comes to *France* is brought from *London*, from whence it is brought in large Earthen Veſſels, like thoſe in which we have Oil of Turpentine brought us ſometimes from *Provence*. They have ſuch vaſt Quantities of *Aſſa Fœtida* ſometimes in *London*, as well as other Drugs, that they have great Warehouſes fill'd with theſe Kinds of Commodities.

The *Aſſa Fœtida* in Tears is much finer and fitter for internal Uſe than that in the Lump.

Lemery. *Aſſa Fœtida* is a Gum in great yellow Clots, of a ſtrong unpleaſant Smell, that drops out of the Trunk of a Shrub whoſe Leaves have a great Reſemblance to thoſe of Rue: But *Bon* aſſures us, that it is preſs'd out of the Roots of a certain Plant growing in the Kingdom of *Perſia*, not far from the Sea-Coaſt: And that there are two Kinds of this Plant, the firſt being a Sort of a Shrub, bearing Twigs and Branches very much reſembling the Willow, or Oſier: The *Aſſa Fœtida*, ſays he, is preſſed out of the Chives, or Flowers, of this Plant, being cut ſmall and bruiſed, which afterwards is dry'd and harden'd. The ſecond Kind of *Aſſa Fœtida* is preſſed out of the Roots of a Plant that ſends forth very thick and ſtinking Stalks, bearing Leaves like thoſe of *Spurge*. That of the Shops is a reddiſh Gum, conſiſting of whitiſh, and ſometimes Carnation and Violet colour'd Drops, being of a bitter biting Taſte, and a ſtrong, vehement rank Smell, like Garlick or Leeks; that is the beſt which is brought out of the Eaſtern Parts, in clear, pure, tranſparent Drops: It is adulterated with *Sagapenum*. This Gum is cephalick, ſplenetick, hyſterick and vulnerary; but chiefly uſed in Obſtructions and Suffocation of the Womb, Obſtructions of the Liver, Spleen and Lungs. It has been found a Specifick in the Epilepſy, Vertigo, Lethargy, and other Diſeaſes of the Head. Doſe from half a Scruple to a Dram, in Pills or otherwiſe.

This Gum will diſſolve in Water, Vinegar or Wine, and therefore conſiſts moſt of aqueous Parts, and has very little of Roſin in it; for which Reaſon it is not ſo often uſed with Spirit of Wine as with aqueous Menſtruums. *Schroder* ſays, if any be troubled with the Epilepſy he ought preſently to ſit with his Head over the Fumes of *Aſſa Fœtida*; but it is generally taken inwardly in Pills or Tincture.

[The Plant which produces the *Aſſa Fœtida* is the *Aſſa Fœtida Diſgunenſis Hingiſch, Umbellifera Leviſtico Affinis, Inſtar Pæoniæ ramoſus caule pleno, maximo ſemine foliaceo, nudo, ſolitario Branchæ Urſinæ vel Paſtinachæ ſimili Radice Aſam fœtidam ſudente.* Kœmp. Amæn. Exot. 535, Fig. 536.——*Altith ſeu Aſafœtida, Javanis & Malaiis Hin.* Dicta Bont. 41. The *Aſſa Fœtida* flows either ſpontaneouſly or by Inciſion, from the Root. There have been various Opinions among Authors about the Plant which produced this Drug, and ſeveral different Trees and Plants have been deſcribed as yielding it. It is to *Kempfer* that we owe the Knowledge of the Truth. Many have doubted whether our *Aſſa Fœtida* be that of the Ancients; becauſe they call'd it the Food of the Gods; but we now find that the *Perſians*, *Indians*, and other *Eaſtern* People, eat it in Sauces, and call it expreſly by that Name. The Plant which produces it grows plentifully in the Province of *Labir*, in the Domi-

nions of the Great Mogul, and of *Chorasan* in *Persia*.]

23. *Of* Galbanum.

Pomet. GALBANUM is a Gum that flows from the Root of a Plant which the Botanists call *Ferula Galbanifera*, or the Fennel-Giant, bearing the *Galbanum*, whose Leaves are, according to the Figure described, taken from the Original which I have in my Hands, given to me by Mr. *Tournefort*: On the Top of the Stalks grow flat Seeds of the Size and Thickness of our Lentils, which are frequently found among the common *Galbanum*. This Plant flourishes in *Arabia Fœlix*, *Syria*, and throughout *India*.

We have two Sorts of *Galbanum* from *Marseilles*; to wit, that in Tears and that in the Mass: The first ought to be chosen in fine Dróps, yellow within and of a golden Colour without, bitterish in Taste, and of a very strong Smell. The other Sort in the Mass ought to be chosen dry, clean, the most furnish'd with white Tears, and the least fetid that is possible. It is a Drug much used in Physick, as well internally as externally.

Galbanum ought to be chosen fat, inclining to a reddish Colour, consisting of several whitish and shining Lumps; it will not dissolve in Oil, but easily in Water, and is of a pungent bitter Taste and a strong Smell: It powerfully brings down the Courses, cures the Suffocation of the Womb, expels the After-Birth, and helps to fetch away a dead Child. The Fumes of *Galbanum* are very prevalent against Hysterick Fits or Vapours, and is given in Substance from half a Scruple to half a Dram. A Plaister made of *Galbanum* is very properly and profitably apply'd to the Navel in Hysterick Fits or Vapours; or else the Navel may be anointed with the Oil in the same Cases. The *Galbanetum* of *Paracelsus* being an effectual Medicine in a Palsy and Cholick, is prepar'd after the following Manner: Take *Galbanum* one Pound, Oil of Turpentine half a Pound, Oil of Lavender two Ounces, dissolve and digest them in a Retort, with a sufficient Quantity of powder'd Lime, and keep the Liquor for Use. *Galbanum*, outwardly apply'd, resolves and discusses Tumours, upon which Account it is apply'd, by way of Plaister, to venereal Buboes, and helps to discuss all Sorts of schirrous Tumours.

Lemery. *Galbanum* is a Gum whereof we have two Sorts, the one in yellow Tears, or Drops, of a strong Flavour and unpleasant Smell, of a bitter Taste and a little acrid. The other is in a large fatty and glutinous Mass, full of Stalks and Dross, and of a very stinking Odour. Both Sorts flow by Incision from the Root of a Kind of Fennel-Giant, which grows in *Arabia*, about the Height of a Man; the Stalk is thick and full of Pith, the Leaves broad and large, resembling those of Parsley: The Flowers grow in Tufts, or Clusters, composed usually of five Leaves, made like a Rose at the End of the Cup; when the Flower is gone the Cup becomes a Fruit, consisting of two very large Seeds, that are oval, flat, and thin, like those we see come over in the *Galbanum*.

That which is in Drops, yellow, pure, fat, heavy, and not sticky, yet with some Branches or Bits of the *Ferula* in it, is to be chosen, which is not too dry or moist, and flames when burnt. It softens, dissolves, discusses, and yet extracts Things forth of the Flesh: It is chiefly used against Vapours, Fits of the Mother, and Obstructions of Liver, Spleen and Womb. It dissolves Tumours and Nodes, gouty Swellings and Pains, being apply'd Plaisterwise to the Parts afflicted.

Galbanum is dissolv'd, as some other Gums are, in any Liquor, as Water, Vinegar, or Wine; dissolve it in the Liquor, strain and inspissate, and it is what is call'd *Galbanum Colatum*: Some hang it in a Cloth over the Vapour of a Bath, and so let it drop out; but others put it into hot Water, and cast off the Rubbish which swims at the Top. Oil of *Galbanum* is made by a Retort with Vinegar; the Tincture by Spirit of Wine acuated with Spirit of Nitre.

[*Galbanum* is a Gum Resin, which is got by Incision from the *Ferula fruticosa semper virens, foliis anisi, Galbanifera ex qua Galbanum officinarum.* Par. Bat. Prodr. 334. *Oreoselinum Africanum Galbaniferum frutescens Anisi folio.* Tourn. Inst. 319. *Oreoselinum Anisoides Arborescens Liguslici foliis & facie, flore luteo Capitis Bonæ spei.* Breyn. Prodr. 2. 79.

There are two other Species of the *Ferula*, which also yield a *Galbanum* no way distinguishable from the common Kind, these are the *Ferula Africana Galbanifera frutescens, Myrrhidis folio.* C. Commel. Hort. Amst. 11. *pag.* 115, and the *Ferula latiore folio.* Hist. Ox. 3. 309. But all the *Galbanum* we use is from the Species first named.]

24. *Of* Gum Sagapenum.

Pomet. THE *Sagapenum*, likewise call'd *Serapinum*, because of its Smell, that is almost like that of the Pine, and by the *French*, *Gum Seraphin*, flows from the Trunk of a Plant whose Leaves are very small, and the Seeds resembling those of *Galbanum*, except that they are less. It grows plentifully in *Persia*, *Media*, &c. from whence the Gum is transported to

of Gums.

Book 8.

lbanum.

G. Segapem.

popanax.

G. Ammoniack.

to us and all other Parts of *Europe*. Chuſe your *Sagapenum* in fine Tears, clear and tranſparent, of a ſtrong Smell like that of the Pine; outwardly of a yellowiſh or reddiſh Colour, inwardly the whiteſt and leaſt full of Dirt and Filth that can be. This enters into ſeveral *Galenical* Compoſitions. Mr. *Wormes*, a *Daniſh* Phyſician, ſays, in a Book of his, that it is admirable for the Falling Sickneſs and Palſy; I know, by my own Experience, that it is excellent for Aſthmas, taken about the Bigneſs of a Pea at Bed-time, and the ſame Quantity in the Morning riſing.

This Gum is attractive, drawing forth Splinters, Thorns, *&c.* gotten into the Fleſh; it has, as *Hoffman* fanſies, a peculiar magnetick Quality, *qua inteſtina diſlocata in Iliaca Paſſione ex Hernia, in priſtinum reducit locum*; for which Reaſon he made it the chief Ingredient in the magnetick Emplaſter. It is alſo uſed in Diſaffections of the Womb, and being apply'd, it cures the Sty in the Eye-Lid. It purges Water and all groſs Humours from the Stomach, Guts, Womb, Reins, Head, Nerves, *&c.* Is good in Dropſies, Convulſions, Palſies, Numbneſs, Weakneſs and Obſtructions; beſides which, it is excellent in Pleuriſies, to eaſe Pains and diſſolve hard Tumours of the Spleen. Doſe from one Dram to two Drams; but becauſe it is apt to diſturb the Stomach, it is corrected with Ginger, Cinnamon and Maſtich.

Sagapenum, Serapinum, Sacoponium, Lemery. is a Gum reddiſh without and whitiſh within; of a ſtrong unpleaſant Smell, of an acrid Taſte, that flows by Inciſion from a Sort of Plant that is of the Nature of Fennel. Chuſe *Sagapenum* in Drops, that are pure, neat and bright: It yields abundance of Oil and volatile Salt, and will diſſolve in Wine, Vinegar, and in Juice of Plants; but had better be reduced to Powder when uſed in Compoſitions that require its Diſſolution. This Gum is inciſive, penetrating, aperitive, a little purgative, ſudorifick; opens Obſtructions of the Spleen, Meſentery and Liver; aſſiſts Reſpiration, and ſtrengthens the Nerves; is good in Epilepſy, Palſy and Aſthma; to provoke Urine and the Terms, and to ſuppreſs Vapours. Doſe ten or ſixteen Grains in Pills. There is a Spirit and Oil made from it, as from *Galbanum:* The acid Spirit has all the Virtues of the Gum, but with this Advantage, that it is more penetrating; for which Reaſon it is ſucceſsfully given againſt Obſtructions of the Womb, *&c.* The Oil is good for the ſame Purpoſes, but is moſtly uſed againſt Vapours, being ſmell'd to or anointed upon the Noſtrils: It is ſeldom given inwardly, except in Fits of the Mother, to four or five Drops in ſome proper Vehicle.

[The Plant which produces the *Sagapenum* is another Species of the *Ferula*; it is the *Sagapenum Chomel.* Plant. Aſ. 190. Rai. Hiſt. 1. 1844. The Gum is brought to us from *Alexandria*, and is purgative, attenuant and aperitive. The Doſe is from twenty Grains to a Dram.

25. *Of* Gum Opopanax.

OPOPANAX is a Gum that flows, according to ſome Authors, from a ferulaceous Plant, call'd *Panax Heracleum*, or *Hercules's All-heal.* It is brought us from the *Streights*, and ſometimes from the *Eaſt-Indies*, though great Quantities grow in *Macedon*, *Achaia*, and other Parts of *Greece.* The Leaves of the Plant are almoſt like thoſe of the Fig-Tree, divided, or partition'd, into five Parts; the Stalk is very high and woolly, producing at the Top a great Taſſel, or Bunch, with yellow Flowers; and after that a Seed, that is burning upon the Tongue and of a ſtrong Smell; the Roots are white, a little bitter, and cover'd with a pretty thick Bark. From the Cutting of this Bark the *Opopanax* flows liquid, and white at firſt; but when it is afterwards dry'd it becomes, by degrees, of a golden Colour on its Surface. There are three Sorts brought from *Marſeilles*, *viz.* that in Tears, that in the Maſs, or Lump, and the adulterated or flat Kind. *Pomet.*

The firſt Sort ought to be choſen in fine Drops, white within and of a gold Colour without; of a ſtrong Scent and an unpleaſant bitter Taſte, the dryeſt and leaſt full of Dirt that can be got. The ſecond Sort, that is in the Lump, ought to be as full of Tears, and as near the Colour and Smell of the firſt as poſſible. The flat Sort is that call'd the Companies *Opopanax*, and which ſeveral ſell for that in Tears, though it is eaſy to know the Difference; becauſe the true is in little round Drops, and the flat Sort of the Breadth and Thickneſs of one's Thumb; this ought to be entirely rejected, for it is a Counterfeit, made of a Mixture of *Galbanum* and another cheap Gum, which need not be mention'd here. *Opoponax* diſcuſſes Wind, purges Flegm, which is thick and tough, from the remote Parts, as from the Womb, Joints, *&c.* opens the Breaſt and Lungs, ſoftens Tumours, and, taken in at the Mouth by Fumes, cures Catarrhs, and the falling down of the *Uvula.* It is reckon'd an excellent Thing againſt an old Cough, Sharpneſs of Humours, Difficulty of Breathing; and being drank an Hour before the Fit of an Ague, it takes away the cold Fit, eſpecially if the Stomach and Back-Bone be alſo anointed with the Oil thereof, or volatile

volatile Spirit, both of which poſſeſs all the Virtues of the *Gum*.

This *Gum*, when new, is of an inſupportable ſtrong Smell; but that, as well as its natural Whiteneſs, wears off in keeping.

Lemery. *Opponax* is a yellow *Gum* that is drawn by Inciſion from the Stalk and Root of a *Spondylium*, that grows in *Macedon*, and other Parts of *Greece*. This Plant is call'd *Spondylium majus, ſive panax Heracleus quibuſdam*; the *Great Spondylium*; or by ſome, *Hercules*'s *All-heal*, according to *J. Bauhinus*, *Ray*, and *Tournefort*: The Stalk is high and woolly; the Leaves like thoſe of Figs, rough to the Touch, divided into five Parts; the Flowers grow in Cluſters upon the Tops of the Branches; they are ſmall, white, compoſed each of five unequal Leaves, diſpoſed like the Flower-de-lis: When theſe are gone they are follow'd by Seeds join'd two and two together, flat, large, oval, hollow, or cut at the Top, ſtrip'd along the Back, of a yellowiſh Colour, a ſtrong Smell, and poignant Taſte; the Root is long, white, full of Juice, odoriferous, a little bitter to the Taſte, cover'd with a thick Bark: The *Opopanax* drops from the ſaid Root in a white Liquor, which thickens as it dries, and grows yellow upon the out Parts. Chuſe it freſh, clean and pure, in large Drops, that are yellow without and white within, fat, and pretty brittle, of a bitter Taſte, and a ſtrong unpleaſant Smell; it affords a great deal of Oil and volatile Salt, is emollient, attenuating, digeſting, expels Wind; is proper in hyſterick Caſes, and to reſiſt Putrefaction.

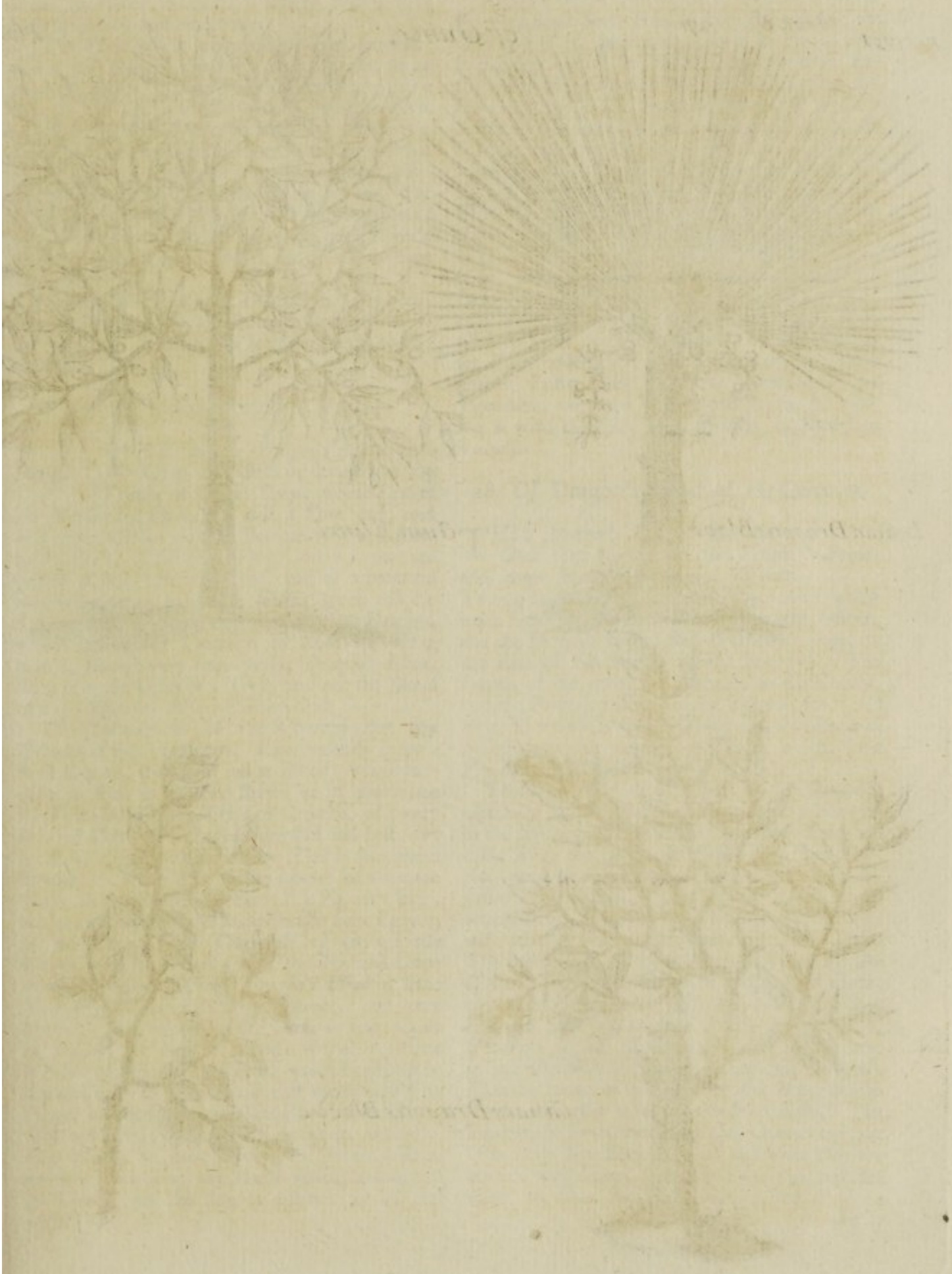
[The Plant which produces the *Opopanax*, is the *Panax Paſtinacæ folio*. C. B. Pin. 156. *Paſtinaca Sylveſtris altiſſima*. Tourn. Inſt. 319. *Panax Heracleum*. Hiſt. Ox. 3. 315. It flows naturally, and without Inciſion: It is at firſt of a yellowiſh Colour, but turns reddiſh by Age; it is ſeldom preſcribed alone, but is an Ingredient in many Compoſitions.

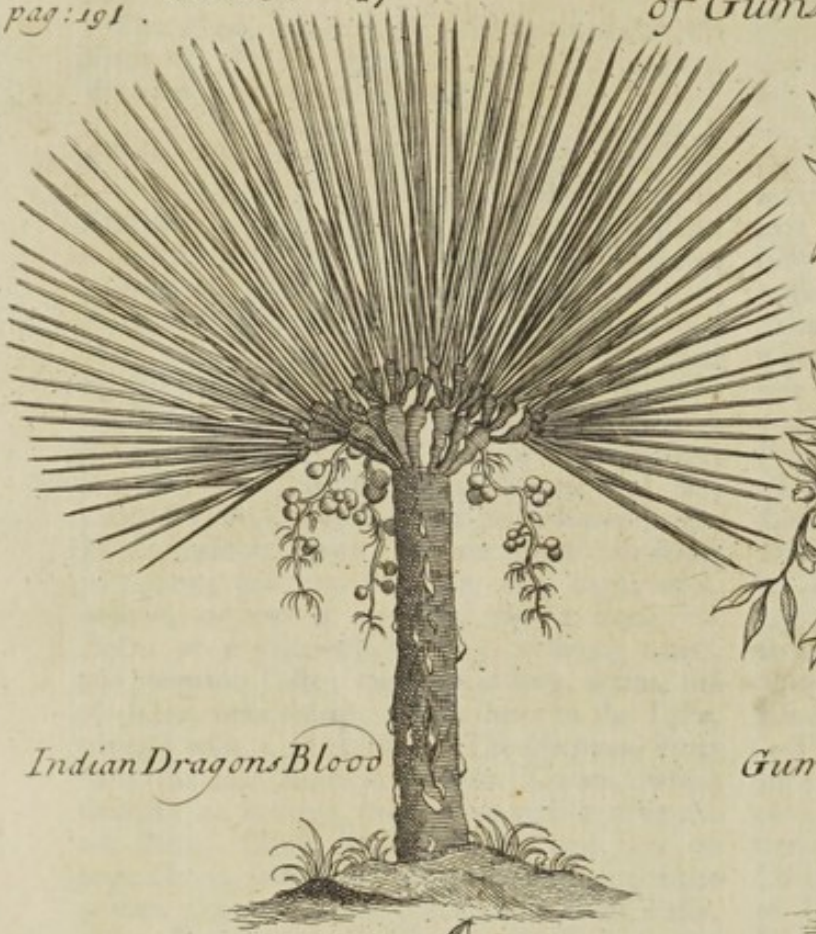
26. *Of* Ammoniacum, or Gum Ammoniack.

Pomet. THIS is a *Gum* that flows in white Tears, from the cut Branches or Roots of a Plant of the ferulaceous Kind, that grows in abundance in the Sands of *Libya*, eſpecially about that Place where ſometime the Temple of *Jupiter Ammon* ſtood; from whence it has its Name. This *Gum* is brought us in Tears, or elſe in large Lumps, wherein are a great many white Drops or Tears, as well on the out-parts as within. It is of a tolerable grateful Smell, inclining towards that of Opopanax. Chuſe this Gum in Tears, in the fineſt, dry, white, round Drops, of a bitter Taſte, unpleaſant enough; and that in the Maſs or Lump, as full of Tears and as clean as poſſible. It is uſed in ſeveral topical Medicines; and Monſieur de *Meuve*, in his Pharmaceutick Dictionary, attributes great Virtues to it, whereto the Reader may have Recourſe. It is emollient, and wonderfully diſcuſſive, admirable in Aſthmas, and uſed ordinarily to diſcuſs hard Tumours in Womens Breaſts with great Succeſs: An Extract of it takes off Roughneſs from the Windpipe, thickens thin and ſharp Rheums, which fall down upon the Lungs; and is uſed in Pectorals for the ſame Purpoſes. There is, beſides this, an Oil, volatile Salt, and Spirit of *Ammoniacum*, according to *Lemery*, in which Proceſſes you have not much Difference from thoſe of *Charas*, only that the laſt requires the Retort to hold eight Times the Quantity; *Lemery* but three Times: *Lemery* alſo ſays, there is no need of adding *Alcalies* in Rectification, becauſe they rather hurt and ſpoil theſe Kinds of Spirits than make them better.

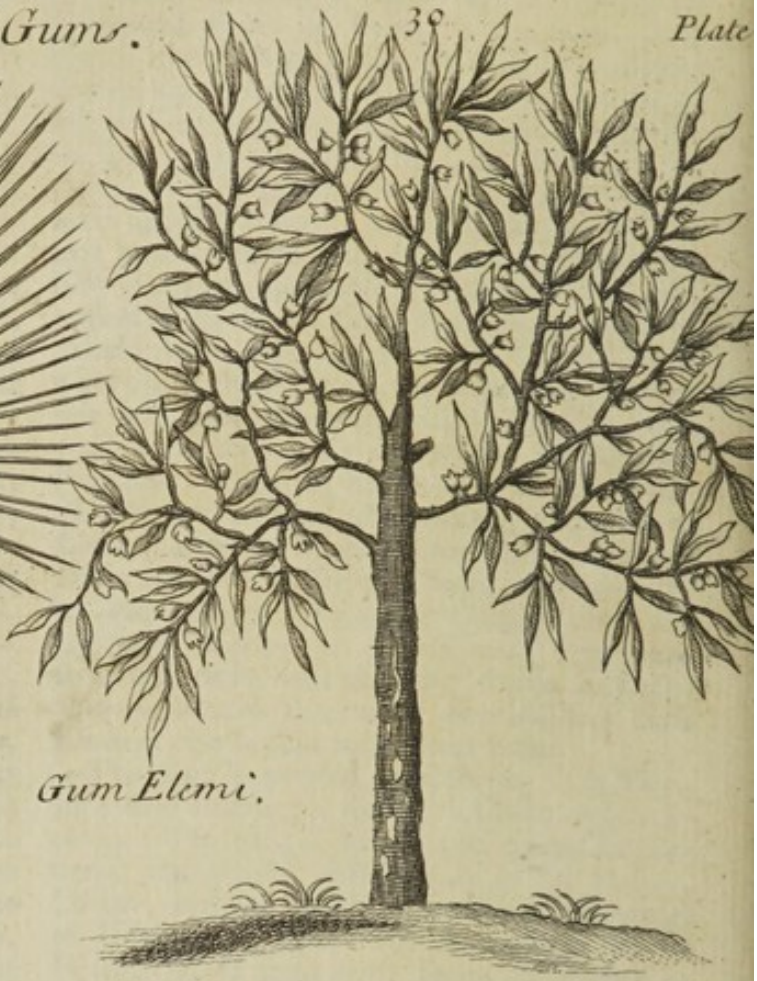
This *Gum* is purified by diſſolving it in Vinegar; then ſtraining it through a Cloth, and thickening. The Spirit of *Ammoniacum* opens Obſtructions, and is uſed with Succeſs in the Scurvy, Dropſy, and the Jaundice; as alſo for Stoppage of Urine; but particularly in Diſeaſes of the Womb: Doſe from eight Drops to twenty in Rheniſh Wine, or the like. The Oil is given for the ſame Purpoſes, from two Drops to ſix, with double refin'd Sugar, *&c.*

Lemery. *Ammoniacum Gummi, vel Gummi Hammoniacum, ſive Gutta Ammoniaca*, *Gum Ammoniack*, is a yellow *Gum* on the Outſide, and white within, of an unpleaſant Smell, almoſt like *Galbanum*, inclining to a bitter Taſte. It flows in white Tears from the Branches and Roots that are cut off a Sort of Fennel call'd *Ferula Ammonifera*, or the Fennel, bearing *Ammoniack*, that grows plentifully in the Deſerts of *Lybia*, eſpecially about that Part where the Temple and Oracle of *Jupiter Ammon* ſtood. Some call this Plant *Metopion*, from being very porous. The beſt *Gum* is in fine neat Tears, almoſt like *Olibanum*, dry, white, brittle. It ſoftens before the Fire, and is eaſy to reduce to Powder, of a little bitteriſh Taſte, and an unpleaſant Smell. The Druggiſts ſell it alſo in the Maſs or Lump, loaded with a great deal of Filth; and this ſerves to make Plaiſters of. This Gum yields plenty of eſſential or volatile Oil, ſome Flegm and Earth. It attenuates, reſolves, digeſts, is aperitive, proper for Hardneſs of the Spleen, Liver, and Meſentery, opens Obſtructions,





Indian Dragons Blood



Gum Elemi.

28

Canary Dragons Blood.

tions, provokes Womens Courſes, and is uſed both internally and externally.

[The Plant which produces the *Gum Ammoniacum* is not certainly known; it is ſuppoſed to be another Species of the Ferula, and many have thought the *Galbanum Sagapenum* and this *Gum* to be all produced by the ſame Plant, growing in different Climates; but as we now know that the *Sagapenum* and *Galbanum* are produced by different Plants, it wou'd be abſurd to believe, that the *Ammoniacum*, which is much more different from either, than they are from each other, ſhou'd be produced by the Plant from which we have either of them.

It is purgative in a ſmall Degree, but is a powerful Reſolvent, and excellent in Obſtructions of the Viſcera. The Doſe is from a Scruple to half a Dram.]

27. *Of* Indian Dragon's Blood.

Pomet. THE *Indian Dragon's Blood* is a Gum that diſtils or drops from the Trunks of ſeveral Trees, whoſe Leaves are like Sword Blades, of half a Foot long, and of a green Colour; at the Bottom of which grow round Fruit, of the Size of our Cherries, that are yellow at firſt, afterwards red, and of a beautiful blue when ripe; in which, having taken off the firſt or outward Skin, appears a Sort of Dragon, which has given Occaſion to have the Drug nam'd, though very improperly, *Dragon's Blood*, ſince it is the Gum of a Tree, and not the Blood of any Creature, as ſome believe ſtill.

The Inhabitants of the Country cut the Trunks of the Trees, and there preſently flows a fluid Liquor, that is as red as Blood; which hardens as ſoon as the Sun ſhines on it, and forms itſelf into little brittle Tears or Crumbs, of a very fine red Colour; and when the firſt and beſt Sort is fallen, there drops another. This is ſometimes brought us wrapp'd up in the Leaves of the ſame Tree, in the Figure and Size of a Pigeon's Egg; but commonly it comes folded in the ſame Leaves, of the Length and Thickneſs of one's Little Finger, and ſometimes alſo of the Size and Shape of the Sebeſten. Chuſe *Dragon's Blood* in little Tears, that are clear, tranſparent, and very brittle. The fineſt, or firſt Sort, is very ſcarce in *France*; the beſt to be met withal at preſent is what comes in little Reeds, which ought to be dry and eaſy to break, and that when rubb'd on Paper, or hot Glaſs, will leave behind it a beautiful red Stain; upon which Account, antiently, they uſed it to paint Glaſs red. There is ſome brought likewiſe in the Maſs, which is like that in Tears, but the fine is difficult to be met with.

Hoffman thinks that which is in Drops, and is the very fineſt Sort, is made from the coarſer, by diſſolving of it, depurating it from its Fæces, and inſpiſſating; and that thoſe Drops are firſt extracted with Spirit of Wine, becauſe, being infuſed or digeſted in Spirit of Wine, it yields a delicate, blood-red Colour. It is good to ſtop all Sorts of Fluxes, whether of Flood or Humours, whether Defluxions from the ſuperior Parts, or Fluxes of the Bowels or Womb, the Bloody-Flux, Whites, and Gonorrhœa, being inwardly given, from half a Dram to a Dram, mix'd with Conſerve of red Roſes, or ſome other proper Vehicle. It is good againſt Spitting of Blood, and ſtops Catarrhs, being of a drying, binding, and repelling Property. Being finely ground, it is uſed by Goldſmiths for Enamel, by Jewellers to ſet Foils under their precious Stones, for their greater Luſtre. By Painters, Varniſhers, and Japanners, to make Varniſh and Japan, by mixing it with common or Shell-Lac, or Seed-Lac Varniſh.

28. *Of* Dragon's Blood *of the* Canaries.

Pomet. THIS *Dragon's Blood* is likewiſe a *Gum* that flows from the Trunk and large Branches of two different Trees; after having been cut, the one of which has a Leaf like the Pear-Tree, but a little longer, and the Flowers bear a Reſemblance to Tags, at the End of Laces, of a very fine red. The Leaves of the other come nearer to the Cherry, and the Fruit is yellow, of the Bigneſs of a Hen's Egg, in which is found a Nut, of the Shape of Nutmeg, which contains a Kernel, of the ſame Figure and Colour.

Theſe Trees grow plentifully in the *Canaries*, eſpecially in the Iſland of *Porto Santo*; likewiſe in the Iſle of St. *Laurence*, where theſe Trees are call'd *Rha*, that is to ſay *Blood*, and their Fruit *Maſontra*, or *Voaſontra*. The *Natives* of *Madagaſcar* make an Oil of the Kernels of this Fruit, which ſerves them to cure Burns, Eryſipelas's, and other Diſeaſes that proceed from Heat. The Inhabitants of theſe Iſlands cut the Trunks of theſe Trees, from whence drops a red Gum, which they make into Balls, of different Sizes. But this Sort of *Dragon's Blood*, though good, is always ſo full of Dirt, that no Body cares to meddle with it. Some ſoften this *Dragon's Blood* by means of hot Water, and ſo put it into Reeds, like that which comes from *India*. The Inhabitants ſometimes melt this Gum, and put little white light Sticks into it: and when they are cover'd with Gum, they take them out and dry them, to clean the Teeth withal; and theſe are uſually

uſually brought over by the *Eaſt-India* Company. It is further to be obſerv'd, that the Reaſon why the Inhabitants call this Gum *Dragon's Blood*, is, becauſe the Tree that bears it is call'd the *Dragon-Tree*; which, according to *Cluſius*, appears to be a Kind of Date-Tree, having a very thick Trunk, about five Yards high, and ſending forth ſeveral Branches or Boughs that are naked, or bare of Leaves. The Fruit is of a round ſpherical Figure, of a yellow Colour, and about the third Part of an Inch thick, containing a very hard Kernel, like a Date. The Trunk of the Tree is very rough, and full of Cleſts and Chops, pouring forth a Liquor, during the Heat of the *Dog-Days*, which afterwards thickens or congeals into red colour'd Drops or Tears, call'd *Dragon's Blood*; which, though it hardly diſſolves in aqueous or oily Liquors, yet ought to be reckon'd among the Gums and Roſins.

29. *Of* Falſe *or* Counterfeit Dragon's Blood.

Pomet. THE *Dutch* now bring us a Sort of *Dragon's Blood* which is in flat Cakes, of a very deep red, and ſhining as well on the Outſide as the Inſide, pretty brittle, which being broke, is of a very fine red Colour; and when burnt, ſmells like *Spaniſh Wax*. This *Dragon's Blood* is nothing elſe but a Mixture of the true *Dragon's Blood* with two other Gums, which I ſhall not mention here; and this I am the more ſure of, as I have made the Compoſition myſelf, and have of it now by me. We have brought from *Holland*, beſides this, another Sort of *Dragon's Blood*, made of Gum-Arabick, or that of *Senega*, with a Tincture or Dye of the *Fernambouc Brazil*; therefore I wou'd adviſe every Body not to make Uſe of either of theſe two Sorts of *Dragon's Blood*, as they are only Mixtures of other Gums, which have neither the Smell, Colour, nor any of the Virtues of the true *Dragon's Blood*.

Lemery. *Sanguis Draconis*, or *Dragon's Blood*, is a gummous Juice, congeal'd or coagulated, dry, brittle, and of a red Colour like Blood, drawn by the Inciſion of a large Tree in the *Indies*, call'd by *Cluſius*, *Draco Arbor*, or the *Dragon-Tree*; It is of the Height of the Pine, thick and furniſh'd with ſeveral Branches. The Wood is very hard, cover'd with a Bark of a tolerable Thickneſs, and ſoft. The Leaves are large, ſhap'd ſomething like thoſe of the Flower-de-lis, being of the Length and Figure of a Sword Blade, and are always green The Fruit grows in Bunches, the Size of a ſmall Cherry, round, yellow at the Beginning, red afterwards; and when they are ripe, of a fine blue Colour, and a little acid to the Taſte. *Monard*, and ſeveral other Authors, write, that when the Skin is taken off from this Fruit, there appears underneath the Figure of a Dragon, as it is repreſented by the Painters, with Wings expanded, a ſlender Neck, a hairy or briſled Back, a long Tail, and Feet arm'd with Talons. They pretend that this Figure gave Name to the Tree; but I believe this Circumſtance fabulous, becauſe I never knew it confirm'd by any Traveller.

The cleaneſt and beſt *Dragon's Blood* is that which drops firſt from the Tree in little Tears, that are clear, tranſparent, and eaſy to break, of a reſplendent red; but this is very ſcarce, and not brought us in War-time; ſo we are forced to content ourſelves with the ſecond Sort, [*deſcrib'd already by* Pomet]. The true *Dragon's Blood* yields a ſufficient Quantity of Oil, and a little eſſential Salt. It is very aſtringent, agglutinative, drying, ſtops Hemorrhages, Fluxes of the Belly, deterges and conſolidates Wounds, ſtrengthens luxated Joints, and is proper for Contuſions, uſed both inwardly and outwardly.

[There appears great Contradictions among good Authors about the Tree which produces the *Sanguis Draconis*; but I believe they may all be reconcil'd, by allowing, as it certainly is ſo, that we have three different Kinds of this Drug ſold in the Shops, beſide the counterfeit one deſcrib'd by our Author.

The firſt, or *Indian Dragon's Blood*, is produced by the *Draco Arbor*. Ger. 1339. Park. 1531. *Palma foliis longiſſimis Pendulis abſque ullo Pedunculo ex caudice glabro enatis*. Boer. Ind. alt. 2. 169.

The ſecond, or *Canary Dragon's Blood*, by the *Draco Arbor Indica Siliquoſa Populi folio ſive Angſava Javanica*, Comm. Hort. Amſt. 1. 213. Faq. 109. Ras. Dendr. 113. And

The third, or *Verniſh Dragon's Blood*, by the *Arundo farcta Indiæ Orientalis Sanguinem Draconis manans*. Hiſt. Ox. 3. 220. Raii. Hiſt. 3. 615. It is with this Sort that the fine red *Chineſe* Verniſh is made. And to theſe we may add a fourth, produced by another Species of Palm, deſcrib'd by Dr. *Sherrard*, who calls it *Palma foliis & caudice undique Spinis longis acutiſſimis nigris Armata*: And this is the Kind which *Keempfer* mentions, and calls *Dijerenang ſive Sanguis Draconis ex fructibus Palmæ coniferæ ſpinoſæ elicitus*. Keemp. Amæn. Exot. 552. But the *Dragon's Blood* this yields is ſeldom brought to us.

The fictitious Kind mention'd by our Author is never given inwardly, but is of great Uſe to Painters.

The

The Story of the Dragon in the Fruit of the Tree is wholly fabulous.]

30. *Of* Gum Elemi.

Pomet. GUM *Elemi* is a white Roſin, inclining to greeniſh, that flows by Inciſion from the Trunk and large Branches of a Tree of a moderate Height, whoſe Leaves are long and narrow, of a whitiſh green, ſilver'd on both Sides; with a red Flower that riſes from a little Cup, of the Colour of the Leaves; the Fruit is of the Colour and Shape of our Olives; which is the Reaſon why theſe Trees are call'd *Wild Olive-Trees*. There are abundance of theſe Trees in *Æthiopia* and *Arabia Felix*, from whence this Gum is brought us in Cakes of two or three Pounds Weight a-piece, wrapp'd up in Leaves of the *Indian Cannacorus*; whence it is call'd *Gum Elemi* in Reeds. Chuſe ſuch as is dry, nevertheleſs ſoft, of a white Colour, tending to green, the Smell ſweet and pleaſant enough; and take Care it be not the common Incenſe, waſh'd with Oil of Spike, as happens too often; which may be eaſily found out, as well by its great Whiteneſs, as its ill Smell, inclining to Turpentine; and that ſuch is always wrapp'd up in the Leaves which are found among the Clove-Wood.

This Roſin adulterated is call'd by thoſe who make it, the *American Gum Elemi*, that Title ſerving them as a good Pretence to cover their Knavery. The true *Gum Elemi* we have from *Holland* or *Marſeilles*, is a natural Balſam for curing of Wounds, for which Reaſon it is very properly made Uſe of in *Arcæus*'s Leniment. There is a large Tree found in the *American-Iſlands*, the Wood whereof is white, and the Leaves like thoſe of the Bay, but that they are a great deal larger: This Tree is ſo loaded with Roſin, that it yields to fifty Pounds Weight of white Gum, altogether like the common Incenſe, only that it is not ſo ſtrong ſmelling. And as this Roſin is but as yet little known among the Merchants, though common among us, they often ſell it under different Names, ſometimes calling it *Gum Elemi*, ſometimes *Gum Animæ*, and ſometimes *Tacamahaca*; but it ought rather to be call'd *American Incenſe*, in that the Smell and Shape reſemble it, and it is not eaſy to find the Difference. The Gum Chibou is the ſame with this, and the large Leaves it comes wrapt over in, are thoſe of the Caehibou, which the *Americans* uſe on many ſuch Occaſions.

This Roſin comes in Barrels of different Weight. We ſell, beſides, two other Sorts of *Gum Elemi*; one whereof is like common Roſin, but has a ſweet aromatick Smell, and is cover'd with Leaves that cover the Clove-Wood. The other Sort of *Gum Elemi*, is of an Aſh-Colour, inclining to be brown, and in great Pieces that are dry and brittle: But as it is impoſſible to learn exactly what theſe are, I ſhall ſay nothing further, but that I believe that they are nothing but impure or foul *Gum Elemi*, which may have their good Qualities recover'd, by refining over the Fire, which I dare not, however, yet affirm, not being certain of it.

Gummi Elemi, ſive, Reſina Elemi, is a Kind of gummy and reſinous Sub- *Lemery.* ſtance; for it diſſolves in Oil, and is inflammable. There are two Kinds of it, *viz.* the true Gum, call'd alſo, the *Æthiopian*; and the baſtard, or ſpurious, call'd the *American Gum Elemi*. The true, or *Æthiopian Gum Elemi*, is a Roſin from a whitiſh Colour, a little inclining to a green, moiſt and tough, run together in Lumps or Clods of a long and round Shape, for the moſt Part inflammable, of a pleaſant Taſte, and ſmelling ſomething like Fennel. Thoſe Lumps are brought over to us wrapp'd up in a large Leaf, appearing to be a Kind of *Indian* Reed. Baſtard or *American Gum Elemi*, is a Sort of white Roſin, not much unlike *Pine Roſin*, inflammable, and of a ſtrong Smell, flowing plentifully out of a certain Kind of Tree, bearing Leaves like the Bay-Tree, call'd *Cleban*. *Parkinſon* ſaith it is a yellowiſh Gum, clear and tranſparent, which being broken, ſhews more white and gummy within, quickly taking Fire, and melting thereat, and of a Kind of quick Scent and Taſte. If it is like *Ammoniacum*, or *Gum-Arabick*, or is black, it is good for little or nothing. This Gum is of ſingular Uſe in all Wounds and Fractures of the Head and Skull, and to be mix'd with Leniments and Balſams for that Purpoſe. It is alſo emollient, digeſtive, and is anodyne, diſcuſſes Tumours, and opens Obſtructions. The Spirit, Oil, and Balſam are diſtill'd by the Retort in Sand, as hath been taught. The acid Spirit, which contains the volatile Salt of the mix'd, ſuppreſſes Vapours and Fits of the Mother, opens the Paſſages of the Urine, tempers the Heat thereof, prevents breeding of the Stone, and is a good Pectoral. The Oil and Balſam are accounted, by ſome, ſpecifical in the Gout, Palſy, and Convulſions. They cure Ulcers, chiefly of the Fundament, heal and cleanſe all Wounds, *&c.* as well old as new, eaſing Pain, reſolving Contuſions, and diſcuſſing Swellings.

[The firſt Kind of *Gum Elemi* mentioned by our Authors, is the *Gum Elemi Legitimum Æthiopium*. Geoff. Tract. 357, which was once common among us, but the Quantity and Cheapneſs of that brought from *America*, has quite baniſh'd it now from the Shops, ſo that it is no where to be found, and few Druggiſts know that

there ever was any other *Gum Elemi* than that which they now ſell, which is the natural Droppings of the *Arbor Braſilienſis Gummi Elemi ſimile fundens foliis pinnatis floſculis verticillatis, fructu Olivæ figura et magnitudine.* Rai. Hiſt. 2. 1546. *Prunifera fago ſimilis Arbor Gummi Elemi fundens figura et magnitudine Olivæ ex Inſulis Barbadenſi.* Pluk. Alm. 306. This is a very common Tree almoſt all over the *Weſt-Indies.*

31. *Of* Gum Tacamahaca.

Pomet. GUM *Tacamahaca* is a reſinous, liquid and tranſparent Gum, that flows from the Trunks of large thick Trees, that grow plentifully in *New Spain* and *Madagaſcar*, where they are call'd *Harame*; they are pretty like our Poplars. Theſe Trees are furniſh'd with green Leaves, almoſt like thoſe of the *Box-Tree*; after which comes red Fruit, of the Bigneſs of our Wallnuts, in which is contain'd a fragrant Balſamick Roſin. The Natives cut the Trunks of theſe Trees, whence diſtils a white cryſtalline Liquor, of an agreeable Smell, that hardens ſometime after it is fallen, and that ſerves for the Cure of cold Humours and to abate the Tooth-Ach, but they principally uſe it to caulk Veſſels and Ships with, and the Wood ſerves for Planks.

The Inhabitants of *St. Laurence* have a Cuſtom to put the firſt that falls from the Tree, without Inciſion, into little Shells cut in two, which they cover with a great Leaf, like a Sort of Palm Leaf; and that is what ſome Authors mean, when they ſpeak of *Gum Tacamahaca Sublimis*, which ought to be dry, reddiſh, tranſparent, of a ſtrong Smell, inclining to that of Lavender, of a Taſte ſomewhat bitteriſh; this Kind is what we call *Shell Tacamahac.* That which falls from the Tree by cutting, is what we have brought in the Maſs or Lump, and ſometimes in Tears, in Figure reſembling *Indian Frankincenſe*, which is to be choſen as full of white Drops, clean, dry, and as near the Smell of the former as can be got. It comes near the Virtues of the former, for which Reaſon it is uſed to put in Plaiſters. It is very good to ſoften Tumours, and eaſe all Manner of Pains in the Head, Nerves, Joints and Womb. It is inwardly given from half a Dram to a Dram againſt Vapours, but moſt commonly againſt Pains, for which it is ſo famous amongſt the *Indians*, that they uſe it to all Pains whatſoever, if not attended with any great Inflammation.

Lemery. *Tacamahaca, vel Tacamaca*, is a Kind of hard, clear, fragrant Roſin, that is drawn by Inciſion from the Trunk of a great, thick, unknown Tree; call'd by *Parkinſon* and *Ray*, *Tacamahaca*; by *J. Bauhinus*, *Tacamahaca Populo ſimilis fructu colore Pæoniæ*; or that like the Poplar Tree, with Fruit the Colour of the Peony. It reſembles much the Poplar Tree; the Leaves are ſmall and indented; the Fruit is of the Bigneſs of a Nut, of a red Colour, reſinous, odoriferous, and contains a Stone almoſt like that of the Peach. This Tree grows plentifully in *New-Spain*, and ſeveral Parts of the *Weſt-Indies*; the Gum is gather'd from the Tree after wounding.

We have two Kinds of it, one of which is brought over in Shells, that is ſoft and whitiſh, of a very pleaſant fragrant Smell; the other in Lumps, and comes in Cheſts, which is nothing near ſo good, but for the moſt Part is very foul and droſſy: Both yield a deal of exalted Oil and volatile Salt. The *Gum Tacamahaca* is digeſtive, reſolutive, neurotick, anodyne, cephalick, drying, being apply'd externally. There is an acid Spirit, Oil and Tincture made from this Gum, which open Obſtructions of the Womb and Meſentery; are anodyne and ſtomachick, taking a few Drops in any generous Liquor; or the Oil is good externally to ſmell to, and to anoint old running Ulcers with, to cleanſe and heal them, as well as to diſcuſs hard Knots and Tumours.

[The Tree which produces the *Tacamahac*, is the *Tacamahaca foliis crenatis, Sadelhouts Lignum ad Ephippia conficundum aptum.* Par. Bat. Prod. 379. *Tacamahaca Populo ſimilis fructu colore Pæoniæ ſimili.* J. B. 1. 346. The Gum is of a very agreeable Smell, like that of Lavender and Angelica. We have it from *Madagaſcar* and *New-Spain.* It is principally uſed externally, and is in great Eſteem for all Kinds of Pains among the *Indians.*]

32. *Of* Gum Ivy.

GUM *Ivy* is a liquid Roſin which hardens as it flows. This Gum flows abundantly in the *Indies*, *Italy*, *Provence* and *Languedoc*, from the great *Ivy* that creeps or climbs upon Trees and Walls. Being at *Montpelier* in the Year 1680, and walking in the King's Garden, I perceiv'd an *Ivy* there that climb'd up a Bay-Tree, having on the top Branch a Piece of Gum of the Bigneſs of one's Finger, which I begg'd of Mr. *Chicanneau*'s Son, who gave it me; and after I had examin'd it, I found it like Glue, of a red Colour, a ſtrong penetrating Smell, and unpleaſant enough. After having kept it ſome time, it grew dry, brittle, and of a yellowiſh Colour, juſt as we have it come from *India* by *Marſeilles.* Chuſe the beſt dry'd, cleareſt, of a balſamick Smell; and take Care that you be not impoſed upon with the *Gum Alouchi*, which is ſometimes ſold in its ſtead, eſpecially when dear. It is reckon'd proper to make the Hair fall, and for the Cure of Wounds.

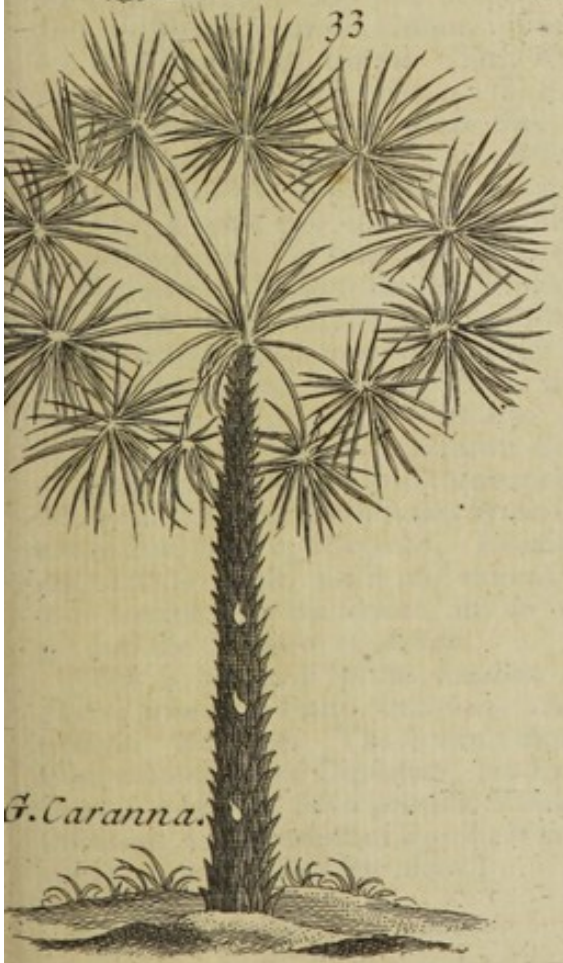
Hedera

Tacamahaca.

G. Ivy.

Ivy climbing up a Bay.

33



G. Caranna.

34

G. Bdelium.

Hedera Arborea, or the *Ivy-Tree*, is a Shrub, or Tree, whoſe Branches creep up and cling to the next adjacent Trees or Walls, and inſinuate themſelves into the Cracks thereof, and into the Chinks of Stones, where they will fix a deep Root. The Bark is wrinkled, Aſh-colour'd, and the Wood hard and white. The Leaves are broad, large, corner'd, thick, ſmooth, green all the Year, and ſhining, of an aſtringent acrid Taſte. The Flowers grow at the Extremity of the Branches, compoſed each of ſix ſtrip'd Leaves, of a graſſy Colour, ſucceeded by round Berries, that are a little fleſhy, and as large as thoſe of Juniper, diſpoſed in Cluſters, of a black Colour when ripe. They contain each five Seeds, furrow'd on the Back, and flat on either Side. The *Ivy* grows generally upon Walls, and yields Abundance of Oil, and ſome eſſential Salt. It is deterſive and vulnerary. The Leaves are apply'd to Iſſues to cleanſe them from their *Sanies*. They are likewiſe boil'd in Decoctions for the Ear-ach and Tooth-ach. *Lemery.*

There is another Sort of *Ivy*, call'd *Hedera Poetica* by *C. Bauhinus* and *Tournefort*, and *Hedera Dyoniſias* and *Chryſocarpos*, whoſe *Ivy-Berries* are of a Gold Colour. The Leaves of this are not ſo angular, but only ſharper towards the Top, leſs thick, hard and fleſhy than thoſe of the other *Ivy*, and not of ſo deep a Colour. The Berries are of a fine Gold Colour. This Species of *Ivy* is rarely met with in *France*. The Antients made Crowns of it, with which they crown'd their Poets, from whence it is call'd *Hedera Poetica*, the *Poets Ivy*; *Hedera Dyoniſias*, *aut Bacchica*, becauſe they made Uſe of this Sort of *Ivy* in their publick Rejoicings, and Feaſts of *Bacchus*.

They make Inciſions in the Trunks of the larger *Ivies* in the hot Countries, as *Italy*, *Languedoc*, and *Provence*, to make the Gum or Roſin flow, which hardens in a little Time, and which they call *Gummi Hederæ*, or *Gum-Ivy*. It ought to be of a reddiſh yellow, tranſparent Colour, of a ſtrong Smell and an acrid aromatick Taſte. The greateſt Part of it that is ſold by the Druggiſts comes from *India* by *Marſeilles*. It yields a good deal of Oil and Salt, and is uſed externally to the ſame Intentions as the former, and is ſometimes put into the Ointment of *Althæa*.

[This is produced by the common *Ivy*, the *Hedera arborea*. Tourn. Inſt. 613. *Hedera corymboſa*. Ger. 208. The Antients thought this Gum a Cauſtick and Depilatory, but Experience ſhews it is neither, but a powerful Reſolvent and Diſcutient, and an excellent Ingredient in Plaiſters and Ointments in ſuch Intentions.]

33. Gum Caranna.

THE *Caranna* is a Gum which flows from the Trunk of ſeveral Trees, like the Palm Tree, which are plentiful in *New-Spain*. This Gum is brought us in the Lump, wrap'd up in Reed Leaves. It ought to be ſoft, of a greyiſh Colour, inclining to green, of a ſweet Smell, and ſomething aromatick. *Pomet.*

Some Authors obſerve, that there is a white *Caranna*, which I eaſily believe, as very probably it is of that Colour, when it is newly-fallen from the Tree, and only becomes of the Colour we ſee, by Reaſon of its Age; the whiter it is, therefore the more valuable: But have nothing to do with ſeveral hard Gums that are offer'd in its ſtead, becauſe of its Dearneſs. This Gum apply'd in a Plaiſter upon the Head, is admirable to abate the Pains thereof, as well as thoſe of the Joints. And this Gum has ſuch fine Qualities, that it is uſually ſaid, *What* Tacamahaca *cannot cure*, Caranna *can*.

The *Americans* compoſe a Balſam from this Gum, which they uſe with good Succeſs for the Cure of Wounds and Hemorrhoids in this Manner: They take fine Turpentine half an Ounce, liquid Amber three Ounces, *Caranna*, *Maſtich*, *Myrrh* and *Aloes*, of each two Ounces, *Copal Tacamahac*, *Incenſe*, *Dragon's Blood* and *Sarcocolla*, of each a Dram and a half. Diſſolve the Gums and Roſins upon the Fire, and after incorporate them with the Powders. *Gum Caranna* is mightily commended for its Faculty of diſcuſſing or aſſwaging hard Tumours: It is alſo apply'd to the Temples upon ſmall Plaiſters or Patches in the Head-Ach, or to prevent and reſtrain the falling down of the Humours upon the Eyes and Teeth. There is alſo prepar'd from it an excellent anti-podagrick Plaiſter to be apply'd to gouty Swellings.

It is call'd *Caranna Gummi*, or *Caragna*, from *Cartagena* the Place of its Production in the *Spaniſh Weſt-Indies*, where it is in great Plenty, flowing out of a Tree cut or wounded. It is a hard Roſin, clammy but not glutinous, ſoftiſh and tough, of a dark olive Colour, inclining a little to a Muſk Colour. It comes forth ſoft, but condenſes afterwards, not much unlike *Tacamahaca*, but more odoriferous and ſweeter, and of ſomething a brighter Colour; it comes wrap'd up in its broad fibrous Leaves like Reeds. *Lemery.*

It is a famous Cephalick, Neurotick, Arthritick and Vulnerary; eaſes all manner of Pains in any Parts of the Body, proceeding from a cold and moiſt Cauſe, ſtrengthens weak Limbs, and is accounted excellent to ſtop Defluxions from the Glands, being apply'd Plaiſterwiſe to the Temples. It eaſes the Spleen, and diſſolves the Hardneſs thereof, mollifies Swellings, and cures green Wounds, chiefly of the Nerves and Joynts: Doſe inwardly from a Dram to two Drams. There is a Spirit, Oil and Balſam made from

Caranna: The volatile Spirit is aperitive, and opens Obſtructions of the Reins, *&c.* Doſe from ten Drops to twenty in any proper Liquor. The Oil is good againſt Lameneſs, Pains, Aches, Convulſions, *&c.* anointed upon the Parts affected. The Balſam is excellent to heal and conſolidate Wounds, to ſtrengthen the Nerves, *&c.*

[The Tree which produces the *Caranna* is the *Ilahueliloca Quahuith*, i. e. *Arbor Inſaniæ Caragna Nuncupata*. Hermand. *Caranna*. Jonſ. Dendr. 356. The Gum, or rather Roſin, is brought from the Province of *Mechoacana* in *America*. A Plaiſter of it, as broad as a Shilling, laid to the Temples, is by ſome ſaid to be an infallible Remedy for the Tooth-ach.]

34. *Of* Gum Bdellium.

Pomet. *Bdellium* is a Gum which flows from the Trunk of a thorny Tree, whoſe Leaves are like thoſe of the Oak, and the Fruit like the wild Fig; it is brought to us from *Arabia Felix*, and the *Eaſt-Indies*; it ſhould be choſen in clear tranſparent Pieces of a reddiſh grey without, and the Colour of *Engliſh* Glue within, dry, clean, and of a good Smell; take Care not to buy Gum Alouchi in its Place, which is a black Gum often offer'd to Sale inſtead of the *Bdellium* when it is dear.

It is warm, deſiccative, and ſudorifick, and is given in Coughs and Diſeaſes of the Lungs; it alſo diſſolves the Stone, and provokes Urine taken in Powder from two Scruples to a Dram; but its principal Uſe is for the Mithridate, and other Galenical Compoſitions.

Lemery. *Bdellium* is a yellowiſh or reddiſh Gum, that flows from a thorny Tree call'd *Bdellia*, growing in *Arabia*, *Media*, or the *Indies*. They ſay that it bears Leaves like thoſe of the Oak, and a Fruit reſembling the Wild-Fig, of a pretty good Taſte. This Gum is brought us in Pieces of different Sizes and Shape, but the fineſt is uſually oval, or in Faſhion of Pendants for the Ears, neat, clear, tranſparent, reddiſh, fragrant, and that eaſily ſoftens, of a Taſte inclining to bitter, it yielding a good deal of Oil and volatile acid Salt; is digeſtive, diſcuſſive, ſudorifick, drying, aperitive, ſerviceable in the Empyema, to provoke the Terms, haſten the Birth, and to reſiſt Poiſon; uſed both externally and internally.

[The Tree which produces the *Bdellium* is the *Quercinis foliis Arbuſcula, ſpinoſa, lacteſcens, Portoricenſis*. C. B. Pin. *Arbuſcula Portoricenſis lacteſcens foliis Quercinis ſpinis Geminis, ad ſingulorum foliorum Ortum exaſperata*. Hort. Beaum. *Arbor Lacteſcens Aculeata foliis Quernis Americana Bdellii ſera forte ſive Arbor Bdellium ferens in America*. Pluk. Phyſ. Tab. 145. There are two Kinds of this Gum in the Shops, one in large Cakes, reddiſh, and bitter, the other hard, brittle, of a darker Colour, and ſtrong Smell. It is now brought from *Africa*, and is got in *Abyſſinia* and *Æthiopia*; the Kind firſt deſcrib'd is the beſt, and probably is what drops naturally from the Tree.]

35. *Of* Gum Sarcocol.

Pomet. *Sarcocol* is a Gum that flows from a little prickly Shrub, whereof the Leaves are like *Sena*, of a white Colour tending to a yellow: Almoſt all Authors ſay, that theſe Shrubs grow in *Perſia*; but two Friends of mine at *Marſeilles* writ to me in *July* 1692 after this manner, that *Sarcocolla* was a Gum that is gather'd in the Deſerts of *Arabia*, the Tree being little and very thorny; chuſe that in Tears or Grains, of a white Colour, inclining to yellow or red, of a ſweetiſh Taſte, attended with an unpleaſant Bitterneſs.

This Gum is wonderful in its Kinds, in that it flows from the Tree both without Inciſion, and by Inciſion, in Tears or Drops of different Colour and Bigneſs, white, yellow and red; which when they are dry, are granulated, as they are brought to us from *Marſeilles*. There is beſides another Sort of *Sarcocol*, which is in brown Lumps, and looks like a Compoſition; but I take it to be nothing but the damag'd Gum; however it ought to be thrown away, as alſo that which is very full of Dirt, and other Filth, to which it is much ſubject. This is very proper for curing of Wounds, which made the *Greeks* call it *Sarcocol*, which ſignifies *Fleſh Glue*. It is conſolidating and repelling, uſed chiefly to heal Wounds, ſtop Fluxes in the Eyes, and clear them from any Clouds, Films, Pearls, *&c.* that may hinder the Sight. It is good to purge the Head, and therefore profitable againſt Coughs, Shortneſs of Breath, eſpecially in Perſons that are flegmatick. Outwardly it is uſed againſt Inflammations of the Eyes, and to heal Ulcers in the Ears. The Fume thereof from Charcoal, receiv'd up the Fundament, cures the Piles, and other Diſeaſes of thoſe Parts.

Lemery. *Sarcocolla*, or Fleſh-Glue, is a granulated Gum, in very ſmall Bits, ſpongy, of a yellowiſh Colour, tending to white, reſembling the broken Pieces or Remains of a Gum, or of Frankincenſe that have been groſly powder'd. We have it brought us from *Arabia*; where, as ſome ſay, it comes from a thorny Shrub, whoſe Leaves are ſomething like *Sena*.

Sarcocol is of ſuch a brittle Nature, that it moulders down into a groſs Powder only by ſhaking or handling it; wherefore it is commonly brought over to us in ſmall Grains, not much bigger

of Gums

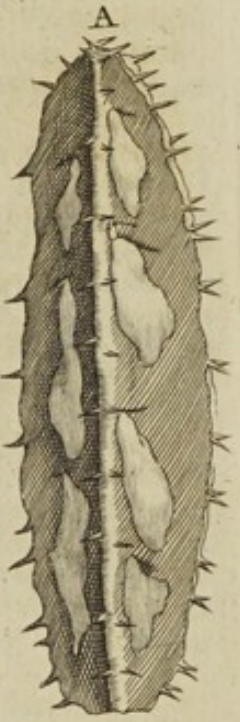
35

Sarcocol.

36

G. Euphorbium.

A



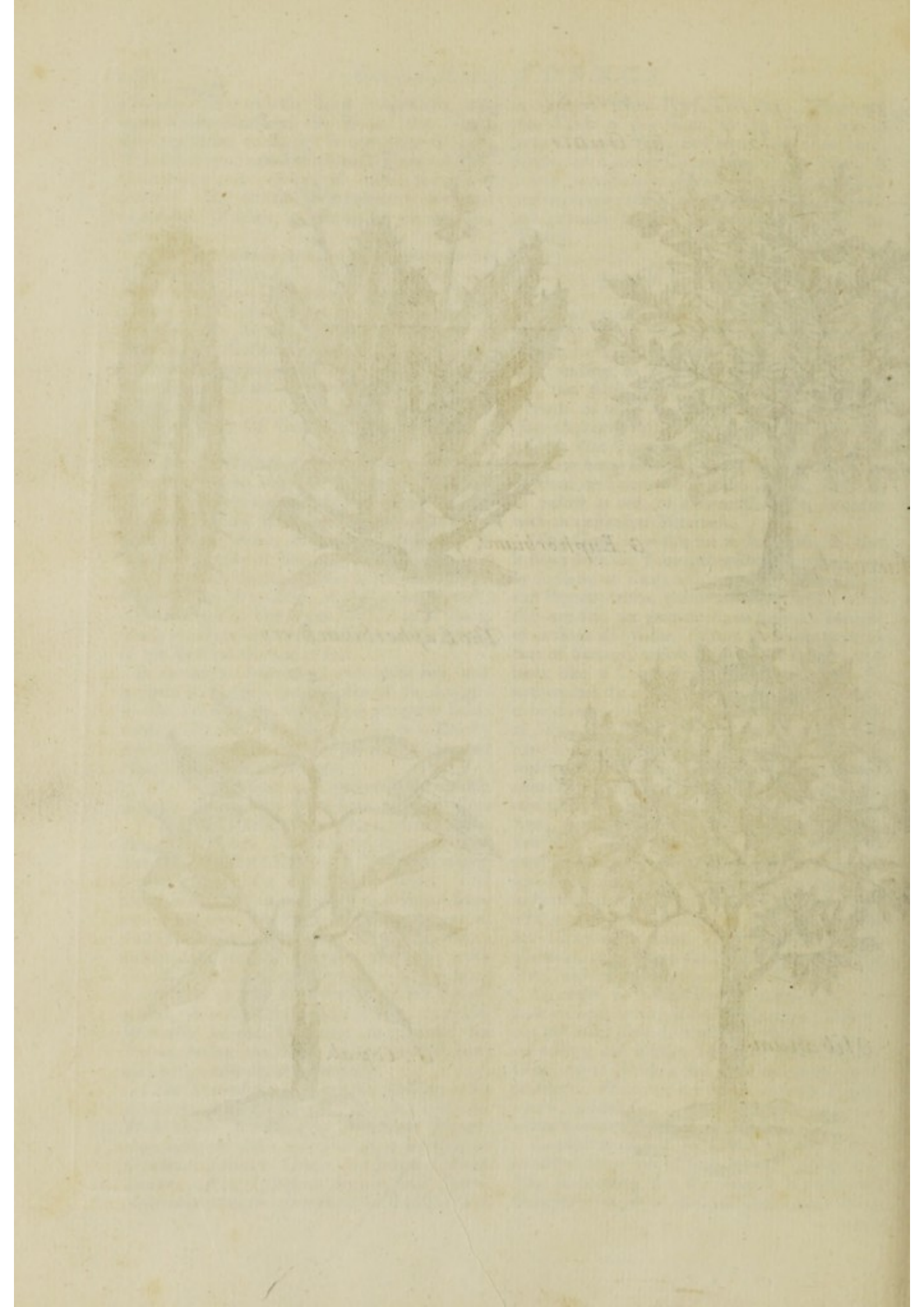
The Euphorbium Berry.

37

Olibanum.

40

G. Copal.



bigger than Poppy Seeds; yet ſometimes we meet with ſome that are bigger and thicker. They are of ſeveral Colours, *viz.* white, brown, and red, of a bitter Taſte, with a certain nauſeous Sweetneſs: and being chewed between the Teeth, they become tough; being held to the Flame of a Candle, they firſt boil or fry, and then ſend forth a clear Flame. It ſtops and prevents the Defluxion of Humours upon the Eyes, and takes away Spots, or white Specks over them, being ſteep'd in Aſſes or Womens Milk. Moreover, *Sarcocol* agglutinates Fleſh, and conduces to the conſolidating of ſpungy Wounds. There is an excellent Eye-Water made of *Sarcocol*, ſteep'd in Nurſes Milk, with Mucilage of Quince Seeds made with Roſe-Water.

[We have two very different Accounts of the Vegetable, whoſe Gum is the *Sarcocolla*; the firſt that it is a thorny Species of Tithymal, found in *Perſia*; and the other, and more probable one, that it is a Siliquoſe Tree, with a Papilionaceous Flower. But 'till ſome Perſon of Judgment and Veracity has obſerv'd it on the Spot, there is no affirming any Thing of a Certainty about it. We have it from *Perſia*, and in all Probability the Difference of Colour in the ſeveral Species of it, is owing to its different Age.]

36. *Of* Euphorbium.

Pomet. *Euphorbium* is a Gum that flows from among the thick prickly Leaves of a Sort of Plant that is found in great Quantities in *Libya*, upon Mount *Atlas*, and in *Africa*. The Antients have writ variouſly upon the Nature of *Euphorbium*, and of the Manner of gathering it. Some ſaying that it flow'd by Means of wounding the Plant with Iron Inſtruments of a great Length, for fear of the Smell that was very miſchievous, and that the Leaves being thus cut, there came forth a white Juice, like Milk, which was receiv'd in Sheep-Skins, ſpread under it for that Purpoſe. And others will have it that it was a thick Juice, from a Green Fruit of about the Size and Shape of our Cucumber. But thoſe who have ſeen it, as well as myſelf, can atteſt it is no Juice, as ſuppoſed, but the Gum of a Plant. And beſides, I can aſſure you 'tis ſo from the Sight of a Leaf, which is the Length and Thickneſs of one's Thumb, of a quadrangular Shape, each Corner of which is found full of ſharp Thorns, at the Bottom of which is the *Euphorbium*, which is gain'd without any Inciſion, according to the Figure mark'd A. Chuſe the neweſt, of a white Colour, inclining to Gold; the leaſt full of Dirt, the dryeſt and cleaneſt that is poſſib'e.

There are Abundance of little Seeds to be met withal in *Euphorbium*, made in the Shape of a Prieſt's Cap, very light, of the Colour of *Coriander*, in which is contain'd a little round Seed, like a Pin's Head, which ſome have aſſur'd me is the Seed of the very Plant which brings forth the *Euphorbium*. This Drug is not much uſed in Medicine, becauſe of its immoderate Heat, and great Acrimony; but much by the Farriers, being very good for the Farcy and Wind-Galls in Horſes. The *Africans* uſe this Gum internally, but they waſh it firſt in Poppy-Water, to abate the Heat of it.

Euphorbium being reduced into a fine Powder, which is a very difficult Taſk to do, is encloſed n a hollow'd Quince, which being cover'd over with a Paſte, is baked in an Oven. It ought to be corrected with Vinegar, Juice of Lemons, or ſour Pomegranats; or elſe with the Flegm or Spirit of Vitriol. By a chymical Analyſis it yields a great deal of Oil, of a moſt ſtinking Smell, and a hot burning Taſte; moreover, an acid Flegm, and a ſharp, concreted, volatile Salt are extracted from it. *Euphorbium* purges violently from five Grains to twelve, and is uſed againſt the Dropſy and lethargick Diſtemper. The Pills of *Euphorbium* of *Quercetan*, are prepar'd from it, being good againſt intermitting Fevers. It is uſed in the Pills of *Nitre* of *Trallianus*, and in *Meſue's* Pills of *Hermodactyls*.

Euphorbium, ſo call'd from *Euphorbius*, Phyſician to King *Juba*, who firſt introduced it into Practice, and with it cur'd *Auguſtus Cæſar*; is a yellowiſh Gum in little brittle Pieces, very acrid and burning to the Taſte. It flows by cutting from a Sort of *Ferula* that bears the ſame Name. The Bark is hard and thorny; the Leaves about the Length of a Man's Finger, and thick, of a quadrangular Form, garniſh'd at each Angle with a great Number of little Thorns. It grows in *Libya*. *Lemery.*

It is yellow and clear, in hollow Drops as big as Peaſe, and almoſt like *Sarcocol*, and is in Bladders as clear as Glaſs. Chuſe that which is white, bright, pure, or yellow and ſharp, which, with a ſmall Touch, makes the Tongue burn. It is the better for being old, Age abating its Sharpneſs, which whilſt freſh is not to be uſed. *Dodonæus* ſaith it is the Gum of a Plant. *Dioſcorides* affirms, that it proceeds from a Kind of *Libyan Ferula*, being cut. It is adulterated with *Gum Sarcocol*, and Juice of *Tithymal* or *Spurge*. It purges ſerous and watry Humours, but is violently inflaming. It is adminiſter'd with great Caution in Dropſies, Gouts, Palſies, and Green-Sickneſs; for it powerfully opens the Womb, provokes the Terms, and brings away both Birth and After-Birth.

[The Plant which produces the *Euphorbium*, is the *Euphorbium verum Commelin. Euphorbium verum Antiquorum.* R. Hiſt. 1. 873. Hort. Amſt.

Amſt. 123. *Euphorbium trigonum ſpinoſum rotundifolium.* Act. Reg. Par. Anno. 1720.

When it is given inwardly, it is beſt diſſolv'd in the Yolk of an Egg, and diluted with Oil of Sweet Almonds. Some venture it in Clyſters, in the Quantity of twelve Grains, in Palſies and Lethargies, and it is ſometimes uſed in Snuff.]

37. *Of* Olibanum, *or* Male-Frankincenſe.

THE *Olibanum*, which we uſually call the *Male Frankincenſe*, is a Gum that flows, by Inciſion, from the Trunk of ſeveral Shrubs which are found plentifully in the *Holy Land*, and in *Arabia Felix*, where they grow in great Quantities, eſpecially at the Foot of Mount *Lebanon*, from whence came its Name *Thus Libani Oleum Libani*, and by Corruption of the Language, *Olibanum*; it was alſo call'd *Frankincenſe*, becauſe the Antients made Uſe of it for an Incenſe to their Gods. From *Arabia Felix* they tranſport it by the *Red Sea* to *Egypt*, from whence it comes to *Grand Cairo*, and from *Grand Cairo* to *Alexandria*, where it is embark'd for *Marſeilles*. Several Perſons write, that when they cut the Trunk of the *Frankincenſe-Tree*, and it begins to drop, no Body, except thoſe who are of a certain reputed holy Family, may be permitted to gather it. Chuſe the fineſt white Tears, inclining ſomewhat to a gold Colour, which being chew'd, make the Spittle white as Milk, and are of a bitter unpleaſant Taſte, throwing ſuch aſide as is full of Duſt, and Leaves, and little yellow Pieces, to which it is very ſubject. Its Uſe is for ſeveral Compoſitions, as well Chymical as Galenical. *Pomet.*

This *Olibanum* drops from the Tree plentifully, in roundiſh Drops, ſome bigger, ſome leſs, ſcarcely any of them exceeding the Size of a Horſe-Bean; and it falls pure, without either Bark, Wood, or any other Thing ſticking to it, and is of a yellowiſh white; the whiter it is, the more it is eſteem'd. This reſinous Gum ſtrengthens the Bowels, ſtops Fluxes and the *Gonorrhœa* in Men, with the *Fluor Albus* in Women, taken from one Dram to two in Jelly of Iſinglaſs. It is cephalick, cardiack and pectoral, comforts the Head, and revives the Memory, ſuppreſſes Melancholy and the Vapours, and abates vehement Coughing, Hoarſeneſs and Catarrhs. The Fume taken up the Fundament, cures the Piles.

38. *Of* Moca Frankincenſe.

THE *Frankincenſe* of *Moca* is nothing elſe but a Kind of *Olibanum* in little Tears, or in the Maſs, much loaded with Dirt, of a reddiſh Colour, ſomething bitter to the Taſte, that is brought into *France* by the *Eaſt-India Company*; upon which Account it is call'd the Company's *Frankincenſe*, *Olibanum*, or *Indian Frankincenſe*. They never ſell it but to counterfeit the former, and ſometimes, tho' very improperly, for the true *Bdellium*. *Pomet.*

39. *Of the* Manna *of* Frankincenſe.

THE *Manna* of *Frankincenſe* is only a Number of little round Grains, that are clear and tranſparent, which are found in the *Olibanum*, and which are to be uſed for the ſame Purpoſes and after the ſame Manner as *Olibanum*. *Pomet.*

Thus, or *Frankincenſe*, is a Kind of white or yellowiſh Roſin, which yields a great Smell and Perfume, when thrown into the Fire; it is drawn by Inciſion from a little Tree, the Leaves whereof are like the *Lentisk*, and which grows plentifully in the Holy Land, eſpecially about Mount *Libanus*. They call this Tree *Thus*, or *Arbor thurifera*; the Tree bearing *Frankincenſe*. *Lemery.*

The firſt that flows from the Tree in clear pure Tears or Drops they call *Olibanum Melax*, *Thus Maſculum*, or the *Male Frankincenſe*; that which falls confuſedly on the Ground, and is ſometimes mix'd with the Pieces of the Bark of the Tree, or with ſome other Impurities, is the common *Frankincenſe* which ſome call *Female Frankincenſe*; it is in the Lump, yellowiſh, ſoft, fat, very apt to take Fire, and odoriferous: That which is call'd the *Manna* of *Frankincenſe*, is the *Olibanum* in ſmall Grain or Seed, that is round and pure, bearing the Colour of fine *Manna*; this Sort yields abundance of Oil and volatile Salt. The *Olibanum* is deterſive, a little aſtringent, ſudorifick, proper for Diſeaſes of the Breaſt, for the Pleuriſy, to ſtrengthen the Brain, for the ſcouring of the Guts, being taken inwardly, and is uſed externally to deterge and conſolidate Ulcers. The common *Frankincenſe* is deterſive, and deſiccative, being mix'd in Ointments and Plaiſters.

§ The Bark of the Tree, from whence the *Frankincenſe* flows, is call'd *Thymiama*, *Thus Judæorum*, or the *Frankincenſe* of the *Jews*: It is call'd *Thymiama* from ſmelling ſweet in burning, becauſe they burn this Bark in the Churches, or their Houſes, to perfume them. It ought to be choſen thick, fat, or reſinous; ſmooth, freſh and fragrant; it is deterſive and drying.

[We are not certainly inform'd what Tree it is which produces the *Olibanum*; *Theophraſtus* calls it a ſmall Tree with Leaves like thoſe of the Pear-Tree; others have compar'd it to the *Lentiſk*, and others to the *Acacia* Kind; and *Thevet*, who

48
G. Cancamy.
Bal- sam of Judea &c.
A Janiss a -ding & Bals
52
Balsam of Peru
51
Balsam of Tolu.
54
Balsam of Capivy.
53
Liquid amber.
New Balsam.

who in all Probability is moſt right of all, judges it to be of the Pine Species.

The *Olibanum* is brought to us from *Africa* and the *Eaſt-Indies*.

The *Thus vulgare* of the Shops is the dry Reſin of the *Pinus ſylveſtris*, Ger. 1175. *Pinus ſylveſtris vulgaris Genevenſis et Teda*, J. B. 1253. and the ſofter Kind, call'd *Thus fœmininum*, or common Incenſe, is only a thinner Sort of this, very much approaching to the Turpentine Kind.]

40. *Of* Gum Copal.

Pomet. THE *Gum Copal*, which we call *Oriental Copal*, is a clear, tranſparent Roſin, of a golden Colour, that flows from the Trunk of a Tree of a moderate Growth, adorn'd with Leaves which are green, long, large, and pointed; and with a Fruit that is like our Cucumbers, of a dark Colour, in which is to be found a Meal, or Flour, of a very good Taſte.

Chuſe this Roſin in fine Pieces, of the moſt beautiful yellow Colour, clear and tranſparent, that is eaſy to break or crumble; and which, when put into the Fire, melts preſently, and yields a Smell like that of *Olibanum*. This Roſin is very ſeldom brought into *France*, and therefore its Uſe is little known, altho' it is often met with in both the *Indies*. But in the Room of it we have another *Gum Copal* brought from the *American* Iſlands, which ſome improperly call *Karabe* This Gum flows, without cutting, from the Trunk and Branches of ſeveral large Trees, like our Black Poplars, that grow plentifully upon the Mountains of the *Antilles*, from whence it is brought along the Rivers, by means of the Rains and Torrents of Water that paſs by the Roots of theſe Trees, where this Gum falls naturally. Its Uſe is to make Varniſh of, with Spirit of Wine, and to ſell inſtead of the true *Karabe*, tho' very improperly, becauſe it is ſcarce any thing like it; ſmells little when burnt, and is therefore no ways uſeful to allay the Vapours: Beſides, it is ſo like the *Gum Senega*, that there is nothing but the Colour, and the not diſſolving in Water to diſcover the Difference by.

[The Tree which produces the *Copal*, is the *Copalli quavith Polahoca ſive arbor Copallifera latifolia ſive ſecunda*, Hern. 46. *Rhus Virginianum Lentiſci foliis*, R. Hiſt. p. 1799. It grows both in the *Eaſt* and *Weſt-Indies*.

The *Indians* call all tranſparent odoriferous Gums *Copal*; and *Hernandez* has deſcribed eight Kinds of *Copal* Trees; but the Species here mention'd, is that which produces the Gum we uſe, under that Name, which only differs in Colour according to its Purity, and to the Climate in which the Tree grows. It is not much uſed in Medicine, but is in great Eſteem among the Varniſhers.]

41. *Of* Cancamum, *or* Gum Cancamy.

Pomet. THIS is a Drug that is controverted even to this Day; ſome affirming it to be *Gum Lac*, others *Myrrh*, *Benjamin*, and *Turmerick*. But Mr. *Briſot*, a Phyſician at *Paris*, at his Return from his Voyage to the *Weſt-Indies*, brought into *France* a Gum of four different Colours; the firſt Amber-colour, the ſecond blackiſh, the third the Colour of Horn, to which was faſten'd a dry white Subſtance which was what we ſell by the Name of *Gum Animæ*; this a great many People ſcarcely believe, notwithſtanding *Dalechamp*, and others, have mention'd it; but I can atteſt the Truth of it, having a Piece by me of the Size of one's Finger, where the four Sorts of Gums are ſticking together.

The Tree that bears theſe four Sorts of Gums is of a moderate Height, and the Leaves like thoſe of Myrrh; it grows every where in *Africa*, *Braſil*, and in *St. Chriſtopher's*, from whence this Piece came, which was given me by a Friend the 30th of *July* 1686, who had it of a Perſon of the firſt Quality, to whom it had been ſent by one of the Governors of *St. Chriſtopher's*: That which reſembles Amber, being burnt, diſſolves, and has the Smell of *Gum Lac*; the ſecond, which is black, melts as the other, and has a much ſweeter Smell, the third, which is like Horn, is almoſt without Smell; the fourth is the *Gum Anime*: But ſince we have none comes to *Paris* but the *Anime* Kind, chuſe ſuch as is white, dry, brittle, and of a good Smell. This Gum is very little uſed in Medicine, tho' endow'd with a great many good Qualities, being a natural Balſam. Some would put off, tho' very wrong, *Gum Anime* for *Gum Elemi*; for there is a great deal of Difference, the *Anime* being hard and white, the *Elemi* moiſt and greeniſh.

Lemery. *Gummi Copal, ſive Pancopal*, is a ſoft Gum, of a very good Smell, of a white yellowiſh Colour, and fragrant, brought from *Hiſpaniola*, and other Places of the *Spaniſh Weſt Indies*. Some Authors have thought this Gum and *Gum Anime* to be all one; they may poſſibly be comprehended under one *Genus*; but I am confident that *Copal* is a Species different from the other; for *Copal* is a fine, clear, tranſparent, white Gum, in ſomewhat greater Pieces, and very odoriferous, tho' not altogether ſo ſweet as the *Anime* is; and with this *Copal* it is that the *Indians*, inſtead of Incenſe, perfume their Sacrifices in their Temples, as the *Spaniards* obſerv'd when they firſt came among them.

Gum Anime is alſo a whitiſh Gum, but is fatter. *Gum Copal* is more pure, clear, and white, and not ſo fatty as the other; ſo that of the two, the *Copal* is indeed the more excellent in Subſtance;

ſtance; but the *Anime* is the more odoriferous, and to be choſen before the *Copal*, if it be for a medicinal Uſe; but the *Copal* is to be choſen before the *Anime*, if for any other Purpoſes.

Cancamum is a very ſcarce Gum, which is clotted, and reſembles ſeveral Sorts of Gums or Roſins united, or ſticking cloſe one to the other, as one entire Gum. Some will have it to be a Species of Amber, others of *Gum Anime*, ſome of Benjamin, and ſome again of *Lac*; whereas all the *Cancanum* we know comes from *Arabia*, and moſt of the others are unknown there; ſo that it rather appears to be a ſingular Species or Kind of itſelf, and the true Roſin of a Tree growing in *Arabia*. As to its Virtues, Experience confirms that it ſtrengthens the Stomach and Bowels, kills Worms, and opens Obſtructions of the Spleen. You may make a good Varniſh by diſſolving it in Spirit of Wine tartariz'd, or good Spirit of Turpentine, as you make Varniſh of *Gum Anime*, or of Seed and Shell Lac.

[We are altogether ignorant what was the true *Cancanum* of the Antients; ſome have thought they meant Myrrh by this Name, and others, with more Probability, *Gum Anime*, which is produc'd by the *Animi fera Arbor Braſiliana*, Herm. Par. Bat. Pr. 312. *Anime Cancanum Græcorum*, Mont. Exot. 11. *Acaciæ quodamodo accedens Arbor Animæ Gummi fundens Americana foliis magnis acuminatis in pediculo binis Lobo magno, eraſſiſimo Eduli*, Breyn. Prodr. 2. 8. Courbaril. Plum. N. G. 49. It grows in *New Spain* and *Braſil*: The Gum has the ſame Smell and Virtues with the *Copal*; and it is alſo to be obſerv'd, that the Word *Anime* among the *Indians* comprehends as many Gums as *Copal*; but the Tree here mention'd, produces what we receive and uſe under that Name.]

42. *Of* Gum Lac *in the Stick.*

Pomet. THE natural *Gum Lac*, or that in the Stick, is a reddiſh Gum, that is hard, clear, and tranſparent, which is brought us adhering to little Sticks or Reeds, of the Thickneſs and Length of one's Finger, from the Kingdom of *Pegu*, where it is found in great Quantities.

The Sieur *Rouſſeau*, who was a long Time in the *Indies*, in *Perſia* and *Pegu*, where they gather this *Gum Lac*, ſays, that in thoſe Parts there is a vaſt Quantity of Inſects, like our common Flies, that gather together the Dew which is found on ſeveral Trees after the ſame Manner as we obſerve our Bees; and when they are full of this Dew, they diſcharge it upon whatever they meet with: That the Inhabitants of thoſe Places ſtick up Branches of Trees, Sticks or Reeds, as we do here in the Ground for Peaſe, or the like, to run upon, that the Flies may diſcharge their Loads of Dew upon thoſe Sticks, and the Sun drys them to a Gum that is hard and dry, juſt as we ſee it; which is not improbable, ſince the *Lac* we have brought over, ſticks upon Pieces of different Wood, and likewiſe upon little Reeds: Beſides, it is eaſy to ſee that this Gum does not flow from theſe little Pieces of Wood on which it is found ſticking; becauſe there are no Appearances from whence ſuch a Matter ſhould proceed. The ſaid Sieur *Rouſſeau* has aſſured me that the lower End of the Body of theſe Flies, put into Spirit of Wine, makes the moſt beautiful Red imaginable; and that it was the Tip of theſe Flies that might be call'd the Animal *Cochineal*, and not the *Meſtick Cochineal*, which we have treated of before.

When this Gum is in Perfection, they gather theſe ſmall Sticks loaded with it, which they keep to make a Tincture of, and to trade with ſeveral Nations, eſpecially with the *Dutch* and *Engliſh*, from whence we have it; and this is what we call *Stick-Lac*. Chuſe this Gum clear and tranſparent, ſuch as melts well, the leaſt full of Sticks, black Gum, and other Filth, to which it is very ſubject, and ſuch as being chew'd, tinges the Spittle red, and boil'd in Water, with any Acid, produces a fine ſcarlet Colour. 'Tis with this Tincture that the *Indians* ſtain their Linnen, and the People of the *Levant* what we call *Turky-Leather*; and the *Indians* make the Wax we name from thence *Indian-Wax*; the *Dutch* and *Engliſh* make Scarlet of it.

When the *Dutch* and *Engliſh* would clear what there is good from the *Stick-Lac*, they grind it ſlightly in a Mill, and that which paſſes through the Linnen, they ſeparate, which they uſe for Dying; the Remainder is the groſſer and worſe Part, and is what they ſend to us (mix'd with what they have, by the Aſſiſtance of Acids, drawn the finer Tincture from, without changing its Figure, and dry'd) and call *Seed-Lac*.

It ought to be choſen ſuch as melts well, and comes as near the Properties of the *Stick-Lac* as may be.

When they would make what is call'd *Shell-Lac*, they take the *Gum-Lac* off the Sticks; and when it is melted, they caſt it upon a Marble, and make it flat and thin, as we now ſee it: It is of different Colours according to the Fineneſs of the *Gum Lac* that was uſed; but that which is almoſt black, is what has been made with ſuch as had the Tincture drawn from it before. The *Engliſh* have brought into *France*, for many Years, a large Quantity of the fineſt *Gum Lac*, made in the Shape of Ears, whence it has receiv'd the Name of *Ear Gum*; but of late there has been none of it ſeen. As to the Choice of *Gum Lacs*, the principal Thing is to have them ſuch as will

melt

melt well; for all the *Gum Lac* that will not melt is good for nothing but to be thrown away, eſpecially if deſign'd for *Spaniſh* Wax, which is the chief Uſe of it. As for the *Shell Lac*, it ought to be ſhining, clear, tranſparent, the leaſt rugged, of the higheſt Colour, and the thinneſt that may be. The third Sort, ſuch as will melt beſt, ought to be the leaſt burnt; and as to the *Seed Lac*, the Makers of Sealing-Wax grind it in Mills, as they cannot melt it.

Lacca, or *Gum Lac*, is a hard, red, clear, tranſparent Roſin, which is brought us from *Bengal*, *Malabar*, *Pegu*, and ſeveral other *Eaſt-India* Provinces, adhering to little Sticks about the Length and Thickneſs of one's Finger. They pretend it is made from the great wing'd Ants, or a Kind of Flies reſembling our common Flies, which draw a Juice from the Subſtance of certain Trees, and diſcharge the ſame upon the Boughs of others, or elſe upon Sticks or Reeds, ſet up for that Purpoſe; which being dry'd into a Gum, is call'd *Stick Lac*. You ought to chuſe ſuch as affords the higheſt Colour, neat, clear, a little tranſparent, that will melt upon the Fire when it is lighted, yields a pleaſant Smell, and being chew'd tinges the Spittle of a red Colour; and likewiſe boil'd in Water with any Acid, ſtrikes a beautiful ſcarlet Dye. This Gum yields abundance of Oil, a little volatile Salt, ſome Earth and Phlegm; it is inciſive, penetrating, deterſive; it purifies the Blood, excites Sweat, and Womens Courſes; facilitates Reſpiration, reſiſts the Malignity of Humours, and ſtrengthens the Gums. *Lemery.*

They ſell at the Druggiſts a flat *Gum Lac*, call'd *Shell Lac*, which differs not from the other, but as it is ſeparated from the Sticks; diſſolved and caſt upon a Marble, it looks like Glaſs of Antimony. They have likewiſe *Lac* in Seed, or little Bits; but uſually it is not ſo good as the other, becauſe it is often only the remaining groſſer Parts of the Gum, after the *Dutch* and *Engliſh* have taken the ſcarlet Tincture off from it. This *Seed Lac* is uſed for Sealing-Wax. The *Indian* Sealing-Wax is made of the *Gum Lac* melted or liquified, and colour'd with Vermilion, and is much better than that made in *France*, becauſe it is compoſed of choice *Gum Lac*; inſtead of which, that of *France* is generally of the worſt *Seed Lac*, Roſin, and Vermilion. The black Sealing-Wax is ting'd or colour'd with Smoke Black; the yellow with Orpiment, *&c.*

They give the Name of *Lac*, or *Lake*, to ſeveral Kinds of dried Paſtes, or Crayons, which the Painters uſe to paint in Miniature, and in Oil. That which is call'd fine *Venetian Lac*, is made with Meſtick Cochineal, which remains after drawing off the firſt Carmine: Theſe they prepare better at *Paris* than *Venice*, and make them up in little, ſoft, brittle Troches, of a deep red Colour. That which is call'd *Dove Lac*, or *Flat Lac*, is made with Shavings of Scarlet, boil'd in a *Lixivium* of white Pot-Aſhes, Chalk and Alum, which they form a Paſte of, and make into Tablets to dry; the beſt is made at *Venice*. There is a certain Tincture made of *Braſil* Wood, which the Painters call *Liquid Lac*.

43. *Of* Indian Wax.

THE *Indian Wax* is made of Gum Lac, melted and colour'd with pale Vermilion, and afterwards form'd into round or flat Pieces, in the Manner as we now have them. Chuſe ſuch as melt well, are ſmooth, the leaſt full of brown Spots, and of the higheſt Colour you can get. This Wax is of no other Uſe than to ſeal Letters, and it ought to be this which bears the Name of the true Sealing-Wax, and not that which is mix'd and traded with at *Paris*, which is no other than the Seed Lac, ground and incorporated with melted Roſin, and colour'd by the Addition of a little Vermilion, and ſo ſold amongſt us. And as this Wax is of a baſe Colour, becauſe they put in very little Vermilion, they cover their Sticks over ſlightly with a good ſhining Red; which Cheat is eaſy to diſcover by breaking the Sticks, and ſeeing that they are not of the ſame Colour within as without. I wonder why this Kind of Wax ſhould be ſo falſly call'd *Spaniſh Wax*, ſince the *Spaniards* never make it, but are entirely ignorant of it. There are ſeveral other Sealing-Waxes made of other different Colours, as black, yellow, *&c.* beſides perfum'd Wax, that is made by adding a little Civet or Muſk to the Compoſition. *Pomet.*

[This common Opinion of the *Gum Lac* being left on Sticks, *&c.* by Flies, which is alſo countenanc'd by *Garzias* and *Bontius*, who both ſay, that it is form'd in that Manner by what they call a Species of large wing'd Ants, ſeems repugnant to Reaſon and the common Courſe of Nature, and is not believ'd by many very eminent Authors, among whom *John Bauhin*, and the late celebrated Mr. *Ray*, are of Opinion that it is the natural Gum ouzing from the Branches of the Trees we have it found on. *Herman* has deſcrib'd ſeveral Lacca-Trees; but what we have brought into *Europe* is gather'd from the *Jujuba Indica*, Rai. Hiſt. 2. 155. *Jujuba Indica rotundifolia Spinoſa, foliis majoribus ſubtus lanuginoſis et incanis*, Breyn. Pr. 2. 60. Commel. Flon. Mal. 149. *Zizyphus Indica Argentea tota*, Herm. Muſ. Zeyl. 8. 37. which is plentiful in *Malabar*, and many other Parts of the *Eaſt-Indies*; and I think there can be no great Difficulty in deciding the true Origin of this Drug, when *Herman* affirms that he has himſelf often procur'd a fine red and tranſparent

ſparent *Gum Lacca*, tho' in ſmall Quantities, from Inciſions which he made in the Bark of this Tree. The Puncture made in the Bark by Flies and Ants may indeed very much facilitate the flowing of this Gum; and hence, I ſuppoſe, grew at firſt the Opinion of their leaving it there: Nay, tho' we ſhould allow Mr. *Geoffroy* the Truth of what he ſuppoſes, as to its being the Neſts of theſe Inſects, and their Eggs being found in ſome of the Cells of it, I cannot ſee that he need think that a Proof of the Matter's being brought thither by them, any more than that the Subſtance of a Gall is brought and lodg'd upon an Oak by a Fly, becauſe the Egg, or *Eula*, of a Fly is found in it: Allowing therefore the Truth of theſe Eggs being ſometimes found in the Cells of the *Lacca*, as I muſt acknowledge I have ſometimes found Bodies that had that Appearance, I think it rather a Proof of, than an Objection againſt, what I believe as to the Origin of the *Lacca*, which is, that Nature has inſtructed a certain winged Inſect to pierce the Bark of the *Jujuba Laccam fundens*, as I would call that Species we have the *Lacca* from, and there to leave its Eggs, where a proper Juice would ſoon naturally flow over them, and defend them from external Injuries 'till the Time of their hatching.]

44. *Of* Balſam of Judæa, *or* Balm of Gilead.

Pomet. THE *Balſam of Judæa*, which we uſually call *Opobalſamum*, *Balm of Gilead*, *Egyptian Balſam*, or *Balſam of Grand Cairo*,, is a liquid white Balſam, that flows during Summer from the Trunk of a Shrub, that bears Leaves like Rue, and white Flowers ſhap'd like Stars; in the Middle of which riſe little Berries, that are ſharp at the End, in which is a ſmall Kernel; this little Fruit we call *Carpobalſamum*; it ſticks to the Branches by means of a ſmall Stalk, is green at the beginning, and grows brown as it ripens.

Jericho was once the only Place in the World where this true Balſam was to be found; but ſince the *Turks* have been Maſters of the *Holy Land*, they have tranſplanted this Shrub into their Gardens at *Grand Cairo*, where they are guarded by ſeveral *Janiſſaries*, during the Time the Balſam flows. A Friend of mine, who has been at *Grand Cairo*, aſſured me, that no body, unleſs by looking over the Walls, could get a Sight of theſe Shrubs, which are defended by very high Walls, as well as Soldiers, from any Chriſtians entering. And as to the Balſam, it is almoſt impoſſible to get any upon the Place, unleſs it is by means of ſome Embaſſador at the *Porte*, to whom the Grand Signior has made a Preſent of it, or by the *Janiſſaries*, who watch this precious Balſam; by which we may underſtand, that what ſeveral Cheats pretend to ſell for true *Balſam of Gilead*, is nothing but white Balſam of *Peru*, which they prepare with Spirit of Wine rectified, or with ſome diſtill'd Oils.

But it is met with ſometimes in the Cabinets of the great Lords. In 1687 there happen'd to be a Quantity ſent to Madam *de Villefavin*, which was found to be about fourteen Ounces in two Leaden Bottles, as it came from *Grand Cairo*, which was ſold to a Perſon who let me ſee it; we found it to be very hard, of a Golden yellow Colour, and a Citron Smell: But ſince that, a Friend of mine gave me one Ounce, which he brought himſelf from *Grand Cairo*, and which was of a ſolid Conſiſtence, like that of Turpentine of *Chio*, and of a fragrant Smell, which is the true Sign of its Goodneſs.

45. *Of* Carpobalſamum.

Pomet. THE *Carpobalſamum* is as I have ſaid, the little Fruit of the Balſam-Shrub; theſe, to have their due Qualities, ought to be new, and of an aromatick Taſte, and a pretty pleaſant Smell. They are of ſome medicinal Uſe, but principally for the great Treacle, wherein they require no other Preparation than to be choſen true, and freed from their Stalks, empty Shells, and ſuch as are Worm-eaten amongſt them.

46. *Of* Xylobalſamum, *or the* Balſam-Wood.

Pomet. THIS is the Trunk and Branches, ſtripp'd from the Leaves and Seed of the Balſam-Shrub, which we have brought in little Faggots, from *Cairo* to *Marſeilles*; for they every Year prune the Balſam-Shrubs as we do our Vines, and bind up the Cuttings for Sale; for the *Turks* love rather to make Profit of it, than burn it. Chuſe your *Balſam-Wood* in little Rods, full of Knots, reddiſh without, and white within, the moſt reſinous and aromatick that can be got. The chief Uſe of it is in the Troches of *Hedicroy*, without any other Preparation than the Choice aboveſaid.

47. *Of* Balſam of Mecca.

Pomet. THE *Turks*, who go a Pilgrimage every Year to *Mecca*, bring from thence a certain dry white Balſam, in Figure reſembling white Copperas, eſpecially when it is ſtale. The Perſon who made me a Preſent of about half an Ounce, aſſur'd me, that he

he brought the ſame from *Mecca* liquid, and that the Smell is the ſame as that of the Balm of *Gilead*. The ſame Perſon likewiſe did teſtify to me, that it was as good as the Balm of *Gilead*.

There is a Tincture and Spirit of Balm of *Gilead*; the Tincture is a great Secret in the Venereal Diſeaſe; the Spirit is of great Value, by Reaſon of its balſamick Virtues, being beneficial to the nervous and membranous Parts; it contains a volatile, ſubtile, and deterſive Salt, which mundifies ſtrongly, by which it takes away the Viſcoſities, Impurities, and other Diſeaſes of the Lungs, Ureters *&c.*

Lemery. *Balſamum Judaicum, Gileadenſe verum Ægyptiacum, Syriacum, de Mecca*, the true *Syrian* Balſam or Balm of *Gilead*; proceeds from a ſmall Tree or Shrub that once grew no where but in the Valley of *Jericho* in *Gilead*, and in *Arabia Felix*; but ſince the *Turks* have been Maſters of that Part of the World, they have tranſplanted theſe Trees into other Parts, where no Chriſtians are permitted to approach, by the Command of the Sultan, who has appointed Soldiers to guard every one of theſe Trees perpetually. This Tree riſes to the Height of Shrub-Trefoil, bearing a few Leaves like thoſe of Rue, or rather like the Leaves of the Maſtick-Tree, being always green, and conſiſting of three, five, and ſometimes of ſeven Wings. The Branches are odoriferous, reſinous, and tough; the Flowers are of a white Colour, inclining to a Purple, not much unlike thoſe of the *Egyptian* Thorn, or *Acacia*, of a very fine fragrant Smell; the Seeds are yellow, contain'd in Cods that are of a blackiſh Colour, inclining to red, being of a ſweet Smell, a pungent and bitter Taſte, pouring forth a yellow-colour'd Moiſture like Honey: The Fruit of this Tree is call'd *Opobalſam*; and the Liquor iſſuing from it is call'd in the Shops, the Liquor of *Opobalſam*; and the Wood of the Tree *Xylobalſam*, or *Balſam-Wood*, which is cephalick and ſtomachick, reſiſts Poiſon, and drives away any Contagion. It is preſcrib'd in ſeveral pharmaceutical Diſpenſations, and may be uſed inſtead of Yellow Sanders, or Wood of Aloes. The *Carpobalſam*, or Fruit thereof, is alexiterial, proper to ſtrengthen the vital Parts, to excite the *Semen Virile*, to cure the Biting of Serpents, and other venomous Creatures; but as it is ſcarce, *Cubebs* are uſed in its Stead.

There flows, in Summer-time, from the Trunk of this Balſam-Tree, being cut, or the Boughs lopp'd off, a liquid Roſin that is white and fragrant, call'd in *Latin*, *Opobalſamum*, *Balſamelæon*, *Balſamum de Mecha*, *Balſamum verum Syriacum*, *Balſamum album Ægyptiacum ſeu Judaicum*. As this Balſam is ſcarce, dear, and precious, it is apt to be mix'd and adulterated. It ought to be of a Conſiſtence very near like that of Turpentine, of a whitiſh Colour, inclining to yellow, tranſparent, of a penetrating and pleaſant Smell, the Taſte a little bitter and acrid. It yields abundance of Oil that is half exalted by the volatile Salt. If for Curioſity one would make a Diſtillation of it, in the firſt Place we ſhall find an etherial Oil, then a yellow Oil, and at laſt a red Oil, ſuch as is to be met with in Diſtillation of Turpentine. But as this white Balſam is a natural Drug ſo exalted, that it ſtands in need of no Aſſiſtance from Chymiſtry, it is much better to uſe it in its natural State. To know if this Balſam is true and freſh, pour ſome Drops of it into a Glaſs of Water, and it will ſpread itſelf delicately upon the Surface, and afterwards be eaſily collected together by the End of a Stick entirely from the Water; but if this Balſam be old, tho' it be true, it gains a firmer Conſiſtence and Solidity, ſo that it does not ſwim or float upon the Water, but will precipitate to the Bottom.

This white Balſam is the moſt eſſential Part of the Tree, and is the moſt valuable Medicine to fortify the Heart and Brain. The Doſe is from two Drops to five or ſix. And it is likewiſe given inwardly to deterge and conſolidate Wounds, ſtrengthen the Nerves, and to heal Ulcers of the Lungs, Conſumptions, Catarrhs and Phthiſicks, ſo that there is ſcarce a better Thing in the World. The Ladies uſe it for a Waſh, and mix it with a little Oil and the four cold Seeds, to ſoften the Roughneſs of the Skin; beſides which, it takes away Pimples and Blotches in the Face. Some diſſolve it in Spirit of Wine, or *Hungary* Water, and ſo mix it with Snail Water, or Bean Flower Water, to make a Virgin's Milk or Waſh of.

[The Tree which produces the Balm of *Gilead*, is the *Balſamum Syriacum Rutæ folio*, C. B. Pin. 400. *Balſamum ab Ægyptiis Baleſſan*, Alpin. Ægypt. 60. and the Wood and Fruit of the ſame Tree are the *Xylobalſamum* and *Carpobalſamum*. The true Balm of *Gilead* is a reſinous Liquor which at firſt is of the Conſiſtence of Oil of Sweet Almonds; but by Age loſes its Smell, and ſometimes its Colour, and becomes thick as Turpentine; when freſh, it has the Smell of Citron Peel.

M. *Lippi*, Embaſſador from *Lewis* XIV. of *France* to the Emperor of the *Abyſſines*, being in *Egypt*, took great Pains to diſcover the Plant, and the Ways of procuring the Balſam from it; he found there were three Ways of collecting it, and that the three Liquors collected differ'd accordingly; the firſt, and fineſt, was catch'd as it flow'd ſpontaneouſly from the Tree; the ſecond was procur'd by Inciſions, and the third by boiling the Tops of the Trees, which firſt yield a very fine Balſam, and afterwards a coarſer. The Balſam which flows ſpontaneouſly from the Tree is all ſent

to the Grand Signor's Seraglio, the others are suffer'd to be exported.]

48. *Of* Balsam *of* Peru.

Pomet. WE sell at *Paris* three Sorts of *Balsams* by the Name of *Balsam* of *Peru*; to wit, The *White*, which is called, the *Balsam* by *Incision*; that in the Shell, which is called the *Dry Balsam*, and the *Black Balsam*. This first is a white Liquor, altogether like the *Bijon*, of which I shall treat in the Chapter of *Turpentine*, that distils from the Trunk and large Branches of certain Shrubs, whose Leaves are represented in the Figure of *Balsam* of of *Peru*, which Tree grows plentifully in *New Spain*, *&c.* The second is the *Balsam* in the Shell, which drops from the Branches that are cut, at the Ends of which they hang Shells, to receive a kind of Milk that falls into them after the same manner as the Vines yield a clear Water. When these Shells are full, they place others in their room, continuing so to do 'till the Trees will yield no more; then they expose, or set these Shells, in hot Places for some Days, that the Milk may congeal or harden, and change its Colour. The third is the *Black Balsam*, which is made by boiling the Bark, Branches and Leaves of these little Trees in Water; after they are boil'd some Time, taking the Whole from the Fire, and gathering off the Fat that swims at Top, which is of a blackish brown Colour, and is what we call *Black Balsam* of *Peru*.

The first and finest Kind of all being that which distils from the Branches, is a hard *Balsam*, which, to have its requisite Perfection, ought to be reddish, the most fragrant and dry that may be. Its Use is as well in Medicine, as to make a Virgin's Milk abundantly more odoriferous than that which is made of *Benjamin* and *Storax*. Several Persons have assured me, that the *Balsam* in the Shell was a Composition of *Benjamin*, *Storax*, and *Balsam* of *Peru*, which I never could find to be true from several Trials that I have made. However, with this *Balsam*, and some other Drugs, is composed the *Balsam* of Monsieur the Governor of *Berne*, which I shall communicate to the Publick, because of its many great Virtues.

After that the Branches will drop no more they cut the Trunk, and from thence flows a white Humour, that is as clear as Milk; which, to be right and true, ought to be white, and as like the *Balm of Gilead* as may be. This *Balsam* is of no other Use, that I know of, but for Wounds, or to sell instead of the true *Opobalsamum*; though there is a vast Difference, in that the true *Opobalsamum* has a Citron Smell, which is not to be met withal in the white *Balsam* of *Peru*.

49. *The Manner of making artificial* Balsam *of* Peru.

I Have been inform'd by many Persons, that the Black *Balsam* of *Peru* is a Composition made by the *Portugueze*, who sell it to the *Dutch*, in the following manner: Take fine Turpentine, white Frankincense, of each one Pound; Oil of *Ben*, *Olibanum*, *Labdanum*, *Gum Elemi*, of each six Ounces; Lavender Flowers and Nutmeg, of each four Ounces; Spikenard, Wood of Aloes, of each two Ounces; Myrrh, Aloes and Dragon's Blood, of each one Ounce and Half; the little Valerian Orrice, long Birthwort, *Acorus Verus*, Mace, Benjamin, Storax, of each one Ounce; Zedoary, Galingal, Cloves, Cinnamon, Castor, and Mastich, of each six Drams: Powder all the Drugs grosly, then melt the Turpentine, Frankincense, Gum Elemi, and Oil of Ben over the Fire, and when they are dissolved, incorporate the Powders; and when they are made into a Paste, put them into a Glass Retort, whereof one third Part is empty; and after it is well luted and dry'd, set it upon a Sand-Furnace; and when the Matter begins to heat, there will flow a clear Water, then an Oil of the Colour of Gold, at last a black Balsam, tending to red, which some would have to be what we sell by the Name of *Black Balsam* of *Peru*. The Water is proper to be taken inwardly, by those who have the Falling Sickness, Convulsions, Weakness of the Stomach, and to correct Wind. The Oil is good for the Palsy, Nerves that are wounded, Pains in the Joints, rubbing them with it hot. As to the *Balsam*, it has the same Virtues with that of *Peru*. *Pomet.*

50. *The Balsam of the Governor of* Berne, *given me by Mr.* Pimodan, *the King's Lieutenant of* Toul *in* Lorrain.

TAKE dry *Balsam* of *Peru*, one Ounce; Storax in Tears, two Ounces; Benjamin, three Ounces; Aloes Succotrine, Myrrh, Olibanum in Tears, Roots of *Bohemia* Angelica, Flowers of St. *John's* Wort, of each Half an Ounce; Spirit of Wine, one Quart; beat all together, and put them into a Bottle well stopp'd, which hang in the Sun in the Dog-Days. *Pomet.*

The Virtues of this Balsam, *according to the Original given me by the said Mr.* Pimodan.

First of all, it is an admirable *Balsam* for all Kinds of Wounds; it is also excellent, given inwardly, in the Cholick, taking four or five Drops of it in a Glass of Claret. It is also sovereign in the

the Gout, applied to the Part affected, with a Feather or Cotton. For the Tooth-ach it is wonderful, apply'd to the Teeth with Cotton that has been ſteep'd in it. It cures all Sorts of Ulcers, Cancers and Shankers; cures the Biting of venomous Creatures and mad Dogs; is good to prevent the Marks of the Small-Pox, by rubbing the Pimples as they appear upon the Face. It is excellent for the Piles, Inflammations of the Eyes, Pains of the Stomach, and likewiſe to provoke the Terms, taken five or ſix Drops in hot White Wine.

Balſamum Peruvianum, ſeu Indicum, or *Balſam* of *Peru*, is a natural Balſam, whereof there are three Sorts or Species. The firſt, call'd the *dry Balſam*, is a Sort of hard, reddiſh, fragrant Roſin, which is brought us in the Shell. [*Produced as deſcrib'd in* Pomet.] The ſecond is a liquid, white, ſmelling Roſin. And the third is a black, odoriferous *Balſam*, which is the the moſt common, and moſt in Uſe of all the others, as well in Phyſick as for Perfumes. It ought to be viſcous, and of a Turpentine Conſiſtence, of a blackiſh brown Colour, a ſweet and agreeable Taſte, having ſome Analogy to *Storax*. Theſe *Balſams* are proper for the Brain and Stomach, to drive malignant Humours off by Perſpiration, to deterge and heal Wounds, to ſtrengthen the Nerves, and to reſolve cold Tumours. The Doſe from a Drop to four or five. *Lemery.*

[The Tree which produces the *Balſamum Peruvianum* is the *Hoitziloxitl*, *ſive Arbor Balſami Indici*, *ſive Balſamifera*, Hern. 1. 51. *Caburciba*, Piſ. 57. *Hoitziloxitl Mexicanorum*, Jonſ. Dendr. 309. which grows in *New Spain*, and other Parts of *America*. The *Black Balſam*, which is almoſt the only Kind now in Uſe, is procur'd as deſcrib'd by Authors, by boiling the Tops of the Tree; but the *White* is the Production of another Species of the *Peruvian Balſam Tree*: It flows by means of Inciſions, from the *Hecacanex ſive Balſamifera ſecunda*, Hern. 52. which grows plentifully in *Peru*.]

51. *Of* Balſam *of* Copyba, *or* Capivy.

THE *Balſam* of *Capivy* is brought us two ways, to wit, in a clear Oil, and a thick. And this Difference ariſes only from the Difference of the Time in which it flows from the Tree; for that which comes firſt from the Inciſion that is made in the Tree, whoſe Figure is repreſented in the Plate herewith, is a clear Oil, that is white, and of a reſinous Smell; and after that diſtils another Sort, that is of a golden Colour, and thicker, which gives it the Name of a *Balſam*. This is uſually brought from *Portugal* in earthen Bottles, ſharp and narrow at the End, in which is often found a Moiſture, which occaſions it to ſeparate, and makes this *Balſam* whitiſh like Curd. The Tree grows in many Parts of *Braſil*, as *Rio de Janeiro*, *St. Vincent*, and *Fernambouc*. The Natives know not a better Remedy for all Sorts of Wounds, than their *Colocai*; for ſo they call this *Balſam*: The *Braſilians* call it *Copaiba*, the *Portugueze*, *Gamelo*. It is a very admirable Medicine, both internally and externally uſed; being a Specifick in the *Gonorrhea*, and Womens Whites. The Natives found out the Virtue of this *Balſam* by means of certain Hogs in thoſe Parts, who preſently, when they were wounded, would ſtrike their Teeth againſt the Trunk of theſe Trees, from whence the *Balſam* would flow out into their Wound; and this they would continue to do 'till they were perfectly well. The Wood of the Tree ſerves them to die red with, as well as that of *Braſil*. *Pomet.*

Balſamum Copahu, *Copau*, *Copalyva*, *Copaif*, *Campaif*, *Gamelo*, or *Balſam of Capivy*; is a natural Balſam flowing from a Balſam Tree, about *Surinam* in the *Weſt-Indies*, hot and bitteriſh to the Taſte, of an aromatick Smell, and clear tranſparent Body, like *Venice* Turpentine, but equal in Goodneſs and Virtue to moſt other natural *Balſams*. It comforts and warms a cold Stomach and Bowels, diſſolves and enters into the whole Maſs of Blood, depurates it from all its Feculencies, is an admirable Vulnerary, and a very good Thing againſt the Scurvy; opens Obſtructions, and provokes Urine powerfully: It ſtrengthens a weak Back, ſtops Fluxes of all Kinds; in a Word, provokes Sweat, and cures moſt Diſeaſes which are to be remedied by ſweating, doing whatever any other natural *Balſam* or Turpentine will do. Doſe from twenty Drops to forty, twice a Day. *Lemery.*

[The Tree which produces the *Capivi*, is the *Arbor Balſamifera Braſilienſis fructu monoſpermo*, Rai. Hiſt. 2. 1759. *Copaiba Braſilienſibus*, Marc. 130. *Copayva*, Piſ. 56.

When the *Balſam* is new it is of the Conſiſtence and Colour of Oil of Sweet Almonds, and ſmells like *Lignum Aloes*, but the Taſte is pungent and bitter.

52. *Of* Balſam *of* Tolu.

BAlſam of *Tolu* is a Roſin that flows from the Trunks of Trees, by means of cutting them. Theſe Trees are found in great Quantities in a Province of *New Spain*, which is betwixt *Carthagena* and *Nombre de Dios*, call'd *Tolu*. The Balſam, as it flows from the Tree, is of the Conſiſtence of Turpentine, and of a reddiſh brown Colour. The Inhabitants of thoſe Parts tie at the Bottom of the Tree little Veſſels made of the black Wax of that Country, or elſe a *Calabaſh*, to receive the Balſam; *Pomet.*

ſam; which, after it is fallen, hardens, and becomes much about the Conſiſtence and Colour of *Flanders* Glue newly made.

This Balſam is very ſcarce in *France*; thoſe who want it, procure it from *England*, where it is very common. Chuſe that which is freſh, of a ſweet penetrating Smell, like Balm of *Gilead*; when it grows ſtale it becomes of the Conſiſtence of the dry Balſam of *Peru*: This has the Virtues of the other Balſams, but more particularly is proper for internal Uſes, not being in the leaſt apt to vomit.

Balſam de Tolu is a balſamick reſinous Liquor, of a reddiſh Colour, inclining to that of Gold; being of the Conſiſtence of Turpentine, very clammy, and ſticking faſt to any thing; when it grows old it grows dry and ſolid, and will break into Pieces almoſt like Aloes. It is of a very fragrant and pleaſant Smell, reviving the Senſes, much reſembling the Smell of Lemons and Jeſſamine Flowers, but ſtronger, and not ſo faint and weak. It is more eſteem'd than the Balſam of *Peru*, and reckon'd almoſt as good as the Balm of *Gilead*. It attenuates, diſſolves, is pectoral and vulnerary. Outwardly it cures old Aches and Pains in the Head and Joints. It ſtops Catarrhs, helps Defluxions, ſtrengthens the Weakneſs of the Bowels, diſcuſſes Tumours, and cures Contractions. It is uſed in the Tincture, Spirit, and volatile Oil, as the Balm of *Gilead*, *&c.* *Lemery.*

[The Tree which produces the *Balſam* of *Tolu*, is the *Balſamum Provincæ Tolu*, *Balſamifera quarta*, Hern. 53. *Arbor Balſamifera Tolutana*, Jonſ. D. 308. *Balſamum Tolutanum foliis ceratiæ ſimibus, quod candidum*, Com. 626. The Balſam is brought in Shells from the Province of *Tolu* in *America*.]

53. *Of the* New Balſam.

THE *New Balſam*, in Colour and Shape, is very like that of *Tolu*, but of a much leſs agreeable Smell. This Balſam is made after the ſame manner as the Oil of Bays, from little red Fruit that comes in Cluſters, upon a kind of Tree, the Leaves whereof are very large and broad, green above, and greeniſh underneath, that grows in the *Weſt-Indies*, eſpecially in the Iſland of *St. Domingo*. This Balſam is ſo very ſcarce in *France*, that there is very rarely any of it to be ſeen. *Pomet.*

[What was once called the *New Balſam* was the *Balſamum Ipecuebæ*, drawn from the Fruit of the *Becuiba nux*, Geoff. 324. It was of great Eſteem in *Brazil* for Palſies and Rheumatiſms, and brought over to *England* as a great Remedy in ſuch Caſes, but it never came into Uſe here.]

54. *Of* Liquid Amber.

Liquid Amber is a Liquid Roſin, clear and reddiſh, which flows from the Trunk of very thick and large Trees; the Leaves whereof are like thoſe of Ivy, and which grow plentifully in *New Spain*, where they are called *Oçoçol*. The *Indians* cut the Bark of theſe Trees, which is large, and very thick, and ſo they afford a Roſin, which, when they have got a reaſonable Quantity of, they ſend into *Spain*, where it is ſold by Barrel, as they do fine Turpentine: It was once very common in *France*, though at preſent it is ſcarce. Chuſe that which is clear, of a good Smell, inclining to that of Ambergreaſe, which gives it the Denomination, and of a pale Yellow. When it grows old it thickens, and is of a redder Colour. It is an exquiſite Balſam for curing of Wounds, eſpecially the *Fiſtula in Ano*. *Pomet.*

We ſell two Sorts of *Liquid Amber*; the one in a thin clear Oil, which, for its Conſiſtence, is call'd, Oil of *Liquid Amber*; and the other in an Oil of the Conſiſtence of Turpentine, which from thence is call'd, *Balſam* of *Liquid Amber*: But the Difference is no other than according to the Time the one or the other falls from the Tree; for that which falls firſt is always the cleareſt, and ſo ought to be preferr'd to the other. As *Liquid Amber* is ſcarce, they make Uſe of Oil of St. John's Wort in its Place, which is made with the Flowers put in Oil Olive, and ſet it in the Sun during the Dog-Days. Theſe Flowers give a fine beautiful red Colour to the Oil. Some People add, very properly, fine Turpentine and Saffron. The older this Oil is made, the more Virtue it has in it. Beſides this, they make another Oil of a blue Colour, with Camomile Flowers, after the ſame manner as the former.

Liquid Amber is a natural Balſam, or a Liquid Roſin, as that of Turpentine, clear, reddiſh, or yellowiſh, of a pleaſant Smell, almoſt like Ambergreaſe. It flows by Inciſion from the Bark of a fine large Tree, that grows in *New Spain*, which the *Indians* call *Oçoçol*, or *Oſocol*; the Leaves reſemble thoſe of Ivy; the Bark is thick, of an Aſh-Colour, and very odoriferous. They gather this Liquid Roſin, and bring it to us in Barrels; but ſometimes they leave it to dry in the Sun, where it hardens like common Roſin. This Conſiſtence makes it eaſier to tranſport than the other; but the Smell is not fragrant, becauſe the Heat of the Sun exhales ſome of the more volatile Parts. The Trees which produce the *Liquid Amber*, perfume with their fine Smell the Places where they grow. This *Liquid Amber* is an excellent Balſam, it molliſies and conſolidates, is good againſt Hardneſs of the Womb, *Lemery.*

Womb, Rheumatiſm, Sciatica, and Weakneſs of the Nerves.

[The Tree which produces the *Liquid Amber* is the *Styrax Aceris folio*, Rai. Hiſt. 2. 1848. *Styracem fundens vel Styrax arbor Virginiana Aceris folio*, Breyn. Prodr. 2. 84. *Acer Virginianum odoratum*, Herm. Cat. K. B. 641. It is common in *Virginia*, *New Spain*, and other Parts of the *Weſt-Indies*, and is kept in the Gardens of the Curious here in *England*.

The reſinous Juice flows either naturally, or by Inciſions, in great Abundance; but there is alſo another Balſam procur'd from this Tree, by boiling the Twigs and Leaves, and taking off the oily Matter which ſwims at the Top. This is often ſold for the true Balm of *Gilead*.

Some have imagin'd this to be Liquid Storax of the Shops; but that is an erroneous Opinion.

The reſinous Juice was once much uſed in Perfumes, *&c.* but is now very ſeldom ſeen.]

55. *Of* Turpentine.

Pomet. *Turpentine* is a viſcous, oily, tranſparent, reſinous Liquor, that flows naturally, and from the Inciſions that are made in the Trunks of ſeveral different Trees, as we ſhall ſee afterwards. We uſually ſell three Sorts of *Turpentine*; to wit, the *Turpentine* of *Chio*, the *Pine Turpentine*, commonly called *Venice Turpentine*, and the *Bourdeaux Turpentine*. There are ſeveral others beſides theſe to be met with in the Shops, which are nothing elſe but Names given them, according to their Adulterations.

The firſt and the deareſt of all the *Turpentines* is that of *Chio*, which flows from the Trunk and large Branches of a Tree of a moderate Size, called the *Turpentine Tree*, which grows in the Iſle of *Chio*, in *Cyprus*, *Spain*, and *France*. Theſe Trees bear deep green Leaves, with Flowers and Fruit, as expreſſed in the Figure.

As for the *Turpentine* of *Chio*, it ought to be of a ſolid Conſiſtence, without any kind of Taſte or Smell, of a White, inclining to a Green, and the leaſt Subject to ſtick in the Teeth, or to the Fingers, that is poſſible; and take Care of the *Pine Turpentine*, which ſome ſell, when boiled to a Conſiſtence, for the true *Chio Turpentine*; but this Cheat is eaſily found out by its ſtrong Smell, and becauſe it ſticks to the Teeth. This *Turpentine* is very little uſed becauſe of its Dearneſs; but there are ſome curious honeſt Apothecaries who make Uſe of it upon moſt Occaſions.

The ſecond *Turpentine* is what we falſly call *Venice Turpentine*; this flows at firſt without Inciſion, from the Larch Trees, Pines and Fir Trees during the great Heats; and this *Turpentine*, or rather natural Balſam, which flows without Inciſion, is call'd by the *Lionnoiſe*, *Bijon*; but the little we have brought us is not worth ſpeaking of, for the Merchants of that Country know how to diſpoſe of it to better Advantage, in that they ſell it for true white Balſam of *Peru*; which is quite contrary to what M. *de Furetier* obſerves, who ſays, that the *Bijon* is a Drug the Apothecaries ſubſtitute in the room of *Turpentine*, which is a great Error for many Reaſons: Firſt, becauſe a Pound of *Bijon* is worth more than ſix Pounds of *Turpentine*. Secondly, becauſe there are very few Apothecaries or Druggiſts in *Paris* that know what it is. And in the laſt Place, I believe, if we wanted ten Pounds of *Bijon* in *Paris*, we ſhou'd be at a great deal of Trouble to get it, whereas we might meet with many thouſand Pounds Weight of *Turpentine*.

To return to what is call'd *Venice Turpentine*: When the poor People, who wait in the Fir-Woods, ſee that the Trees will drop no more of their own accord, that is, will yield them no more of the *Bijon*, they make Inciſions in them, from whence flows a clear Liquor like Water, of a yellowiſh white, and that, as it grows older, thickens, and becomes of a Citron Colour. When they make their *Turpentine* Harveſt, which happens twice a Year, to wit, in Spring-time and Autumn, they bring it to *Lyons* in Caſks, or in Goat-Skins, to ſell to the Merchants, of whom we buy it; hence we may be ſatisfied, that what is improperly call'd *Venice Turpentine*, is the fine Larch Tree, Pine or Fir *Turpentine* of *Lyons*. Chuſe that which is clear, and the whiteſt that can be got, and beware of what is adulterated with Reſin and Oil of *Turpentine*, which may be eaſily known by its Colour, Smell and Conſiſtence, and by wetting a Piece of Paper therein, and burning it: If there be any Addition of the ſaid Oil, it will yield a black ſtinking Flame; on the contry, if it is natural, it affords a reſinous Smell, and will not burn away ſo quick. This *Turpentine* ſerves for many Uſes, as well in Phyſick as for the Artificers, eſpecially for making Varniſh.

The third is the common *Turpentine*, to which ſome give the Name of *Bayonne*, or *Bourdeaux Turpentine*; this is white, and thick as Honey, and comes moſt from *Bourdeaux*, *Nantz*, or *Roüen*. This *Turpentine* flows not from the Trunks of Pines or Fir-Trees, as moſt People believe; but is made from a white hard Roſin, which we call Incenſe, and the Mountaineers Barras. As to the true *Venice*, *Cyprus*, or *Piſa Turpentines*, we have none brought us; what we ſell by the Name of *Venice Turpentine* is, as I have ſaid before, the Larch and Pine *Turpentine* of *Lyons*; for the *Cyprus* they ſubſtitute that of *Chio*; for the *Piſa*, the common *Turpentine*, mix'd with the Oil of *Turpentine* and a little Verdegreaſe, to give it a greeniſh Caſt, which is very improper for

for many Reaſons. The true *Piſa Turpentine* is of a yellowiſh White.

There are great Cheats in the Mixtures ſold under the Names of the different *Turpentines*, which it were well if there cou'd be ſome Way found to remedy, that ſick People and Workmen, as well as Apothecaries and Surgeons, might not be impoſed upon with artificial *Turpentines* for the natural. As for the *Straſbourg Turpentine*, it rarely comes amongſt us, but is frequently ſold in *Holland* and *England*.

56. *Of* Common Incenſe, Roſin *of the* Pine-Tree, *or* Barras, *and the different Preparations of it*, Pitch, Roſin, *&c.*

Pomet. WE ſell two Sorts of *Pine Roſin*, or *Incenſe*, one under the Name of *Galipot*, or common *White Incenſe*, and the other under that of *Marbled Incenſe*; theſe differ not but in Colour. The firſt, which is white, is a Roſin that flows by Inciſions, that are made in the Pines, from whence it takes the Name of the *Gum*, or *Roſin* of the *Pine-Tree*; and when it flows in a fine Seaſon it is neat and white; but when it takes a Part of the Bark, or other Foulneſs into it as it runs down, it is marbled or ſpeckled; and when it is ſo, and good withal, the Hawkers ſell it for Benjamin, though it is very different from it, in that the Benjamin is of a good Smell, and the *Spotted Incenſe* is extremely ſtrong ſmelling; this is of no other Uſe, that I know of, but to ſell inſtead of Benjamin, which in all Things, but Smell and Virtues, it very nearly reſembles.

This *Pine-Roſin*, or *Common Incenſe*, is the Baſis of many Things, as we ſhall ſee in Order. It ought to be choſen dry, clean, and as white as may be. They diſſolve the *White Incenſe*, and put it into Barrels, or Half Barrels, which contain from three hundred and fifty, to ſeven hundred Weight, and ſend it us under the Name of the groſs or common Turpentine, which ought to be clear, and as little Mixture in it as may be. As this Turpentine is a Roſin which is at Times more or leſs clear and thin, there are Barrels of this Commodity to be met with, where there are ſometimes fifty Pounds of Turpentine as clear as Water, that ſwims at Top, which is frequently ſold for *Venice-Turpentine*, but may be known by its Colour.

The common Turpentine is much in Uſe to make Ink for the Printers, as alſo for the Farriers, and to make coarſe Varniſh, which they do by melting common Turpentine with Oil of Turpentine; but this is a Compoſition they are forced to make in Places far from other Buildings, for Fear of Fire. They diſtil Turpentine in great Alembicks, and there flows a Water firſt, then a white Oil, then a red Oil, which is a true natural Balſam for the Cure of Wounds. But as theſe white and red Oils are not much uſed, we do not deal in them; but inſtead thereof we have a very conſiderable Trade in the Oil drawn by the Alembick from the *Reſin* or *Incenſe*, as it flows from the Tree. This Oil is made plentifully in the Foreſt of *Cuges*, about four Leagues from *Marſeilles*, and in the Neighbourhood of *Bourdeaux*. This Oil is what we call Ætherial Oil, Spirit, or Eſſence of Turpentine; that which remains in the Alembick, is what we call Colophony, or Black Reſin.

Oil of Turpentine, to be fit for Sale, and ſerviceable upon all Occaſions, ſhou'd be clear and white as Water, of a ſtrong penetrating Smell; yet this is a miſchievous Commodity, and great Cheats are put on People in it, beſides the Riſque of Fire, and the little Profit there is got by it, which is the Reaſon why ſo many People will not deal in it. This Oil is uſeful for ſeveral Sorts of People; as Painters, Farriers, and others. It is likewiſe a true natural Balſam, and very proper for all Sorts of freſh Wounds. Several Perſons have aſſur'd me, that the Oil of Turpentine which comes from *Marſeilles* is made with aromatick Herbs, as Thyme, Roſemary, Lavender, and the like; and call'd Herb-Oil; but I cou'd never have this confirm'd to me by ſeveral Letters that I have receiv'd from *Marſeilles*; but on the contrary, every one aſſur'd me that it was made with *Pine Reſin*, or *White Incenſe* only.

They diſſolve this *Reſin* with a little Oil of Turpentine and ſome common Turpentine, and make what we call Burgundy Pitch; they pretend that the beſt is made at St. *Nicolas* in *Lorrain*, which is quite contrary to the Truth at this Day; for the beſt of this Kind comes from *Holland* or *Straſbourg*. It is obſervable, that this Commodity comes not but in private, or by ſtealth, being contraband. I believe that the Sort of white Pitch which we make in *France*, has more Smell, and is of a leſs Body, and whiter than that of *Straſbourg*, becauſe we put in more Oil and Turpentine, and the *Dutch* uſe nothing but the Reſin. The Difference may alſo, in ſome Degree, proceed from the different Climates. *Burgundy Pitch* ſhou'd be choſen clean, dry, and firm. The Uſe of this Pitch is for ſeveral Sorts of Work, and it is of ſome account in Phyſick, becauſe it is attractive; but it is a very troubleſome Plaiſter, ſticking cloſe to the Skin, but may be taken off with warm Oil, or Beer and Butter.

They make, beſides this, with the *Pine*, *Reſin*, or *Common Incenſe*, boil'd to a Conſiſtence, what we call common yellow Roſin; but that which we ſell is gather'd at the Roots of the Trees; and

55

Turpentine Tree

Fir Tree

56

Pine Tree

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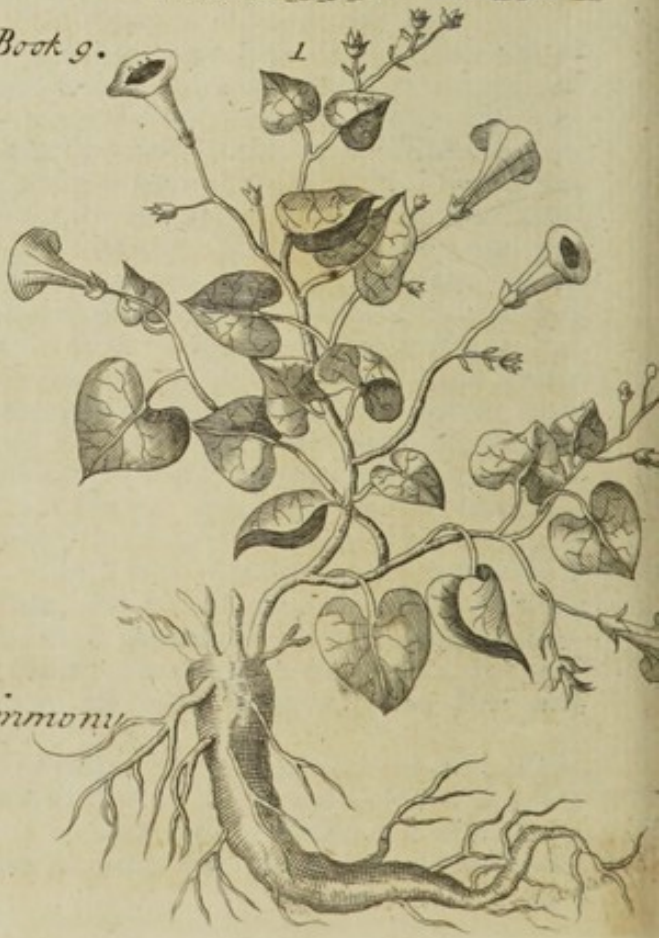

Scammony

and ſuch as is dirty, after having melted it, is thrown into Veſſels, to form it into large Cakes of an hundred Weight and upwards, ſuch as we ſee it in. The fine Roſin comes from *Bayonne* and *Bourdeaux*, which ought to be dry, fair, the leaſt full of Sand that can be; this is much uſed in Ointments, Plaiſters, *&c.* They alſo make of this *Reſin* or *Incenſe*, what we call in *France Dry Pitch*, by boiling it 'till it is almoſt burnt; but the moſt of this which we have is the Remainder found in the Alembicks after the Oil of Turpentine is diſtill'd: It ought to be clear and dark colour'd.

This, which we commonly, but improperly, call *Colophony*, is alſo of ſome Uſe in Phyſick, but more abundantly for ſeveral Sorts of Works: they throw this, while hot, into a ſufficient Quantity of Tar, in order to give it a black Colour, and then it becomes what we call *Black Pitch*, of which we have two Sorts, which differ only according as they are hard or ſoft. The beſt *Black Pitch*, as well as *Tar*, is what we have from *Norway* and *Sweden*, but eſpecially from *Stockholm*. We ſometimes make *Black Pitch* in *France*, but it is nothing ſo fine as that of *Stockholm*. The Uſes and Virtues of this are ſo well known, it wou'd be very trifling to inſiſt upon them. There is drawn from *Black Pitch*, by Means of a Retort, a reddiſh Oil, which for its Excellence is call'd Balſam, or Oil of *Pitch*. This is a very good Balſam, and is pretended to be equal to the natural Balſams.

They melt *Black Pitch*, and afterwards dip a Wick of Flax, Hemp, or the like in it, which they ſell by the Name of Links.

There is another *Black Pitch*, which the Antients call *Zopiſſa*, and which is properly what the Mariners uſe to pitch their Veſſels with. This *Zopiſſa* is a Compoſition of *Black Pitch*, Roſin, Suet and Tar melted together; and this is, as ſome ſay, the true *Pix Navalis*, which the Apothecaries ought to uſe, but few of them give themſelves the Trouble to enquire after it, the common *Black Pitch* always ſupplying its Place.

57. *Of* Tar, *or* Liquid Pitch.

Pomet. THIS is a clear fat Liquor that flows from the Trunks of old Pines. When they wou'd kill or deſtroy the Tree, the *Swedes* and *Norwegians* cut the Bark round the Tree, which, inſtead of yielding a white Incenſe or Reſin, yields a black Liquor, which is the *Tar*; and preſently, as ſoon as all that is fallen, the Trees die, and are good for nothing but to burn.

This may help to undeceive ſeveral who believe, as many Authors have vouch'd, that *Tar* is made by burning of the Pines; for it is certain that all the *Tar* we now ſell is made as already mention'd, and not by Means of the Pines that are burnt. That which is found clear, is improperly call'd Oil of Pitch, and ſold under the Name of common or falſe Cade Oil. The *Tar* is much uſed by the Mariners, Farriers, and Shepherds, to mark their Sheep, as well as to defend them from Diſeaſes. Chuſe ſuch as is natural and clean, not ſuch as is made with Oil and Pitch, but the true *Stockholm Tar*.

It is generally brought to us from *Denmark*, *Norway*, *Finland* and *Swedeland*; but there is much of it made in *New-England*, *Virginia*, *Carolina*, and other Parts of *Florida*. It is the Produce of all reſinous Trees. It was firſt taken from the Cedar, the Larch-Tree, Fir-Tree, and Pitch-Trees; but now chiefly from the Pine-Trees. It cures all Sorts of Scabs, Itch, Tetters, Ringworms, and other Vices of the Skin. *Tar* is better than Pitch, becauſe in boiling the Pitch loſes the more ſubtil and fiery Parts; this therefore is proper for Coughs, Phthyſicks, Hoarſeneſs, and other Humours that fall upon the Lungs. *Tar* and Bees-Wax make a Plaiſter that is diſcuſſive and anodyne, good againſt the Gout, and all Manner of old Aches and Pains. The Spirit is very diuretick, opens all Obſtructions, and reſiſts the Scurvy.

[What we call Lamp-Black is made by burning the foul Parcels of Pitch, Reſin, *&c.* and gathering the light Soot that they ſend up; this is much uſed by Artificers of various Kinds.]

58. *Of* Colophony, *or* Roſin *of* Turpentine.

Pomet. THE true *Colophony* is made of fine *Turpentine* boil'd in Water 'till it comes of the ſolid Conſiſtence of *Roſin*, by which Means it is made portable. They ought to be undeceiv'd who believe it to be the dry brown *Pitch*, ſince the true *Colophony* is the *Turpentine* of the Pine-Wood, made hard by boiling. One may know when this *Turpentine* is boil'd enough, by taking it out of the Water, and ſeeing that it hardens and is brittle; this is what the Apothecaries call boil'd *Turpentine*; they heat and make it into Pills, with Liquoriſh Powder, for Venereal Diſorders.

It is call'd *Colophony*, as ſaid by ſome, from a Town in *Ionia*, call'd by that Name, from whence it firſt came. It is clear, yellow, or black, and when dry, brittle; and therefore will eaſily beat to Powder. Chuſe that which is clear and ſweet, and which being burnt ſmells like Frankincenſe. Some is made in *England* from *Turpentine* diſtill'd; for after the Oil of *Turpentine* is drawn off, the *Colophony* or *Roſin* remains

mains at Bottom; the leſs Oil you draw off, the whiter you have your Roſin; the more Oil, the blacker is the remaining *Colophony*.

It is emollient, glutinative and healing, given inwardly it ſtrengthens a weak Body, eaſes Pain, helps Ulcers in the Reins, Bladder, or Neck thereof; gives Relief in the Gout, fills Ulcers with Fleſh, and ſkins a Sore. Given inwardly in Powder, from one Dram to two Drams, it cures the running of the Reins in Men, and the Whites in Women, and takes away the Weakneſs and ill Temperament of the Womb.

59. *Of* Varniſh.

Pomet. WE ſell ſix Sorts of *Varniſh*; to wit; the firſt, the *Drying Varniſh*, which is made of Oil of Spike, fine Turpentine, and Sandarac melted together. The ſecond is *White Varniſh*, call'd *Venetian Varniſh*, which is Oil of Turpentine, fine Turpentine and Maſtich melted together. The third is *Spirit Varniſh*, which is compoſed of Sandarac, White Karabe, Gum Elemi and Maſtick, with Spirit of Wine. The fourth is *Golden Varniſh*, which is made of Linſeed Oil, Sandarac, Aloes, Gamboge, and Litharge of Gold. The fifth is *China Varniſh*, which is made of Gum Lac, Colophony, Maſtick in Tears, and Spirit of Wine. The ſixth is *Common Varniſh*, which is nothing elſe but common Turpentine diſſolv'd in Oil of Turpentine, as obſerv'd, ſpeaking of Turpentine, before. There is another *Varniſh*, which ſome of the Religious make; but as we do not deal in it, I ſhall not trouble myſelf or the Reader about it. As to the Manner of making, and Quantity of each of the Ingredients, every one does it as he likes; but in the making it People muſt be very careful of its taking Fire; and another Caution is, that the Ingredients be all good in their Kinds, for there is no being too nice in the making it.

Lemery. *Terebinthina* or Turpentine, is a liquid Roſin, or a viſcous, gluey, reſinous, oily, clear tranſparent Liquor, having the Conſiſtence and Quality of natural Balſams, which they draw by Inciſion, or without Inciſion, from ſeveral Sorts of Trees that grow in the hot Countries, as Pine, Fir, *&c.* We uſe two Sorts of Turpentine in Phyſick; the firſt is call'd *Chio Turpentine*, becauſe it is produced in the Iſle of *Chio*: This is the moſt eſteem'd and deareſt; but it is ſcarce. It flows by the Inciſions made on the Trunk and large Branches of the Turpentine Tree. Its Conſiſtence is thick and pretty hard. Chuſe the cleaneſt, moſt tranſparent, and of a whitiſh green Colour, having little Smell, and being almoſt of an inſipid Taſte.

The ſecond Sort is call'd clear Turpentine; it is abundantly more liquid or thin, finer or more fragrant than the former: It flows without cutting, and likewiſe with cutting, from the ſame Sort of Trees, but is brought us from *Dauphiny*, &c. That which flows without Inciſion, is by the Peaſants of the Country call'd *Bijon*: It is a Sort of Balſam that is of a Conſiſtence, Colour and Virtue, almoſt like that of White Balſam of *Peru*. The Turpentine that flows by cutting, is that uſually call'd *Venice Turpentine*, which, tho' none of it comes from thence, but from other Parts of the Country, is the moſt commonly uſed in Medicine, being cloſe, neat, clear, fine, white and tranſparent, of the Conſiſtence of a thick Syrup, of a ſtrong and unpleaſant Smell, and the Taſte ſomething bitter. All the Turpentines yield a great deal of Oil, volatile, acid, or eſſential Salt. They are very aperitive, proper for the Stone and for Cholicks, Ulcers of the Kidney and Bladder, Retention of Urine and Gonorrhœa. Doſe from half a Dram to a Dram. It gives the Urine a Violet Smell, and creates, ſometimes, Pain in the Head.

The true Turpentine is nam'd *Terebinthina*, becauſe it flows from a Tree call'd *Terebinthus*. That which flows from other Kinds of Trees is call'd by the ſame Name, from their Reſemblance. The Turpentine Tree is the *Terebinthus, vel Terebinthus vulgaris*, the common Turpentine Tree, *Terebinthus anguſtiore folio vulgatior*, or the more common Turpentine Tree with the narrow Leaf, is a Tree of a middle Size, as to its Height, cover'd with an Aſh-colour'd Bark: The Leaves are oblong, firm, always green, like the Bay, but much ſmaller, rang'd ſeveral on a Side, which end in a ſingle Leaf; the Flowers are diſpoſed in purple Cluſters, full of Stamina or Threads, that are charg'd on their Tops with Apius. The Flowers leave no Sort of Fruit after them, the Fruit riſing upon Stalks that bear no Flowers; they are thick Shells, like Juniper Berries, pretty hard, viſcous, or reſinous to the Touch: of a greeniſh blue Colour, tinging the Hands, each of them incloſing an oblong Seed; this Tree is very reſinous, and the Wood hard, like that of Lentiſk. It bears often alſo, like the Elm, a Bladder or Bag, fill'd with a fat Liquor, where Flies engender. It grows in the Iſle of *Chio*, *Cyprus*, *Spain*, *Languedoc*, *Dauphiny*, and other warm Countries; and when it is pretty full of Turpentine, and no Inciſions are made, the Roſin of the Turpentine grows thick, hardens, and produces Obſtructions that ſtop the Courſe of the Circulation of the nutritious Juice; then the Tree falls into a Kind of Suffocation, for it ſwells and burſts. To prevent this Accident, they make Inciſions or Slaſhes, at the Bottom of the Trunk of the Tree, which is like bleeding in the Foot; by which they make the Turpentine flow,

which

which before cauſed ſo great a Repletion. They likewiſe cut the Trunk and other large Branches of the Tree, which has the ſame Effect as bleeding in the Arm; and under theſe they place Earthen, or other Veſſels, to receive the Turpentine that flows. This Tree affords a great deal of Oil and eſſential Salt. The Bark, Leaves and Fruit are aſtringent, and proper to ſtop the Griping of the Guts, and to provoke Urine, *&c.*

[There are four different Turpentines in the Shops, produced by four different Trees; the true and exact Account of which is, That the firſt of them, the *Chio Turpentine*, is produced by the *Terebinthus vulgaris.* C. B. Pin. 400. *Terebinthus.* J. B. 1. 387. Rai. Hiſt. 2. 1577, *&c.* which grows common in the Iſlands of *Chios*, *Cyprus*, and ſome other Places.

The ſecond, the *Venice Turpentine*, is produced by the *Larix folio deciduo conifera.* J. B. 1. 265. *Larix.* R. Hiſt. 2. 1405.

The third, the *Straſbourg Turpentine*, is produced by the *Abies Taxi foliis.* Rai. Hiſt. 2. 1394.. *Abies Taxi folio fructu ſuſum ſpectante.* Tourn. Inſt. 585.

And the fourth, the common Turpentine, is made from the Reſin of the *Pinus Sylveſtris.* Ger. 1175. *Pinus Sylveſtris vulgaris Genevenſis & Tæda.* J. B. 1. 253.

The Roſins and Pitch of different Kinds, and Tar, are made from the Roſin of the *Picea major prima ſive Abies rubra.* C. B. Pin. 493. *Picea Latinorum ſive Abies mas Theophraſti.* J. B. 1. 238. The Common Roſin by boiling it in Water to a due Hardneſs; the Tar, by burning the Wood of the Tree in a Furnace; the Common Pitch by boiling Tar in proper Veſſels to a Conſiſtence; the Dry Pitch by boiling the ſame Maſs higher ſtill; and the *Burgundy Pitch* by the ſame Preparation as the Common Roſin, only, inſtead of letting it boil to that Hardneſs and Conſiſtence, it is taken out of the Water as ſoon as it begins to boil. All theſe Preparations may alſo be made from other Species of the Fir, Pine, and Cedar; but the moſt and beſt are from this Species.]

The End of the Book of GUMS.

BOOK the Ninth.

Of JUICES.

PREFACE.

THE Word Juice *ſignifies a liquid Subſtance, which makes up a Part of the Compoſition of Plants, and which communicates itſelf to all the other Parts, to ſerve for their Nutrition and Growth; this* Juice *is to Plants what the Blood is to Animals. The Word* Juice *is alſo underſtood to expreſs a thick Liquor which is drawn from Vegetables, or the Parts of them, and, by the Means of the Sun, or Fire, reduced into the Conſiſtence of a liquid Electuary, or ſolid Extract, in ſuch a Condition as to preſerve or keep for a conſiderable Time. I don't pretend to ſpeak of the liquid* Juices, *but only of ſuch as are thus prepared, and which we trade in. I ſhall begin with* Scammony, *as being the deareſt* Juice, *and moſt uſed of any we have, and in which are committed the greateſt Abuſes.*

1. *Of* Scammony.

Pomet. SCAMMONY is a thicken'd Juice of the Root of a Plant that creeps along Trees and Walls, whoſe Leaves are green, and made in Form of a Heart; after which come white Flowers, ſhap'd like Bells. This Figure of the Flower is the Reaſon why ſome write that the *Scammony* Plant is a Kind of *Volubilis*, or *Bindweed*; but however that be, the *Scammony* we now ſell is the Juice thicken'd by Aſſiſtance

of the Fire, draws by Expreſſion from the Root of the ſaid Plant, that grows plentifully in ſeveral Parts of the *Levant*, but eſpecially about *Aleppo* and *St. John d'Acre*, from whence the beſt *Scammony* is brought us, which, when right, ought to be true *Aleppo*, light, grey, tender, brittle, reſinous, and when crumbled between the Fingers will appear greyiſh, with a bitter Taſte and a faint unpleaſant Smell; reject ſuch as is heavy, hard and blackiſh.

As to thoſe who purchaſe great Quantities of *Aleppo Scammony*, let them take care that it be the ſame within as without; for I can aſſure them I have ſeen in *Scammony*, Pieces of Wood, Coal, *&c.* put into the Middle, ſo that there has not been above the Thickneſs of one's Thumb of fine *Scammony*. I make no doubt but the *Levantines* roll up in the *Scammony* they make, Charcoal, Stones, and other foreign Bodies which we meet with in it, either by Chance or deſignedly, and afterwards cover it with a Paſte of fine *Scammony*, after the ſame Manner as the Sealing-Wax-Makers do their bad Wax, as mention'd in the Chapter of *Gum Lac.*

It is eaſy to judge by this Deſcription, that *Scammony* is not made by the Heat of the Sun, as ſeveral believe: Beſides, a Friend of mine, a Surgeon at *Marſeilles*, who dwelt a long Time at *Aleppo*, confirm'd me in what I have here related. They make from the *Aleppo Scammony*, by the Help of Spirit of Wine, according to Mr. *Lemery*'s Preſcription, a Roſin of *Scammony*, which has more Virtue than the *Scammony* itſelf; but as this is dear, and there is but little Conſumption of it, I ſhall not trouble myſelf to ſay any thing more of it. *Scammony* is, with good Reaſon, call'd one of the Pillars of Phyſick; for it is one of the moſt famous Catharticks, or Purgers, in the World, admitting of various Preparations: As, 1*ſt*, *Diagrydium*, or *Scammony* prepar'd and corrected with the Juice of Quinces. 2*dly*, *Scammony* ſulphurated. 3*dly*, *Scammony* vitriolated. 4*thly*, Extract of *Diagrydium*. 5*thly*, Extract of *Scammony*. And, 6*thly*, Syrup of *Scammony*, which is made with Sugar and Spirit of Wine over a Fire. Beſides which, we have the *Cornachine Powder*, made of *Scammony*, Cream of Tartar, and Antimony diaphoretick. All the Preparations of *Scammony* are prevalent againſt old contumacious Diſeaſes, ſuch as Gout, Scurvy, Dropſy, Rheumatiſm, Obſtructions, Head-achs, Apoplexies, Relicks of the Venereal Diſeaſe, *&c.* *Scammony* is not proper to give in Fevers, or to old and weak Perſons, Children, or breeding Women, being ſharp and biting, and apt to inflame, by reaſon of its acrid Quality. This following gentle Preparation of *Scammony* may be given almoſt in any Caſe, or to any Conſtitution, being a Marmalade of *Scammony*. Take *Scammony* and Turbith, of each four Ounces, make an Extract with Spirit of Wine, add this to ſix Pounds of Marmalade of Quince, which hath not above one Pound and a half of Sugar in it.

2. *Of* Smyrna Scammony.

BESIDES the *Aleppo Scammony*, we ſell, tho' very improperly, a black, heavy, ſoftiſh *Scammony*, that is full of Stones, Shells, and other ſtrange Bodies, in a Word, the very Reverſe of *Aleppo Scammony*; for which Reaſon it ought not to be meddled with, any more than the grey, light, brittle Sort, that is nothing elſe but a Compoſition of Roſin mix'd with ſome violent Purgatives, in order to promote the Sale of it. I think myſelf oblig'd, in order to ſet the Publick right in this Matter, to let them know that the great Cheats committed this Way, in ſophiſticating of Medicines or Drugs, are not done by the Generality of Merchants, or the wholeſale Dealers, but the little retail Traders, who impoſe their pernicious Commodities upon honeſt well-meaning People, without Honour or Conſcience. And to ſhew the Malignity of ſome of theſe ill Drugs, I ſhall here give you the Certificate of M. *La Tour*, Phyſician of the Faculty of *Montpellier*, upon the Subject of *Scammony*. *Pomet.*

"It happen'd, as I was preparing half an "Ounce of a Drugg that was ſold to me for "*Scammony*, that after the Preparation was done "the Syrup turn'd of a green Colour, like the "Juice of Herbs, which made me think the "Drug was naught: Experience confirm'd me "in this Opinion; for having given ſome to a "little Dog, his Body ſwell'd up, and he re-"main'd ſick five or ſix Days, without ever "purging at all.

Sign'd 16 *Sept.* 1693.
De la Tour, Phyſician at *Montpellier*.

Scammonium vel Scammonia, or *Scammony*, is a concrete reſinous Juice, or a greyiſh brown Gum, that flows by Inciſion from the Root of the great exotick Bindweed, call'd *Convolvulus Syriacus*, and *Scammonia Syriaca*, according to *Moriſon* and *Tournefort*, the *Syrian* Bindweed. This Plant bears ſeveral long Stalks, winding, creeping, and clinging to and about the adjacent Shrubs. The Leaves are large, pointed and triangular, in the Shape of a Heart, ſmooth, of a fine Green, hanging upon ſhort Stalks. The Flowers grow in the Wings of the Leaves, in Form of Bells, of a purple or a whitiſh Colour, fair and pleaſant to the Eye. When they are gone, a Fruit that is almoſt round and membranous ſucceeds them, containing in its Cavities black corner'd Seeds. The Root is long *Lemery.*

and

and thick as one's Arm, of a greeniſh brown without and white within, ſupply'd with Fibres, full of a white milky Juice, as all the Plant is, and of a ſtrong Smell. It grows plentifully in ſeveral Parts of the *Levant*, but eſpecially about *Aleppo*, in fat Land. When the Juice is taken from the Root, they thicken or inſpiſſate it by the Heat of the Fire, to give it a ſolid Conſiſtence.

The beſt is clear, like Gum or Roſin, thin, quickly diſſolving, friable, not very heavy, of a greyiſh black, turning white or milky by the Touch of the Tongue, and not much inflaming it. The thick, heavy and very black, is either the Juice of the whole Plant, or adulterated; if the latter, it is commonly done with the Juice of Tithymal, which you may eaſily know by its Heat, and its Mixture with other droſſy Subſtances. It is ſtrongly purgative, evacuates bilious, acrid, ſerous, or melancholy Humours. The Doſe from four Grains to ſixteen.

[The Plant which produces the *Scammony* is the *Convolvulus Syriacus & Scammonea Syriaca*. Hiſt. Ox. 2. 12. *Scammonea Syriaca legitima*. Park. 163. The *Aleppo Scammony* is much preferable to the *Smyrna*; but at beſt it is alone a very uncertain Purge, ſometimes not operating at all, and ſometimes cauſing fatal Hypereatharſes; and what is very remarkable is, that it often does not operate at all the firſt Day, but brings on afterwards an unſupportable Hypereatharſis and Teneſmus.

The *Pulvis Cornachini* is an admirable Preparation of it and has all its Virtues, which are very great, without any of its Danger.]

3. *Of* Opium.

Pomet. OPIUM, which the *Turks* call *Amphiam*, and the Antients *Meconium*, is a Liquor white as Milk, that flows from the Head of black Poppies, by the Help of Inciſions made therein. This Liquor being dropp'd from the Plant, grows thick, and changes its white Colour into brown; and this is the true *Opium*, which is in ſuch Uſe among the *Turks* that they ſubſiſt by it ſometimes for two Days, without taking any other Nouriſhment. And when they go to fight they take it to exceſs, that it may animate them, or at leaſt make them out of their Senſes, and ſo inſenſible of Danger.

It is a partly reſinous and partly gummy Subſtance, blackiſh and ſoft while new, but hardening with Age; got by Inciſion from the Heads of white ſeeded Poppy, and form'd into a Maſs; of a ſubacrid bitter Taſte and ſtrong unpleaſant narcotick Smell.

The Liquor, as it flows from the Inciſions, is white, but blackens in drying. There are two Kinds of it, the *Thebian* and *Indian*; but they are both produced by the ſame Species of Poppy, and only differ according to the Difference of the Places were they grow.

The *Indians* prefer the *Bengal Opium* to the *Theban*; but we always account the *Theban* better than the *Indian*.

The true *Opium* is in ſmall Tears, like *Maſtich*, but of a darker Colour.

There is another Sort of *Opium* that flows from the Head of the black Poppies, without any Inciſion, and which, in falling, coagulates and grows brown by the Heat of the Sun; and it is this concreted Juice which properly ought to be call'd *Opium*; for the Word *Opium* is derived from the *Greek* Word *Opon*, or *Opion*, which ſignifies Juice.

There is alſo a third Sort got by Inciſion from the Heads of the white Poppies. This Juice thickening, as that of the Black, is call'd by the *Turks Meaſlack*. But as theſe three Sorts of *Opium* do never reach us, I ſhall proceed no further with them, but only deſcribe that which is brough us. That which we call and ſell for *Opium* is a blackiſh Maſs, which the *Turks* and the People of the *Levant* ſend us, and is a Juice made by Expreſſion from the Heads and Leaves of Poppies, reduced to the Conſiſtence of an Extract by the Help of Fire, and then form'd into Cakes of different Sizes; and, to render it carriageable, is wrapp'd up in Leaves, as we have it now brought to us.

There is another *Opium*, which the *Turks* make from the Juice of a Plant they call *Glaucium*, which is like our horned Poppy; this they mix with the Juice of Poppies, and make a Maſs together. It is ſo true, that the *Opium* we now ſell is no other than the Juice by Expreſſion, and not the Juice which flows naturally from the Poppy Heads, that the very Price they often ſell it at, is alone a ſufficient Proof of it.

With all the Diligence I have been capable to make uſe of, I have not found it poſſible to meet with white *Opium*, notwithſtanding what ſome modern Authors have affirm'd; and I cannot believe, indeed, that they have ever ſeen any: It is probable that the *Opium* flows from the Heads of Poppies white like Milk, but it muſt change its Colour by being expoſed to the Air as it hardens; therefore I think myſelf oblig'd to detect the Errors of theſe People, and let the Publick know the Truth of Things, and that ſuch Authors only write from the Relations of other Men.

As to the black, hard, yellow, or ſoft *Opium*, it is no Novelty to meet with any of them, becauſe there is ſcarce a Caſk or Barrel of *Opium* where there is not black, and yellow, and hard, and ſoft to be met withal; for every Body knows that the thicker and older any Juice is, the more it will blacken. If it is yellow, it is owing to its being

ing over-boil'd and dry'd. And as to what they say, that the White comes from *Grand Cairo*, and that the *Turks* keep it for themselves, I have enquir'd of People that have liv'd a long Time there; but they all have affirm'd, that the *Opium* they saw at *Grand Cairo*, and which the *Turks* use, is brown.

The Opinion of M. *Furetiere* ought to be rejected, when he says that *Opium* is made by beating the Juice in a Mortar; and when it is thicken'd forming it into Troches. Raw or crude *Opium* is not much used in Physick; but the Extract, which is made by Water or Spirit of Wine, as directed by Messr. *Charas* and *Lemery*, which is what the Apothecaries call *Laudanum*. There is another call'd *Laudanum Opiatum*, which is a Composition of *Laudanum*, Extract of Saffron, Magistery of Pearl and Coral, Oil of Cloves, Karabe, Musk and Ambergrease; the Whole being composed into an Electuary; but as this is made in the Apothecaries Shops the Druggist has no Trade with it. Some make an Extract about *Paris*, and other Places, from black and white Poppy Heads, which they call simple *Diacodium*, to distinguish it from the Compound. Besides which, there is a Syrup of *Diacodium*, which every Apothecary's Shop is furnish'd with.

There are several famous Preparations besides, as *Crollius*'s Extract, that of *Opium* with *Henbane*; *Quercetan*'s Extract of *Opium*; *Hartman*'s Laudanum; *Paracelsus*'s specifick Anodyne; Pills of Hound's-Tongue; Pills of *Storax*, *Philonium Romanum*; liquid *Laudanum*; that of *Paracelsus*, of *Helmont*; *Willis* and *Sydenham*; *Schroder*'s *Laudanum* with *Storax*, is made a follows: Take *Opium* dry'd on a hot Plate, two Ounces; Storax Calamita, Labdanum, of each one Ounce; Oil of Cloves, thirty-two Drops; mix them in a hot Mortar, and make Pills as big as Pease, from three Grains to five. *Opium* is narcotick, hypnotick and anodyne; it composes the Hurry of the Spirits, causes Rest and Insensibility, is comfortable and refreshing in great Watchings and strong Pains; provokes Sweat powerfully; helps most Diseases of the Breast and Lungs; as Coughs, Colds, Catarrhs and Hoarseness; prevents or allays spitting of Blood, Vomiting, and all Lasks of the Bowels; is specifical in Cholick, Pleurisies, and hysterick Cases. Dose, from half a Grain to three or four.

Lemery. The true *Opium* is a gummy Tear that flows from the Head of the *Egyptian* and *Grecian* Poppies; but now we sell none of the true Sort, because the *Turks* keep it from us, and will not permit the Transportation of it, but send in its Stead the *Meconium*, which is a Juice made by Expression from the Heads and Leaves of the same Poppies, and reduced by Evaporation to the Consistence of an Extract. They make it into Cakes in different Sizes, and wrap it up in the Poppy Leaves to keep it moist: This we improperly call *Opium*; it has not the fine Virtues of the true Kind, but is answerable to it in some Degrees.

The best is heavy, compact, clean, viscous, of a blackish brown, inclining to a red Colour, bitter, and a little acrid to the Taste. The most esteem'd is that of *Thebes*, that is brought from *Aleppo* and *Smyrna* in *Turky*, wrapp'd up in Leaves; the other from *Persia* and *Surat* in the *East-Indies*, being far inferior to the *Theban* or *Turky* Sort, not having so strong a Smell, nor being any thing so clean. That which the *Turks* use they gather from the white Poppy gently cut; and they take it daily from half a Dram to a Dram, to enliven them and raise their Spirits.

Authors make three Sorts of it; as *First*, The pure, from *Cairo* or *Thebes*. *Secondly*, The black and hard from *Aden*. *Thirdly*, The yellow and softer Sort from *Cambaia* and *Decam* in the *East-Indies*. Yet we generally, at this Time, reckon but two Sorts, *viz.* the *Turky* or *Theban*, which is weighty, of a good Consistence, thick, and more solid than the *Indian*; of a lively, fresh, reddish Colour, almost like fresh Aloes, of a strong poppy Scent, of an acrid bitter Taste, that will burn and flame; soft, easy to cut, and be dissolved either in Water, Wine, or Spirit of Wine, and is pretty clean from Dirt, Recrements or Filth. *Secondly*, The *Indian Opium*, which is softer, yellower, lighter, not of so good a Body, and much fouler, being in every respect inferior to the former.

It is proper to allay fermenting Humours, to excite or procure Sleep, to calm or appease Pain, to stop Looseness and Vomiting, to provoke Sweat; and is good in Inflammations of the Eyes and Tooth-ach. Dose from half a Grain to two Grains. *Opium* procures Rest, by its viscous and sulphureous Particles, which being convey'd into the Channels of the Brain, by the volatile Parts, agglutinates and fixes the animal Spirits, in such a Manner, that it stops, for some Time, their Circulation from the Swiftness of their former Motion; so that during that Obstruction, or Tye upon the Spirits, Sleep ensues; for the Senses are, as it were, fetter'd, or lock'd up, by the viscous or agglutinating Property of the *Opium*.

[*Opium* is the concreted Juice of the *Papaver hortense, semine albo, sativum Dioscoridi, Album Plinio.* C. B. Pin. 170. R. Hist. 1. 853. *Papaver simplex Album sativum.* Park. 365. *Papaver hortense simplex semine Albo.* Hist. Ox. 2. 275. The *Greeks* distinguish'd two Kinds of *Opium*, one got by wounding the Head, the other by Expression; both Kinds we have in *England*, but the first is much the best and scarcest, and is the same which the *Turks* now use. It is sold in the

Empire

Empire of the Great Mogul as commonly in the Shops as Tobacco is with us. Its Effects are always narcotick, whether uſed externally or given internally; given in Clyſters it operates quicker than taken at the Mouth; apply'd to the Eyes and Ears it has cauſed Blindneſs and Deafneſs; and a Plaiſter of it on the Head has occaſion'd Death. It acts by its narcotick Sulphur; for we ſee that all Vegetables which contain Principles of that Kind, as Saffron, *&c.* produce in the Body the ſame Effect, in ſome Degree, as *Opium*.

When a Perſon has taken too great a Quantity of *Opium*, the firſt Thing to be done is bleeding as far as the Strength will bear, then giving acid Liquors, as Vinegar, Lemonade, *&c.* as alſo ſmelling to Vinegar and Aromaticks; and, if the Extremity of the Caſe require it, making Scarifications and throwing Vinegar and Salt upon them, and laying on Bliſters as well as giving ſharp Clyſters.

It ought not to be given to Plethorick Perſons without firſt bleeding them, nor at all to Women at the Time of the Menſes, *&c.* nor ever upon a full Stomach, for it then prevents Digeſtion and commonly is emetick: Cuſtom will bring People to bear great Doſes of it, but at firſt every one muſt begin with very ſmall ones.]

4. *Of* Aloes.

Pomet. *ALOES* is a Plant that is bigger or leſs, according to the Soil it meets with, which has given occaſion to ſome People to ſay, that it riſes in ſome Places as high as ſome of our largeſt Trees; which is not altogether falſe; for there are found in *Spain*, eſpecially in the Mountains of *Sierra Morena*, *Aloes* Plants of an exceſſive Height, the Leaves whereof are ſo thick, hard and ſharp, that ſome of them would ſaw a Man aſunder. In the Middle of the Leaves riſes a Stalk, according to the Figure, that bears a white Seed, extreamly light, and roundiſh.

I ſhall not employ my Time to relate what a great many Authors have ſaid concerning the *Aloes* Plant, that it flowers not of a hundred Years; and that when the Flowers blow they make a great Noiſe, which is altogether falſe, ſince we have ſeen the *Aloes* Plant blow ſeveral Times in the Royal Garden at *Paris*; and when the Flower opens it is done without any Noiſe, or at leaſt ſo ſmall that it is difficult to diſcover; and it is eaſy for me to prove what I advance from the *Hortus Regius Pariſienſis*, Page the 8th, where, in the Article of *Aloes*, are theſe Words: *Floruit in Horto Regio, Anno* 1663, *&* 1664, *quod ignotum hactenus fuerat Lutetiæ, idque nullo ſtrepitu, nulla ſubitanea Floris eruptione, ut perperam multi fabulantur.* It flower'd in the Royal Garden in the Year 1663 and 1664, which was never known before in *Paris*, and that without any Noiſe or ſudden Eruption, as ſeveral had imagin'd. But I ſhall only ſay, that abundance of People were ſurpriz'd that I ſhould affirm that *Aloes* produced its Fruit in Cluſters, as repreſented in the Cut; but what I advance anſwers to a Piece given me by Mr. *Tournefort*, who gather'd the ſame in *Spain*. He had beſides, in his Hands, about half an Ell of Lace four Fingers deep, and of a reddiſh Colour, which is made of a Silk which they draw from the Leaves of this Plant.

This Deſcription of *Aloes* is entirely different from that made by M. *Furetiere*, who confounds the Tree of the *Aloes* Wood with the Plant which produces the *Aloes*, as I have obſerv'd in the Chapter of *Aloes Wood*. At preſent we ſell three Sorts of *Aloes*, which differ according as they are finer or coarſer; and likewiſe in regard to the Places whence they come and where they are made. The fineſt or pureſt is the *Succotrine Aloes*, ſo call'd either becauſe the *Aloes* is a concreted Juice, which the *Latins* call *Succus Concretus*, or becauſe the beſt comes from the Iſland *Succotora*, or *Socotra*, near *Moco* in the *Eaſt Indies*. The Inhabitants of that Iſland draw this Juice from the Root of the Plant; and after it has ſettled they pour it off by Inclination into a Veſſel capable to bear the Fire; and when it is reduced to an Extract they put it in very thin Bladders for Conveniency of Carriage, and in that Condition it will keep a long Time, as we find.

Chuſe the fineſt, cleareſt, ſmootheſt *Aloes*, that when broken is tranſparent, and being powder'd yields a fine golden yellow Colour, that is of a bitter Taſte, without Smell; the ſmalleſt, thinneſt, lighteſt Bladders are eſteem'd the beſt. The *Succotrine* Kind is ſaid to be fit for medicinal Uſe, without any Preparation; but the following Extracts are much more gentle, and properer for all the Intentions of Phyſick: Diſſolve the pureſt *Aloes* in Juice of Roſes or Violets; then digeſt, ſtrain, and coagulate with a gentle Fire, to the Conſiſtence of an Extract, or Pill, which is call'd the *Francfort*, or Angelick Pill; the laſt of which Names does not indeed properly belong to it, becauſe the Angelick Pill is a Compoſition of ſeveral Ingredients mix'd together, of which *Aloes* is however the Baſis.

Jo. Bauhinus delivers the Method of collecting the three Kinds of *Aloes*, diſtinguiſh'd into *Succotrine*, *Hepatick*, and *Caballine*, or *Horſe Aloes*, after the following Manner: They take the Herb call'd *Aloes*, being firſt cut in Pieces, then bruiſing, they preſs out the Juice of it, which they put up into a Veſſel of a long and round Shape, letting it ſtand for the Space of twenty-five Days; in the mean while they take Care to clear off the uſeleſs Scum, and throw it away; as alſo the

upper

upper Part of the Juice, until such Time as some Difference appears in its Colour and Consistence. The purer Part of this Juice, being concreted, is call'd *Succotrine Aloes*; the remaing Part of it, being of a little darker Colour, is call'd *Hepatick Aloes*; and from the Dreggs, or Settlings of it, is made that Sort of *Aloes* call'd *Caballine*, or *Horse Aloes*.

At *Paris*, in the Beginning of the Spring, they obtain a most pure *Aloes*, by cutting off the Leaves of the common *Aloes*, and hanging them up by a Thread, and then putting a Dish or Platter under them, a yellowish and exceeding bitter Juice drops out of them into the Dish; which afterwards coagulates into a pure and clean Sort of *Aloes*. This Drug loosens the Belly, destroys Worms, and subdues a preternatural Acid. It likewise removes Putrefaction, or prevents it, being given in Substance from half a Dram to two Scruples. It is also good in Obstructions of the Womb and the Green Sickness; and particularly prevalent in restoring a dejected Appetite.

Aloes is seldom or never prescrib'd in Potion, by Reason of its intense Bitterness; but is often prescrib'd in Pills, being the Basis of all, or most of those purging Pills, to be met with in Authors and Dispensatories. In the City of *Goa*, as *Garcias* relates, they give *Aloes* well bruised, and mix'd with Milk, to those that are afflicted with Ulcers in the Kidneys or Bladder, and void purulent Urine, and by that Means they are cured in a little Time. You must forbear the giving *Aloes*, or any Medicines containing *Aloes*, to those that are subject to the Bleeding Piles, and the overflowing of the Courses, as also to such as are subject to a spitting or vomiting of Blood, and to Women with Child, unless it be first corrected as hereafter taught. But, on the other hand, it may be given properly and successfully enough to Persons subject to Melancholy, the Jaundice, and other Distempers, wherein the first Passages are tainted with vicious Crudities.

Aloes consists of two Parts, or different Substances, whereof the one is saline, the other is sulphureous: The saline Part is dissolv'd by watery Menstruums, such as common Water, distill'd Waters, and the Juices of Plants. The sulphureous Part is dissolv'd by Spirit of Wine, or any other inflammable Liquid. They commonly make use of the Juice of Roses, or Violets, to dissolve it in; but it is far better in fair Water; for by that Means the saline Part is wholly separated from the gross sulphureous Part, which is viscous, and like a Jelly. This gross Substance adhering too closely to the Intestines, is apt to produce a fruitless Desire of going to Stool, call'd a *Tenesmus*, and sometimes bloody Stools; for by its opening the Mouths of the Arteries answering to the hemorrhoidal Veins, the Blood is poured forth. Wherefore, its Extract, prepar'd with Water, is a great deal better than the crude *Aloes*; and more advantageous and proper than the *Aloes*, *Rosat*, &c.

Some prescribe *Aloes* toasted, by which Means it is depriv'd of its harsh Sulphur. This has been found by Experience to be very helpful in all Sorts of Fluxes of Blood. When *Aloes* is dissolv'd in the Juices or Decoctions of Plants, it is call'd the Insuccation of *Aloes*, or *Aloes* insuccated: Wherefore, according to the different Intention of the Physician, it may be dissolv'd in the Juice of Asarabacca, Infusion of Sena, and the Tincture of Scammony or Jalap, that its purging Faculty may be augmented. By a chymical Resolution, *Aloes* affords a large Quantity of Oil, and but a very inconsiderable Quantity of urinous Spirit.

5. *Of* Hepatick Aloes.

Pomet.

Within these few Years last past we have brought from the *American* Islands a thick Juice, which the *French* make from the Root and Leaves of the *West-India Aloes*, describ'd in the Cut with its Flower and Fruit. This *Aloes* is brought us in Gourds or Calabashes of different Sizes and Weight; that is to say, from two Pounds to a hundred, and more, which is very extraordinary; but I can affirm the Truth of it, as I have by me a Shell of it which weighs an hundred and two Pounds Weight.

Chuse such as is of a Liver Colour, from whence it takes the Name of *Hepatick*, from the Word *Hepar*, which signifies Liver, and the least stinking that may be. There are two Sorts of it, the *Hepatick*, properly so call'd, and the *Caballine*; the *Hepatick* is the finer Sort of the two, and is given both to Men and Horses; it is of a lighter Liver Colour, fine and clear, and not very fetid in Smell. The *Caballine* is the coarser Sort, black, hard to be broken, and often adulterated. This is *Horse Aloes*, and ought not to be given to Men: The common *Hepatick Aloes*, sold in Shops, is scarcely any Thing else but the *Caballine*, of a strong fetid Smell, and very coarse: The *Hepatick*, *Barbadoes*, or *West-India Aloes*, is also of a fetid Smell, but much finer than the *Caballine*, and is brought over in Gourds, Pots, and Casks; that in Gourds is the best, and the finest; that in Pots indifferent, but not so good as the other; that in Casks is moist, and the worst of all.

Lemery.

Aloe vel Aloes, is the thick or concreted Juice of a Plant, call'd by the same Name, that grows of several Sizes, according to the Soil and Climate; they are to be met with in *Spain*, and many other hot Countries; the Leaves proceed from a Root that is long, large, very thick, fleshy, firm, indented, sharp on the Edges, fat and full of Juice: There rises from the Middle of a large Stalk, which carries

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Black Poppy
Glaucium
Persian Aloes

ries on its Top white Flowers, deeply ſlaſh'd in or divided into ſix Parts, which are ſucceeded by oblong, or as it were, cylindrical Fruit, divided each lengthways into three Partitions full of flat Seeds: The Root is of the Shape of a Stake fix'd in the Ground; all the Plant is extremely bitter, and grows in the Southern Climates, as *Egypt*, *Arabia*, *Spain*, and *America*.

Some Naturaliſts ſay, that the *Aloes* Plant flowers not but from one hundred Years to another; that when the Flower opens, or blows, it makes a Report like a Gun; and that the Stalk riſes up all at once, and grows prodigiouſly in a little Time: But this is not confirm'd from the Royal Garden at *Paris*; and on the contrary, the *Aloes* has been ſeen there to flower without any ſuch Prodigy. The *Aloes* is divided into three Kinds; the *Succotrine*, the *Hepatick*, and the *Caballine*: All the Kinds are purging, and the Body is made of a watry Part, and a reſinous; in the watry Part the purging Faculty reſides. The reſinous is of no Uſe for this Purpoſe, but rather of ill conſequence, being that which induces Gripings. For this Reaſon it is always waſh'd or cleanſed before it is uſed, and then it may be taken with Eaſe and Safety. This is to be obſerv'd, that *Aloes* is not to be given too often, nor in too great a Quantity, leſt it fret the Stomach and Bowels; nor to ſuch as are troubled with a Flux of the Womb or Belly, or ſuch as have a Bloody Flux, or Women with Child; nor to ſuch as are hectical, or have burning Fevers, or are of a hot and dry Habit of Body, or who are emaciated, lean, and waſted away; nor to Children of thin, lean, hot and dry Conſtitutions; eſpecially in hot Weather, when the Air is in an extreme dry Temperature.

[The three Kinds of *Aloes* are the Juices of three different Plants; the *Socotrine*, of the *Aloe Succotrina anguſtifolia Spinoſa flore purpureo*, B. Prodr. 2. 12. *Aloe Americana ſerrata floribus Coccineis*, Par. Bat. Pr. 306.

This grows in *Socotora*, or *Zocotra*, an Iſland in the Streights of *Babelmandel*.

The *Hepatick*, or *Barbadoes Aloes*, of the *Aloe*, C. B. Pin. 286. J. B. 3. 696. R. Hiſt. 2. 1195. *Aloe Dioſcoridis*, Column. Eph. 1. 40. *Aloe Dioſcoridis, et aliorum*, Sl. Cat. Jam. 15.

And the *Caballine* of the *Aloe Guineenſis Caballina vulgari ſimilis ſed tota maculata*. Com. Pr. Bot. 40.

The *Socotrine* is the only Kind now order'd to be uſed in Medicine, except for Horſes.]

6. *Of* Hypociſtis.

Pomet. THE *Hypociſtis* is a concreted Juice made from a Kind of Sucker that ariſes from the Root of an Under-Shrub, call'd *Ciſtus*, very common in *Provence* and *Languedoc*, from whence we bring the *Hypociſtis* we ſell. Mr. *Charas*, and after him Mr. *Meuve*, have well deſcrib'd the Shape and Colour of this young Shoot, as well as the Shrub that bears it; the Figure of which I thought ſufficient to give you, as engrav'd from the Original.

Chuſe *Hypociſtis* that is boil'd to a good Conſiſtence, like Juice of Liquorice; that is to ſay, firm, of a ſhining black, the leaſt burnt, the moſt aſtringent to the Taſte that may be, and that which is true. I name the true *Hypociſtis*, becauſe Mr. *Meuve* ſays, that the Apothecaries, who would deceive the World, generally uſe the Juice of the Root of Goats-beard dry'd in the Sun. But I can never believe this for ſeveral Reaſons; firſt, becauſe the *Hypociſtis* is an Extract that is ſold very cheap; as well becauſe the Buds are very common in *Provence*, as by reaſon they yield a great deal of Juice, and the Extract of the Root of Goats-beard is worth more than the true *Hypociſtis*: And beſides, Mr. *Charas*, from whom Mr. *Meuve* principally copies, makes no mention at all of it.

This Juice is cold and dry, therefore it thickens and binds ſtrongly, and is uſed chiefly to ſtop all Fluxes of the Belly, Womb, and Stomach; it ſtops vomiting and ſpitting of Blood, from Bruiſes. *Acacia* is often uſed inſtead of it, but is not ſo effectual and good. This Juice is depurated by diſſolving it in Water or Wine, and inſpiſſating; it is made up into Rolls or Troches to ſtop ſpitting of Blood, and Fluxes, Catarrhs, *&c.* The Tincture checks a Gonorrhœa, and the Whites; heals a Corroſion of the Bowels, occaſion'd by the Sharpneſs of Humours: A Lohoch made of it, with Wine and Honey, is chiefly uſed againſt Ulcers in the Lungs, Stomach, and Bowels.

Hypociſtis, is a Kind of *Orobanche*, or a Sort of Sprig or Shoot that grows, in Spring-time, upon the Foot or Root of the *Ciſtus*, which is very common in hot Countries, as *Provence*, *Languedoc*, &c. and bears Leaves that are almoſt round, hairy, rough, whitiſh, and the Flowers purple. The Shoot grows about half a Foot high, of an Inch or two's Thickneſs, and ſometimes more, being round, and much larger at Top than at the Bottom; brittle, and of a yellow Colour, full of Juice, having certain Rings or Knots from one Place to the other, like Water-Lilly Root. They cut this little Plant towards *May*, when they bruiſe and draw from it, by Expreſſion, an acid Juice, which they evaporate over the Fire, to the Conſiſtence of an Extract, that is hard and black as the Juice of Liquorice, but in Shape of little Cakes, for the Convenience of Carriage. This is call'd, according to the Plant, *Hypociſtis*. It ought to be *Lemery.*

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choſen, freſh, heavy, black, without the Smell of burning, of an acrid aſtringent Taſte: It contains a great deal of acid eſſential Salt, intimately mix'd with Earth and Oil. It is proper to ſtop Looſeneſs and Vomiting, and to put into any ſtrengthening and binding Plaiſters.

[The *Hypociſtis* Juice is the inſpiſſated Juice of the *Hypociſtis*, Park. J. B. &c. *Hypociſtis purpurea flore candicante et flore luteo*, Tourn. Coroll. *Orobanche quæ Hypociſtis dicitur*, Rai Hiſt. *Orobanche minor a Ciſto*, Hiſt. Ox. It is an Ingredient in many Compoſitions, but never is heard of in extemporaneous Preſcription, and is generally found baſely adulterated in the Shops.]

7. *Of the true* Acacia.

Pomet. THE true *Acacia* is an inſpiſſated Juice brought to us in Lumps of five or ſix Ounces Weight, wrapt in very thin Bladders: It is got by Expreſſion from the Seeds of a thorny *Egyptian* Shrub of the ſame Name; and being dry'd in the Shade, is blackiſh, if the Seed it was expreſſed from was ripe; if not, it is reddiſh or yellowiſh, and ſome expreſs it from the Leaves and Fruit together.

Chuſe that which is boil'd to a good Body, of a dun Colour, that is to ſay, of ſuch a brown as is inclinable to red; it ought to be ſmooth, ſhining, of an aſtringent Taſte, but not unpleaſant: It is very little uſed, and therefore not much bought up by the Druggiſt and Apothecary, who, if it is call'd for, generally uſe the *German Acacia*, which is made of the Juice of Sloes, boil'd to the Conſiſtence of a ſolid Extract, then put in Bladders, as the *Egyptian* Sort, which it is like in the Form, but not in the Colour; for the true is of a browniſh or dark red, as aforeſaid; and the *German Acacia* black as the fineſt Juice of Liquorice.

Lemery. *Acacia vera ſeu Egyptiaca*, the true *Acacia*, or that of *Egypt*, is a thick Juice, very heavy, of a brown, reddiſh Colour, which is brought in the Shape of Balls, that weigh about five or ſix Ounces, ty'd up in very thin Bladders: They ſay it is made from a Fruit almoſt like Lupins, contain'd in Pods which are borne upon thorny Trees in *Egypt*, whoſe Branches are pretty much extended, bearing fine white Flowers. Chuſe that which is neat, ſolid, weighty, of a blackiſh Colour, ſomething reddiſh, ſhining, eaſy to break, and of a ſtyptick Taſte. It affords a good deal of Oil and eſſential Salt; is aſtringent, incraſſates or thickens the Humours, ſtrengthens and reſiſts Poiſon, ſtops Hemorrhages and Fluxes, and is good for Indiſpoſitions of the Eyes. As the true *Acacia* is ſometimes ſcarce, the Shops uſe or ſell that which is made of the Juice of Sloes, or the Fruit of the Black Thorn, brought over in round Balls, wrapped up in Bladders, of a very ſharp, ſtyptick, or aſtringent Taſte. It is uſed in *Rob* or *Quiddony*, made with Damaſk Roſe-Water, and double refin'd Sugar. The true *Acacia* is made by Expreſſion out of the Fruit, and that either ripe or unripe. From the ripe Fruit there is a black Juice, ſo call'd; from the unripe Fruit a red or yellow Juice, the Colour not ſo black, but more inclining to red, and of a ſweet Scent: And this is the true *Acacia* of *Dioſcorides* and the Antients, which is to be uſed in making of *Venice*-Treacle.

[The Tree which produces the true *Acacia*, is the *Acacia vera*, R. Hiſt. 1. 966. *Acacia vera ſive ſpina Egyptiaca*, Park. 1547. *Acacia Dioſcoridis*, Ger. Em. 1590.

The Juice is, or ought to be expreſſed from the Fruit before it is ripe, and to be reddiſh or yellowiſh within, and black without; it grows hard and black throughout with Age. It is a good Medicine, but ſeldom met with genuine: There are a Multitude of different Adulterations of it; and beſides, the Sloe Juice, or *German Acacia*, as it is call'd, is generally uſed in its Place.]

8. *Of* Roucou *or* Rocoe.

Pomet. THE *Roucou*, which the *Indians* call *Achiotl*, or *Urucu*; the *Dutch*, *Orleane*; and we, *Roucou*; is a *Fecula* which the Inhabitants of the *Leward-Iſlands*, and *St. Domingo*, make from a little red Grain or Seed, which is found in a Huſk or Shell, whoſe Figure is here repreſented, mark'd A, which was engrav'd after the Original, which I have in my Hands.

The Shrub which bears the *Roucou*, produces, according to Father *du Tertre*, from the Root ſeveral Shoots that grow into Shrubs, and divide themſelves into ſeveral little Branches: The Leaves are very like thoſe of *Lilac*, and it bears twice a Year ſeveral Cluſters of Flowers, that are white, mix'd with red, and in Shape like thoſe of black Hellebore; the Flowers are full of a vaſt many little *Stamina*, or yellow Threads tipt with red: At the Fall of the Flowers come dark-colour'd Seed-Veſſels, all hair'd, or briſtled with fine little brown Points, which do not prick at all. When they are ripe, there are in the Middle two double Seeds or Kernels, entirely ſurrounded with a Kind of Vermilion, or liquid red Dye, which the Natives call *Roucou*: 'Tis with this they paint themſelves when they travel abroad; but before they uſe it, it is mix'd with certain Oils which they draw from ſome Seeds.

The *Europeans* do it with Linſeed Oil; they beat it in a Mortar with this Oil, and after they have reduc'd it to a Maſs, they ſend it into *France*, &c. where they uſe it to colour Wax, when it is too pale, and likewiſe to give a Colour

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German Acacia.

to Chocolate. There are thoſe likewiſe who beat it in a Mortar without Oil, and make it into a Maſs, or into Cakes; which being diſſolv'd in Urine, makes a red Tincture, which ſtains as well as the beſt Dye in *Europe*, and is a very good Commodity. This is the Tree which *Scaliger* mentions under the Name of *Arbor finium regundorum*.

This Account of *Roucou* is quite different from that of the Sieur *Francis Rouſſeau*, who wrote me Word it was a Tree of eight or nine Foot high, whoſe Leaves were like thoſe of the Peach-Tree; after which came Huſks or Shells, much like the Cheſnut Shell, furniſh'd with little Prickles throughout; within which was a little red Seed, which they bruiſe in a Mortar, or on a Stone, and put into a Veſſel of Water. In ſhort, that the *Roucou* was made in thoſe Iſlands after the ſame Manner as we make Starch, and not according as Mr. *Meuve* has deſcrib'd; and that after it was made into Cakes, and dry'd, it was ſent hither.

This laſt Relation is much juſter than the firſt; for as much as the Cods or Huſks I have, exactly agree with his Deſcription. Beſides, it is eaſy to ſee by the *Roucou* which we ſell, eſpecially when it is good, that it was never ſteep'd in Oil, in that the good Smell of the true *Roucou* makes it evident that it has no Mixture. Again, we ought to undeceive thoſe who believe that the *Achiotl* is made as the Sieur *Blegny* deſcribes it, when he ſays, that it is a thicken'd Juice which is drawn from the Fruit of the *Achiotl*, which is a Fruit-Tree of *America*. That this Fruit is a red Seed or Grain, which is found in great Plenty, in large round Huſks or Shells: That when they take this Seed from the Huſks, they ſtamp or beat it in a Mortar, and then preſs out the Juice, which they ſet afterwards in a hot Place to evaporate the Moiſture; and when it grows thick, almoſt like Paſte, they work it into ſeveral Forms or Shapes; which being thoroughly dry, are properly what is call'd *Achiotl*: Upon the whole it is certain, that the *Roucou* is made like Starch, and that it is impoſſible to draw a Juice from it, ſince the Matter out of which it is made is a reddiſh downy Subſtance, which is found ſticking to the Seed that is in the Huſks, which they cannot ſeparate but by Means of Water, in the ſame Manner as our Starch-makers ſeparate the Meal from the Bran to make Starch of; and is not a Juice expreſs'd, or drawn from the Grain, as that Author would have.

Chuſe ſuch *Roucou* as is of an Orrice or Violet Smell, the dryeſt and higheſt colour'd you can get: *Roucou*, of this Kind, is that which ought to be call'd *Achiotl*; but the chief Part of that we ſell is moiſt, foul, mouldy, *&c.* ſo that in a Word it is unfit to be given inwardly, mix'd in Chocolate, or otherwiſe. It is aſtringent and good in Hemorrhages; it is alſo much uſed by the Dyers. There was brought formerly from theſe Iſlands, and alſo from *Holland*, a *Roucou* in little Cakes, of the Shape of a Crown-piece, which was endow'd with a great many Excellencies, and very good for internal Uſes: What we have brought at this Time is in great ſquare Cakes, like *Marſeilles* Soap, or in round Balls, and is ſometimes ſo baſe and ſtinking, that it is almoſt impoſſible to uſe it.

The ſavage *Americans* cultivate the Shrubs that bear the *Roucou* with great Induſtry, becauſe of the many Uſes they make of them: Such as, Firſt, to adorn their Gardens and the Fronts of their Houſes. Secondly, being a hard dry Wood, it ſerves for Fuel. Thirdly, the Bark ſerves them for Cordage, and to make Linen. Fourthly, they put the Leaves and Root into their Sauces, to give 'em a Reliſh, and to tinge 'em of a Saffron Colour. Fifthly, from the Seed they make the *Roucou*, as well to paint their Bodies when work'd in Oil, eſpecially on great Days of Rejoicing, as to exchange for other Commodities with Advantage. This gives me an Opportunity to ſpeak of an Extract of Buck-thorn Berries, which is made by preſſing out the Juice, and mixing it with White Wine, and a little Alum, and evaporating all to a due Conſiſtency, which is a fine Green for Painters in Miniature. There are excellent Extracts made likewiſe from black Hellebore, Pæony, Tithymal, and wild Cucumbers, call'd *Elaterium*. The Syrup made from theſe Buck-thorn Berries, call'd *Syrupus Rhamni Catharticus*, or *de Spina Cervina*, is an extraordinary Hydragogue, or Purge for watry Humours, and one of the beſt ſtrong Purges that is, and therefore good in the King's-Evil, Rheumatiſm, and Dropſies. This Syrup ought to be made of the ripe Berries, and gather'd about the End of *September*, or Beginning of *October*; but if they are not ripe, they are not ſo proper to purge withal. There are ſome ſolid extracted Juices beſides, that are made portable, as the Juice of Liquorice, and ſome others, too common to require a Deſcription.

Roucou, call'd by the *Indians Achiotl*, or *Urucu*, is a dry Paſte, made from a little red Seed, which is found in a longiſh Huſk or Cod, that has the Shape of the Myrobalans, but prickly, almoſt like thoſe of Cheſnuts. Authors are not agreed about the Kind of Tree or Shrub that bears this Fruit; ſome ſaying that the Leaves are like thoſe of Lilac, and others, Peach Leaves. *Lemery.*

To prepare *Roucou* they bruiſe or pound the red Seed, then they dilute it with Water, and paſs it through Strainers, to ſeparate the Bran, or groſſer Parts; afterwards they dry this into a Sort of

Flour

Flour or Starch. Chuſe the dryeſt, of a Violet Colour. The Dyers uſe it chiefly, though it is ſometimes made Uſe of in Chocolate. If it be pure, it ſtrengthens the Stomach, ſtops Looſeneſs, helps Digeſtion, promotes Reſpiration, and provokes to Urine. The *Rhamnus Catharticus*, or purging Thorn, [*ſpoken of by* Pomet] is a Shrub that grows ſometimes of the Height of a Tree, whoſe Trunk is of a moderate Size, cover'd with a Bark like the Cherry-Tree, whoſe Wood is yellow; the Branches furniſhed with ſome Thorns that are ſharp; the Leave pretty broad and green, much leſs than thoſe of the Apple-Tree, ſurrounded on their Edges with very fine ſmall Teeth; the Flowers are little, and of a Graſs green, ſucceeded with ſoft Berries, as big as the Juniper, green at firſt, but that grow blackiſh as they ripen, ſhining, and full of a dark colour'd Juice, tending to green, that is bitter, and has within ſome Seeds join'd together.

This Shrub grows in Hedges, Woods, and other uncultivated Places. The Fruit is gather'd when ripe, about the Midſt of Autumn, and is much in uſe amongſt the Painters, Dyers, *&c.* It yields Abundance of eſſential Salt, Oil, and Flegm, beſides an acid Liquor, but a very full Portion of Earth. From theſe Berries, being preſs'd, a purging Syrup is commonly prepar'd in the Shops, with ſome of the warm Aromaticks, which purges pretty briſkly, and gripes in its working; and therefore ought to be given a little before Victuals, ſo that its ſharper Force, eſpecially in Children and young People, may be a little ty'd up and blunted by the Aliment, or Food that is taken. This Syrup is preſcrib'd from one Ounce to two, being briſk in diſcharging watry Humours, and therefore very properly given in the Gout, Cachexy, Dropſy, and Rheumatiſm. The Powder of the Berries dry'd may be given from one Dram to two Drams; but it will be a great deal better to boil them in Broth.

[The *Roucou*, *Achiotl*, or *Arnotto*, is made from the Fruit of the *Orleana*, *ſeu Orellana folliculis Lappaceis*, *Orleana ſeu Orellana*, *ſeu Uruca*, Par. Bat. Herm. Cat. 464. Prod. 357. *Arbor Mexicana fructu Caſtaneæ Coccifera*, Rai Hiſt. 2. 1771. *Mitella Americana maxima Tinctoria*, Tourn. Inſt. 242. Boer. Ind. 2081.

It was once much uſed in Medicine, and made an Ingredient in Chocolate; but at preſent it is hardly ever heard of on any Occaſion in the Shops.

The Buck-thorn Berries are the Fruit of the *Rhamnus Catharticus vulgaris*, Jonſ. Dend. 236. *Rhamnus Solutius*, Ger. Em. 1337. The Syrup made from them is a rough Purge of much Eſteem among the common People, but not often preſcribed alone by Phyſicians. The Liquorice Juice has already been ſpoken of in its proper Place.]

End of the VEGETABLES.

Roucou
8
of Roucou Husk or shell
The Negro's making
Roucou

POMET's GENERAL HISTORY OF DRUGS:

With what is farther obſerv'd by *Lemery*, *Tournefort*, and others on the ſame Subjects.

BOOK I.
Of *ANIMALS.*

PREFACE.

The Dominion which the Creator has given to Man over all Kinds of Animals of the Earth, Air, or Sea; and the Excellence of the natural Gifts, which He has given him above all other Things which have Life, have not hindered Naturaliſts who treat of Animals, from compriſing Man, at leaſt ſo far as concerns the Body, in the number of them. And the Experience, which Phyſicians in different Ages have had of the good Effects, which the Parts, or Excrements, of a dead or living human Body have had in the healing its like in many Diſeaſes, have engaged them often rather to have recourſe to it, than to what might be had of Beaſts, and to give the proper Deſcriptions and Preparations of the Parts of the human Body. And moſt Authors hitherto have, in treating of Animals, and the Preparations made from them for the Uſe of Phyſick, begun with the Deſcription of the human Body, either entire, or in its Parts, and have not ſpoken of other Animals till after their Lord.

The ſame Reaſons have alſo engaged me to imitate them here, and to place what I have to relate concerning other Animals, after what relates to him who has the Command and Diſpoſal of them.

I ſhall here decline treating of the great Lights, Knowledge, and Underſtanding, which the Creator has beſtowed on Man, and confine myſelf wholly to the Matter of the Body, and to the Things which may be found in it, living or dead, proper for the Relief of others in their Sickneſſes, and for the prolonging or preſerving their Days in Health, and to keep myſelf within the Bounds of my intended Work, and follow the Deſign I have here, of treating of only ſuch Things, as the Animal, Vegetable, and Mineral World furniſh us with, under the Name and Office of Drugs, I judge nothing can be more proper than to begin this Part of the Work with treating of Mummies, *which contain in them nearly all the Parts of the human Body.*

1 *Of* Mummies.

Pomet. AMONGST all the Teſtimonies of Reſpect, which Antiquity paid to the Bodies of the Deceas'd, that of a decent Burial was always in the moſt Eſteem; by which laſt and pious Acknowledgment, they were willing to honour and preſerve the Memory of thoſe whoſe Actions had recommended them in their Life-time, and performed a Work of Charity, tending to the Conſolation of the Living, and the Peace and Repoſe of the Dead. The wonderful Pyramids of *Egypt*, of which I ſhall ſpeak by and by; the Obeliſks engrav'd and carv'd with ſuch Pains and Induſtry; the *Mauſoleums*; and, in ſhort, all the rich and pompous Monuments, found throughout the World, are certain Proofs of the Piety and Regard of the Antients towards the Dead. But as there are ſeveral different Nations and different Religions, ſo there are particular Cuſtoms in paying their laſt Reſpect to the Deceas'd. All the Elements have been Partakers of the Spoils of the Dead, the Earth not having been thought ſufficient alone to take care of the Relicks.

Hiſtory informs us, that the Fire burnt and conſum'd the Bodies of the *Greeks*, *Romans*, *Gauls*, *Germans*, and ſeveral other Nations: That the People of *Colchis* hung their dead Bodies in the Air, upon the Branches of Trees: That the old Inhabitants of the *North* found their Graves at the Bottom of the Ocean, as the *Æthiopians* in the Currents of their Rivers; and that the People of the frozen *Scythia* were buried in the Snow. But the moſt ancient Kind of Burial was that of interring the Bodies, and we have Reaſon to believe, that *Adam* himſelf was buried after this Manner.

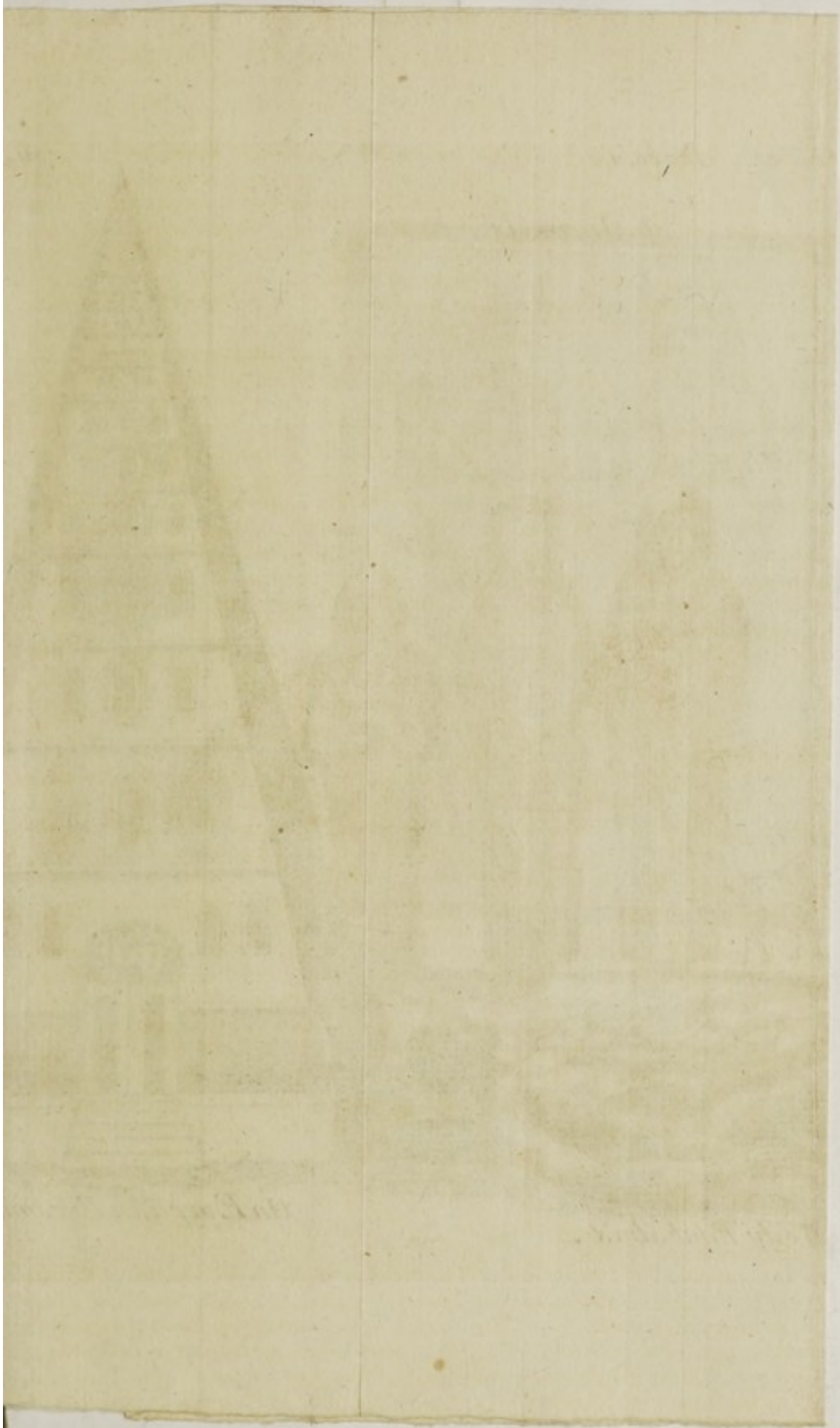
It was from the *Jews* that the *Chriſtians* learned the Interment of the Dead, making Pits or Graves in ſubterraneous and retired Places, call'd Tombs, or Catacombs, and moſt uſually Cemeteries, or Dormitories, that is, ſleeping Places: But before Burial they were embalm'd after a very curious and ſurprizing Manner, as ſhall be ſhewn. The firſt and moſt coſtly Kind of Embalming was valued at a Talent of Silver, which may be computed at about Eight hundred and fifty Livres, at that time of Day; but reckon'd now would amount to Eight thouſand Livres, or Five hundred Pounds Sterling and upwards.

This Embalming was us'd to none but Perſons of the firſt Quality. Three People were us'd to be employed in the Operation; one was a Kind of Overſeer, who marked out ſuch Places of the Body as were to be opened to take out the Bowels. The next was a Diſſector, who, with a Knife made of an *Ethiopian Stone*, cut the Fleſh as much as was neceſſary, and as the Law would permit, and immediately after fled away with all the Expedition imaginable; becauſe it was the Cuſtom of the Relations and the Domeſticks to purſue the Diſſector with Stones, and do him all the Injuries they could, treating him as an impious Wretch, and the worſt of Men. After this Operation, the *Embalmers*, who were reckoned as Holy Men, entered to perform their Offices; and began firſt, ſome to remove the Bowels in the upper Cavity, excepting the Heart and Reins; and others to cleanſe the lower Belly, which they waſh'd with Palm Wine, or other aromatical Liquors; and during the Space of above thirty Days, they waſh'd the Body with Balſam, Gum, or Reſin of Cedar, and fill'd it with Powder of Myrrh, Aloes, *Indian* Spikenard, *Bitumen* of *Judea*, and other Things of the like Nature; but they never us'd *Frankincenſe*, which we now call *Olibanum*; either becauſe of the great Veneration for that Drug, or by Reaſon of its Scarceneſs. As to the Head, they us'd Iron Inſtruments which they thruſt up the Noſtrils, and drew out that way all the Subſtance of the Brain; and afterwards they ſyring'd up precious and odoriferous Liquors.

The ſecond Sort of *Embalming* was reckoned at half a Talent, which was us'd to the middle Sort of People, where they contented themſelves only to ſyringe the Body, or make Injections into the Bowels of Water, or a Decoction made of Simples, or other Drugs, and Oil of Cedar; and afterwards, when the Body was thus prepar'd, to put it into Salt for Seventy Days; after which Time they took it out, and having open'd it, they drew out the Inteſtines, which were almoſt wholly conſum'd. This done, they wrapt all the Body in Bandages of fine Linen dipp'd in *Myrrh* and *Aſphaltum*; and the Overſeer, whom they call'd the *Scribe*, cover'd the Wrappings with a painted Cloth, whereon was repreſented the Rites of their Religion, in *Hieroglyphick Characters*, and the Animals which the Dead had lov'd moſt.

The Hiſtory of the Beetle.

The Principal of all thoſe Animals, or that for which the *Egyptians* had moſt Veneration, was the *Beetle*; as well becauſe of its wonderful Birth or Production, as from the Analogy or Reſemblance they pretend this Animal has with the Sun, and, indeed, however baſe and low this Animal may appear to us, as always living in Dung, he yet has a ſtrange



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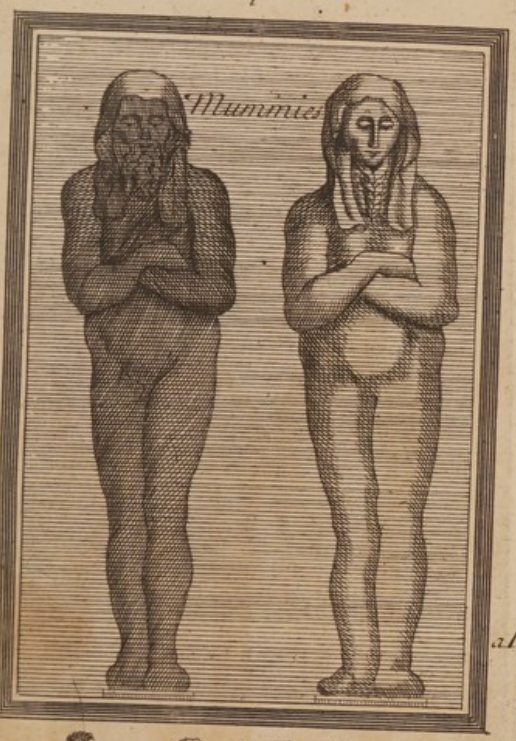
of Animals.



Mummies.

A Mummy. The Hind part.

A Pagod.

A Differter

An Embalmer.

A Body Embalm'd.

An Egyptian Pyramid

The Designer or Engraver.

ſtrange Inſtinct to continue his *Species*. For this little Animal breeds without the Aid or Aſſiſtance of any Female; for when the Male would produce, he ſeeks out the Dung of an Ox or Bull, and having found it, he forms a round Ball, of the Figure of the World, which with his hind Feet he turns from Eaſt to Weſt, and turning himſelf towards the Eaſt, he imitates the Motions of the World. Having thus roll'd the Ball, he puts it in the Ground, and leaves it there twenty-eight Days, which is the Time in which the Moon paſſes through the Signs of the Zodiack; and during that Time the little Beetles hatch in the Ball; and the twenty-ninth Day, which is the Day of the Conjunction of the Moon with the Sun, and the Time Productions are made in Nature, this little Animal rolls its Ball into the Water, where it opens, and the Beetles get out. It is upon this Account ſome ſay, that it is made the Emblem of *Birth*, and the Symbol of Fathers; becauſe theſe Inſects have only a Father, and no Mother. They repreſent alſo the World, becauſe of the Ball which they form and turn round; and Man, becauſe there are none but Male Beetles. They are of ſeveral Kinds, but thoſe for which the *Egyptians* have the greateſt Veneration, are ſuch as have a Head like a Cat, ſurrounded with a kind of Rays, which give Occaſion to them to believe that theſe Animals have ſome Analogy to the Sun; and the more, becauſe this Inſect has thirty little Paws, made like Fingers, which repreſent the thirty Days that the Sun takes each Month in his Courſe. As to the other hieroglyphical Characters, the Hiſtory of them is too tedious, but they may be ſeen in Father *Kircher*.

The third Sort of Embalming was for the poorer People, which was made with a Mixture of *Pitch*, and *Bitumen* of *Judæa*; or the Bodies were dried with *Lime*, or other Drugs of little Value; and ſometime they us'd *Egyptian Natrum*, *Salt*, *Honey*, and *Wax*: Sometimes likewiſe they boil'd the Bodies in Oil to conſume the Moiſture, which is the only Cauſe of the Corruption; for the Principle of Corruption, according to a learned modern Author, is a moiſt Heat, that introduces itſelf into the Fleſh by the Diſſolution of the Parts, and by the Mixture of heterogeneous Bodies, which poſſeſs the Spaces which the Heat opens and enlarges. The Air, which is hot and moiſt, is the moſt common Diſſolvent of all Bodies; and the only Way to preſerve them, is to defend them from the Air; to which we may add, that the Air being full of an infinite Number of Inſects, which we cannot perceive becauſe of their Minuteneſs, they are theſe little Inſects that adhere to the Fleſh and prey upon it; and as they eaſily increaſe, there are Seaſons wherein all the Air is full of them, eſpecially in Times of the Plague, and other malignant and contagious Diſeaſes: And it hath been obſerved, by Microſcopes, that what we call a *Gangrene* is nothing elſe but a vaſt Number of little Inſects eating the Fleſh, as Mites do Cheeſe. Therefore there is no other way of keeping Fleſh, but by excluding theſe Animals, which is done by Means of Honey, Oil, Spirit of Wine, and ſome other Liquors, that fetter and entangle, or burſt theſe Inſects.

But the Curioſity of the ancient *Egyptians* went much further, becauſe of the great Veneration they had for their deceas'd Relations, which they ſuffered not to be interr'd, or conveyed out of their Sight, but rather ſought out Ways to have them continually before their Eyes, to the End that they might imitate their Actions; that is to ſay, live according to the Honeſty and Integrity of their departed Friends, having ſuch Regard to their Actions as to make them the Rule of their future Conduct.

For which Reaſon, when any of their Kindred died, they manag'd them ſo exquiſitely, and dried them after ſuch a Manner, that their Bodies became as hard as Marble Statues, and they called them in their Language, *Gabbaras*, which ſignifies *Mummies*; and their Art of preparing them was ſo nice, that nothing in them was diſfigur'd. They would paint their Faces of the ſeveral Colours; after they had been embalm'd, their Arms were placed acroſs, the one upon the other, and bound about with fine Linen, which had been before dipt in aromatical Gums; and then they put upon the Head a Napkin, like a Woman's Coif, that hung down on both Sides upon the Breaſt, and behind upon the Shoulders. They had beſides, under the Chin, a twiſted Neck-cloth, that ſerved to ſqueeze their Cheeks together, and tie their Jaws cloſe, ſo that they could not fall; and thus they appear'd rather like Perſons aſleep than dead.

If by any Sickneſs they were diſfigur'd, they clapt over their Faces Maſks of Paſteboard, or of painted Cloth, reſembling the dead Perſon, and embelliſh'd or adorn'd with the ſeveral Colours. On the contrary, if the Perſon was not diſfigur'd, they left the Face and Ears naked, and ſo painted them as they pleas'd. The Dead being thus order'd, they were put in great Caſes of Glaſs made on purpoſe, according to the Grandeur of the Perſon; afterwards they plac'd them in the moſt elevated or higheſt Part of their Houſes. And this they reckon'd ſuch a valuable Pledge and Token of their Faith, that if any of

them happen'd to want Money, he could not give a better Security than the embalmed Body of his Relation in its Caſe; and that which made it eſteem'd ſo, was, that they would ſpare no Pains to pay the Money again; for if by Miſchance the Debtor could not redeem this Pledge, he was reckoned unworthy of Civil Society, which engag'd him indiſpenſably to find out Ways to recover his Kinſman in the Time limited, otherwiſe he was condemn'd by all the World.

The *Egyptians* were at other Times at a great many other Expences for preſerving their Bodies: For after they were embalm'd (though not dried) with ſeveral precious Drugs, and wrap'd about with a great deal of fine Linen; as ſometimes they us'd above two hundred Ells of Bandage, ſo that nothing was ſeen but the Face, and ſometimes nothing at all; they were likewiſe put up in Boxes or Coffins of precious Wood, which the Dead had caus'd to be made while living, together with the Idol or Pagod, which they worſhipp'd in their Life-time, and before they were buried the Nails of their Hands and Feet were ſtained red with *Alkanet*. The Idols or Pagods were made of Gold, and Silver, and other Metals, but moſt uſually of the Clay of the Country, with hieroglyphical Characters, which denoted the Quality of the Dead, the Charge of the Embalming, the Time of their Death, and the Place from whence they came.

After they had ſhut up the Coffins of their deceas'd Friends, they carried them, with great Pomp, into the Places which they had cauſed to be built in their Life-time, as is to be ſeen at this Day by the Pyramids of *Egypt*, which are two or three Leagues from *Grand Cairo*. And Hiſtorians relate, that *Chemmis*, King of *Egypt*, made one, about which an hundred thouſand Men were employed for twenty Years, which was of a ſquare Figure, and the Face or Front on each Side of the Baſis, was eight hundred Foot broad, and of the ſame Height, in which was a perpetual Lamp. We may ſee, by this, what Care was taken of the Dead; and we ought to undeceive thoſe who are ſo credulous as to believe, that thoſe are true *Mummies* which are brought us to ſell again as a Commodity, they being only Bodies pitched over, as we ſhall relate preſently.

Beſides theſe pretended *Mummies*, and the former, we meet with another Sort; thoſe of *Africa*, which are call'd white *Mummies*, and are nothing elſe but the Bodies of thoſe that are drowned in the Sea, which being caſt upon the *African* Coaſt, are buried and dried in the Sands, which are very hot; and though they have been luſty Men in their Lives, after they have lain ſome Time there, they weigh not above thirty Pounds, and are then in a Condition of keeping for ever. There is one in *Paris*, in the Cabinet of Mr. *Boudet*, Nephew to Mr. *Boudet* the King's Phyſician. Theſe *Mummies* are little us'd, becauſe they are both dear, and have little or no Virtue in them.

We ſhall next give ſome Account of the *Jews* carrying on their Rogueries, as to theſe *Mummies*, and after them the *Chriſtians*. I ſhall firſt obſerve, then, that the *Mummies* that are brought from *Alexandria*, *Egypt*, *Venice*, and *Lyons*, are nothing elſe but the Bodies of People that die ſeveral Ways, whether bury'd or unbury'd, that are afterwards embowell'd, and have their ſeveral Cavities fill'd with the Powder, or rather Sweepings of Myrrh, Caballine Aloes, Bitumen, Pitch, and other Gums, and then wound about with a *Cerecloth* dipt in the ſame Compoſition. The Bodies being thus prepar'd, are put into an Oven to conſume all their Moiſture; and being well dried, are brought and ſold here for true *Egyptian Mummies* to thoſe who know no better, and don't underſtand that the *Egyptians* put the greateſt Value imaginable upon their Dead, and that what they did in this Kind was to preſerve the Memory of their Friends, and not to make a Trade of them. To prove what I ſay, I ſhall relate what Mr. *Guy de la Fontaine*, the King's Phyſician, and after him *Ambroſe Parey* have ſaid.

The Sieur *Guy de la Fontaine*, being at *Alexandria* in *Egypt*, went to ſee a *Jew* in that City, who traded in *Mummies*, that he might have ocular Demonſtration of what he had heard ſo much of. Accordingly, when he came to the *Jew's* Houſe, he deſired Leave to ſee his *Mummies*; which he having obtain'd with ſome Difficulty, the *Jew* at laſt opened his Magazine, or Store-houſe, and ſhew'd him ſeveral Bodies piled one upon another. Then after a Reflection of a Quarter of an Hour, he aſk'd him what Druggs he made uſe of? and what Sort of Bodies were fit for his Service? The *Jew* anſwered him, that as to the Dead he took ſuch Bodies as he could get, whether they died of a common Diſeaſe, or of ſome Contagion: And as to the Drugs, that they were nothing but a Heap of ſeveral old Drugs mix'd together, which he apply'd to the Bodies; which after he had dried in an Oven he ſent into *Europe*; and that he was amazed to ſee the *Chriſtians* were Lovers of ſuch Filthineſs.

This is very different from what the ancient Phyſicians imagined, when they preſcribed *Mummy*. But as I am not able to ſtop the Abuſes committed by thoſe who ſell this Commodity, I ſhall only adviſe ſuch as buy, to chuſe what is of a fine

a fine ſhining Black, not full of Bones or Dirt, of a good Smell, and which being burnt, does not ſtink of Pitch. This is reckoned proper for Contuſions and to hinder Blood from coagulating in the Body; it is alſo given in Epilepſies, Vertigoes, and Palſies, the Doſe is two Drams in Powder, or made into a Bolus. It alſo ſtops Mortifications, heals Wounds, and is an Ingredient in many Compoſitions.

Some Authors will have it, that the Fat, mix'd with *Bitumen* that flows from the Tombs, is the *Aſphaltum* and true *Mummy*; and others ſay that it is the preſerv'd Fleſh, which was brought into Uſe by a *Jewiſh* Phyſician, who wrote, That the ſaid Fleſh, thus preſerv'd and embalm'd, ſerv'd for the Cure of ſeveral Diſeaſes. They have likewiſe given the Name of *Mummy* to ſeveral natural Bitumens; as that of *Judæa*, and thoſe which flow from ſeveral Mountains of *Arabia*, and other hot Countries: But thoſe Appellations are very improper, they being fat, viſcous, ſtinking Humours, that breed in the Entrails of the Earth.

Of other Preparations made from Human Bodies.

Beſides the *Mummy* that is met with in the Shops, we ſell human Fat or Greaſe, which is brought us from ſeveral Parts; but, as every Body knows in *Paris*, the publick Executioner ſells it to thoſe that want it; the Druggiſts and Apothecaries ſell very little: Nevertheleſs they vend a Sort of it that is prepar'd with aromatical Herbs, and which is, without Compariſon, much better than that which comes from the Hands of the Hangman. This *Adeps*, or *Axungia*, is reckon'd very good for Rheumatiſms, and other Diſeaſes proceeding from a cold Cauſe. Beſides the Fat, we ſell the fix'd and volatile Salts of the Blood, Scull, Hair, and Urine, and other Chymical Preparations, to be found in Mr. *Charas's Royal Pharmacopœia, &c.* which thoſe who deſire to know further about theſe Preparations, may have recourſe to. As to the Choice of all theſe, the only Rule is to buy them of honeſt People, for otherwiſe the beſt Judges may be deceived in them.

Man's Greaſe is emollient, diſcuſſive, anodyne, and antiparalytick. It is good againſt the Gout, and contracted Nerves, made into an Ointment, as follows: Man's Greaſe, two Pounds; Gum Elemi, half a Pound; Bees-Wax and Turpentine, of each one Pound; Balm of *Gilead* or *Peru*, four Ounces; mix and make an Ointment, by melting all together. Man's Skull is a ſpecifick Medicine in the Cure of the Falling-ſickneſs, and indeed of moſt Diſeaſes of the Head, taking of the crude Powder, raſp'd from the freſh Bone of the Skull, one Scruple or two, in any proper ſpirituous Liquor. The Oil and volatile Salt are for the ſame Purpoſes, but in leſs Quantities.

Of the Moſs upon the Human Skull.

The *Engliſh* Druggiſts, eſpecially thoſe of *London*, ſell the Heads or Skulls of the Dead, upon which there is a little greeniſh Moſs, which is call'd *Uſnea*, becauſe of its near Reſemblance to the Moſs that grows upon Oaks; and as Mr. *Charas* ſtaid a conſiderable Time in *England*, and ſaw great plenty of them, I have only related what he told me on this Subject. This Moſs is an Excreſcence that grows two or three Lines high, on the top of and round Men's Skulls who have died violent Deaths, and lain ſome Time on the Ground, or hung on Gibbets, or the like. It only begins to grow when the fleſhy Subſtance about the Skull is waſted away. The *Engliſh* Druggiſts generally bring theſe Heads from *Ireland*; where they frequently let the Bodies of Criminals hang on the Gibbet till they fall to Pieces. You may ſee in the Druggiſts Shops of *London*, ſome of theſe Heads entirely cover'd with Moſs, and ſome that only have the Moſs growing on ſome Parts; and we ought not to be ſurpriz'd at the Growth of this Moſs on the Skulls of dead Men unburied; ſince we daily ſee the Hair of the Head, Beard, and ſome other Parts of the human Body, grow after Death, as long as there is any Moiſture left to ſupply Nouriſhment to the Part; and that the ſame thing happens to the Nails is evident; but whether it will hold as to the Teeth, as ſome pretend, I dare not venture to affirm. The ſame Druggiſts ſend to foreign Countries, eſpecially *Germany*, theſe Skulls covered with Moſs, to put into the Compoſition of the ſympathetick Ointment, which *Crollius* deſcribes in his *Royal Chymiſt*, and which is very available in the Cure of the Falling-ſickneſs. Some Virtues are alſo attributed to the Skulls taken from Gibbets, but in all Probability the Heats and Colds of the Seaſons have diſſipated the greater Part. The Skulls of Criminals newly hang'd, ſtripp'd of the fleſhy Membrane, and the Brains taken out, being well waſhed and dried, and ſeparated with a Saw from the lower Part, are, or ought to be, what the Druggiſts ſell by the Name of *Human Skull*.

A Mummy is the dead Body of a Man, Woman, or Child, which is embalm'd and dried. The firſt Mummies were taken from the Burying-places of the ancient *Lemery*.

antient *Egyptians*, near the Pyramids, where the fineſt were to be ſeen a few Leagues from *Grand Cairo*. This embalming was made with Balſams, Reſin of Cedar, *Jews* Pitch, Myrrh, Aloes, and ſeveral other aromatical Ingredients, capable to dry up the Humidity or Moiſture of the Fleſh, to ſtop the Pores, and prevent the Air from entering, and to reſiſt Putrefaction. We uſe at this Day almoſt the ſame Drugs for embalming dead Bodies; but whether it was that their Drugs were better than ours, or that they had a more perfect Method of embalming than we have, or that their Burying-places were drier, more impregnated with Salts and Bitumen, or leſs ſubject to Putrefaction, their embalm'd Bodies laſted vaſtly longer without Corruption, than thoſe we do at preſent, if we dare believe Tradition; for they pretend to ſhew us *Egyptian Mummies*, of near four thouſand Years Duration; whereas we take a great deal of Pains in theſe latter Ages, to preſerve them two or three hundred Years.

And here it may not be improper to give an Account of the modern Way of embalming, from Mr. *Dionis's* Courſe of Chirurgical Operations. Embalming is an Operation almoſt as antient as the World, and which has been practiſed in all Ages; and either out of a venerable Regard to their Relations, or a Principle of Religion, Men have always endeavoured to preſerve their Dead; of the Truth of which *Arabia* and *Egypt* have furniſh'd an infinite Number of Inſtances; but at preſent we embalm none but the Rich and Great, whoſe Relations only are willing to be at that Expence.

Mr. *Penicher*, a *Pariſian* Apothecary, has given us a Treatiſe of Embalming, according to the Practice of both the Antients and Moderns, which conſiſts of ſeveral learned Enquiries on this Subject: He relates the Stories of the Embalming of *David*, *Alexander*, and ſeveral others; wherefore I refer you to him for the Satisfaction of your Curioſity; but, talking indeed like an Apothecary, he gives us ſo many Sorts of balſamick Powders, that he would very much puzzle us which to chuſe, if we did not know that they are almoſt all alike. He further pretends, that it is the Apothecary's Right to preſide in Embalming; that the Compoſition and Application of the balſamick Matters belongs to him; and that the Surgeon is preſent for no other End than to make the Inciſions, and fix on the Bandages which he preſcribes; but daily Practice overthrows what this Author pretends to advance. 'Tis the Surgeon only who embalms; 'tis he who is charg'd with the whole Operation; and after the Apothecary has prepar'd what he requires, he is not to concern himſelf any further in it, unleſs he will attend as one of the Surgeon's Apprentices or Aſſiſtants, to hand to him what he has Occaſion for.

Mr. *Penicher* cites, as a Precedent for Embalming, that performed on the Dauphineſs. We are not to be ſurpriz'd if his Relation is not exactly juſt in ſeveral Circumſtances; he tranſcrib'd it from a Memorial which the Apothecary to that Princeſs gave him; and its Author believing Pharmacy ſo much above Surgery, that the latter could not diſpute it, has by this Memorial taken all advantageous Hints which ſeemed to him to favour his Opinion. But having performed that Embalming myſelf, none can be a better Evidence in this Caſe, the particular Relation of which, to avoid Repetition, I forbear here, becauſe the Method which I ſhall lay down, of performing a complete *Balſamation*, will inform you of all that paſſed at that of the Dauphineſs.

After the Opening of the Body, and the drawing up, and ſigning of the Relation of the Particulars to be obſerv'd with regard to the Body, the Phyſicians and Surgeons withdraw, leaving to the operating Surgeon the Care and Direction of the Embalming; wherefore, all depending on him, he cauſes to be brought into the Chamber where the Corps is, all the neceſſary Ingredients and Inſtruments for that Operation; and which we know to be of three Sorts: Firſt, thoſe which the Plummer is to make; ſecondly, what belongs to the Surgeon; and, thirdly, thoſe which relate to the Apothecary.

The Plummer being ſent for, comes to take the Surgeon's Order about the Size of the Coffin; becauſe if he ſhould content himſelf with taking Meaſure of the Body, that Caſe would prove too little to hold it after embalming: He beſpeaks of him a leaden Barrel to put the Entrails into; and alſo a leaden Box made of two Pieces, to ſhut, to contain the Heart after it is embalmed; ordering him to bring all of them to the Chamber where the Corps is, at the Hour which he appoints. The principal Part of the Surgeon's *Apparatus* conſiſts in Bands; for the Inſtruments are the ſame which are us'd in opening of the Body. The Surgeon then is to prepare five Bands; two of three Fingers Breadth and four Ells long, to bind the Arms; two of four Fingers breadth and ſix Ells long each, to bind the Legs and Thighs; and one yet broader and longer, to perform the neceſſary Circumvolutions about the Body. 'Tis the Apothecary's Buſineſs to furniſh, firſt, the aromatical Plants well pulveriz'd in a Mortar; ſecondly, the Gums and odoriferous Drugs beaten to a fine Powder; and, thirdly, a Liniment to rub over and anoint the Body.

The

The firſt or coarſeſt Powder, which ſerves to fill the great Cavities, and to be put in with the Entrails, is compos'd of four or five and twenty different Plants; to which end we make uſe of the Leaves of ſome of them, the Roots or Flowers of others, and the Rinds, Barks, or Seeds of others. The moſt proper, and the moſt eaſy to be gotten, are the Leaves of Laurel, Roſemary, Sage, Baum, Wormwood, Marjoram, Hyſſop, wild Thyme, Baſil; Roots of Orrice, Angelica, Calamus Aromaticus; the Flowers of Roſes, Camomil, Melilot, Lavender, Lemon and Orange Peel; the Seeds of Aniſe, Fennil, Coriander, and Cummin: To all which, when well powder'd, are to be added ſo many Pounds of common Salt, as to encreaſe the whole to thirty Pounds Weight. Of the other, which is the fineſt Powder, there muſt be ten Pounds, and it is to be compoſed of ten or twelve odoriferous Drugs, which are proper to preſerve the Body for the Space of ſeveral Ages; they are Myrrh, Aloes, Frankincenſe, Benjamin, Storax Calamita, Cloves, Nutmegs, Cinnamon, white Pepper, Sulphur, Alum, Salt Petre; all which are to be well powdered, and paſſed through a Sieve. The Liniment is to be compoſed of Turpentine, Oil of Laurel, liquid Storax, and Balſam of *Capivy*, by reaſon that of *Peru* is ſo ſcarce, that it alone would coſt more than all the embalming Ingredients. Three Pounds of this Liniment are ſufficient to make the neceſſary Embrocations. Beſides theſe three Articles, the Apothecary is to provide three or four Pints of Spirit of Wine, five or ſix great Bundles of Tow and Cotton, two Ells of the broad Cerecloth, and a large Bundle of coarſe Cord. The Surgeon provided with all theſe Preparations, is ready to begin the Embalming, which he executes in the following Manner.

Having ordered to be ſet near him the leaden Barrel, the Surgeon takes ſome Handfuls of the coarſer Powder, and ſpreads it over the Bottom of the Barrel, and above that ſpreads Part of the Entrails; then lays another Row or Bed of that Powder, and then another Lay of the Entrails, thus continuing on, *Stratum ſuper Stratum*, till he has laid into the Barrel all the Parts which were contained in the Head, Breaſt, and Belly, except the Heart, which he ſeparates, and puts to ſoak in Spirit of Wine, till he has finiſhed the whole Body. When he embalms that in particular, he muſt remember to end with a Lay of Powder, and if the Barrel is not full, he is to fill it up with a Bundle of Tow; but if the Plummer has made it too high, the Operator is to order him to cut off all of it that is too long, that the Cover being ſoldered on, no Part of it may remain empty.

The three Venters or Cavities being thus evacuated, we are to waſh them with Spirit of Wine, before we fill them up; which done, we begin with the Head, filling up the Skull with the Powder and Tow mix'd together; and having got in as much as it can contain, we put it again into its Place; and before we ſew the hairy Scalp over it, we put betwixt them ſome of the finer or balſamic Powder. We pour ſome Spirit of Wine into the Mouth to waſh it, and then fill it with the ſame Powder and Cotton; we do the ſame to the Noſtrils and Ears, and then with a Pencil or Bruſh we embrocate the Face, Head, and Neck, with a Liniment; and after ſtrewing the fine Powder on all thoſe Parts, we form a Cruſt over the whole Superficies. With the Powder and Tow the Operator fills up the Breaſt and Belly, which is now but one large Cavity; for in taking out the Entrails he has before taken out the *Diaphragm*, which ſeparated them one from another. He is not here to be ſparing of his Powders, which muſt prevail in this Part, the Tow being only made uſe of to bind and keep them together. He returns the *Sternum*, and after having cover'd it with the fine Powder, which he alſo thruſts betwixt the Ribs and Tegument, he performs the Suture with a Needle, from the Neck to the *Os Pubis*, and a tranſverſal one, from one of the lumbary Parts to the other. With a Pen-knife we make around the Arm four large Inciſions of half a Foot long each, and as deep as to the Bone, and as many on the Wriſt; theſe we waſh with Spirit of Wine, and fill with the odoriferous Powder. We cover the Arm with the Liniment with the ſame Pencil, and gently ſtrow over it the ſame Powders, which eaſily ſtick on by reaſon of the Liniment. We then take a Band, with which we begin at the Hand, rolling it very tight up to the Shoulder, where it is to end, and be faſtened. Whilſt the Operator is thus employ'd about one Arm, an Apprentice is to do the ſame to the other, conformable to his Example.

The ſame Operation is to be performed to the Thighs and Legs, with this Difference only, that the Inciſions are to be longer, deeper, and more numerous than in the Arms. Theſe Parts, thus cut, look like *Switzers Breeches*. After they have ſufficiently imbib'd the Spirit of Wine, they are to be fill'd with aromatical Powders; the Liniment applied to them, and the Powders over them, the Operator rolls on the Band on one Thigh, whilſt a Servant applies another on the contrary: Theſe two Bands begin at the Feet, and terminate at the Groin. We then turn the Body to make the like Inciſions on the Back, at the Region of the Reins, and on the Buttocks; and if the Corps be fat, we are alſo to do the ſame around the Belly and Breaſt. The Lotions, Embrocations,

tions, and Application of Powders, are ended with the Belly-band, which is ſtrong, very broad, and long, and beginning at the lower Belly, ſo perfectly rolls over the Body, that no Part of it is left uncovered.

The Body thus enamell'd, we lay it on a Cere-cloth, in which we wholly encloſe it, cutting it cloſe ſo as to come cloſe over all the Parts without folding it; and with a Cord, which is to be ten or twelve Ells long, we begin to ſtraiten it about the Neck, to form the Figure of the Head, that it may be accommodated to that of the Coffin. We run it ſeveral Times around the Body, each Circumvolution at the Diſtance of half a Foot from the other, and draw it as tight as we would a Pack to be ſent by the Carrier. The Body is then put into a Linen Shroud, which with a String we tie at each of its two Extremities, leaving about a Handful beyond each of the Ligatures. We then call for the Coffin, ordering it to be brought near to the Table where the Body is; and if 'tis a Princeſs of the Royal Family, the Lady of Honour is to take hold of the Handful of the Shroud which is left at the Head, and the Lady of the Wardrobe of that at the Feet, and they lay the Corps into the Coffin, which laſt Service they claim as their Right.

If the Surgeon has any balſamick Powder left, he ſtrows it in the Coffin, and fills the vacant Spaces with Bundles of aromatical Herbs, which he is to have ready provided for that Purpoſe; which done, the Plummer fixes on the Lid of the Coffin, which he ſolders on as expeditiouſly and neatly as he can. Whilſt he is ſoldering the Coffin, the Surgeon embalms the Heart; he takes it out of the China Veſſel in which he put it, waſhes it ſeveral Times in Spirit of Wine, and fills its Ventricles with the fineſt balſamick Powder, reſerv'd expreſly for that End; then encloſes it in a Bit of Cerecloth, wholly ſprinkled with the ſame Powder; he binds and faſtens it with the ſame Cord, ſhaping this ſmall Bundle in the Figure of a Heart, and ſo putting it in the Box. The Coffin being ſoldered, we lay it on two Feet in the Middle of the Room, and cover it with a Pall, and lay on the Coffin the Box which contains the Heart, which we cover with Crape, and leave both of them to be carried to their deſtin'd Sepulchre.

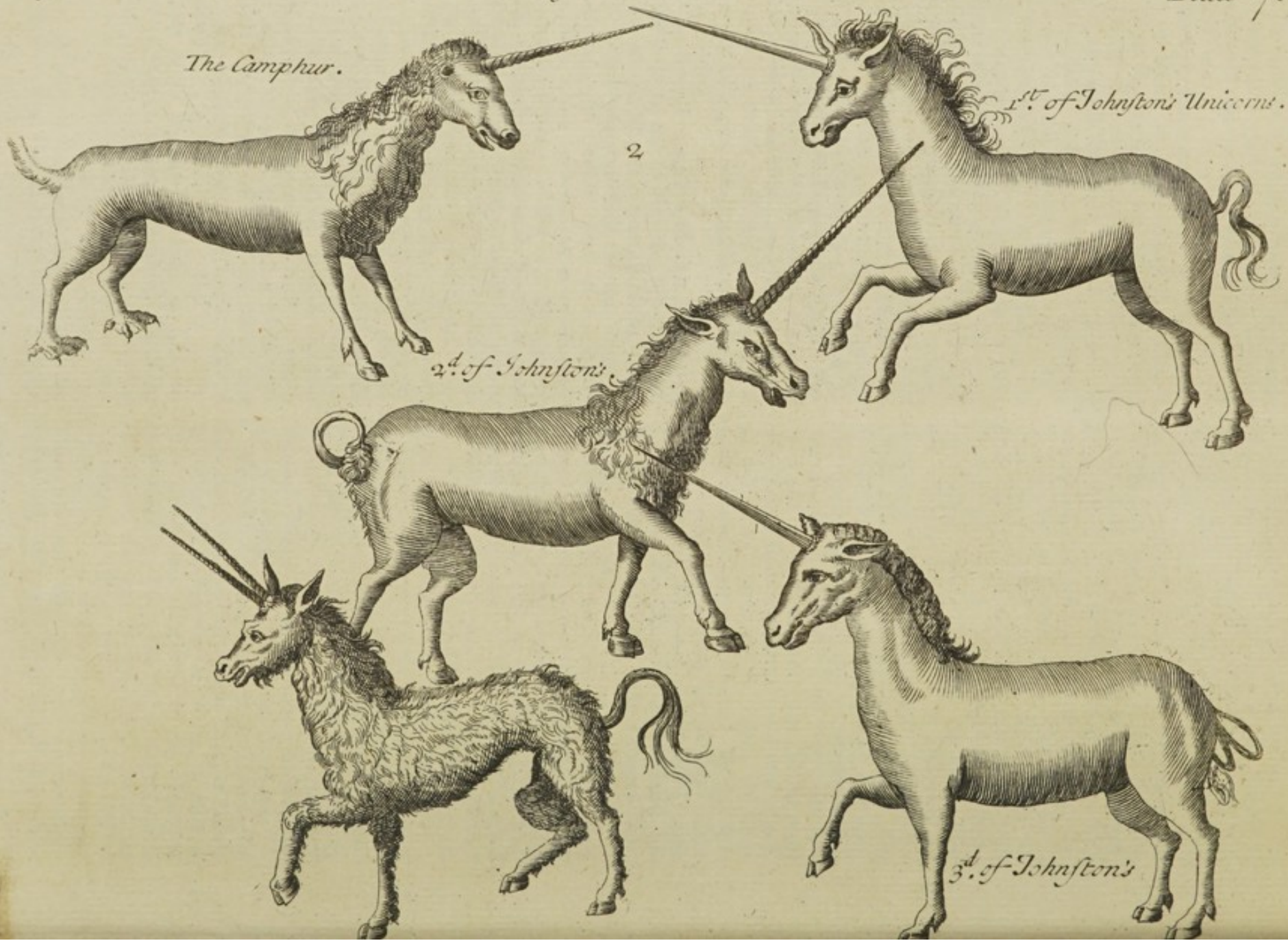
Some of the Antients pretended to have invented a Way preferable to all others, which was to take out generally all the Fleſh, and leaving only the Skin and Bones, to ſubſtitute in their Place aromatick Drugs and Powders; tho' this is not to preſerve the Body, but only the Skin and Skeleton from Putrefaction. Some Moderns propoſe to us eaſier Ways, of which there are ſeveral Sorts, with which Mr. *Penicher* has fill'd his Book; wherefore I ſhall forbear the Recital of them here, and content myſelf in acquainting you, that the Hiſtory of Embalming, which I have juſt laid before you, is that which I have performed on the Dauphineſs, and ſeveral Perſons of the firſt Quality, being that which I take to be the beſt of them all. I have heard of antient Sepulchres of Plaiſter, in the Middle of which the Body was placed, and alſo cover'd with Plaiſter; that in theſe ſort of Graves, the Bodies kept for a long Time, without emitting any ill Scent, becauſe the Salt Petre which is in the Plaiſter reſiſts Putrefaction; and the Plaiſter imbibing the ſtinking Seroſities which iſſue from the Body, ſtops the offenſive Exhalations. This Fact may put ſome upon reducing it to Practice; which in my Opinion ſhould be done the following Way: The Perſon reſolv'd to try this Experiment, is to order the making either of a leaden or wooden Coffin, proportioned to the Bulk of the Body, which is to be laid into it ſtark naked; when having ready three or four Hods of Plaiſter ſtrain'd thro' a Sack, ſo that it may reach to the Edges, the Corps muſt be wholly buried in Plaiſter. By this Method we may keep a Body ſeveral Days in the Houſe, and then lay it in a Vault deſign'd for the Dead, without the Danger of any ill Scent; and 'tis impoſſible to embalm a Body with more Eaſe, and leſs Expence.

[The true *Ægyptian Mummies* are very ſeldom found in the Shops, but are what ought to be us'd in Medicine; the Gums and Spices they abound with, making them very different from the Counterfeits. The next in Goodneſs to theſe, is what is called the *Arabian Mummy*, which is a thick Liquor, of a dark Colour and aromatick Smell, flowing out of the Bodies, embalm'd with Myrrh, Aloes, *&c.*

We alſo ſometimes ſee the Liquor of *Ægyptian Mummies*, which have been preſerv'd with the *Bitumen Judaicum*, with the Mixture of other Ingredients, which is not much inferior to the former; but the Thing commonly ſold under the Name of this, is the *Piſſaſphaltum factitium*, which is a Mixture of common Pitch, and *Bitumen Judaicum*.

The white *Mummies* are not the Bodies of ſuch as have been drown'd, but human Carcaſſes bury'd and dried in the Deſerts of *Africa*, as thoſe of *Zara* and *Libya*; where the Winds ſometimes bury whole Caravans at once in the Sands, where the Bodies dry and become light, and of the Conſiſtence of Horn. Theſe are never us'd in Phyſick, nor any of the others often now: and whatever Virtues they have been ſuppos'd to be poſſeſs'd of, may rationally be judged to be more

owing


The Camphur.
1st. of Johnston's Unicorns.
2
2d. of Johnston's
3d. of Johnston's

owing to the Ingredients of the Compoſition they were preſerved with, than to the Fleſh of the Carcaſe, and therefore may be had from thoſe Ingredients, in a more decent Manner, than by ſwallowing the Fleſh of our Fellow Creatures.

The other Parts of the human Body, mentioned in the Catalogues of officinal Subſtances, are the Skull, the Skin, the Fat, the Bones, the Marrow, and the Heart. Virtues have alſo been attributed to the Hair, Nails, Saliva, Ear-Wax, Sweat, Milk, menſtrual Diſcharges, Secundines, Urine, Dung, Semen, Blood, Stone of the Bladder, and the Membrane encloſing the Head of the *Fœtus*, by ſeveral Authors; but few of them are uſed now. *Sal Armoniac* indeed is a Preparation of Urine and other Ingredients; and the Skull is an Ingredient in the *Pulvis ad Guttetam*; but little other Uſe is now made of any thing belonging to the human Body.

As to the ſtrange Hiſtory here given of the Beetle, it may be proper to obſerve here, that that Animal is produced by the Eggs of a female Parent, which hatch into ſix-footed pale-coloured Worms, which afterwards change into Beetles, as the Caterpillar does into a Butterfly.]

2. *Of the* Unicorn.

Pomet. THE *Unicorn* is an Animal which Naturaliſts deſcribe under the Figure of a Horſe, having in the Middle of his Head a ſpiral Horn, of two or three Feet long; but as we know not the real Truth of this Matter to this Day, I ſhall only ſay, that what we ſell under the Name of the *Unicorn's* Horn, is the Horn of a certain Fiſh, by the Iſlanders called *Narvual*, or the *Sea-Unicorn*, as you will find when we come to treat of Fiſh. This Horn was formerly in great Eſteem, becauſe of the mighty Virtues attributed to it by the Antients, eſpecially againſt Poiſons, which is the Reaſon that many great Perſonages have been very fond of it; ſo that it has been valued at its Weight in Gold. And there are yet ſome People, who eſteem it as highly.

Ambroſe Paræus, in a little Treatiſe which he wrote of the *Unicorn*, ſays, That in the Deſarts of *Arabia* are wild Aſſes, which they call *Camphurs*, carrying a Horn in their Front, with which they uſed to fight againſt the Bulls, and which the *Indians* made uſe of to cure ſeveral Diſeaſes, eſpecially ſuch as came by Poiſon; and that the *Arabs* near the *Red Sea* had another Animal among them, which thoſe People called *Piraſſoupi*, that has two Horns, long, ſtraight, and ſpiral, which the *Arabs* make uſe of when they are wounded, or bit by any venomous Creature. They let this infuſe ſix or eight Hours in Water, which they drink to cure them. He ſays, that this Animal is of the Size of a Mule, which alſo it reſembles in its Head; and that the Body is hairy like a Bear, a little inclining to a fallow Colour, and the Hoof divided or cleft like the Deer's. *Johnſton* ſays, in his Treatiſe of Animals, that there are other *Unicorns*; to whom the Reader may have recourſe.

However, that the *Unicorn* is a Beaſt having but one Horn, all agree; but becauſe there are five ſeveral Kinds of Beaſts which have alſo but one ſingle Horn, it is ſome Queſtion which of them be the true. They are, *Firſt*, The *Orix*, or one-horn'd wild Goat. *Secondly*, The one horn'd Ox. *Thirdly*, The Hart with one Horn. *Fourthly*, The one-horn'd Hog. And, *Fifthly*, the one-horn'd Aſs The firſt is certainly but a kind of one-horn'd wild Goat, the Deſcription of it differing not much from a Goat. It reſembles a Roe, having a Beard under its Chin, of a paliſh white Colour, and is cloven hoofed, with one Horn growing out of the Middle of its Head. Theſe are bred in *Ægypt*. *Æthiopia*, and many other Parts of the World: ſome of them are as large as Oxen. Their Horns are not only ſtrong and ſharp, like the Horns of a *Rhinoceros*, but alſo ſolid, and not hollow or porous, like the Horns of Harts. This Creature is ſaid not to value the Barking of the Dog, the Foaming of the Bear, the Bellowing of the Bull, the Cry of the Panther, or the Roaring of the Lion.

The one-horn'd Ox, Bull, or Cow, is bred in *Aonia*, of various Colours, intermix'd one with another, having a whole round Hoof, like a Horſe, and but one Horn growing out of the Middle of the Forehead: It is alſo bred in *India*, where the whole Species eat Fleſh, and are whole-hoof'd, and have only a ſingle Horn, which grows out of the Middle of their Foreheads. Some of them are ſaid to be as high as Camels, and their Horn four Feet long. There are alſo in *Æthiopia*, a kind, of a purple Colour, which have but one Horn growing out of their Heads, which turns up towards their Backs.

The *Unicorn Hart* is a Beaſt bred alſo in *India*, whoſe Feet reſemble an Elephant's; the Body, a young Horſe, and its Head, a Hart's; out of the Middle of which grows a Horn about three Feet long. It has a roaring Voice almoſt like a Bull, but much ſhriller.

The *Unicorn Hog* is ſo called from his Head, being like a Boar's or Hog's Head, found, as ſome Authors ſay, in the Dominions of the *Great Cham* of *Tartary*. This Species of *Unicorn* is ſomewhat leſs than the Elephant; they have Hair like Oxen,

Heads like Hogs, Feet like Elephants, a ſharp and thorny Tongue, and a Horn in the midſt of the Forehead, wherewith they deſtroy both Man and Beaſt. Had this Horn grown out of its Snout, it would have been a *Rhinoceros*; but as it does not, it muſt be taken for one of the Kinds of *Unicorns*.

The one-horn'd *Aſs* is the *Indian Aſs*, which equals in Bigneſs a Horſe; all white on the Body, but purple-headed and black-eyed, having one Horn in his Forehead, near three Feet long, whoſe upper Part is red or black, the Middle black, and the nether Part white. In theſe the great People of *India* drink, adorning them with all kind of precious things, believing that thoſe who drink in theſe Horns are freed from any ſort of deadly Poiſon or Infection. This *Aſs*, or *Unicorn*, exceeds all others of the Kind, both in Stature, Body, and Swiftneſs of Foot. They are ſo ſtrong that no Horſe can ſtand before them, and fight with their ſingle Horn like Bulls.

The true *Unicorn*, if you dare believe *Ludovicus Vertomanus*, who ſays he ſaw two of them at *Meccha* in *Arabia*, which were kept within the Verge of *Mahomet's* Sepulchre, is of a Weaſel Colour, with the Head like that of a Hart, the Neck not long, and the Mane growing all on one Side; the Legs ſlender and lean, like the Legs of a Hind; their Hoofs cloven like Goat's Feet, and the hinder Legs all hairy and ſhaggy on the Outſide. Of all the other five the wild *Indian* Aſs comes neareſt to this Deſcription; for the true Unicorn and he agree in theſe four things: *Firſt*, That both of them have one Horn in the Middle of the Forehead. *Secondly*, That both of them are bred in *India*. *Thirdly*, In that they are both about the Bigneſs of a Horſe. *Fourthly*, In their Celerity and ſolitary Life in the Mountains. But herein they differ; *Firſt*, In that the *one horned wild Indian Aſs* is whole-hoofed, and not cloven, as the *Unicorn* is. *Secondly*, That his Colour is white on the Body, and purple on the Head; whereas the *Unicorn* is of a Weaſel-like Colour. *Thirdly*, That his Horns are purple, black, and white; whereas the *Unicorn's* Horn is wreathed in Spires and of an Ivory Colour. In the Year 1553, a great *Unicorn's Horn* was brought to the King of *France*, valued at twenty thouſand Pounds *Sterling*. That which was preſented to King *Charles* the Firſt, of *England*, is ſuppos'd to be one of the greateſt that was ever ſeen in the World; it was ſeven Feet long, weighed thirteen Pounds, and was in the Shape of a Wax Candle, but wreathed within itſelf in Spires; hollow about a Foot from its Root, growing taper by little and little towards the Point; of a poliſhed Smoothneſs, and the Spires not deep, but like the Windings of Woodbine, and the Colour not perfectly white, but ſomewhat obſcure.

Some in *Poland* have been found five or ſix Feet long, being very ſharp and ſmooth: Others in the Rivers, but leſs pure, outwardly blackiſh, and inwardly of a pure white; a third and fourth Sort of a ſolid hard Subſtance, ſo that one would take them to be Stone; and many other Sorts have been found in that Country. But that theſe, or any of the others, were true *Unicorns* Horns, none of our Authors have yet made appear; and if all the Circumſtances be conſidered, it is much to be doubted whether any of them were the right or not; foraſmuch as the Druggiſts or Apothecaries were never known to have or ſell the true, that which is commonly ſold being from five to eight Foot in Length, and more, very ſharp-pointed, running taper all along, and twiſted or or wreathed, of the Colour of Ivory, but of a much finer Grain, and very white within. Yet this Horn is not produced by a four footed Beaſt, but comes from a Fiſh called the *Sea Unicorn*, and is brought from *Davis's* Streights near the *North Paſſage*.

Authors have aſcribed almoſt incredible Things to it, the chiefeſt of which are, to reſiſt all Manner of Poiſons, and to cure the Plague, with all Sorts of malignant Fevers, the Biting of Serpents, mad Dogs, *&c.* It is chiefly uſed as a Cordial, for which Purpoſe a Jelly is made of it, together with a little Cochineal and Saffron; and the Shavings are boil'd in Broth, *&c.* after the Manner of Shavings of Hart's Horn.

[The only one-horn'd Land Animal in the World is the *Rhinoceros*, which therefore is the true *Unicorn*, however variouſly deſcrib'd by People who either knew nothing of it but by Hearſay; or had a Mind to tell ſtrange Stories, rather than Truth. The Horn of this Animal is what the *Indians* uſe, and have ſo much in Eſteem, taking it inwardly in almoſt all Diſeaſes, and making Cups of it for their Kings to drink out of, imagining that nothing drank out of them can be poiſonous. It is certainly a Sudorifick, probably from the Quantity of volatile Salt it contains, and is commended in Epilepſies, *&c.* The *Rhinoceros* is found in *Africa*, and in the Iſle of *Java*, and is deſcrib'd by *Bontius*, under the Name of *Abada ſive Rhinoceros*: The Horn is black and ſolid, and when full grown is about twenty Inches long, and ſomething of the Figure of a Bull's Horn.

The thing called *Unicorn's Horn* in the Shops, is the Tooth of the *Cetus marinus*, *Narwal dictus*. *Mont. Ex. 6. Balæna decimum ſextum genus dicta Narwal Schones. Jet.* 28. It has long been known to belong to this Fiſh, and has been erroneouſly thought

3

The Animal y^t^ bears y^e^ Bezoar or y^e^ Bezoar Goat.

4

The Musk Goat.

thought to be a Horn growing out of its Noſe, but is in Reality a Tooth of prodigious Length, growing out of his left upper Jaw: It is like Ivory but more ſolid and heavy, and its Fibres are ſmaller. Its Virtues are the ſame with thoſe of Ivory, Hartshorn Shavings, *&c.*

The Pieces of this ſold in the Shops, are often fictitious, being Pieces of the Bones of the Sea-Horſe and other Animals, turned into the Shape of this. The foſſile *Unicorn's* Stone is the *Cornu foſſile. Worm.* 54. *Charlt.* 23. *Cornu foſſile vulgo Monoceratos cornu Boet.* 425. *Ebur foſſile. Cluſ. Exot.* 168. It is a ſtony or earthy Subſtance ſomething reſembling Bones, hard on the Outſide, ſofter within, and ſticking to the Tongue. It is dug out of the Earth, and has the ſame Virtues with the *Terra Lemnia*, and other ſuch Earths.]

3. *Of the* Bezoar.

Pomet. THE *Bezoar*, which the *Indians* calls *Pozan*, is an Animal that produces in its Stomach, a Stone that is called by that Name, to which great Virtues are attributed, which made it heretofore highly valued, and ſold at a great Rate, as the right and oriental *Bezoar* is at this Day. There is a great deal of Trouble in meeting with the natural Stone, as certain Perſons have found out the Secret of counterfeiting it; beſide that theſe Animals do not produce any conſiderable Quantities; and ſeveral of them none at all. Mr. *Tavernier* ſays concerning *Bezoar*, as follows:

" *Bezoar* comes from a Province of the Kingdom of *Golconda* lying on the North Eaſt. It " is found in the Matter that is in the Maw of " the Goats that browſe on a Shrub, the Name " of which I have forgot. This Plant bears little " Buds, about which, and the Ends of the Branches " which the Goats eat, the *Bezoar* forms itſelf in " the Stomach of theſe Animals. It takes its Shape " from that of the Buds and the Ends of the " Branches; which is the Reaſon we ſee it of ſo " many different Figures. The Peaſants, by feeling of the Belly of the Goat, know whether " there is any *Bezoar* there, and ſo ſell it according to the Quantity that is therein. They rub " their two Hands under the Belly, and preſs the " Maw or Stomach along on both Sides, ſo that " what is therein muſt fall into the Middle, and " they can then perceive exactly by feeling, how " much *Bezoar* there is.

" The Rarity of *Bezoar* is in the Size; for the " ſmall Pieces have not ſo much Virtue in them " as the large; but in this there is oftentimes a " Cheat, becauſe there are People who powder and " mix the ſmall Pieces of *Bezoar* with a certain " Paſte compos'd of a Gum, and ſomething elſe " of the Colour of *Bezoar*, and form it up with " its ſeveral Coats in the ſame Manner as we ſee " the natural *Bezoar*; but we may diſcover this " Fraud chiefly theſe two Ways: The firſt is, to " weigh the *Bezoar*, and ſteep it ſome Time in " warm Water; and if the Water does not change " it's Colour, or the *Bezoar* loſe its Weight, it is " true and natural. The other Way is to run a " ſharp Piece of red hot Iron againſt the *Bezoar*; " if the Iron enter, and it fry, it is a Sign of its " Mixture, and that it is not natural. The larger " the *Bezoar* is, the dearer it is, and it riſes in " proportion as a Diamond: For if five or ſix " *Bezoar* Stones weigh one Ounce, that Ounce " will be worth from fifteen to eighteen or twenty " Livres; but if it be one Stone of an Ounce " weight, it will ſell for a hundred Livres. I have " ſold one of four Ounces and a Quarter for two " thouſand Livres.

" There are alſo a great many *Bezoar* Stones " taken from Cows, both in the Eaſt and Weſtern " Countries, and they are ſo large as to weigh ſeventeen or eighteen Ounces; of which Sort I " have ſeen one that was preſented to the Great " Duke of *Tuſcany*; but they have nothing near " the good Qualities of the true *Bezoar*; ſix Grains " of which will do more than thirty of this. As " to the *Bezoar* that is found in Apes, it is ſo " ſtrong, that two Grains will perform more than " ſix of that of the Goat; but it is very ſcarce: " it is found particularly in the Apes to be met " with in the Iſle of *Madagaſcar*. This Sort of " *Bezoar* is round, whereas the other is of various " Forms, according as it is ſhaped from the Buds " and Ends of the Branches which the Goats eat. " As theſe Stones which are had from the Ape " are a great deal ſcarcer than the other, ſo are they " abundantly dearer, and more ſought after; and " when one is found of the Size of a Nut, it is " ſold ſometimes for an Hundred Crowns. The " *Portugueſe*, above all other Nations, make great " uſe of *Bezoar*, becauſe they are always upon " their Guard, or watching one another for fear " of Poiſon."

To this I ſhall add what Mr. *Du Renou* has obſerved of the *Bezoar*; who ſays, pag. 451. " It " is a very active Animal, that ſkips from Rock " to Rock, at his Eaſe, and is very fierce; ſo " that when he is cloſely purſued, he ſometimes " kills the *Indian* Hunters. The Hoof or Claws " of his Feet are divided neither more nor leſs " than the Goats; the Legs are pretty thick; the " Tail ſhort, and turn'd up; the Body hairy as " that of the He-Goat, but ſhorter, and of an " aſh Colour, inclining to red, or rather of the

" Colour of a Hind's Belly; the Head is ſhaped " like the Goat, and armed with two black Horns " hollow in the lower Part, and turn'd back- " wards, and as it were lying down upon the " Back, with which they make an obtuſe Angle " in joining." And this Account I can affirm to be Truth, having ſeen two at the Marſhal *Vitry*'s Caſtle. Beſides what yet further confirms what the Sieur *Renou* has ſaid of it is, that I have by me the four Feet, a Horn, and the Coat of the Stone of this Animal, which agree exactly with the Relation made by the Sieur *Du Renou*. As to the Coat of the Stone it is one of the greateſt Curioſities that has been ſeen a long Time in *France*, by the Account of the moſt intelligent People.

It is marked in the Plate A: it is of the Size of a Gooſe Egg, ſupplied on the Outſide with a rough ſhort Hair, of a dun Colour, and being cut aſunder appears to encloſe a Shell, mark'd in B, that is thin and brown, which makes a Covering for another Shell, that is white, and is marked C, where this Stone is contained, to which they give the Name of *Bezoar*. This is contrary to what all Authors have wrote of it; and I ſhould not have had the Confidence to have advanced it, if I had not had the Original in my Hands; which makes it plain, that there can never be more than one *Bezoar* Stone at a time in the Belly of this Animal, becauſe of the Bigneſs. And it is likely the great Number of theſe Animals that have no *Bezoar* at all in them, occaſions their Scarcity and Dearneſs.

If you would have the fineſt and beſt Oriental *Bezoar*, you muſt chuſe that which is ſhining, of a pleaſant Scent, tending to that of *Ambergreaſe*, ſmooth to Touch, and which rubb'd on Paper done with Ceruſſe, makes it become yellow. The leſs it is broken to Pieces, and full of Bits irregularly ſhap'd, the better; and take care that the falſe be not mix'd with the true, eſpecially when 'tis bought in large Quantities; the more ſhining, large, intire, and round it be, the more it is valued. But as to the particular Figure or Colour, they are of no Conſequence for its phyſical Uſe; it is all one whether it be long, round, crooked, or twiſted, ſmooth, rough, white, yellow, or grey; but the Colour that is uſually to be met with, is the Olive Colour.

Bezoar is a Preſervative from peſtilential Air, and a Remedy for the Small-Pox, Meaſles, or other contagious Diſeaſes. It is reckoned alſo proper againſt Vertigo's, Epilepſies, Palpitation of the Heart, Jaundice, Cholick, Dyſentery, Gravel, to procure Labour-Pains, and againſt Poiſons. Doſe from four Grains to twelve. The *Jews* call this Stone *Bell-Zaard*, which ſignifies the Maſter, or Overcomer of Poiſon.

Of Occidental Bezoar.

The occidental *Bezoar* differs from the oriental, in that it is uſually much larger, being found ſometimes of the Size of a ſmall Hen's Egg. It is likewiſe of diverſe Colours, but moſt commonly of a light Grey. It is made up of ſeveral *Laminæ*, or Cruſts, laid one over another like the former, but much thicker, and being broke, appears as if it had been ſublimed, in that one ſees in it a great many little Needles ſhooting like thoſe in Salt of Lead: the Outſide is ſoft, and very ſmooth, of a reddiſh grey Colour.

Theſe *Bezoars* are brought from *Peru*, where ſome of the *Bezoar* Animals are found. But as they are but rarely met with in the Belly of theſe Animals there, that makes it that very few are brought into *France*. It has alſo a very ſweet Smell, much ſtronger than the *Oriental Bezoar*. And becauſe this *Bezoar* is very ſcarce, the *Dutch* and other Nations counterfeit it with a grey Paſte, which they form into round Balls of what Size they pleaſe. And I have ſeen one of the Bigneſs of a Tennis-Ball, that was in the middle of a Cup, ſo fix'd that it could not be mov'd, to the end that it might be infus'd in the Liquor put in the Cup, in order to give a Flavour to it before they drank it.

There are alſo ſome others Things in the Shops, called ſometimes *Bezoars*; as the Heart and Liver of the Viper, *&c.* are called *Bezoar Animal*. The Juniper-Berries, *Bezoar Vegetable*, and the Venice Treacle, Mithridates, *&c. Bezoar Compound*: The ſeveral Stones alſo found in the Stomachs of Hogs, Oxen, *&c.* are called by ſome *Bezoar*, but it would be better to confine the Word to the Oriental and Occidental Stones here deſcribed, and to call the others by the Names that more properly belong to them.

Bezoar is a Stone taken out of the Belly of certain Animals in the *Eaſt-Indies*, of which there are ſeveral Sorts. I ſhall here mention four that are of Uſe in Phyſick. The firſt Kind, or that moſt commonly us'd, is called, *Lapis Bezoar Orientalis*, or the *Oriental Bezoar*. It is found in Balls of different Sizes and Shapes; for ſome are as big as a Wallnut, others as a Nutmeg, other as a Hazel-Nut, and ſome as a large Pea: Some are round, others oval, flat, or bunch'd. The Superficies of all of them are ſmooth, poliſh'd, ſhining, of an olive or grey Colour. Their Subſtance, when broke, divides like *Laminæ*, or Scales, that are form'd ſucceſſively by different Acceſſions

Lemery.

ceſſions of ſaline Humours, which petrify in the Belly of the Animals, after the ſame manner as Stones are form'd in the Channels of a Current of the Waters, which continually leave behind them certain Salts, which coagulate and form themſelves into a hard Cruſt or Stone. This *Bezoar* is produc'd in the Belly of a wild Goat in the *Eaſt-Indies*, which they call in *Latin Capricerva*, becauſe they partake of the Deer and the Goat. The Inhabitants otherwiſe call them *Bezoar*, from whence the Name of *Bezoar* ariſes.

This Animal is very nimble, ſo that he will ſkip from Rock to Rock; and is dangerous to the Hunter; for he will defend himſelf, and ſometimes kills the *Indians* that purſue him. The Head reſembles that of the He-goat. The Horns are very black, and are bending almoſt to his Back. The Body is cover'd with an Aſh-colour'd Hair, inclining to red, much ſhorter than that of the Goat, and neareſt to the Deer's. The Tail is ſhort, and turns up again. The Legs are pretty thick, and the Feet are cleft like thoſe of the Goat. Chuſe your *Oriental Bezoar* in one whole Stone, that is ſmooth, ſhining, and of a pleaſant Smell, inclining to *Ambergreaſe*. They divide into *Laminæ*, or Flakes, when broken; of a grey or olive Colour. The largeſt are the moſt valued by the Curious, but it is of little Moment in Phyſick of what Size they are. It contains in it ſome ſmall Matter of volatile Salt, that is ſulphurous and oily. It is eſteem'd as a great Cordial, proper to promote Sweat, and drive away malignant Humours. The Doſe is from four Grains to ten or a dozen in any Cordial, or other proper Liquor.

The ſecond *Bezoar* is call'd *Lapis Bezoar Occidentalis*, or *Occidental Bezoar*. It is a Stone uſually larger than the Oriental, but is not ſo ſmooth and ſhining, of an aſh or whitiſh Colour. They ſeparate likewiſe into *Laminæ*, but a great deal thicker than the Oriental *Bezoar*, interſperſed with a great many ſmall Points on the Inſide. This has the ſame Virtues with the other, but much weaker, being given to half a Dram.

The third Sort is call'd, *Bezoar Porci*, *ſive Lapis Porcinus*, or the *Hog Stone*. It is almoſt of the Bigneſs of a *Filbert*, differently ſhap'd, and uſually of a whitiſh Colour, inclining ſomething to a greeniſh, but now and then of other Colours. The Outſide is ſmooth. They find this Stone in the Gall of certain Swine in *India*, in the *Moluccо's*, and ſeveral other Parts. The *Indians* call them, in their Language, *Maſtica de ſolio*; the *Portugueſe*, *Pedro de Vaſſar*, or *Piedra de Puerco*; and the *Dutch*, *Pedro de Porco*. It is very ſcarce, and much valued, ſo that they ſell it in *Holland* for four hundred Livres, and more. This Stone is ſought after by the *Indians* with a great deal of Induſtry.

They uſe it as a great Preſervative againſt Poiſon, and reckon it very proper to cure a Malady they call *Merdoxi*, which comes from an irritated Bile, which cauſes thoſe that are ſeiz'd with it to be worſe than them that have the Plague. It is likewiſe us'd for the Small-pox, epidemical Fevers, in hyſterical Caſes, and for the Stoppage of the Courſes. It is pretended to excel *Oriental Bezoar*. When they uſe it, they let it ſtand infuſing ſome Time in Wine and Water, that it may impart its Virtue; then they drink the Infuſion before Meals: It has a little Bitterneſs, which is not unpleaſant. There are thoſe who have theſe Stones hung in little gilt Chains, to put into any Liquor for the Infuſion. They keep them in little golden Boxes.

The fourth Sort of *Bezoar* is call'd *Bezoar Simiæ*, or the *Bezoar from the Ape*. It is a Stone as big as a Hazel-Nut, round or oval, and blackiſh. They ſay it is taken from a kind of Ape that is found particularly in a certain Iſland of *America*. This Stone is very ſcarce and dear. It is eſteem'd more ſudorifick and proper in malignant and peſtilential Caſes, than all the other *Bezoars*. The Doſe is from two Grains to ſix. The Signification of the Word *Bezoar*, according to ſome, is a *Counter Poiſon*: According to others, the Overcomer, or Maſter of Poiſons.

[The Creature which affords us the true *Oriental Bezoar* is the *Gazella Indica, cornibus rectis, longiſſimis, nigris, prope caput tantum annulatis. Raii Synopſ. Animal.* 79. *Caper ſive Hircus Bezoarticus. Aldr. de Quad. biſul.* 755. *Capra ſive Hircus Bezoarticus, vel potius Pazaharticus. Jonſ. de Quad.* 56. It is an Animal of *Perſia* and the *Eaſt Indies*, and is call'd by the *Perſians*, *Paſer*. The *Bezoar* Stone is found in its Stomach. The true *Oriental Bezoar* is of different Colours, but commonly of a browniſh olive Colour. It has as a Nucleus always ſome heterogeneous Subſtance, round which it has gradually form'd itſelf in Strata, like the human Calculus. The Perfume of theſe Stones is adventitious, for they have naturally no Smell.

Many have judg'd the *Bezoar* we uſe generally fictitious; and doubtleſs the great Price has encouraged many to counterfeit it, and Counterfeits are often ſold inſtead of it; but the common Reaſon for judging it fictitious, which is, that but one Stone is produced by one Animal, and therefore we could not be furniſh'd with the Quantities we have, genuine, is a very weak one; for as there have been found by *Camillus*, in one emaciated Stag ſixty Stones, why ſhould we tye ourſelves to the belief that this Species of Animal, which is more ſubject to breed them than any other in the World, ſhould produce but one in each Individual? Our

Author

Author's Account of his particular Stone is not at all to be regarded, for the very Stone he deſcribes here, has been ſince examined by Men of greater Penetration, and found to be no other than a Fruit of the *Palma Cuciofera I. B. Nux Indica minor Cordi*, in which either our Author, or ſome Body he had ſuffered to impoſeon him, had very artfully incloſed a *Bezoar* Stone.

The Occidental *Bezoar*, is produced by the *Mazama ſeu Cervus. Hern.* 324. *Caguacu-Ete Mare.* 235. *Caguacu-apara ejuſdem, ſive mas et fœmina. Raii Syn. An.* 90. The Creature is found in *Mexico* and *Peru*, the Stone is of a looſer Texture, and more brittle than the Oriental *Bezoar*, and not ſo ſmooth on the Outſide, containing like it a heterogeneous *Nucleus* within. It has the Virtues of the other, but in a ſmaller Degree.

The *German Bezoar*, or *Ægragopilas*, *Mont. Ex.* 5. is found in the Stomach of the *Dorcas ſive Rupicapra. Ald.* 725. *Rupicapra, Raii Syn. Animal.* 78. This Stone is lighter than the others, and has for its *Nucleus* the Fibres, *&c.* of Herbs undigeſted by the Stomach of the Animal, on which are uſually two *Strata* of a coriaceous Subſtance.

The *Pedro de Porco* is found in the Gall Bladder of the Porcupine. *Hyſtrix. R. S. An.* 206. *Jonſ. Quad.* 111. It is light and rough. The *Bezoar* Mineral is the *Terra Sicula Bezoardicum Minerale. Mont Exot.* 14. *Lapis Bezoar foſſilis. De Laet.* 114. It is found in *Sicily* and other Places. There is alſo a chymical Preparation of Antimony of this Name. And it may be added to theſe different *Bezoars*, that the Stone of the human Bladder is called by ſome, *Bezoar Microcoſmi.*]

4. *Of the* Muſk Animal.

Pomet. THE *Muſk* Animal comes very near to the Figure and Colour of a Hind, only it has a longer Body, according to the Skin which I have ſeen in the Poſſeſſion of the Sieur *Nicholas Rondeau* at *Roan*. There are a great many of theſe Animals in the Kingdoms of *Tonquin* and *Boutan*, and in divers Parts of *Aſia*.

That which we call Muſk is a corrupted Blood, which is collected under the Belly of this Animal, after the Manner of an Impoſthume; when it is ripe, the Beaſt, by Inſtinct, goes to rub himſelf againſt a Tree to break it. And this corrupted Blood, being dried in the Sun, acquires a ſtrong Smell that is very diſagreeable; which it ought to retain when it is pure, and has not come thro' the Hands of the *Jews* in *Holland* and other Places, or of other Perſons, who ſophiſticate it with Earth, dried Blood, and other Contrivances.

They are much abuſed who are made to believe that the Muſk is the Teſticles of the Animal; and that he gelds himſelf when he is purſued, as knowing that he is to be taken for his Teſticles. This has been imagined, only becauſe the People who put it into Bladders, cut them out in that Shape. Others would have it that the Muſk is bruiſed Blood, which is produced over all the Body of this Animal, by beating it with Clubs; and that they afterwards wrap it up in Pieces of the Skin, which they cut and ſew into the Faſhion of Teſticles. But ſince both theſe Originals of Muſk ſeem very odd, I think it beſt to relate what Mr. *Tavernier* has written in his ſecond Volume, *Page* 316. that the Reader may incline to which Opinion he likes beſt.

" The beſt Sort and greateſt Quantity of Muſk " comes from the Kingdom of *Boutan*, from whence " they carry it to *Patna*, a principal City of *Ben-* " *gal*, to traffick with the People of that Country. " All the Muſk that is ſold in *Perſia* comes from " thence; and the Merchants who trade in Muſk, " had rather that you ſhould give them yellow " Amber or Coral for it, than Gold or Silver, be- " cauſe thoſe are the two Things of greateſt Eſteem " amongſt them.

" After they have ſlain this Creature, they cut " the Bag which is under the Belly, about the Big- " neſs of an Egg, and lies nearer to the genital " Parts than the Navel; then they take the Muſk " out of the Bladder, which at that Time is like " clotted Blood. When the Country People would " adulterate it, they put the Liver and Blood chopped " together inſtead of ſome of the Muſk they take " out. This Mixture produces in the Bladders, in " two or three Years Time, certain little Animals " which eat up the good Muſk; ſo that you ſhall " find a great deal of Damage when you come to " open them. Others, when they have opened " the Bladder, and taken out as much Muſk as they " can, ſo as not to be perceived, put in ſmall Bits " of Lead to render it more weighty. Mer- " chants who buy and tranſport it into other Coun- " tries are more eaſy under this Deceit than the " other, becauſe thoſe little Animals do not en- " gender in it; but their Deceit is ſtill more dif- " ficult to be diſcovered when they make little Pur- " ſes of the Skin of the Belly of the Animal, and " ſew them up ſo neatly with Threads of the ſame " Skin, that they may ſeem to be the real Bladders, " and fill theſe Purſes with that which they have " taken out of the real Bladders, together with " the fraudulent Mixture they add to it, which " is a Deceit the Merchants can have no Know- " ledge of. If they tie up the Bladder as ſoon as " they have cut it off, without giving Air and " Time for the Perfume to loſe a little of its Force " by Evaporation, which it generally does whilſt " they draw out that which they take from it;

" when

" when any one puts the Bladder to his Nose, " Blood will burst forth immediately by the Force " of the Perfume, which ought of Necessity to be " tempered, to render it agreeable, without hurt- " ing the Brain. The Perfume of this Animal, " which I brought to *Paris*, was so strong, that it " was impossible to endure it in the Lodging; it " gave all the People the Head-ach, so that it was " removed into the Out-House, where some of " my Servants cut the Bladder; which however " did not hinder the Skin from alw ys retaining " some of the Perfume. They do not begin to " find this Animal till about the 56th Degree; " but in the 60th there is great Number, the " Country being full of Forests. In the Months " of *February* and *March*, indeed, when these " Creatures have endured much Hunger in the " Climate where they are, by reason of the Snows " that fall in great Quantities, so as to be ten or " twelve Feet deep, they come from the North, " Southward to the 44th or 45th Degree, to eat " the Blades of the green Rice; and it is at that " Time the Country People lay Nets for them " in their Passage, and kill them with their Staves " and Arrows. Some People have affirmed to " me that they are so lean and feeble, thro' Hun- " ger, at that Time, that they suffer themselves to " be run down. There must be a prodigious " Quantity of these Creatures, since each has but " one Bladder; and the largest commonly being no " bigger than a Hen's Egg, which cannot furnish " above half an Ounce of Musk; and sometimes " there must be three or four Bladders to make " one Ounce.

" The King of *Boutan*, fearing lest the Tricks " which are played with the Musk should spoil " the Trade for it (since it can be had from " *Tunquin* and *Cochin China*, tho' it is dearer there " because it is not taken in such large Quantities.) " has some time since commanded that none of the " Bladders should be sewed, but all brought open " to *Boutan*, which is the Place of his Residence, " there to be inspected, and sealed with his Seal. " All those which I bought were of this Kind. " But notwithstanding all the King's Precautions, " the People have a cunning way to open them, " and put in their small Bits of Lead (as I have " said) which the Merchants endure the more " patiently, because it does not spoil the Musk, " but only deceives them in the Weight."

Musk is to be chosen in very dry Bladders, the Skin that covers it very thin, and with but little Hair upon it, because there are some Bladders where there is more of the Skin and Hair than the real Commodity. Let it be of a brown Colour, which is the Mark of the right *Tunquin* Bladder, which is much more esteemed, and better than that of *Bengal*, which is covered with Skins that have white Hair upon them. When the Musk is separated from its Cover, that should be made Choice of, which is of a dark Colour; of a strong and unsupportable Smell; of a bitter Taste, and has as few hard and black Clots in it as is possible; and being put upon the Fire, will burn and be consumed. Yet this last Mark is not of general Use, but serves only to discover that which is mixed with Earth; for the Fire will not manifest the Falsity of that which is counterfeited with Blood. Others will have it, that the right Musk ought to have an Oilinefs when prefled with the Fingers. But as this is a Commodity very difficult to be known, and the most cunning are often deceived in it, it has given Occasion to many Persons to mix it, and therefore one ought not to strive for a good Pennyworth, but to buy it of honest Merchants, and reject all the Sorts of Musk which Hawkers carry about to sell, both in and out of the Bladders, it being nothing but Dirt a little scented; to cover their Roguery. They pretend to sell it cheap, because they brought it out of the Country themselves, or that they have stole the Customs, which are indeed very high upon it; or that they are Mariners, and the Captain has given it to them for their Wages; and by that Means put off their false Drugs, selling more for twenty Pence than an honest Merchant can afford for twenty Livres, and getting enough by it at their cheap Price too. As for that which is mixed with Earth, it is easy to know it; because if a little be put upon lighted Charcoal, if there is any Earth it will remain; but, on the contrary, if it be mixed with the Blood and Liver of the Beast, there will remain only a little whitish or grey Dust; this however is to be rejected, as ought also that which is of a pleasant Smell, because it does nor get that agreeable Scent, but by the Addition of some Drugs that open the Parts of it.

The Use of Musk is not very frequent in Physick, because it is very improper for Women; but it is much used by the Perfumers; and if the Demand for it be not so great as formerly, it is because Perfumes are not so much in Use as they have been heretofore.

Moschus, or *Musk*, is a Kind of bilious Blood, fermented, coagulated, and almost corrupted, which is taken from a thick Bladder, or Pouch, as big as a Hen's Egg, which is found under the Belly towards the genital Parts of a wild four-footed Animal, called *Moschus*, *Moschius*, *Dorcas Moschi*, *Capriolus Moschis*, and *Gazella Indica*. They say it is of the Shape and Colour of a Hind; is produced in the Kingdoms of *Boutan*, *Tunquin*, and several other Parts of *Asia*. *Lemery.*

Aſia. It frequents the Woods and Foreſts where they hunt it; and when they have killed it, they cut out the Bladder, or Cod, which is under the Belly; then they ſeparate the coagalated Blood, which they dry in the Sun, and reduce to a Kind of light Subſtance, almoſt powder'd, of a dark reddiſh Colour. This acquires a ſtrong diſagreeable Smell. They then wrap it up in Bladders for Tranſportation. And this is the Muſk we uſe.

There are a prodigious Number of Animals that yield Muſk, chiefly in the Kingdom of *Boutan.* They catch them uſually at Spring-Time, or in the Beginning of Summer: For after they have been almoſt ſtarved, during the Winter, becauſe of the Snows that fall in thoſe Countries, ten or twelve Feet deep, they come to ſeek for Food; their Blood being then in a great Heat, and violent Fermentation. The Muſk they then get is likewiſe ſtrong and ſpirituous, which is the Reaſon they do not expoſe it for ſome Time to dry in the Air, leſt it ſhould quite deſtroy the Smell. They cannot take a great deal of Muſk from any one of theſe Animals, becauſe they have but one Cod a-piece, which does not yield above three Drachms of Muſk dried. Others ſay, that the Bag, during the Rutting of this Creature, has an Abſceſs formed in it; which when fully ripe makes the Beaſt itch and rub himſelf againſt Stones, Rocks, and Stumps of Trees, 'till he breaks it; and it is this Corruption that, when it is ſpilt and dried in the Sun, becomes Muſk.

There is no Impoſſibility in this Story; but yet it is not to be thought, as moſt of the Naturaliſts, both ancient and modern, have done, that all the Muſk we have is taken from theſe Abſceſſes. For is it likely that they can follow the Track of the wild Beaſts, through the Woods and Foreſts, to gather up this Matter which they have thrown ſometimes into Places inacceſſible, into Mire or Sands? If we had no other Muſk but that, it would be much ſcarcer and dearer than it is; beſides, a dried Abſceſs would be of another Colour than Muſk, for it would be of a light grey.

When you buy Muſk in the Bag, you ſhould chuſe that which is dry; let the Bag be thin, and little Hair upon it; for the more Hair and Skin there is, there will be the leſs of the Muſk. Let the Hair be of a brown Colour, for that is the Mark of *Tunquin* Muſk, which is moſt eſteemed. The Muſk of *Bengal* is wrapt up in Bags, with white Hair upon them.

When the Muſk is ſeparated from the Bag, it muſt be kept in a leaden Box, that the Coolneſs of the Metal may hinder it from growing too dry, and loſing its moſt volatile Parts. That Muſk is to be made choice of that is ſufficiently dry, of a reddiſh Colour, ſtrong Scent, and a bitter Taſte. It is almoſt all Sulphur, or Oil, and volatile Salt. It has very little Earth in it. The Scent is nauſeous and diſagreeable when you ſmell to a great deal of it at a Time, but ſweet and pleaſant when ſome few Grains are mixt with a Quantity of other Ingredients. The Reaſon of the Difference is this; when it is in a larger Quantity, the Parts evaporate ſo much, that they oppreſs and tire the olfactory Nerve; whereas, on the contrary, when there are but a few volatile Particles, they only affect it with an agreeable Titillation. Muſk has been uſed much more amongſt the Perfumers and Confectioners, than it is at preſent. People are afraid of it now, becauſe it raiſes the Vapours, eſpecially in Women.

It fortifies the Heart and Brain, refreſhes the decayed Spirits; it reſiſts Poiſon, diſcuſſes and rarifies groſs Humours, increaſes Seed, and expels Wind. The Doſe is from half a Grain to four Grains. It is good for Deafneſs, being put into the Ear, with a little Cotton. They apply it to the Womb, to allay the Vapours in hyſterical Fits, upon the riſing of the Womb, called the Mother.

[The Animal which produces the Muſk is the *Capra Moſel. aliis Cervus odoratus. Chart. Exer.* 10. *Capra Moſchus. Aldr.* 743. *Animal Moſchiferum Raii Synop. An.* 127. It is common in the Northern Part of the *Mogul's* Country, and is not properly either of the Goat or Stag kind, tho' ſomething like both.

The Muſk is an excrementitious Blood, which has undergone ſeveral Alterations in its Follicle, and is either taken out by Inciſion, or rubbed out by the Animal, or cut from its Body, with the Bag. The *Arabians* uſe it as a great Cordial, but it has been very little uſed with us, becauſe found hurtful to Perſons of both Sexes ſubject to the Vapours. Of late, however, great Cures have been performed by large Doſes of it; a Scruple at a Time, given in ſome ſpirituous Vehicle, as Arrack, or ſtrong Cinnamon Water.

Cotton impregnated with it, is found admirable in that Kind of Deafneſs, which is owing to a too great Thickneſs, and Viſcidity of the Fluids.]

Of the Civet-Cat.

THE *Civet* is a thick unctuous Liquor, found in a Pouch which is under the Tail, and near the *Anus* of a Beaſt like a *Spaniſh Cat*, but much more fierce, and very voracious. This Animal has from hence the Name of the *Civet-Cat*, and is very common in *China*, the *Eaſt* and *Weſt-Indies*, and likewiſe in *Holland*. *Pomet.*

Authors differ extremely concerning the Nature of this Animal, and that which we take from it. But as it is not my Purpoſe to repeat what they have written, I ſhall only relate what I myſelf have

have practiſed upon a *Civet-Cat* that I kept alive a Year together, whoſe Figure I have given you. It was brought from *China* by a Perſon in the Retinue of the Ambaſſador of *Siam*, who gave it to one of my Friends, who made a Preſent of it to me in the Year 1688. Having kept this Creature ſome Days, I perceived that the Wall and Bars that encloſed it were continually covered with an unctuous Moiſture, thick, and very brown, of a very ſtrong and diſagreeable Smell: Notwithſtanding that during all the Time I kept this Animal, I took Care to have the Civet gathered every other Day, not without ſome Trouble and Hazard, becauſe it put the Creature to ſome Pain or Apprehenſion of it; and having done ſo for ſome Months, I had about the Quantity of an Ounce and a half; but it is certain, that if the neceſſary Care had been taken, and the Beaſt could be hindered from rubbing itſelf, I might have got a great deal more; but I neglected it, becauſe the Colour of the Drug did not pleaſe thoſe I ſhewed it to, though it was well ſcented, and as good at leaſt as that which is brought from *Holland*.

There is no Reaſon, therefore, to think that the Civet is the Dung or Sweat of this Animal, as ſome have believed, who have alſo told us, that the Animal affords no Civet till it has been well beaten; and that the more it is enraged, the more Civet it lets down under its Belly, and between its Thighs; which is contrary to the Truth, as may be remarked from what I ſaid before. And as to the white Colour of that which comes from *Holland*, the Reaſon of it is, the *Dutch*, who make a great Trade of *Civet*, feed their *Cats* with Milk and Eggs.

Beſides the *Civet* from *Holland*, there comes ſome from *Brazil* which is brown, agreeable both in Smell and Colour to that I gathered from my Animal; they give this the Name of *Guinea* or *Brazil Civet*.

There is a third called *Occidental Civet*, of which, becauſe it is ſo common, and has no Relation to this Chapter, I ſhall ſay nothing; and therefore remit the Reader to the ſeveral Authors that have treated of it, it being no other than human Dung.

Civet is to be choſe new, and of a good Conſiſtence, that is, that it be neither too hard nor too ſoft, of a white Colour, of a ſtrong Smell, and very diſagreeable. This Commodity is as difficult to be known as Muſk. It is for this Reaſon the *Hollanders* put little printed Certificates upon their Pots of *Civet*, to give it the Credit of being pure and not falſified; and that it is ſuch as it came out of the Pouches of the *Civet-Cats*; but the beſt Way is to buy it of honeſt Merchants, without relying upon the printed Papers, or the Colour, ſince it may be of a golden Colour, and yet be good; for if it be kept a little Time, though the Pots be never opened, the Top, how white ſoever it were before, will become yellow, and of a gold Colour, and as it grows old will be ſtill the browner.

Many Perſons affirm, that if a Paper is rubbed with *Civet*, and one can write upon it, it is an infallible Mark that it is natural, which I found to be falſe, having tried it ſeveral times. But, beſides the Care that muſt be taken to have it from honeſt People, one muſt look whether in keeping it does not grow muſty and decayed; becauſe that which is mixed will grow mouldy, both at Top and Bottom, eſpecially where there is any vacant Space, and will have a rank Scent, and very diſagreeable. When this happens to People who have falſified it, and it becomes unfit for Sale, as well for its ill Colour as its Smell, which is different from the right *Civet*, they colour it with ſome Drugs, and ſo paſs it off under the Name of *Guinea Civet*, which will eaſily be found out by its reddiſh Colour, which they commonly give it. Never truſt therefore to the *Dutch* or *French* Prints they put upon it, which ſerve only to cover their Knavery, and to get twenty or two and twenty Livres an Ounce for that Commodity, which does not ſtand them in perhaps forty Pence.

Civet is of ſome Uſe in Phyſick, but is moſt in Requeſt with the Confectioners and Perfumers. It ſerves to perfume and give a Scent to other Ingredients. This Drug is to be uſed with a great deal of Diſcretion; for if one exceeds, though never ſo little, the juſt Quantity that ſhould be uſed, inſtead of a pleaſant Smell, it renders one that is very diſagreeable.

Zibethum, Zibetha, Civeta, Zepetium; in *Engliſh*, *Civet*, is a liquid Matter, or congealed Liquor, unctuous, of a Scent that is very ſtrong and unpleaſant. The Beaſt from whence it is taken is called in *Latin*, *Hyæna, Catus Zibethicus, Felis odoratus*, in *Engliſh* the *Civet-Cat*. It is a Creature much bigger than a Cat, and leſs than a Badger, having ſomething in it that reſembles a Fox; the Face is ſharp like a Martin, with a black Noſe; its Ears ſhort and round; its Eyes blue; the Leg and Foot black, more broad aad open than a Cat's, but the Claws not ſo crooked, nor hid in the Feet, but its Teeth are more terrible; it has Spots all over the Body; the Hair of the Legs and Feet is very fine and ſoft, but in other Parts harſh, and ſtanding upright. It is a neat and cleanly Beaſt, and therefore the Place it is kept in muſt be waſhed every

every Day. Merchants buy the young ones, and breed them tame, feeding them with Bran, Rice-Milk, hard Eggs, Bread, Fleſh, *&c.* ſo that a Cat that is large and gentle, may come to be valued at between four and eight Pound Sterling.

The beſt *Civet* is ſaid to be made in *England*; but great Quantity is ſent from *Holland*, with printed Certificates into all Parts of *Europe*. The beſt is of a clear, fine, lively whitiſh Colour. The *Weſt-Indian*, *Barbadian*, and *African Civets* are next in Goodneſs; but the blackeſt is the worſt, which generally comes from the *Eaſt-Indies*.

It is a valuable Commodity, ſo that an Ounce, when pure, has been valued at forty Shillings. It is often adulterated with Ox-Gall, Storax and Honey. It is much to be preferred to Muſk, becauſe the Scent is finer. It is of a ſubtile and clear Nature, and contains a great deal of Oil and volatile Salt. It comforts the Spirits, and is good againſt all Diſeaſes of the Head, Brain, and Womb. The following Mixture is good to perfume Cordial Waters and Powders for the forementioned Intentions. Take one Ounce of *Civet*, Muſk in fine Powder, ſix Drams; Ambergreaſe two. *Civet*, put up in a Peſſary, or Piece of Spunge, prevails againſt hyſterical Fits and Vapours; put into the Ears with a little Cotton, it helps the Difficulty of Hearing. If that Mixture be ground with an equal Quantity of the Yolk of an Egg, it ſo opens its Body, as to make it mix exquiſitely with an aqueous Subſtance; alſo with twelve or ſixteen Ounces of Spirit of Wine, you may draw a moſt admirable Tincture for the aforeſaid Purpoſes; and being anointed upon the Glans, juſt before Coition, it is ſaid to cauſe Impregnation, and cure Barreneſs. *Civet* is anodyne and good for the Colick in Infants, if applied to the Navel.

[The Creature which produces the *Civet*, is the *Catus Zibethicus Pit. Mem.* 98. *Animal Zibethicum Raii Syn. An.* 178. *Zibethicum Animal Americanum Rech. in Hern. Hyæna Veterum Bellon. Obſ. Ed. Cluſ.* 94.

The *Civet* is an excrementitious Subſtance, naturally ſeparated and collected in Bags of a glandulous Subſtance, both in the male and female Animals; the Bag in the Male is placed between the *Penis* and Teſticles, and in the Female between the *Uterus* and *Anus*.

Its external Uſe in hyſterical Caſes, which was once very common, is found to be not only uſeleſs but hurtful, and therefore wholly laid aſide at preſent.]

6. *Of the* Caſtor, *or* Beaver.

Pomet. THE *Caſtor*, or *Beaver*, called by the *Latins*, *Caſtor* or *Fiber*, is a four-footed Animal, ranged by Naturaliſts amongſt the amphibious Creatures that live equally on the Land and in the Water. At Land it feeds upon divers Fruits, Leaves, and Barks of Trees, and eſpecially of the Willow-Tree; and in great Rivers upon Shell-Fiſh, and ſuch other Prey as it can catch. This Variety of Food is the Reaſon why its hinder Parts to the Ribs have the Taſte of Fiſh, and they are eaten as ſuch upon Faſting Days; and all the reſt has the Taſte of Fleſh, ſo that it is not uſed but at other Times.

The *Beaver* has a Head almoſt like that of the Mountain Rat, but bigger, and proportionable to the Bulk of his Body, which is thick and groſs, about the Size of a Pig of ſix Months old: They have pretty large Teeth; the under ſtanding out beyond their Lips three Fingers Breadth; the upper about half a Finger, being very broad, crooked, ſtrong, and ſharp, growing double, very deep in their Mouths, bending circularly, and of a yellowiſh Red. They take Fiſhes upon them as if they were Hooks, and will gnaw aſunder Trees as thick as a Man's Thigh, and are able to break in Pieces the hardeſt Bones; wherever the *Beaver* bites he never loſes his Hold till his Teeth meet together. The Briſtles about their Mouths are as hard as Horn; their Bones are ſolid; the fore Feet are like a Dog's, and their hinder like a Swan's. Their Tail is covered over with Scales, being like a Soal, about ſix Inches broad, and ten Inches long, which they uſe as a Rudder to ſteer with, when they ſwim to catch Fiſh. And tho' their Teeth are ſo terrible, yet when Men have ſeized them by the Tail they can govern them as they pleaſe. The *Beaver* of *Dantzick* has Hair upon four or five Inches of the Tail, and the reſt of it is ſcaly. The whole Skin of the *Beaver* is covered with two Kinds of Hair, both very ſoft, but the one much longer than the other; the ſhorteſt is a kind of fine Down, and is what is uſed in making Hats.

The *Beavers* make themſelves Houſes of ſquare Timber, which they gnaw down with their Teeth, almoſt as even as if it were ſawed, and almoſt as equal as if it were meaſured. They lay theſe Pieces a-croſs, and each is let down by large Notches into the other; ſo that having dug a Hole for their Foundation, they build ſeveral Stories, that they may go higher or lower, according to the Riſe or Fall of the Water.

I ſhall not diſpute the Exiſtence of thoſe little Teſticles, furniſhed with all the Veſſels neceſſary for Generation, which the Royal Academy have diſcovered ſome Years ago in the Thighs, and near the Groin of a *Beaver* which they diſſected.

But

7

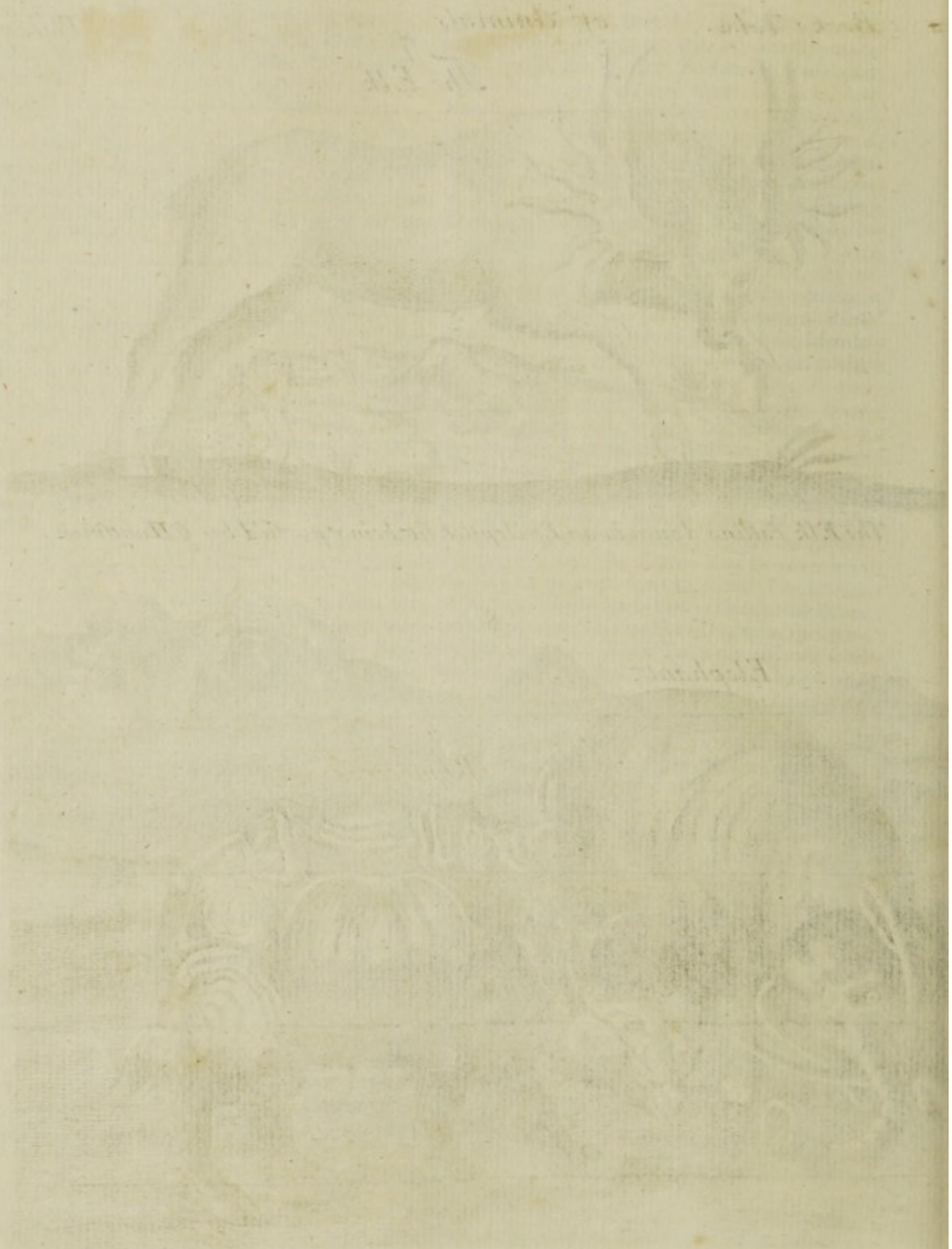
The Elk

The Elk falling down in an Epileptick fit being pursu'd by ye Huntsmen.

8

Elephant

Rhinoceros



But having never ſeen theſe little Teſticles placed in the Rank of Drugs, nor any Things ſold for *Caſtoreum*, but that Part of the Animal which the Ancients called *Fibri Teſtes*, without troubling myſelf whether theſe are true Teſticles or no, ſince this Treatiſe is not about Generation, it will be ſufficient for me to give a juſt and exact Deſcription of thoſe Parts of the Animal, which we ſell under the name of *Caſtoreum*, and which will be the more neceſſary, as I know no Part of an Animal more commonly ſophiſticated.

That which we call *Caſtoreum*, is a fleſhy Subſtance, contained at the Bottom of two pretty large Pouches, equal, diſtinct, placed Side-ways, one by the other, and wrapt in one common Bag, fixed below the Fundament of the Animal, between the two Thighs, and covered by the common Skin that encloſes the whole Belly, and there outwardly repreſenting two Teſticles, like thoſe of a Boar; which though they lie within, yet may be diſtinguiſhed through the Skin, and taken in the Hand, although they do not hang down as the Teſticles of other Creatures. Having opened the hairy Skin, you meet with the common Pouch, and in that the two others diſtinct from one another, which contain the Matter which we call *Caſtor*.

The Cuſtom is to tie theſe two Pouches as they are found, and hang them in a Chimney till they are well dryed, and the Matter contained in them be grown hard, and the outward Pouch has contracted a brown Colour.

After this, when theſe internal Pouches are opened, there is found in the lower Part of them a Matter fleſhy, ſolid, and pulveriſeable, of a Colour like Cinamon, intermixed with very thin Fibres and Membranes, and of a Scent that is extremely ſtrong. There is likewiſe found in each of theſe leſſer Pouches, a little above the fleſhy Matter, another Pouch, diſtinct, but much leſs, and faſtened to that which encloſes it; it contains an oily Moiſture, of a Scent as ſtrong as the former. This being new is like the beſt Honey before it is coagulated, but becomes of the Colour and Subſtance of Suet as it grows old.

Theſe are the true Marks of the *Caſtor* that is ſold, to be uſed in Treacle, Mithridate, and divers other cephalick and hyſterical Compoſitions; and theſe I can avouch to be true, having bought and ſold a great deal, and knowing that no Perſon of Underſtanding will contradict me. But I can alſo ſpeak with the more Certainty upon what Mr. *Charas*, who dwelt near the *Rhoſne*, and thoſe Places where theſe Animals are taken, has aſſured me; namely, that he bought of a Peaſant's Daughter the Pouches of a *Beaver*, juſt taken from the Body, which he hung up in the Chimney, being then of the Colour of Fleſh, and appearing like Teſticles, which Shape they retained when dried; that they then weighed fourteen Ounces; and being cut open, had all the inward Parts, as I have deſcribed them: That he afterwards got a live *Beaver* from the ſame Place, which a Country-man brought him in a Tub, which was in all Things conformable to the Deſcription I have given; and eſpecially as to the Pouches, which were ſituated in the ſame Place as thoſe of a Boar, and were of ſo large a Size, that they were more than an Handful. The *Beavers* being of different Sizes, their Pouches are proportionable; ſo that when they are dried, we have them from four to ſixteen Ounces.

Theſe Animals generally inhabit Caverns in the Banks of large Rivers, among others the *Rhoſne*, the *Liſere*, the *Oiſe*, in *France*; they are alſo found in *Spain*, *Savoy*, and *Italy*. But the greateſt Quantity are taken along the *Elbe*, and the great Rivers of *Germany* and *Poland*; as likewiſe in *Lithuania* and *Muſcovy*, the Lakes of *Canada*, and *Hudſon's Bay* in *America*; but it is almoſt a general Rule, that the Fur is finer, longer, and ſofter, according to the Coldneſs of the Region they are bred in.

The Dearneſs of *Caſtor*, and the Avarice of wicked Perſons, have induced People to counterfeit it, which they do by mixing the Powder of the true *Caſtor* with Gums that there is no Neceſſity of naming, and putting them in the Skins which have contained the Teſticles of Lambs and Goats; then they hang them in the Chimney, and when they are dry and hard, paſs them off for true *Caſtor*. But it is eaſy to diſcover the Cheat, by cutting the Pouches, and looking for the Marks I have given you; of which the moſt eſſential is, that you will find none of Fibres and ſmall Skins intermixed in them. And whereas the true *Caſtor*, when pounded, will paſs through a Silk Sieve, and leave ſeveral little Membranes upon the Silk; the Gums will not paſs, but remain clotted, without any Appearance of the little Skins beforementioned.

I ſhall paſs over that which ſeveral conſiderable Authors have reported of the *Beaver*, that being purſued by the Hunters, he bites off his own Teſticles, and leaves them for his Ranſom; ſeeing he can no more bend his Body, ſo as to come at them with his Teeth, than a Boar can do; and beſides, being always near great Rivers, it is eaſy for him to eſcape by plunging into the Water.

Caſtor, diverſly prepared, is recommended in Diſeaſes of the Brain and Womb, both inwardly and outwardly. The oily Subſtance is likewiſe

uſed in Ointment, and in the Compoſition of Oil of *Caſtor*.

There was a *Beaver* diſſected in the Academy of Sciences, which was three Foot and an half long from its Noſe to the Extremity of its Tail. His greateſt Breadth was twelve Inches, and he weighed above thirty Pounds. His Colour was brown, and very ſhining, inclining to a dark Grey. His longeſt Hair was an Inch an half long, and fine like the Hair of one's Head; the ſhorter was an Inch, and as ſoft as the fineſt Down; his Ears were round and very ſhort, without Hair within, and outwardly like Velvet. He had four cutting Teeth, ſuch as Squirrels and Rats, and other Creatures have that are uſed to gnaw Things. Theſe Teeth below were above an Inch long; and the upper ones, which come ſomething forward, were not directly oppoſite, but ſo diſpoſed as to work in the Nature of Sheers, paſſing one by another, being very ſharp at the End, and cutting like an Ax; their Colour was white without, and of a bright Red within, inclining to a baſtard Saffron Colour. It had ſixteen Grinders, eight of a Side. The Claws behind were joined by a Web, like thoſe of a Gooſe; but thoſe before were without ſuch Membranes, not unlike the Mountain Rat, and they uſe them for Hands, as Squirrels do. Their Nails are cut ſloping, and hollowed like a Pen to write with. The Tail has more of the Nature of Fiſh than of a terreſtrial Animal, and taſtes like it. The Tail is covered with Scales of the Thickneſs of Parchment, about a ſmall Straw's Breadth, of an irregular hexagonal Figure, which form an *Epidermis*, or Skin that joins them together. It was eleven Inches long, and of an oval Figure, four Inches broad at the Root, and five in the Middle. This helps him in ſwimming, and to bear his Mortar that he makes uſe of in building his Houſe, which he has ſometimes of two or three Stories. His Teſticles were not faſtened to the Back-bone, as *Matthiolus*, *Amatus*, *Luſitanus*, and *Rondelet* have told us, but they are hid in the Sides of the *Os Pubis*, about the Groin, and do not appear without, any more than the Penis, nor can they be cut out without killing the Creature. It had four large Pouches, ſituated at the lower Part of the *Os Pubis*: The two firſt were of the Figure of a Pear, and had a Communication with one another; they had an inward Covering, which was fleſhy, of an aſh Colour, ſtreaked with a great many white Lines, which had ſeveral Folds, like thoſe of the outer Skin of a Ram's Scrotum, and were two Inches long; there was found in them a greyiſh Matter, of a fetid Scent, and very thick; and this is the *Caſtoreum* ſo much ſpoken of.

Chuſe the *Caſtor*, or *Caſtoreum*, of *Dantzick*; it being heavier and of a ſtronger Scent, is preferable to that of *Canada*, which is generally dry, not clean, and has very little Smell. Let the Pouches be weighty and fleſhy; and ſee that they be not filled with Honey, or any other Counterfeit, which is eaſily diſtinguiſhable; as thoſe which are ſo filled up, are bloated, ſmooth, ſhining, and, if preſſed a little, ſend forth a liquid and ſtinking Matter, of the Conſiſtence of Honey; whereas the others, on the contrary, are hard and weighty, and when they are cut, full of little Strings, and have a Smell that is ſtrong and piercing.

The Skin of the *Caſtor* is eſteemed the fineſt and ſofteſt Fur in the World, and is a valuable Commodity for making *Beaver* Hats. In *Poland* they line all Sorts of Garments with it, as making the beſt Shew, and enduring the longeſt of any Fur. The Hair ſhould be long, ſoft and ſilky; and that of the fat *Caſtor* is preferable to the lean. The Skin being burnt to Aſhes, the Powder applied to the Noſe, ſtops Bleeding.

The Fat of the *Beaver* is uſed as an Ointment againſt the Palſy, Convulſions, Hyſterical Fits, Apoplexy, and Falling-Sickneſs. Take half a Pound of *Beaver's* Fat, Oils of Roſemary, Nutmegs, Amber, and Mace, of each one Dram.

The general Virtues of *Caſtor* are in ſtrengthening the Head and Nerves, being prevalent againſt the Biting of Serpents and mad Dogs. It helps Forgetfulneſs cauſed by Sickneſs, cures Convulſions, Pains and Noiſe in the Ears from cold Humours, Coughs, Catarrhs, and Diſtillation of Rheum, provokes the Terms, cauſes a ſpeedy and eaſy Delivery to a Woman in Travail, bringing away both Birth, and After-birth, or the dead Child if that be the Caſe. It has alſo been found effectual in Epilepſy, Apoplexy, Fits of the Mother, Gripings of the Belly, and Colick. It is prepared ſeveral Ways; but a good compound Powder may be prepared with it as follows: Take pure Caſtor in fine Powder, two Ounces; Saffron, Pepper, Bay-berries, Tartar vitriolated, Camphire, of each one Dram; mix them. The Doſe is from one Dram to four Scruples, in any proper Vehicle.

Lemery.

The *Caſtor*, or *Beaver*, is a four-footed Animal, amphibious, for it can live by Land or Water. It is about the Bigneſs of a Pig of ſix Months old: Its Head is of the Shape of a Mountain Rat: Its Teeth are large, ſtrong, ſharp, and cutting: Its Body ſhort and hairy: Its Skin is covered with a very ſoft Hair, of which they make Hats: Its Tail is about a Foot long, an Inch thick, four Fingers broad, without Hair, ſcaly, grey, hollow towards the Roots,

Root, ſtrengthened by Joints running into one another: Its Legs are ſhort, thoſe before reſembling a Dog's, and the hinder one's a Swan's: It feeds upon Fruit, Leaves, and Bark of Trees; and upon Fiſh when it is in the Water. It is half Fleſh, and half Fiſh. The Tail and hinder Legs are ſweet like the Tuny, having a ſolid Fat. Some of the Tails weigh four Pounds, and are accounted a great Dainty both boiled and roaſted.

If you would take hold of a *Beaver*, you muſt ſeize on his Tail, and ſo ſecure him, that he cannot turn to bite you; and by the Hold you have of his Tail you may govern him as you pleaſe.

Amongſt the *Beavers* ſome are accounted Maſters, ſome Servants. They generate in the Beginning of Summer, and bring forth in the End of Autumn. They are cleanly in their Houſes; for the making of which, they draw the Timber on the Belly of their Antients, they lying on their Backs. They love their Young. They uſe their fore Feet like Hands. And their Cry is like that of an Infant. Their Teſticles are placed at the lower Part of the Belly, between the Thighs, near the Fundament, but they lie within, under a fleſhy Skin, which is hairy, and covers all the Belly; however they may be diſtinguiſhed outwardly, and handled. When they would have theſe Teſticles, they open the fleſhy hairy Skin, under which they find the firſt common Purſe, which contains the two others in the Shape of little Purſes, or the real Teſticles of an Animal; then they tie them by the Neck, and hang them in the Chimney, leaving them till they be dry and hardened, and the outward Purſe is of a browniſh Colour, and this is what they call *Caſtor*. If you then open theſe inward Purſes, you will find a Matter which is hard, brittle, of a yellowiſh Brown, intermixed with many looſe Membranes of a ſtrong and piercing Odour; and there is another Pouch which encloſes an unctuous and fattiſh Liquor, very like Honey, which as it grows old, comes to the Colour and Conſiſtence of Suet, and is of as ſtrong a Scent as the Parts that are more ſolid.

Some of theſe Purſes are larger, ſome leſs, according to the Beaſt they are taken from. They are beſt cured by taking them out, cleanſing them purely, and drying them well in ſome ſhady Place; which when it is well done, they will keep ſeven Years. It is adulterated by Gum *Ammoniacum*, Blood, and Powder of Kidneys, *&c.* as alſo whole Kidneys put up into little Bladders; but may be diſcovered by being black, mouldy, and not apt to crumble; whereas the genuine is of a fetid, ſtrong, and unpleaſant Smell, and of a ſtrong, ſharp, biting, and bitter Taſte, and of a brittle Subſtance.

The *Caſtor* contains a great deal of exalted Oil and volatile Salt; it attenuates viſcous Humours, ſtrengthens the Brain, provokes the Terms in Women, allays Vapours, reſiſts Putrefaction, cauſes Perſpiration; is proper for Epilepſy, Palſy, or Apoplexy, and is a good Medicine for Deafneſs.

The unctuous Liquor which is found annexed to the Teſticles of the *Beaver* has the ſame Virtue, and is ſtrengthening to the Nerves.

[The Creature from which we have the *Caſtor* of the Shops, is the *Caſtor. Aldrov. de Quad. dig.* 276. *Caſtor ſive Fiber*, *Raii Syn. Anim.* 209. It is found both in the *Eaſt* and *Weſt-Indies*, and in many other Parts of the World, as *Poland*, *Ruſſia*, *&c.*

The *Caſtor* we uſe is the inguinal Glands of this Animal, taken both from the Males and Females, which are of different Bigneſſes in different *Beavers*, and are ſituated in the Groin, under the Teſticles, covered with a thick Membrane, and filled with an oleaginous Liquor, which in Time hardens into a pulveriſable Subſtance.

The *Ruſſia Caſtor* is greatly preferable to that of any other Country, and the Creature from which it is taken, though of the *Beaver* kind, is very different from the common *Beaver* of *Europe* and *America*.

It is an admirable Medicine in all hyſterical Caſes. The Doſe is from three Grains to ten in Powder, and from thirty to fifty Drops in Tincture.]

7. *Of the* Elk.

THE *Elk* is a wild Creature that is commonly met with in cold Countries, eſpecially in *Sweden*, *Norway*, *Canada*, and other Parts. This Animal is about the Height of a Coach-horſe, or a large Ox; the Head is very thick, the Eyes are bright and ſparkling; the Horns are ſpreading and large, like thoſe of the Deer; the Legs long and ſlender; the Feet black, and divided at the Hoof, as thoſe of the Ox or Cow; as to the Hair, it is ſoft, and of a blackiſh Yellow. I ſhall not ſtand to relate what abundance of Authors have ſaid concerning this Animal: But ſhall only obſerve, that the Name *Eland*, or *Elan*, given by the *Germans*, ſignifies Miſery; as well becauſe that this Animal lives no where elſe but in deſolate Places, as Woods, Foreſts, and the like, as becauſe he is very ſubject to the Falling-Sickneſs; and as ſoon as he is attacked with this Diſeaſe, he fails not to put his left Foot to his left Ear, to cure himſelf thereof; which has given Occaſion to the Antients to believe

believe that the *Elk's* Claw, or the Covering upon the left Foot, was a Specifick for the Epilepſy.

Of all the Parts of this Animal, there is none uſed in Medicine but the left hind Foot, which is called *Ungula Alcis* in the Shops; the Buyer muſt take care, that what is offered to Sale be not the Foot of ſome other like Animal, which it is difficult enough to diſtinguiſh, and that the Leg or the Skin be with the Foot, to ſee by the Hair whether it be the left hind Foot. You ought to take care likewiſe, that it be not worm-eaten, which often happens when they are old; but on the contrary, let the Claw be heavy, black, ſhining, and very ſmooth. It is of ſome Uſe amongſt the Apothecaries, being an Ingredient in many Compoſitions for the Diſeaſes before-mentioned.

Some People eat the Fleſh as Veniſon. The Skins are dreſſed by Tanners, with Fiſh-Oil and Alum, to make Breaſt-Plates of, and to ſhelter from Rain. They may be known from a Deer or Hart's Skin, by blowing through them; for the Breath will come through, as in Buff. The Nerves are uſed againſt the Cramp, by binding the affected Part with them. The Horns are ſaid to be anti-epileptick; but the chief Virtue is ſaid to lie in the Hoof, being taken inwardly in Powder, or worn in a Ring, or hung about the Neck, ſo as it may touch the Skin, or taken, being raſped or filed like Harts-Horn.

Alce, ſive Alces, or the *Elk*, is a four-footed wild Beaſt of a large Size, betwixt a Deer, an Aſs, and a Goat, having great branched Horns, bending toward the Back on the plain Edge, the Teeth or Branches of them being upwards, ſolid at the Root, and round like a Hart's Horn, but much broader. They grow as it were out of their Eye-lids, are very heavy, weighing at leaſt twelve Pounds, and are about two Feet long, which Horns they loſe every Year. It is headed ſomething like a Horſe, has long Ears, a broad Forehead, and an upper Lip ſo great, that hanging over the nether, it ſo much falls over, that it cannot eat for it but by going backwards. It is a long-backed Beaſt, with a ſhort, or almoſt no Tail, and a cloven Hoof like the Hart; his Hair is almoſt of the ſame Colour, and ſometimes of a brown Ruſſet. He has a ſtrange kind of Mane, lying both on the Top of his Neck, and underneath his Throat, where it ſticks out like a Beard, or curled Lock of Hair. *Lemery.*

This is a melancholy Beaſt, and frequently afflicted with the Falling-Sickneſs, continuing in the Pangs thereof till the Hoof of the left Foot touch the left Ear; wherewith rubbing the Part, the Creature is thereupon immediately delivered. In the Northern Climes they live in Herds, and are taken by Hunting; for upon the ſlighteſt Wound, they are ſo timorous a Creature, they immediately fall down, and yield themſelves a Prey to their Enemies. In *Sweden*, *Livonia*, *&c.* they are taken, tamed, and uſed for Beaſts of Burden; for they are both ſwift and ſtrong, and ſerve well to draw in Sledges upon the Ice and Snow, in *Ruſſia*, *Scandinavia*, and other Northern Parts.

[The *Ungula Alcis* is the Hoof of the *Alce*, *Raii Syn. An* 86. *Geſn. de Quad.* 1. *Aldrov. de Quad. Biſulc.* 886. The Creature is of the Stag kind, and there are generally Numbers of them ſeen together. The Hoof is good in the Epilepſy, as it contains a volatile Salt like that of the Horns, *&c.* of other Animals.

The Story of its curing itſelf of a convulſive Diſtemper by the Touch of its left hinder Hoof is an idle Tale; and for medicinal Uſe the Right Hoof is therefore altogether as good as the Left, and thoſe of the fore Feet as thoſe of the Hinder.]

8. *Of the* Elephant *and* Rhinoceros.

THE *Elephant* is an Animal that in Height and Thickneſs exceeds all the Beaſts of the Earth. It is a very understanding and tractable Creature, and is armed with a long, fleſhy, and nervous Trunk, which ſerves inſtead of an Arm or Hand upon many Occaſions. It has likewiſe the Diſcretion to extend and bend its Body ſo as to go through a Gate many Feet lower than its Body, provided it be wide enough for its Bulk. I do not believe it will be neceſſary to give a very particular Deſcription of this Animal, becauſe there is ſcarce any conſiderable Town in *Europe*, but where this Creature has been ſeen; only it may not be amiſs to inform you, that the *Elephants* come from the Eaſtern Parts of the World, but more particularly from the Great *Mogul's* Country. They are the Males only that are armed with great Teeth, or Tuſhes, at the upper Part of the lower Jaws, for the Females have none ſuch; theſe are called Ivory, of which ſeveral fine Works are made; as well as Medicines and other neceſſary Things for Life. *Pomet.*

I ſhall not trouble myſelf to give an Account of all that has been writ by the Antients; but only take notice of ſome few Things that may be entertaining to the Reader, if they afford him no other Inſtruction. *Ambroſe Parey* gives an Account of two ſorts of Dragons which deſtroy the *Elephants* after this manner: Theſe Dragons wind themſelves about the Legs of the *Elephants*, and then thruſting their Heads up their Noſtrils, they put out their Eyes, ſting them, and ſuck their Blood till they are dead.

Pliny

Pliny affirms he ſaw an *Elephant* which learned the *Greek* Letters, and was able with his Tongue to write a *Greek* Sentence; and in the Plays of *Germanicus Cæſar*, Elephants danced after Inſtruments of Muſick, keeping Time and Meaſure. The *Elephant* is ſaid to have a kind of Religion; for it worſhips, reverences, or obſerves the Courſe of the Sun, Moon, and Stars: For when the Moon ſhines, they go to the Waters where they may ſee her; and when the Sun riſes, they ſalute or reverence his appearing, by holding up their Trunk to Heaven in Congratulation for the Light. By a kind of natural Inſtinct they have ſome Foreknowledge of their own Death; and when any of their Kind dies, they cover the dead Carcaſe with Duſt, Earth, and green Boughs. They have a paſſionate Love to their Maſters and Keepers, and ſeldom forget to revenge an Injury on thoſe that have offended them; as they are always grateful to their Benefactors. *Aynou* ſaith, an *Elephant* was cheated of the half of his daily Allowance by his Overſeer; by chance the Maſter came and ſerved him, upon which the Beaſt divided it into two Parts before his Maſter, laying one of them aſide: By this the Fraud of the Servant was detected.

Pliny ſays, that an *Elephant* which was duller than ordinary, was found by his Maſter in the Night practiſing Things, which he had taught him in the Day with much Difficulty, and many Blows. It is reported they will live two or three hundred Years, if not prevented by extraordinary Accidents. They only breed in hot Countries, and ſcarcely can bear Cold and Winter Weather. As to their Teeth, they are often found very large. An *Elephant's* Tooth was ſold to a *Venetian* Merchant about twelve Feet long, and three Feet Diameter; and it weighed ſo heavy, that he could not lift it. *Vertomannus* ſaith, that he ſaw in the Iſland of *Sumatra* two *Elephants* Teeth, which weighed 336 Pounds. When theſe fall off, which is about every tenth Year, they bury them in the Earth with their Feet.

The Ivory, which the *Latins* call *Ebur*, is the Teeth, or rather the Weapons, or Arms of the Male *Elephant*; the beſt and whiteſt of which come from *Angola*, *Ceilon*, and other Parts of the *Eaſt-Indies*. The Trade of Ivory, or *Elephants* Teeth, is very great in *France*, as well as *England*, for many Purpoſes. There is a Spirit and volatile Salt made from it, by the Retort, which is highly eſteemed in Diſeaſes of the Heart and Brain. The Shavings of Ivory are uſed with thoſe of Hartſhorn in Ptiſans: they are cooling, drying, and aſtringent, a peſtilential Antidote, moderately binding, and ſtrengthening the Bowels. Take Filings, or Raſpings of Ivory, half a Dram; Powder of Man's Skull, Bezoar Mineral, of each fifteen Grains; mix them for a Doſe in the Epilepſy, or any malignant Fever. Mixed with *Japan* Earth, and Jeſuits Bark, it is good for the *Fluor Albus*, Bloody Flux, Weakneſs of the Back, *&c.* Likewiſe Cochineal and Saffron being added, it becomes an excellent Cordial.

Ivory Black is made of burnt Ivory, that is taken from the Fire whilſt it retains its Blackneſs, is then pounded, and with Water made into little flat Cakes or Troches for the Painters, which, when good, ought to be very finely ground, ſoft, and brittle. The Apothecaries, or others, who diſtil Ivory by the Retort, inſtead of throwing the burnt Ivory that remains in the Retort away, may pound it, and make it into little Cakes, or Troches, as I have ſaid before, and then ſell it to thoſe who buy Ivory Black, or elſe put it upon a good Coal Fire, to reduce it to a white Powder, which is called *Spodium*, or burnt Ivory.

Spodium, or Ivory calcined to a Whiteneſs, is alſo Ivory burnt for the Purpoſe, that it may be ſerviceable in Medicine. The beſt is that which is white within and without, heavy, eaſy to break, in fine Pieces, the leaſt full of Dirt and Filth that may be. They reduce this to an impalpable Powder, upon a Marble, and make it into little Cakes or Lumps, and this is what we call prepared *Spodium* of Ivory. The ſame Virtues are attributed to this, as to Coral and other Alkali's. The Antients, beſides Ivory, burnt Canes or Reeds; and the Canes thus reduced to Aſhes, were alſo called *Spodium* or *Antiſpodium*. The Ivory *Spodium* ſtrengthens the vital Parts, reſiſts malignant Fevers, prevent Miscarriages in Women, helps Conception, cures Vapours and Fits, and likewiſe kills Worms in Children.

The *Rhinoceros* is a four-footed Animal, of the Size of a Bull, whoſe Body reſembles moſt the wild Boar. He is ſo called, becauſe of the Horn that grows out of his Snout, which is black, about a Foot and a half long, hard, pyramidal, ſolid; the Point or Tip whereof turns up again towards the Crown of the Head. This Animal is covered all over with ſtrong Scales. In like manner the Legs are ſcaled to the Hoofs, which are parted into four diſtinct Claws.

This Animal is an Enemy to the *Elephant*, and, in fighting with him, fixes his Horn in the ſoft Part of the *Elephant's* Belly; for which Cauſe it is ſaid that an *Elephant* will run from him. When they fight they whet their Horn before-hand againſt Stones. They are not fierce againſt Mankind without great Provocations. The Cry is like the Grunting of a Hog. The *Indians* make Bottles of their Skins to put Liquors in. The Powder being

being infuſed in Wine, or taken by itſelf to a Scruple, is good againſt malignant Diſeaſes. The Horn, which is chiefly uſed as the Unicorn's, is ſaid to be good againſt all contagious and malignant Fevers; for being a high Alkali, both fixed and volatile, it encounters and deſtroys the malignant Acids, which ſtir up and influence the moſt pernious Diſeaſes. It is reckoned a ſingular Sudorifick.

Elephas, ſive Elephantus, is a Quadruped, eſteemed the biggeſt in the World, of a monſtrous Shape: The Head is great and deformed; the Mouth ſo large, that a Man's Head may as eaſily enter into it, as a Finger into the Mouth of a Dog: Their Eyes are really large in themſelves, but appear ſmall in Compariſon, and their Ears little, in Proportion to the reſt of the Body, not much unlike the Wings of a Bat. The Teeth on either Side are four, to eat with and grind their Food, with two others, one on each Side, which hang forth beyond the reſt. It has a Trunk at the End of the Snout, called *Proboſcis, ſeu Tuba, ſeu Manus Naſuta*, which is a large hollow thing, hanging from his Noſe, like Skin, downwards, ſerving inſtead of a Hand. When he feeds, it lies open to draw in both his Meat and Drink; by this he receives of his Keeper whatever he gives him, and in Swimming draws through it his Breath. It is crooked, griſtly, and inflexible at the Root, next the Noſe, where it has two Paſſages, one into the Head and Body, by which the *Elephant* breathes, the other into the Mouth, by which he receives his Meat. With this he fights in War, and is able to take up a ſmall Piece of Money from the Ground, or any other Place; with this he can draw up a great Quantity of Water, and ſhoot it out, to the annoying of his Enemy. *Lemery.*

He is ſaid to have four *Venters*, and Lungs four Times as big as an Ox. His genital Member is like that of a Horſe, but leſs; and the Teſticles lie inward about the Reins. The fore Legs are much longer than the hind Legs, of ſhort Joints, and of equal Bigneſs both above and beneath the Knees; the Ancle-Bones are very low; he bends his hind Legs as a Man when he ſits, but not both together, and ſo leaning on one Side, ſleeps moſt commonly againſt a Tree. Their Feet are round like Horſes, and as broad as a Buſhel, having five diſtinct Toes upon each Foot, which are very little cloven, but without Nails. They are for the moſt part of a Mouſe Colour, or darkiſh Brown. The Skin is harder on the Back, and ſofter on the Belly, without any Covering of Hair or Briſtles, unleſs here and there one ſcatteringly: It is ſo tough, that a ſharp Sword or Iron cannot pierce it. The Tail is like an Ox's, but without Hair, except at the End. The Sound or Noiſe they utter has the moſt Reſemblance to braying, and ſeems as if always hoarſe.

The *Rhinoceros*, called ſo from carrying his Horn upon his Noſe, is a large four-footed Animal, that looks as if he was ſomething of the Boar Kind, only that he is much larger, and more lubberly and dull. His Head is thick, and encloſed in a ſort of flat Cowl, for which Reaſon, according to the Rev. Father *Le Comte's* Memoirs of *China*, the *Portugueſe* have given him the Name of *Moine des Indes*, or the *Indian* Monk. By reaſon of his Horn ſo advantageouſly placed, he becomes formidable to the Buffiers, Tigers, and Elephants, which he engages ſometimes. This Animal is found in the Deſarts of *Africa*, in *Aſia*, at *Siam*, and in *China*, where they feed upon the Branches of hairy and prickly Shrubs and Trees. The Horns, the Nails, and Blood, are all uſed in Medicine, containing in them a good deal of volatile Salt and Oil. They are uſeful to reſiſt Poiſon, ſtrengthen and fortify the Heart, procure Sweat, ſtop Fluxes of the Belly, and are good againſt all contagious Diſeaſes. The Doſe is from a Scruple or two, either in Infuſion or Powder, which drunk in Wine, purifies the Blood, and is a good Preſervative againſt infectious Air.

[Ivory is the Tuſks of the Elephant, *Elephas*, *Raii Syn. Animal.* 131, *&c.* The beſt Ivory we have is from the Iſland of *Ceylon*. The Shavings of it boil into a Jelly like thoſe of Hartſhorn, and have the ſame Virtues; and the *Spodium ex Ebore* is now never made, becauſe the burnt Hartſhorn is found to be the ſame Thing, in regard to all its Virtues.

The *Rhinoceros* I have already had occaſion to ſpeak of, in the Chapter of the *Unicorn*.]

9. *Of the* Camel.

THE *Camel* is a gentle domeſtick Animal, whereof there are great Numbers throughout all *Africa*, and particularly in *Barbary*, and the Deſarts of *Getulia* and *Libya*, and they are the greateſt Riches of the *Arabs*. Thoſe of *Africa* are better than the other, becauſe they will travel forty or fifty Days together upon Barley only, and ten or twelve without eating or drinking at all. The Female carries her Young eleven Months. When the *Camels* travel in the Caravan, the Drivers of them whiſtle and ſing; for the more they encourage and pleaſe theſe Animals, the better they march. Their Food is Graſs, Hay, Thiſtles, Barley, Oats, Ruſhes, and Herbs. *Pomet.*

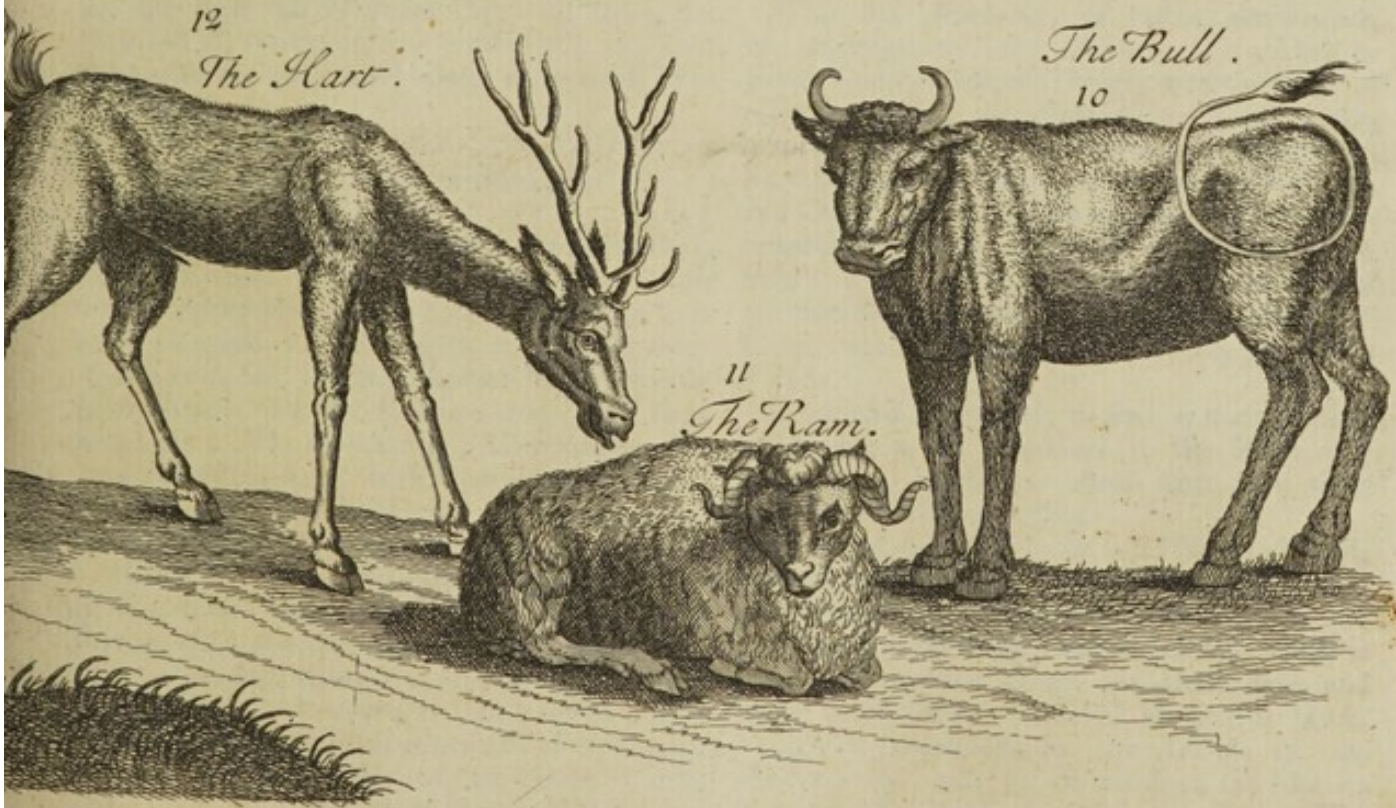
There

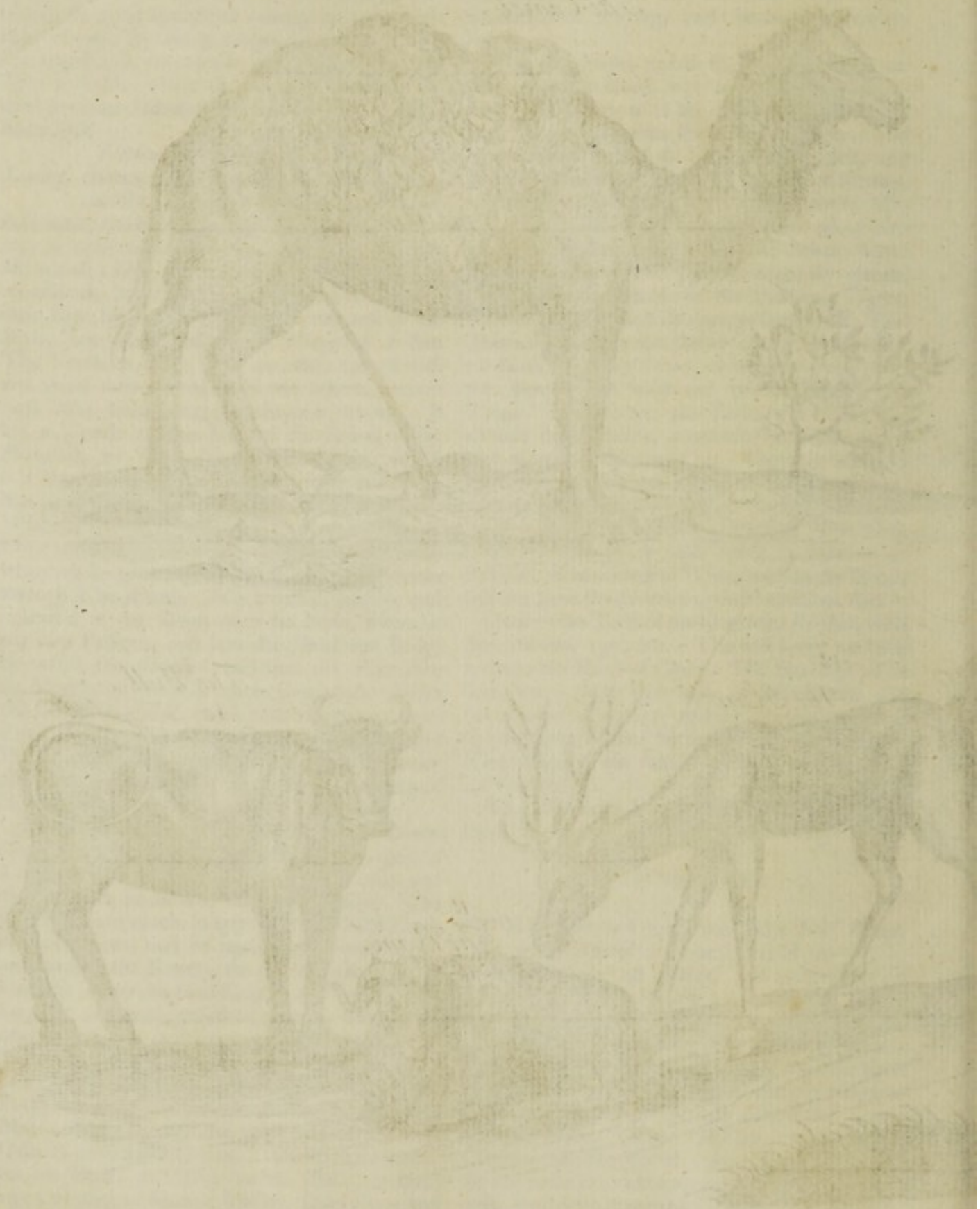
The Camel. 9

12
The Hart.

The Bull.
10

11
The Ram.





There are three Kinds of *Camels*; thoſe called *Hegin* are the biggeſt, and will carry a thouſand Weight. The ſecond Kind are what they call the *Bechet*, that have two Bunches on their Back, and are the beſt to ride upon; but theſe are only to be met with in *Aſia*. The third they call *Dromedaries*, which are the ſmalleſt and fineſt, and fit for no other Uſe but riding upon, and are ſo ſwift, that they will travel thirty five or forty Leagues a Day, and continue ſo to do nine or ten Days, through the Deſarts, with litt'e or no Suſtenance.

When theſe Animals are to be loaded, they ſtrike them over the Knees and upon the Neck with a Stick, and they kneel upon the Ground to receive their Burden; and when they are loaded, upon the Sign being given, they riſe preſently with it. Theſe Creatures bear Hunger and Thirſt with great Patience. Some ſay they carry Water in their Stomachs a long time to cool them, by means of their large Ventricle, about which they find a conſiderable Number of Bags incloſed in the Tunicles or Coats thereof, in which it appears theſe Animals keep Water in reſerve. And hence it is that ſome Perſons affirm, that when the *Turks* go with the Caravan, to *Meccha*, and Water is ſcarce, they kill their *Camels*, to drink the Water they have in their Stomachs. It is from theſe Animals we have the Hair that is called by their Names, and of which ſeveral fine Stuffs are made; the beſt of which is that on the Back, and the leaſt full of white Hair: In ſhort, the *Camel* of all Animals is the moſt gentle, the leaſt chargeable to keep, and brings the greateſt Profit to his Owner.

Of natural Sal Ammoniack.

Sal Armoniack, or rather *Natural Ammoniack*, is a Salt white within and without, of a ſaltiſh Taſte, pretty like common Salt, only that it is more pungent. It uſed to be brought us from *Arabia* or *Lybia*; but at preſent we have very little from thence, but the *Venetians* and *Dutch* have found out a Way of making a Compoſition that near reſembles it in its Virtues; there is however a great deal of Difference in the Figure betwixt the natural and artificial.

When the *Turks*, and other People of *Aſia* or *Africa*, travel with their Caravans, their *Camels*, paſſing thro' the Deſarts, urine upon the Sands; and the Sun ſhining fierce on the Urine, fails not to dry it up, and reduce it into a white Maſs; the Truth of which I am convinced of by a Piece which Mr. *Tournefort* gave me the 6th of *March*, 1693, whoſe Figure is here repreſented, and marked A, and which I keep by me as a great Rarity. This Piece is cryſtallized; that is to ſay, it appears on the Top like Needles, as Salt Petre refined, and is hollow on the under Side, where there is alſo ſome Sand ſticking to it, which ſhews that the Salt is ſublimed by means of the Sun, and riſes up from the Sands, that are very hot.

The Antients univerſally agreed, that there was a natural *Sal Ammoniack*; that this Salt was found in the *Lybian* Sands, and that it was made from the Camels Urine which travelled to the Temple of *Jupiter Ammon*, from whence it took its Name: And others ſay that it comes from the *Greek* Word *Ammi*, which ſignifies Sand; and therefore we ought not, as is commonly done, to call it *Armoniack*, but *Ammoniack*. There is beſides this, another natural *Ammoniack*, or rather more properly ſpeaking, an artificial one, which is made after the ſame Manner as we make *Salt Petre*. It is, drawn from a kind of Earth, or ſaltiſh Scum, that ouzes out of old Caverns, and the Chinks of Rocks, betwixt *Labor*, *Thanuſſeri*, and *Tzerbint*. But as theſe two Salts are almoſt unknown to us, and we meet with but very little if any of them, we muſt content ourſelves with that brought from *Venice* or *Holland*; but the laſt is chiefly what comes to *Paris*, eſpecially in Time of Peace.

Of artificial Sal Armoniack.

This *Sal Armoniack*, or rather *Acrimoniack*, or, according to ſome, *Acrimonial*, is a Maſs or Compoſition of ſeveral Things, made in Shape of a Pot-lid, which the *Venetians* or *Dutch* make, according to the Relation of ſeveral Authors, from human or animal Urine, common, or Sea Salt, and Chimney Soot, boiled all together, and ſublimed into a Salt, and formed into Cakes, as we have it now brought to us. Some have aſſured me that *Sal Armoniack* was likewiſe compoſed of Blood, which I cannot affirm, having never ſeen it done.

They uſed heretofore, to ſend us from *Holland* and *Venice*, a *Sal Armoniack* in the Shape of a Sugar Loaf, which was much finer than what we have in Cakes at preſent.

That *Sal Armoniack* is the beſt which is cleareſt, whiteſt, and moſt tranſparent, and which being broke, there appear in it as it were Needles, and that which is the drieſt; but reject that which is black both on the Upper and Under-ſide, and which being broke, is almoſt all grey or black. Which is occaſioned by the Avarice of the Makers, who raiſe up too much of the Matters it is compoſed of, by too violent a Fire. That

which comes from *Venice* is the pureſt; but that from *Antwerp* and *Holland* is the moſt common Sort. The Uſe of it is very conſiderable for ſeveral Trades, beſides the many excellent Preparations made from it in Chymiſtry. It ſerves the Dyers, Goldſmiths, Founders, Pin-makers, and almoſt all that work in Metals, and the Farriers. And it is ſo acrid and piercing, that being diſſolved in *Aqua fortis* or Spirit of *Nitre*, it gives them a Power of diſſolving Gold, which before they could not touch.

It is aperative and ſudorifick, reſiſts Putrefaction, and is good in Quartan Agues: the Doſe is from a Scruple to half a Drachm. It is alſo good in Gargariſms, for the Quinſey, and in Eye-waters for Dimneſs of Sight; but in theſe Caſes it muſt be uſed with Diſcretion.

In the Sublimation of this artificial Salt, according to the Compoſition mentioned before, the volatile alkalious Salts of the Urine and Soot do raiſe up as much of the Acid, or Sea Salt, as they can hold; ſo that it appears this Salt conſiſts of two different Natures and Properties, to wit, of Acid and Alkali, fixed and volatile, and accordingly two different Spirits, or Salts, may be drawn from it, *viz.* a volatile alkalious Spirit and Salt, and an acid Spirit and fixed Salt.

To purify Sal Armoniack.

Diſſolve it in a ſufficient Quantity of Water, filterate the Diſſolution, and in a Glaſs Veſſel either evaporate till it is dry, by which you will have a pure white Salt, or evaporate till a Pellicle ariſes; and ſet it to cryſtallize according to the uſual Way. You may alſo purify *Sal Armoniack* by Sublimation, thus: Take *Sal Armoniack* in Powder, and Sea Salt decrepitated, or rather Smiths Scales; of each equal Parts, mix them, and put the Mixture into an earthen Cucurbit; and having placed it in Sand, fit to it a blind Head; give a gentle Fire at firſt, and encreaſe it by little and little, until you can ſee the *Sal Armoniack* riſe up like Meal, and ſtick to the Head and uppermoſt Part of the Cucurbit, and continue the Fire till nothing more will aſcend: The Veſſel being cold, gather theſe Flowers with a Feather, and keep them in a Glaſs cloſe ſtopped. They are only *Sal Armoniack*, and their Virtues the ſame with the former, being given only to one Scruple. Thus purified from Sea-Salt, the Flowers are white; but from Iron Scales they are of a yellowiſh Colour; the latter being much the better, and more ſucceſsful againſt Quartans; and both of them are very powerful Agents in all chymical Operations, for extracting the Sulphurs of Metals and Minerals, both by the Help of Sublimation, and otherwiſe. This *Sal Armoniack* purified, is alſo uſed outwardly againſt Gangrenes, and to conſume ſuperfluous and corrupted Fleſh. It prevails in a Gargariſm againſt the Quinſey and Inflammation of the Throat, and in a Bath it gives Relief in the Gout, eſpecially if Cloths be made wet therewith and applied.

Of volatile Spirit of Sal Armoniack.

Take *Sal Armoniack* and quick Lime in Powder, ſix Ounces of the firſt, and one Pound of the latter; mix them in an Iron Mortar; add three or four Ounces of Water; put them quickly into a Retort, the half whereof is empty; ſet it in a Sand Furnace, with a very large Receiver, luting the Junctures cloſe; begin the Diſtillation without Fire for a quarter of an Hour; then add the Fire, increaſing it by little and little, till no more Spirits come forth. Take off the Receiver, and immediately turning away your Noſe, put the Spirits into a Glaſs, which keep cloſe ſtopt for Uſe; you will have four Ounces of Spirit or better. This is ſtronger than that made with Tartar, being endowed with the fiery Particles of the quick Lime; which being mixed with Spirit of Wine, prevents the coagulating; whereas that made with Tartar will cauſe a *Coagulum* upon the Spot. This Spirit prepared either Way, corrects and hinders Putrefaction, more than moſt other Things in the World; and powerfully reſiſts the Poiſon or Venom of the Plague or Peſtilence; and is very profitably given againſt all putrid Fevers. The volatile Spirit and Salt are more ſubtle and penetrating, and of a kinder Taſte and Smell than thoſe which have been extracted out of plain Urine, becauſe they were not fermented and depurated by common Salt. This Spirit is good in all hypochondriacal Caſes, Suffocation of the Womb, *&c.* but chiefly againſt Diſeaſes of the Head; as Vertigo, Lethargy, Epilepſy, Deafneſs, Palſy, Trembling, and the like. In a word, it is good in all Diſeaſes proceeding from Corruption, or Obſtruction of Humours.

Of the acid Spirit, and fixed Salt *of* Armoniack.

After the Spirit is drawn off with Tartar, inſtead of Lime, there remains at the Bottom of the Veſſel ſeven Ounces, and better, of a white fixed Maſs, from which you may diſtil an acid Spirit, as you do Spirit of Salt; for indeed it is a Kind of Spirit of Salt or little other; otherwiſe you may diſſolve it in Water, filtre and cryſtallize, ſo will you have a very good Salt againſt intermitting

termitting Fevers, given from ten Grains to thirty. This is as agreeable an Acid as any we have; and is very proper to allay the Heat of Fevers, to provoke Urine, and ſtop the too violent Fermentations of the Blood. There is another Way of making the fixed Salt, by the Means of Egg-Shells, or quick Lime, which they reduce with the former Maſs, into a clear tranſparent Body, like Chryſtal, which is a very good Cauſtick, but eaſily runs to Water; for which Reaſon, thoſe who are deſirous to keep it, put it in a Glaſs Bottle well ſtopped, ſo that no Air can enter. This fixed *Sal Armoniack* being reduced into a Liquor, is what ſome call, tho' improperly, Oil of *Sal Armoniack*; and is indeed an Oil *per deliquium*, which ſeveral Perſons keep for the Reſuſcitation of Quick-Silver.

Lemery.

Camelus, or the *Camel*, is a very tall tractable Beaſt, that is of mighty Service to all the People of *Aſia* and *Africa*. His Neck is long, the Body very thick and broad, having a Bunch on his Back, and ſome Kinds two. The Tail is like that of an Aſs; his Buttocks are ſmall, conſidering the Bulk of his Body, and the Legs very long. The Female goes with Young eleven, and ſometimes twelve Months; and when the young Ones arrive at an Age and Size fit for Service, they load them with Burdens as we do Horſes in *Europe*. But as this Animal is very high, ſo that it is difficult to load them, they are taught, while young, to kneel down upon their Knees to receive their Burdens; and this is the Reaſon that they become, in Time, ſo callous and hard, that they have ſcarce the Senſe of Feeling on that Part.

Theſe Camels are the uſefulleſt Creatures in *Africa*. The *Arabs* make great Advantages of them, becauſe they will live hard, and endure both Hunger and Thirſt with much Eaſe, and wonderful Patience. Theſe Beaſts are great Lovers of Singing, and other Muſick; ſo that thoſe who travel long Journeys with them, ſing or pipe all the Way to make them go the faſter and more chearfully. There are three Sorts of them; the firſt, or largeſt ſized, is called *Hugium*; the ſecond, more peculiar to *Aſia*, is named *Becheti*; and the third is *Dromas ſive Dromedarius*, the *Dromedary*, which the *Arabs* call *Raguahil*; and is a ſmall, thin, lean Creature, in reſpect of the others.

All the Parts of the *Camel* yield a great deal of volatile Salt and Oil; the Fleſh being eat, provokes to Urine; the Greaſe or Fat is emollient, ſoftening, and reſolutive, proper for the Piles or Hemorrhoids: The Brain being dried and beat to Powder, is good for the Epilepſy. The Gall mixed with Honey, is reckoned proper for the Quinſey; the Milk looſens the Belly, procures an Appetite, relieves and gives Eaſe in an *Aſthma*. The Blood is ſaid to be proper to incline Women to conceive, if the Region of the Womb be fomented therewith after the menſtrual Flux. The Urine is good to cleanſe the Teeth, and make *Sal Armoniack* of. The Dung is vulnerary and deterſive, and the Milk and Fleſh good to eat, ſo that the *Arabs* feed upon them.

[The *Camel* uſed as a Beaſt of Burthen in the *Eaſt*, is the *Camelus*. *Jonſ. de Quad.* 67. In regard to this Creature and the *Dromedary*, it may be obſerved, that Authors have been very much divided in their Opinion about which of them it is that has two, and which but one Bunch on its Back: But the Truth certainly is, that the *Camel* common in *Aſia* and *Africa*, and conſtantly uſed there as a Beaſt of Burthen, has only one Bunch; and that the *Dromedary*, which is a very ſcarce Animal, and only found in the Poſſeſſion of great Perſons, has two Bunches on his Back, and is never uſed otherwiſe than as a Beaſt to ride on, as it is light, and travels very ſwiftly.

The Blood, Gall, Dung, and Urine of the *Camel*, are all commended as great Medicines in ſeveral Intentions, but are never uſed at preſent, except in the Share the two laſt of them have in the *Egyptian Sal Armoniack*.

In regard to the *Sal Armoniack*, the true natural *Libyan* Kind, ſaid to be produced by the Action of the Sun upon the *Camel's* Urine on the Sands, is now wholly unknown among us, nor can we any where find a certain Proof that there ever was ſuch a Thing; for what the Antients deſcribe under this Name, was a foſſile Salt of the Nature of *Sal Gemm*. But however that be, we have at preſent three Kinds of crude *Sal Armoniack* in the Shops, the common, the *Egyptian*, and the *Italian*, of which the firſt is almoſt the only kind now uſed, and kept by the Druggiſts. The firſt or common *Sal Armoniack* is made at *Venice*, in *Holland*, and in other Places, with five Parts of human Urine, one Part of common Sea Salt, and half that of Wood Soot, boiled into a Maſs, and ſublimed into the Form we ſee. The ſecond is brought from *Grand Cairo* and other Parts of *Egypt*, and is made with the Soot of *Camels*, Cows, and Pigeons Dung (which is the common Fewel of the poorer People of *Egypt*, when made up into Cakes with chopt Straw and dried) mixed with Salt, and *Camels* Urine, and ſublimed into flat Cakes in Glaſs Veſſels made for that Uſe: And the third, or *Italian Sal Armoniack*, is formed by the Soot and Smoak of burning Mountains; and gathered from the Rocks about *Puteoli*. This

is the only Kind of this Sort that can with any Juſtice be called a native or natural *Sal Armoniack*. We have, beſide theſe, a *Sal Armoniack* in Cakes like Sugar Loaves, brought to us from many Parts of the *Eaſt-Indies*, but as there is very little Difference between this and the *Egyptian* Kind, I forbore to name it as a fourth Sort.]

10. *Of the* Bull, *&c.*

Pomet. THE *Bull*, *Ox*, and *Sheep*, are Animals ſo well known to all the World, that it would be uſeleſs to give a Deſcription of them. There is ſometimes found in the Gall Bladder of Oxen, a Stone of the Colour and Shape of the Yolk of an Egg, that is ſoft, and of divers Cruſts like the Bezoar; for which Reaſon it is called the *Ox Bezoar*, or the Gall-Stone, which if good ought to be high-coloured and well-dried; for if they are purchaſed when taken freſh from the Animal, they waſte conſiderably in drying. Sometimes this Stone is ſold pretty dear, eſpecially if it falls into the Hands of Perſons who know it's Value. The greateſt Uſe that is made of it is for painting in Miniature, as they uſe Gamboge. The ſame Virtues are aſcribed to this as to *Bezoar*. But as this Stone is to be met with at home, it makes it not ſo much valued as *Oriental Bezoar*. We likewiſe ſometimes meet with a Cartilage in the Heart of an *Ox*, like that of a Stag, to which they give the Name of the Bone in the Heart of the Ox, which is now and then uſed in Phyſick, inſtead of that in the Stag's Heart, tho' improperly.

By the burning of Beef Bones, there is a Black made, called *Bone Black*; it ought to be fine, brittle, ſhining, and well ground; its Uſe is for Painting. There is a Glue made of the Cartilages, *&c.* well boiled in Water, which is caſt into Moulds, and afterwards ſpread out and dried. This is then called *Bulls* Glue, or ſtrong Glue, of which they make a conſiderable Trade in *France*, eſpecially of that made in *England* or *Flanders*.

The ſtrong *Engliſh* Glue ought to be choſe well boiled, dry, clear, and tranſparent, of a reddiſh brown, eaſy to break with the Fiſt, not gravelly or foul, but the ſmootheſt and neateſt that can be had; rejecting ſuch as when melted ſtinks much; as all the ſtrong Glues that are made at *Paris*, or thereabout, do, which are leſs valued for any Kind of Works, than that which is brought from *England*. The *Flanders* Glue ought to have the ſame Qualities with the former; but is not ſo much boiled; they uſe this Glue for Hat-making, it ſerving them better than that of *England*, as well as to paint in Water Colours.

The *Weſt-India* Company in *France* bring, eſpecially to *Roüen*, a great Quantity of Ox Hides from *Barbary*, of which the Merchants of *Roüen* make a conſiderable Buſineſs, tho' at *Paris* they ſell but few. The greateſt Share comes from *Senegal*, with the Gum and Gold Duſt. As the Merchants of *Roüen* are obliged to give Credit for three Years to the Tanners, if by Accident any Tanner come to fail or die, and that the Succeſſor of him is not able to pay for his Goods, the Merchant is permitted to open his Tan-Pits, and withdraw his Merchandize. Beſides theſe, we ſell many other things had from the Bull, as Ox-Hides from *Hungary*. The beſt are the whiteſt, and the true *Hungarian*, becauſe they are much better than thoſe which are wrought in *France*. Likewiſe *Engliſh* Calf-Skins, and others without Hair, which come from ſeveral Parts, as alſo Flocks and Beaſts Hair. And beſide all theſe we trade in Beef-Suet, from *Ireland*, which ought to be new and white.

Bos, in *Engliſh* the *Bull*, *Ox*, or *Cow*, are ſluggiſh, horned Beaſts, which chew the Cud, and cleave the Hoof; the Horns of the Bull are ſhort, of the Ox very large. It is a Beaſt generally known, differing much in Shape, Size, Horns, and Colour, according to the Variety of Countries where brought forth. They yield from every Part a great deal of Oil and volatile Salt. The Fleſh of the Bull is coarſe and tough to that of the Ox. The Cow's Fleſh, if fat, is good Meat; but if old and lean, it is not eatable. The young Bullock's Fleſh is fine, but much inferior to the Ox's. Veal is a pleaſant Meat, eaſy of Digeſtion, looſens the Body, and heals the Bowels in a Bloody-Flux.

Lemery.

The Blood drunk warm is ſaid to cure the Epilepſy; beſmeared upon the Skin warm, it takes away all Foulneſs; and is alſo good againſt the Gout and other Pains. The Fat is emollient, and is uſed in Balſams, Ointments, and Plaiſters. It eaſes Pains proceeding from Colds; cures Kibes and Chilblains, and heals the chapping of the Hands, Lips, Nipples, Fundament, *&c.* The chymical Oil is good againſt the Gout, Palſies, Numbneſs, Contractions of the Nerves and Muſcles, Lameneſs, *&c.* The Marrow is of the ſame Effects, but much finer. The Horns are alexipharmac, and by ſome called the *Engliſh Bezoar*; the Powder raſped from the Horn much exceeding the trueſt and beſt *Oriental Bezoar*. Moreover, it is of ſingular Uſe in the Falling-Sickneſs, Fits of the Mother, Convulſions, Palſies, Lethargies, *&c.* The Hoofs and the volatile Salt thereof are

are Specificks for all the Diſeaſes the Horns are ſaid to be good againſt.

The Gall, mixed with the Marrow and Fat of a Hen, and dropt into the Ears, eaſes their Pain. That of a Bull is ſharper and ſtronger than of an Ox or Cow; and mixed with Honey is a good Vulnerary, and cures almoſt all Diſeaſes of the Eyes, if curable. There is no better Eye-ſalve than it is. By itſelf it is a good *Collyry* againſt Blood-ſhot, Clouds, Films, Haws, or Pearls in the Eyes. Mixt with *Myrrh* and *Aloes*, it cures Ulcers of the Penis and other Parts, as alſo the Piles. Mixt with Nitre, it removes Scurf and Leproſy. The Dung is temperate, diſcuſſive, anodyne, *&c.* The Urine drank, cures the worſt Kind of Jaundice and Dropſy, by provoking to Urine; the volatile Salt and Spirit, are powerful Openers of Obſtructions. They find ſometimes in the Stomach of an Ox or Cow, a Sort of large Ball like a ſmall Apple, of a round Figure, a little flattiſh, having uſually towards the Middle a round Hole, wherein one may put one's little Finger; it is of a reddiſh grey Colour. This Ball is made of the Hairs which the Ox or Cow licks off herſelf, and which, in Proceſs of Time, ſtick one upon another 'till they are collected into a Maſs. It is reckoned proper to ſtop the Hemorrhoids and other Fluxes; the Doſe being from half a Scruple to half a Drachm, powdered and taken inwardly. It is likewiſe uſed externally, like Spunge, to deterge and dry up Wounds.

There is another Kind of this Creature, called a *Biſon*, which is but a wild Cow, Bull, or Ox, breeding in *Scythia*, *Muſcovy*, and *Scotland*; but thoſe in *Scotland* are white. It is called *Vacca Pæonica* in *Latin*; in *Greek*, *Biſon*. They differ nothing from the common Cow or Ox, ſave that their Mane is like a Lion's; and they have a Beard under their Chin, being much larger than thoſe which are common with us: Thoſe in *Scotland* are of a leſſer Kind, where they were once in vaſt Numbers, but are now moſtly deſtroyed. Their Fleſh, and all their other Parts, are equal in Goodneſs with the common Sort before treated of.

To the *Biſon* we will add the *Urus*, called in *Engliſh*, the *Ure-Ox*, or *Cow*, but unknown to the *Greeks*. Theſe alſo are a Kind of wild Oxen or Cows, differing little or nothing from our common Ox or Bull, ſave in their Magnitude or Stature, coming near to the Bigneſs of an Elephant; when grown up they are a wild untameable Creature, nor can they be made ſociable like ours, unleſs they be taken when Calves, and brought up young. They breed in the Woods of *Hercynia*, in the *Pyrenean* Mountains, in *Pruſſia*, *&c.* where the are ſaid to be ſo wild, cruel, and untameable, that they neither fear or ſpare Man or Beaſt. Their Largeneſs and Strength is incredible. Their Goodneſs for Food, and Virtue of their Fleſh, Milk, Hides, Horns, and other Parts, as alſo the Fleſh of their Calves, differ nothing from our tame ones, nor is their Beef any ways inferior to ours, but is only of a larger Kind.

[There is hardly any Part of this Animal which has not at one Time or other been celebrated for its medicinal Virtues; but what are principally uſed now, are the Gall, which mixt with the Powder of Colocynth, and applyed as a Plaiſter to the Belly, is ſaid to purge and deſtroy Worms; and the Oil of the Feet, which is an Ingredient in the Ointment of Marſh-mallows.]

11. *Of the* Ram, *or* Sheep.

SHEEP are one of the moſt neceſſary Animals for the Uſe of Mankind, *Pomet.* and therefore bred in moſt Nations of the World, though the Difference of Climate makes ſome Difference in their Colour and Shape. The Sheep of *Greece* are leſs than the Sheep of *Ægypt*, and the *Oves Pyrrhicæ* were like Oxen, by Reaſon of their exceeding Largeneſs, their Name being derived from *Pyrrhus* their Maſter. The Sheep of *Chios* are very ſmall, and the Rams of *India* not much bigger than our Lambs. In *Spain* their beſt Sheep have black Fleeces, and all their Sheep bear exceeding fine Wool. Near the *Alps* they are grey, or Honey-coloured. In *Aſia*, *Bætica*, and *Erythræa*, red like Foxes. At *Canuſium* they are yellow, or Lion Tawny: And ſo alſo at *Tarentum*. In *Iſtria* and *Liburnia* the Sheep bear Wool ſo coarſe, that it may rather be accounted Hair than Wool. The Sheep of *Apulia* gave the Name of *Lana Italica* to a Kind of excellent Wool; yet it was ſhort and coarſe, good for nothing but to make Garments to ride in, and to wear in rainy Weather. The *French* Sheep are not of the beſt Kind; but the *Flemiſh* have a fine, ſoft, curled Wool; ſo alſo have the Sheep of *Mileum*, *Attica*, and *Gadilonea*. Thoſe in *Pontius* and *Cappadocia* coarſer. In *Scotland* the Sheep bear good Wool; but that of the *Engliſh* Sheep excels, in Softneſs and Fineneſs, all other Wool in the World, except the *Spaniſh* Wool; and yet the *Spaniards* had the Sheep which bears that ſuperfine Wool firſt from *England*. In *Æthiopia* the Sheep bear no Wool at all, but Hair like Camels Hair. In *Gortynis* the Sheep are red, and have four Horns. In ſome Parts of *India* both Sheep and Goats are as big as Aſſes, and bring often four Lambs at a Time, never leſs than three.

three. The *Arabian* Sheep are in Size, Figure, and Colour, like the *Engliſh* Sheep; but there are two Sorts amongſt them that are diſtinguiſhed by the Length and Breadth of their Tails, being ſo extravagant both Ways, that the Sheep cannot move from one Place to another without Aſſiſtance.

Beſides the common Sort of Sheep, there are two Kinds of wild Sheep, the *Muſmon* and the *Subus*. The *Muſmon* is not unlike a common Sheep, except in its Wool, which ſeems to be rather the Hair of a Goat, being the ſame which the Antients called *Oves Umbricæ*, the *Umbrian Sheep*. Some will have this to be a Kind of wild Goat, which it does not ſo much reſemble, for it wants the Goat's Beard, and its Horns are abſolutely like Rams Horns. They are bred in *Corſica*, *Sardinia*, and *Spain*; and are ſaid to be got between a Ram and a She-Goat, as the *Cinyrus* is between an He-Goat and a Ewe. The Form of the *Muſmon* is much like a Ram; his Horns grow from his Head like a Ram's, and bend backwards almoſt to his Ears; it is exceeding ſwift of Foot, not much inferior to the ſwifteſt Beaſt. The Skins of them are ſo thick, that in the Place where they are bred, they are uſed for Breaſt-Plates. Theſe Sheep live on the Mountains, and are admirable Meat, but are ſcarcely found any where now but in *Sardinia*.

The *Subus* is a Kind of wild, or rather Water-Sheep, of an amphibious Nature, living both on the Land and in the Water; he eats Fiſh, but tarries no longer in the Water than 'till his Belly is full. This Sheep is of a bright yellow Colour, like thoſe of *Crete*, but its Wool is not ſo rough. It has two large Horns upon its Forehead, ſwims well, and is very greedy after Blood. Thus much of the wild Kind, and ſuch as are not common; we ſhall now return to thoſe that are ſo.

The Sheep is the mildeſt and moſt inoffenſive of all the Creatures upon Earth, of which there is no Part but what is profitable and uſeful to Mankind: The Fleſh, Blood, and Milk are for Food; the Skin and Wool both together, and apart for Cloathing: The Bones for making of Teſts or Coppels to melt Gold in; the Guts for Inſtruments of Muſick and Bow-ſtrings; the Horns and Hoofs for Trumpets, and other little Toys, beſides their phyſical Uſe, and the Dung for manuring of Land. Their Fleſh is the univerſal Food of *Europe*; and in ſome Countries they make Butter and Cheeſe of their Milk. As to their Wool, they are very profitable in all Nations, being ſhorn in the cold Countries once a Year; but in the hotter Countries twice a Year. In ſome Places they are never ſhorn; but according to the old Cuſtom, they pull the Wool from the Sheep's Back, whence the Name *Vellus*, a Fleece, is ſuppoſed to come *à Vellendo*, from pulling.

Having thus far given a Deſcription of this Animal, I ſhall now proceed to ſhew its medicinal Uſes. From the Horns is drawn a volatile Oil, Spirit, and Salt; which are efficacious againſt Diſeaſes of the Head, Brain, and Nerves; as Epilepſies, hyſterical Fits, Vapours, *&c.* From the Hoofs and Urine you may extract the ſame Preparations. The Dung is a prevalent Medicine againſt the Jaundice, Dropſy, Cholick, Pleuriſy, Spleen, Stone, Gravel, Scurvy, *&c.* taken either in Powder, Tincture, or Decoction. The Dung made into a Cataplaſm with Camphire, Sal Armoniack, and a little Wine, opens, digeſts, attenuates, and eaſes Pain. It is excellent in Abſceſſes about the Ears and other Emunctories, Swellings in Womens Breaſts, Pain of the Spleen and Gout.

The Skin, beſides its Uſes for Leather, Parchment, Size, *&c.* has ſome medicinal Uſes of conſiderable Moment. A Lambſkin, newly taken off and applied hot, is an admirable Thing to give Eaſe in Pain, ſtrengthen any weak Part, and cure a Bruiſe when newly received, as is alſo a ſtrong Decoction made of it in Claret, bathing in it as hot as can be endured, it will aſſwage Tumours, ſtrengthen weak Joints and Limbs, and reſtore a Waſting of the Parts, from an Atrophy or Conſumption; and ſome ſay it is powerful enough to remove a *Diabetes*.

The Tallow and Cawl ſerve for making Balſams, Ointments, and Emplaſters; and the Marrow is good againſt the Cholick, Gripings of the Guts, and Exulcerations of the ſame. The *Oeſiphus* is the Sweat of the Sheep condenſed upon the Wool, and making it greaſy. The People who waſh the Wool ſave it, and put it up in Barrels to ſend to different Places; moſt of what we ſell is brought from *Berry* and *Beauce* in *Normandy*, but the Demand for it is now grown very ſmall. It ought to be choſen new, of a middling Conſiſtence, for the longer it is kept the more it hardens, and will in Time come to the Conſiſtence of hard Soap; the Smell alſo ought to be tolerable, for there is ſome ſo ſtinking, that there is no coming near it. It ought to be of a greyiſh, or Mouſe Colour, and as clean as may be. In long keeping it acquires a perfumed Smell, as I have experienced. It is emollient, diſcutient, and anodyne, being uſeful againſt Contuſions, Strains, and Weakneſs of the Joints and Limbs. We alſo trade in Mutton Suet, eſpecially that of *Holland*, which ought to be of a clear white. The Guts being cleanſed, dried, and twiſted, ſerve for Strings to Bows and Inſtruments of Muſick. A

Jelly

Jelly made of Sheeps Feet, is prevalent in Conſumptions, Fluxes of the Bowels, Exulcerations, and the like.

There is great a Trade carried on throughout the World with Wool; and, amongſt the reſt, *Perſian* Wool is in great Vogue. The beſt of which is the ſofteſt, and leaſt full of long Hairs; but *Spaniſh* Wool is reckoned the fineſt and moſt ſaleable Commodity; of which there are theſe ſeveral Sorts: *Vigognia* and *Segovia* Wool the fineſt Sort, the ſmall *Segovia* and *Segewen Segovia* of *Caſtile*, &c. The ordinary Sort of *Navarre* and *Aragon*; the fineſt white Wool of *Sevil*, *Malaga*, and *Portugal*. Beſides theſe, there are the *German* Wools of *Roſtock*, *Stralſund*, and *Anclam*, *Newmark*, *Weydacker*, *Stetin*, *Thoorn*, *Dantzick*, *Pruſſia*, *Lunenburg*, and *Bremen*. The Wool that is produced in *Berry*, and the adjacent Parts of *France*, is the longeſt, and generally the coarſeſt in *Europe*.

[Almoſt every Part of the Sheep have, like thoſe of the Bull, been celebrated for ſome medicinal Virtue; but the preſent Practice takes very little Notice of any of them, except of the Suet as in an Ingredient in Ointments and Plaiſters.

The *Æſypus* is now hardly any where to be met with, though it has always held the Credit of a uſeful external Remedy, as indeed all Animal Fats may, with very good Reaſon, be ſuppoſed more ſubtile and penetrating, from the Share of volatile Salt they contain, than thoſe expreſſed from vegetable Subſtances.]

12. *Of the* Hart, *or* Deer.

Pomet. THE *Deer* is an Animal ſo well known every where, that it would be needleſs to give a Deſcription of it. I ſhall only inform you that there are three Kinds underſtood by this general Word *Deer*, viz. *Firſt*, The Hart and Hind, which are called in *England* the *Red Deer*; *Secondly*, The *Fallow-Deer*; and *Thirdly*, The *Roe-Buck* and *Doe*. All which are Animals of very long Lives, as may be ſeen by a Stag's Horn kept at the Caſtle of *Amboiſe*, of a prodigious Length, which teſtifies the extreme Age of the Creature that bore it. Some *French* Hiſtorians relate, that *Charles* the Sixth killed a *Deer* in the Foreſt of *Senlis*, which had a Golden Collar about his Neck, wherein were engraved theſe Words, *Hoc* Cæſar *me donavit*, Cæſar *gave me this*. This anſwers to a Story that paſſes in *England*, where it is reported, that King *James* the Firſt, in hunting, took a *Hart* with a Collar, having an Inſcription with *Julius Cæſar's* Name thereon. But as to the Longevity of the Creatures, antient Authors have been abundantly more profuſe in their Allowances than the Moderns; for it is affirmed by ſome of the former, as a poſitive Truth, that *Agathocles*, King of *Sicily*, hunting in *Calabria*, took a *Hart* with a Collar upon him, on which was written *Diomedes Dianæ*, which was ſuppoſed to be done before the Siege of *Troy*, which was a thouſand Years before his Time.

The red and fallow *Deer* are generally found in all Countries of *Europe*, and ſeveral Parts of *Aſia*, *Africa*, and *America*, in Parks, Woods, or Foreſts, feeding upon Graſs, Hay, Herbs, and Leaves of Shrubs and Trees. The *Roebuck* is bred chiefly in *America*, *Syria*, *Arabia*, *Greece*, and ſeveral Parts of *Africa*, in *Lycia*, *Italy*, *Spain*, the *Alps*, and *Germany*. It is obſervable, that the *Lycian Roes* never go over the *Syrian* Mountains; yet their Delight is wholly among Hills and Rocks.

As to the medicinal Uſes of the Parts of theſe Animals, they are in the main one and the ſame; and therefore in treating of them, we ſhall do it generally for all at once. The Horns are the principal Parts in Uſe, whereof there are many Remedies prepared; as the Raſpings, the calcined Powder, the Jelly of Harts-Horn, the Oil, Spirit, and volatile Salt; and the Stag's Head Water, which is an excellent Medicine to facilitate Delivery, reſiſt Poiſon, and cure malignant Fevers. The Doſe is from one Ounce to four, but thoſe who want it ſhould take care to buy it of honeſt People, it being very ſcarce The Oil, Spirit, and Salt are great Cordials, and good againſt fainting and ſwooning Fits, Heart-burnings, Convulſions, Falling-ſickneſs, hyſterical Fits, and provokes Sweat; the calcined Powder ſtops Fluxes. The Hoofs have the ſame Virtues with the Horns, but are much more powerful Cephalicks; the Spirit, or volatile Salt, or Oil, being excellent in Epilepſies, and Fits of the Mother. The Bone, or rather Cartilage, that is found in the Heart of an old Deer, is ſaid to be cordial, and is brought into the Confection of *Hyacinth*. It revives the Spirits, expels Melancholy, and helps the Palpitation of the Heart. This Bone is ſuppoſed to be the Effect of a *Polypus*.

The Bones of this Creature, diſtilled in a Retort, yield a volatile Spirit, Salt, and Oil, but neither ſo fine, or ſo much in Quantity as ariſe from the Horn. The Fat or Suet is equal to the beſt Emollient. It lenifies and ſoftens Calloſities, Contractions, ſchirrous and cancerous Subſtances. The Marrow being purified, and prepared for keeping, has the ſame Virtues, and may be uſed the ſame Way. The Powder or Filing of the Penis, given in Wine, is diuretick, and good againſt the Colick and Dyſentery:

Some have affirmed it provokes to Venery. The Skin or Hide of the Haſt, Hart, Hind, Buck, or Doe, are of great Uſe, when dreſſed, for Garments, Gloves, Stockings, Bags, Shoes, Boots, and other Things; and the Stones that are ſometimes met with in the Stomach, or Gall-bladder, are ſomething like *Bezoar*, both in Figure and Virtue, but not altogether ſo powerful, and nothing near ſo much valued.

Lemery. *Cervus*, or the *Deer*, is a large four-footed Animal, that is very lively, ſprightly, and agile, living a long Time, and bearing a great Branch of Horns, that ſerve him for his Defence, and drop off in the Spring-time, inſtead of which new ones put forth. The Female Hind or Doe, is called *Cerva* in *Latin*; the young one *Hinnulus*, or the Fawn. The whole abounds with abundance of volatile Salt and Oil. The Velvet Horns are ſo ſoft, during the firſt Month, that they may eaſily be beat off; and being made into a Jelly, are uſed to haſten the Birth. The Raſpings of Harts-Horn are proper for Ptiſans, Jelly, *&c.* The Bone found in the Heart of a Stag, is ſometimes half as long as the little Finger, broad as the Nail, flat and thin, uſually triangular and white. Chuſe the leaſt rather than the biggeſt, becauſe the Bone in an Ox's Heart is often impoſed upon you for that. It is almoſt cartilaginous when taken out of the Animal, but hardens into a bony Subſtance afterwards. The Bone in the *Deer's* Heel is proper in the bloody Flux, being given in Powder to a Drachm. The Marrow is yellowiſh, inclining to white, and may be uſed externally in *Rheumatiſms Sciatica's*, *&c.* The Suet is likewiſe profitable for the ſame Ends, being emollient, ſtrengthening to the Nerves, and reſolutive.

[The Virtues of Harts-Horn are too well known to need any Thing to be ſaid of them here. The *Os de Corde Cervi* is a Congeries of Arteries at the Baſis of the Stags Heart oſſified, as we ſometimes find the crural and other Arteries in human Bodies. Its Virtues ſeem to be altogether imaginary, and it is ſeldom to be met with genuine, if it were of any real Values; the ſame oſſified Subſtance from the Hearts of Oxen being often ſold in its Place, and oftener than that the *Oſſa Hyoidea* of various Animals.]

13. *Of the* Goat.

Pomet. THE *Goat* is an Animal univerſally known in *France*, *Italy*, *Cyprus*, *Candia*, and other Parts. The chief Commodity we ſell which comes from theſe Animals, is a Kind of Fat or Greaſe which is found ſticking to the Beards of the Animals, eſpecially ſuch of them as feed upon the Leaves of a certain Shrub, very common in the hot Countries, which the *Botaniſts* call *Ciſtus Ledum*. The Leaves are long and narrow, rough, very gluey, of a dark Green, and continue all the Year.

The Inhabitants of the Country gather this Greaſe with wooden Inſtruments, like Combs, and then make it up, being commonly full of Hair and other Filth, into a Maſs, or Cakes of different Size and Weight, which is what is called natural *Labdanum*, or *Ladanum*, or *Labdanum* in the Beard; but ſince the Iſlanders underſtood that there was a ſweet pleaſant Smell in this greaſy Matter, and that when it was well purified, it would be conſiderably valued, they have taken care to melt it, and ſtrain it through Cloths, as well to take out the Droſs, as to give it a more fragrant Smell. Having thus refined it, they wrap it up in fine thin Bladders, as we have it brought us, and to which we give the Name of *Liquid Labdanum*, or *Black Balſam*. This Fat, thus prepared, is much uſed in *England:* As for what is uſed in *France* it is ſcarce worth ſpeaking of; the Preſumers being the only People that deal in it, either becauſe of its Dearneſs, or becauſe it is but little known. The remaining Maſs, from which they have expreſſed the *Liquid Labdanum*, they make into Rolls, in the Shape of the Rolls of Wax-candle, and this they call *Twiſted Labdanum*.

Chuſe the *bearded Labdanum*, the moſt fragrant and cleaneſt you can get. The liquid Kind ought to be of a thick Conſiſtence, of a fine Jet Black, ſweet and pleaſant, of a Smell, inclining to that of *Ambergreaſe*, which has given occaſion to ſome Merchants to ſell *Liquid Labdanum* for black *Ambergreaſe*. As to the twiſted Sort, it ought to be rejected, as being full of nothing but Dirt and Sand, as may be known by its Weight, and by the Quantity of ſhining Particles it is full of; notwithſtanding its being the worſt, it is however much uſed, as it is cheaper than the beſt, and eaſy to Powder. Beſides theſe different Sorts of *Labdanum*, we have prepared Goat's Blood, which is uſed in Medicine; and that it may be endowed with the excellent Qualities, which the Antients attributed to it, the Beaſt muſt be fed for ſome Time with aromatical Herbs, and ſuch as are proper to break the Stone, and muſt not be above four or five Years old. Having cut its Throat, you are to reſerve only the middle or ſecond Blood, rejecting what comes out firſt and laſt. This middle Blood you are to put into an earthen Veſſel, covered with a clean Cloth, to hinder Duſt or Dirt from falling into it, and then expoſe it to the Sun, or ſet it in the Shade to dry; and when

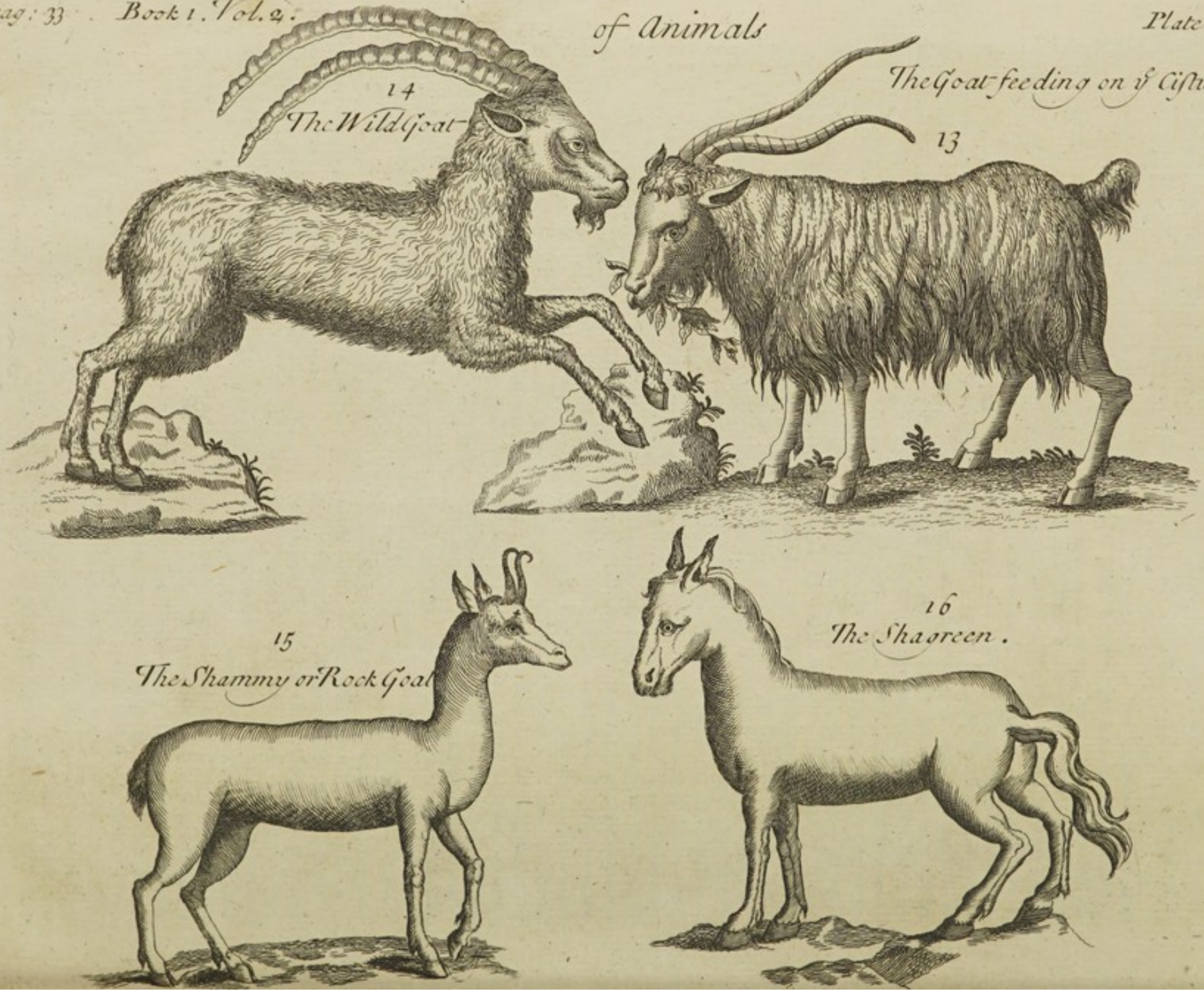
14
The Wild Goat

The Goat feeding on ℔ Cistus.

13

15
The Shammy or Rock Goat

16
The Shaoreen.



it is well dried, it ought to be put into a Glaſs Phial to keep it for Uſe. They uſually prepare the Blood of a Goat in the Month of *July*, when the Creature has had Time to feed on aromatick Herbs. It is ſudorifick, aperitive, and reſolvent; good in Pleuriſies, Stoppages of Urine, and the Stone. The Doſe is from a Scruple to two Drachms. *Van Helmont* affirms, that if you hang the *Goat* by the Horns, and bending the hind Feet to the Sides of his Head, in this Poſture cauſe his Teſticles to be cut out, and dry the Blood that runs from the Wound, it will become as hard as Glaſs, and difficult to be beat into Powder, and quite different from that taken from the Throat. He alſo aſſerts, that one Drachm of this taken will infallibly eaſe and cure the Pleuriſy without Blood-letting.

We bring from *Auvergne* near *Lyons*, and *Nevers*, a great deal of *Goats Suet*; it being not only of ſome Uſe in Phyſick, eſpecially that of the He-Goat, but alſo uſed to many different Purpoſes. It ought to be dry, of a clear white within and without; and take care it be not mixed with Mutton Suet, which is not eaſy to diſtinguiſh; therefore do not buy it of Merchants you cannot truſt. As to the Skin, it is of great Uſe; as, to carry Wine, Oil, Turpentine, and many Liquors in. The *Eaſtern* People uſe the Skins of theſe Creatures to croſs a River with, and in the Rafts or Floats of Timber on which they carry their Goods upon the Rivers in the *Eaſt-Indies*.

Beſides theſe Uſes, the People of the *Levant* dreſs Goats Skins, and Sheep Skins, and dye them of a red Colour, by the help of Stic-Lac, and other Drugs, and then they become what we call *Turkey* Leather, which we have a conſiderable Trade in, becauſe of the great Uſe made of it in *France* upon ſeveral Occaſions. The true *Turkey* Leather ſhould be of a beautiful Scarlet Colour, and a fine Grain. We make this Kind of Leather at *Marſeilles* and *Paris*; but it is not of ſo good a Colour, and will not laſt ſo long. As to the black Leather, the beſt comes from *Barbary*, in that it is of a finer Black, and better Grain. They make this alſo at *Rouen*; but it is neither ſo good nor ſo beautiful, as thoſe made in *Barbary*.

The Goats Skins, that have brought over the *Provence* Oils, are bought up by People, who dreſs and make a kind of Chamoy Leather of them, which ſerves for many Uſes.

14. *Of the* Wild Goat.

Pomet. THE wild *Goat* is an Animal little known in *France*, but very common in *Switzerland*; upon which Account I thought it would not be amiſs to relate what *Bellonius* has written of it, of which this is the Subſtance: "Wolves will not live in the Iſle of *Crete*; for "which Reaſon they leave all their Cattle in the "open Paſtures without Fear, and eſpecially their "Sheep and Lambs. When the Inhabitants of "the Country take the Kids of the wild *Goats*, of "which there are great Plenty, they bring them "up with the domeſtick *Goats*, and ſo they be-"come the Property of thoſe who tame them; "but the wild ones are theirs who can take or "kill them. They do not exceed the common "Goat in Bulk, but they have no leſs Fleſh upon "them than a large Deer, and they are covered "with the ſame Sort of Hair, ſhort and thick, "not like the Goats. The Males have a large "brown Beard, which no other ſtag-haired Crea-"ture has; they become grey with Age, and have "a black Liſt down their Backs. We have "them on our Mountains, and eſpecially on Pre-"cipices that are difficult of Acceſs; one would "wonder to ſee ſuch a little Animal carry ſuch "a Weight of Horns on his Head; for they are "ſometimes four Cubits long. There are two "Sorts of theſe *Goats*, as I have made appear "from the different Horns brought from *Cyprus* "and *Crete*, which I preſented to M. *Le Baily*. "There are ſome Peaſants on the Tops of the "higheſt Mountains of *Crete*, that are ſuch "Archers, eſpecially about the Mountains of "*Sphachia* and *Madara*, that they can wound "them with their Arrows five and twenty Paces "diſtant: And in order to come at them, they "take the She-Goats which they have tamed, "and brought up from young ones, and tie them "in ſome Paſſage of the Mountains where the "He-Goats uſe to go, and lie in wait on the con-"trary Side to the Wind, for fear the wild *Goat*, "who is ſo exquiſite of Smell as to ſcent you a "hundred Paces, ſhould diſcover them. The "Male finding the She-Goat on the Way, ſtops, "and then the Peaſant draws his Bow; and if by "chance he wounds him but ſlighty, though the "Arrow ſticks in his Body, he knows how to "cure himſelf; for he runs to the *Dittany*, which "is an Herb that grows upon the Rocks in *Crete*, "and brouſes upon it, by which Means he heals "himſelf." The *Switzers* hunt theſe Animals both for eating and for their Blood, which they prepare as aforeſaid, and uſe for diſſolving the Stone, foraſmuch as it has greater Virtue than the Blood of the common Goat; eſpecially when they feed on Saxifrage, or other Herbs of like Qualities. It is alſo eſteemed good in Pleuriſies; the Doſe is one Drachm. As to the Choice of it, take care that it is genuine, and that is ſufficient.

Caper vel Capra, Hircus vel Hirca, the *Lemery.* He or She-Goat, are both the tame and the wild, one or other of which are Inhabitants of moſt Parts of the World; beſides which there are the *Rock Goat*, and the *Oryx*, or the *African wild Goat*. But I ſhall confine myſelf here to the wild and tame *Goat*, that feed upon barren Mountains, and waſte Places, and eat almoſt all Sorts of green Things whatſoever; ſo that they live and grow fat upon what any other living Creature would be ſtarved with. Their Increaſe is prodigious; for they ſometimes bring forth four, and ſometimes five at a Time; and the Ewe Kinds will have young ones before they are a Year old. The Profit of keeping *Goats*, which is only proper for barren and hilly Countries, beſides the Advantage of keeping the Family, ariſes from their Hides and Tallow; their Hides being the ſame Skins which in *Turkey* they make *Turkey* Leather of; and in *Spain*, *Spaniſh* Leather, and *Cordivant*, ſo called from *Corduba*. Theſe Skins are ſo valuable, that in ſome Countries they go in Tale for Money, as the Cocoa Nuts do in others.

Of what Uſe the Leather is, daily Obſervation proves to us. Of the beſt tanned Leather, which is the *Turkey* and *Spaniſh*, are made Covers for Chairs, alſo Shoes and Boots for the Gentry and better Sort of People; of *Cordivant* and Kid Skins are made vaſt Numbers of Gloves of all Sorts; of the Vellum may be made Covers for Books, Drum-Heads, Deeds, Maps, Books, and other Writings. Theirs is the beſt Sort of Leather for univerſal Uſe, both for Strength, Subſtance, and Goodneſs, next to Neats Leather. The Horns and Hoofs of theſe Creatures abound with a great deal of volatile Salt, Oil, and Spirit, which are equally uſeful with the Preparations from *Hartſhorn*. The Powder of the dried Teſticles is boaſted by ſome to be no ways inferior to *Caſtor*; and being given to a Drachm, cures Fits of the Mother to a Miracle. A volatile Oil drawn from the Brain of the *Goat*, and well rectified, is compared with *Goddard's Drops*, that made ſuch a Noiſe in the Reign of King *Charles* the Second, and may very likely anſwer as well, ſince that Medicine was no more than an exalted volatile Oil, as this is, and ſo may be ranked in the ſame Claſs.

[The Parts of the *Goat* ſaid to be uſeful in Medicine, are the Blood, Marrow, Suet, Milk, Dung, Urine, Bladder, Caul, Skin, and Gall, to which we may add the Stones generated in the Stomach; but ſcarce any of theſe are now ever preſcribed or kept in the Shops.

The *wild Goat* is the *Ibex*, *Aldrov. De Quad. Biſul.* 730. *Geſn. De Quad.* 303. *Hircus ferus*, *Bellon. Obſ. Ed. Cluſ.* 20. It is found on the *Alps* and other high Mountains. The Blood of this Creature is eſteemed an excellent Medicine in the Stone and Gravel.

Labdanum is a Gum Reſin that flows from the *Ciſtus Ladanifera Cretica vera. Park. Theat.* 666. *Ciſtus Ladanifera Cretica flore purpureo. Tour.* 19. *Ciſtus a qua Ladanum in Creta colligitur. Bellon. Obſ. Lib.* i. *Cap.* 7. In the Time of *Dioſcorides*, it was gathered from the Hair of the Goats which fed among the *Ciſtus's*; but at preſent it is gathered from the Shrubs themſelves, with a kind of Rakes, with many Thongs of raw Leather, which they gently draw over the Shrubs, and afterwards ſcrape the *Labdanum* from them with proper Inſtruments. It is very fragrant, and an admirable Balſamick and Aſtringent.]

15. *Of the* Shamoy, *or* Rock Goat.

UPON our Mountains, and eſpe- *Pomet.* cially on the *Pyrenees*, we meet with a kind of wild *Goat*, called the *Shamoy*, or *Rock Goat*. There is a great Trade carried on with theſe Skins, by which they convey Oil, Wine, and other Liquids out of the mountainous Countries, and of which they make ſeveral other Uſes; for theſe *Shamoy* Skins, being dreſſed, are made into Gloves, Stockings, Drawers, Breeches, Waiſtcoats, Caps, *&c.* becauſe they may be waſhed as Linen is, and be dyed into what curious Colour you pleaſe, as Orange, Lemon, Buff, Black, Green, Red, Blue, or the like.

This *Shamoy* is a very wild Animal, that is not to be met with, but on the very Heights of the Rocks and Mountains; for which Reaſon the *Latins* call him *Rupicapra*, or the *Rock Goat*, and he moſtly feeds upon the Herb we call *Leopard's Bane*. Sometimes we find in the Stomach of theſe Animals a Stone of different Colours and Sizes, which is called *German Bezoar*, becauſe the *Germans* eſteem this not inferior in Virtue to the *Oriental Bezoar*.

The *Shamoy* is of the Size of the common Goat: His Horns are ſmall, black, bent forwards, and very ſharp; the Tail not above three Inches long. They have large Eyes, and never ſtep but on the Tips of their Toes. They are coated like a Faun, and have a Streak running all along the Back.

Rupicapra, or the *Rock Goat*, is a wild Goat, no bigger than the common Kind, which frequents the Rocks and high Hills; as the *Alps*, *Pyrenees*, *&c.* The Horns of this Animal are oddly turned, for they riſe upright firſt, and then wind forward like a Hook. *Lemery.*

They

They feed upon the Plants that grow on the Sands and Tops of the Rocks; the chief of which is the *Doronicum Romanum*. The Male is called in *Latin*, *Dama*, being a very ſhy and timorous Creature. Both the He and She afford abundance of volatile Salt and Oil. The Liver is proper to ſtop Fluxes of the Belly; their Blood allays Vertigo's. The Fat is excellent for Ulcers of the Lungs and Phthiſicks, being taken in Milk. The Gall dries up, and waſtes away Films and Cataracts in the Eyes.

[The *Chamois* or *Gemp* is the *Dorcas ſive Rupicapra*, *Aldrov. De Quad. Biſul.* 725. *Rupicapra*, *Bellon. Obſ. Ed. Cluſ.* 57, *Jonſ. De Quad.* 52. The Blood, Liver, Gall, and Dung of this Animal have all their ſeveral Virtues aſcribed to them, but are none of them ever now uſed in Medicine. The *Ægragropila*, or *German Bezoar*, found in the Stomach of this Creature, I have already mentioned in the Chapter of *Bezoar*. It is of various Sizes, and ſometimes as big as a Walnut. It is ſaid to have very great Virtues, but is ſeldom ſeen among us.]

16. *Of the* Shagreen.

Pomet. CHAGRIN in the *French*, or what is called *Shagreen* in *Engliſh*, is the Skin of an Animal very common in *Turkey* and *Poland*, which the *Turks* and *Poles* make uſe of to carry their Baggage, as in other Parts they do Mules, Horſes, *&c.* When this Animal is dead, they take the hinder Part of his Skin, and hang it in the Air, after having ſtrewed it, when raw, with Muſtard-ſeed. They leave the Skins thus expoſed to the Weather ſeveral Days, then take them in, and tan them, and when they are dreſſed, export them. This Skin is very hard when dry, and ſoft when ſteeped in Water. I have been aſſured, that that which makes this Skin ſo hard, is becauſe this Animal ſits down and reſts upon his Buttocks. They bring two ſorts of *Shagreen* from *Turkey*; to wit, the grey, or aſh-coloured, which is the beſt, and the white Shagreen, which is dirty, and not nearly ſo good.

Chuſe your *Shagreen Skins* of right *Turkey*, or *Conſtantinople*, as being much better than thoſe of *Algiers* and *Tripoli*. There come ſome likewiſe from *Poland*, which you ought not to meddle with, becauſe they are too dry, and will not take in the Alum when they come to be dyed. Likewiſe chuſe the largeſt, faireſt, and eveneſt Skins, with a little round Grain well formed, with as few Places altogether ſmooth as poſſible; thoſe of a large and uneven Grain being leſs ſaleable, though no leſs fit for Uſe. The Uſe of this *Shagreen* is very univerſal for all Sorts of Pocket Utenſils, Watch-caſes, travelling Furniture, and the like. They may dye theſe Skins of what Colour they pleaſe; but the moſt common are black, green, and red. The moſt beautiful and deareſt is the red Colour, becauſe of the Vermilion and Carmine with which it is dyed. You may know the true *Shagreen* from the *Spaniſh* Leather made into *Shagreen*, becauſe the laſt is neither ſo rough nor ſo hard; but will wear ſmooth, which the true will not.

[The *Chagrin*, or *Shagreen* Leather, is the Skin of the Buttocks of the *Onager*. *Raii Synop. Anim.* 63. *Aldrov.* 332. *Jonſ. De Quad.* 14. *Onager*, *ſive Aſinus ſylveſtris*. *Geſn. De Quad.* 21. It differs but very little from the common Aſs. No Part of it has been ever uſed in Medicine.]

Of Bears Greaſe.

Beſides the ſeveral Parts of Quadrupeds already deſcribed, we ſell *Bears* Greaſe and Suet, which are brought from the Mountains of *Switzerland*, *Savoy*, and *Canada*. The Greaſe, if it be good, ought to be freſh, or new melted, greyiſh, gluey, and of a ſtrong ill Smell, of a middle Conſiſtence, that is to ſay, betwixt hard and ſoft; and meddle not with that which is white and hard, being mixed with Suet. This Fat, or Greaſe, is a ſovereign Remedy for curing cold rheumatick Humours. It is alſo much valued for eaſing Pains of the Gout, by rubbing the afflicted Part, and to make the Hair grow; it being eſteemed admirable againſt Baldneſs, eſpecially when incorporated with Bees in Powder and Nut-Oil. As for the Bears Suet, there is but very little of it brought into *France*, it being little uſed, and that only by thoſe who will not come up to the Price of the Greaſe. The Bears Gall is good in Epilepſies and Aſthmas, taken from two to eight Drops. It is alſo uſed externally to cleanſe old Ulcers.

We ſell likewiſe the Greaſe of the *Badger*, as very ſovereign in nephritick Caſes, and Sciatica Pains. And we have alſo Pencils made of the Badger's Hair for the Painter's Uſe. This Creature is about as big as a Fox, but ſhorter and thicker; the Skin is hard, rough, and has rugged harſh Hair upon it, of an intermingled griſled Colour, ſometimes whiter, ſometimes blacker; the Back almoſt black, the Belly almoſt white; the Teeth are very ſharp, the Tail ſhort and hairy, of different Colours; it is long-ſnouted, has ſhort Legs before, yet ſhorter behind, little Ears, ſmall Eyes, ſharp Claws, and is a Beaſt commonly very fat, and of a ſtrong ſtinking Smell; the whole

Length of him, from the Snout to the Tip of the Tail, is not above two Feet and a half.

The Liver and Bowels of the *Wolf* dried, are recommended for the Cure of all Diſeaſes ariſing from the Liver and Bowels, particularly the Cholick; and the Heart of the ſame Creature is eſteemed good in Epilepſies. We alſo ſell the Greaſe and dried Lungs of the *Fox*. The laſt eſteemed excellent againſt Coughs, Aſthma's, Phthiſicks, Wheeſings, Hoarſeneſs, Shortneſs of Breathing, and all other Diſeaſes of the Lungs. The Greaſe is admirable for the Ear-ach, and to rub the Limbs of ſuch Perſons as are ſubject to Convulſions, Palſies, Tremblings, and Weakneſs in any Part.

Of the Muſk Rat.

There are alſo the Teſticles of a little Creature brought us, called, in the *American Iſlands*, *Piloris*, or *Muſk Rat*, becauſe of its Reſemblance to our common Rats, except that the *Weſt-Indian* are much larger. They ſell theſe for *Muſk*, to People that do not underſtand them; but it is an eaſy Matter to find it out, ſince theſe are no longer or thicker than a Child's little Finger. The *Muſk Rats*, according to Father *Du Tertre*, have the ſame Shape with ours, but are ſo much bigger, that one will out-weigh four of ours: The Hair upon the Belly is white, and that on the Back black; they ſmell ſo ſtrong of Muſk, that they perfume all the Air about them as they go. The Inhabitants of *Martinico* eat them; but they are forced, after they have ſkinned them, to leave them one Night in the Air, and then throw away the firſt Water they are boiled in, to take off the too ſtrong Scent of the Muſk. Theſe Rats are natural to the Iſland, and they had none of the common Kind, 'till of late that they were brought thither by the Ships that trade there.

[The *Bears* Greaſe is now ſeldom uſed, or found genuine among our Druggiſts, the others ſcarce at all; and the Teſticles of the *Muſk Rat*, the *Piloris*, *Lem. Diction. des Drogu.* 424. are of no other Uſe than to adulterate the true Muſk with.]

17. *Of the* Oſtrich.

Pomet. THE *Oſtrich* is a Bird that has ſhort Wings, and is much valued for its Feathers; which ſerve as Ornaments for Hats, Caps, Beds, and Canopies of State. The *Oſtriches* are taken in *Africa*, and are very common in *Peru*, where they march in Flocks like Cattle: The Natives eat their Fleſh, and their Eggs are good, though hard of Digeſtion: This is the largeſt of all Birds, being ſeven Feet high, and ſometimes more. His Head is ſmall, depreſſed, or flat-crowned, and almoſt like a Gooſe's; the Bill is compreſſed and ſmall, of a triangular Figure, Horn coloured, with a black Tip; it has great Eyes, with a Hazel-coloured *Iris*; the Head and Neck, almoſt as far as the Breaſt, are bare of Feathers, as alſo the Thighs; the Head and Neck are covered with a certain Down, or thin ſet Hairs: The Sides under the Wings and Thighs are abſolutely bare; the Wings are ſmall, and altogether uſeleſs for Flying, deſigned only to aſſiſt the Bird in Running. The Feathers of the Back, in the Cock, are Coal black; in the Hen only duſky, and ſo ſoft that they reſemble a kind of Wool; the Wing-Feathers beneath, are of the ſame Colour with thoſe in the Back; but above, in their upper Part, they are purely white: The Tail is thick, buſhy, and round, not as in other Birds, ſpread out in Breadth; the Feathers in the Cock being whitiſh, in the Hen duſkiſh. Its Neck and Legs are very long; it wants the back Toes, and has but two others; the one Toe is five Inches and a half, and the other eight Inches long, covered with great disjointed annulary Scales. It lays very large Eggs, of four or five Inches Diameter, one of which has Meat enough in it to ſerve ſeven or eight People, contained in a hard ſtrong Shell, which they cover in the Sands, and forſake, never taking any more Care of them, but leave them to be hatched by the Heat of the Sun.

They have diſſected ſeveral *Oſtriches* in the Academy of Sciences; the largeſt whereof was ſeven Feet and an half high from the Ground to the Top of his Head. The Eye is oval like a Man's, having large Eye-brows; and the upper Eye-lid is moveable, contrary to the Generality of Birds, with an Eye-lid within, as a great many Brutes have; the Bill is ſhort and pointed; the Tongue is ſmall and adhering, as that of Fiſhes; the Thighs large, fleſhy, and without Feathers, covered with a white Skin, a little reddiſh: The Legs are covered with great Scales; the Feet cleft, having only two Toes, with large Claws. The *Oſtrich* carries the Quill exactly in the Middle of the Feather, upon which Account the *Ægyptians* repreſented *Juſtice* by it. When they came to examine the Inſide of this Creature, they met with five Diaphragms or Partitions, which divide the Trunk into five Parts; four of which were placed ſtrait up and down; and a fifth ſituated acroſs, or thwart the Ventricles, which were found full of Herbs, Hay, Barley, Beans, Bones, and Stones, of which there were ſome of the Big-

neſs

The Swallow.
20
The Fregate.
17
18
The Eagle.
22
Cantharides
Ostrich
ỹ Swan
ỹ Vulture 19
ỹ Goose
The Kings Fisher

neſs of a Hen's Egg. They found in one ſeventy Pieces of Money; the moſt Part of which was waſted and gone, and that apparently by their mutual Attrition one againſt the other, rather than by Corroſion. It is obſervable, that the *Oſtriches* ſwallow Iron for the ſame End that Birds do Pebbles and Gravel, to help them to grind their Food, and not nouriſh them, or to digeſt it, as the Antients believed, for they periſh if they ſwallow too much of it.

The Fleſh of the *Oſtrich* is fat, and ſaid to cauſe an Appetite, and reſtore in Conſumptions. The Ventricle, or Skin of the Stomach, ſtrengthens and aſſiſts Digeſtion. The Fat is hotter than Gooſe Greaſe, and may be uſed with great Advantage to diſſolve hard Swellings, relax contracted Nerves, and eaſe Pain. Beſides the *African Oſtrich*, already deſcribed, there are three other Sorts, to wit, the *American*, the *Emeu* or *Caſſowary*, and the *Dode*.

The *American Oſtriches* are ſomewhat leſs than the former. Their Legs are long, and they have three Toes on each Foot, one of which ſtands backwards. The Head is like that of a Gooſe, the Neck twenty-four Inches long, which they carry bended like a Swan or Stork; the Bill is compreſſed, or flat, but not very broad, two Inches and a half long; the Wings ſmall, and not fit for flying, which they only aſſiſt themſelves with in Running, which they do with that Speed, that a Grey-hound can ſcarcely overtake them. The whole Body is covered with grey Feathers, which are longer and more beautiful on the Back. The Tail is like that of the former, but ſtretched long-ways. It feeds on Fruit and Fleſh, but will ſwallow any thing you offer it. The Fleſh is reckoned among the *Spaniards* as good Food.

The *Emeu*, or *Caſſowary Oſtrich*, has a horny Crown on the Top of its Head, near three Inches high, of a duſky yellow Colour, which is reported to fall off at moulting Time, and to grow again with the new Feathers. The Head and Neck are bare, or only covered with a hairy Down; the Skin being of a purpliſh blue Colour. In the fore Part of the Neck hang down two membranous Wattles, or Lobes of Fleſh, two Inches long, of a Vermilion Red; as is alſo the lower Part of the back Side of the Neck: Its Bill is of a moderate Thickneſs, and ſtraight, and four or five Inches in Length; the Neck is about thirteen Inches long; the Length of its Body, from Breaſt to Rump, three Feet, the Breadth two Feet over; the Thighs, with the Legs to the Feet, are ſeventeen Inches long; the Legs are thick and ſtrong, and almoſt five Inches about, covered as it were with broad Scales. It has thick, hard Feet, divided into three thick Toes, all ſtanding forwards, and wanting a back Toe, having very great Claws, almoſt two Inches long. It has ſome Rudiments of Wings, conſiſting only of five naked Shafts of Feathers, ſomewhat like *Porcupines Quills*, which commonly lie hid under the Feathers, covering the Sides; but it has no Tail. The Feathers covering the whole Body are all double; two coming out of the ſame Pipe or Stem, the upper ſomewhat the thicker, or groſſer, the lower the finer and more delicate. It is commonly ſaid to want a Tongue, becauſe the Tongue cleaves to the Mouth as in Fiſhes. It feeds upon Fruits, Fleſh, Bread, Hen's Eggs, Oranges, and almoſt any Thing that is offered it. It's Eggs are great and fair; one being meaſured length-ways, was fifteen Inches, and croſs-ways twelve Inches, or more; of a greeniſh aſh Colour, thick ſet with ſmall Protuberances of a deep Green.

The *Dode*, called *Gallus Gallinaceus*, is ſaid to be of a middle Size, between an *Oſtrich* and a *Turkey*, agreeing much with the *African Oſtrich*, if you conſider it's Rump, Wings, and Feathers; but in regard of the Shortneſs of its Legs, it looks like a Pigmy among them. It has a great Head, covered with a Membrane reſembling a Hood, great black Eyes, prominent fat Neck, a Bill long and ſtrong, not flat and broad, but thick and of a bluiſh White, ſharp pointed and crooked. Its Body is fat and round, covered with ſoft grey Feathers, much like an *Oſtrich's*; on each Side, inſtead of hard Wing-Feathers, or Quills, it has ſmall ſoft-feathered Wings, of a yellowiſh aſh Colour; and for a Tail, it has five ſmall curled Feathers of the ſame Colour. It has yellow Legs, being about four Inches in Compaſs, and ſomething more than four Inches in Length, covered with thick Scales. It has three fore Toes, and one back Toe, near an Inch and an half long, and its Claw above an Inch in Length. It is a ſlow-paced, ſtupid Bird, and eaſily taken. The Fleſh, eſpecially of the Breaſt, is fat, eſculent, and has ſo much of it, that three or four of them will ſometimes be enough for a hundred Men; but it is commonly ſalted, and ſtored up for Sea Proviſions. It ſwallows Stones, and ſuch like hard Subſtances, which ſhews it to be of the *Oſtrich* Kind.

[The *Oſtrich*, whoſe Fat is eſteemed ſo excellent in nervous Caſs, is the common Kind, the *Struthio. Charl. Ex.* 79. *Struthio camelus. Raii Ornith.* 144. *Geſn. De Avib.* 670. The Fat, by the Relation of thoſe who have been where it was to be had, and tried it, is one of the greateſt of Medicines uſed as an Ointment in Contractions of the Nerves, but

but whether this be true or not, is of little Conſequence to us who cannot expect often to meet with it.]

18. *Of the* Eagle.

Pomet. THE *Eagle* is a large Bird of Prey, and the fierceſt and ſtrongeſt of that Kind, being ſcarce diſtinguiſhable from the *Hawk*, but only in Bigneſs, or from the *Vulture*, but by its long, black, and crooked Bill; beſides which its Legs are yellow, and covered with Scales. This Bird is very well known in *Europe*, as well as other Parts of the World. There are ſeveral different Species however of it; as the Golden *Eagle*, the Black *Eagle*, the White tailed *Eagle*, the *Braſilian Eagle*, the Sea *Eagle*, and the *Vulterine*.

The Fleſh of all the Kinds is hard, fibrous, and not fit for Meat or Phyſick. The Brain is ſaid to cure the Epilepſy, the Teſticles to procure Luſt, and the Gall is the ſtrongeſt of all Galls, and helps all the Diſeaſes of the Eyes whatſoever; as Clouds, Miſts, Films, Pearls, Blood-ſhot, Ulcers, *&c.* The Fume of the Dung is ſaid to bring forth the *Fœtus*, and outwardly applied, ripens Tumors and Apoſthumes. The *Eagle* is a very ſalacious Bird, yet lives to a very great Age. But of all that belongs to this Bird, there is nothing ſold in the Shops, but a kind of Stone that is found at the Entrance of the Holes where the *Eagles* build their Neſts, ſuppoſed laid there to preſerve their Young from Lightnings, and other Injuries of the Weather. This Stone is brought us by the Pilgrims of *St. James* in *Galicia*. The *Eagle* Stones moſt eſteemed, are thoſe which are flat, blackiſh, and that rattle well; that is to ſay, which make a Noiſe when ſhaked at your Ear, which proceeds from a little Stone contained within. Great Virtues are aſſigned to this Stone, eſpecially to procure eaſy and ſafe Labour, and to prevent Miſcarriages. Some write, that the *Eagle* hunts for this Stone to the very *Indies*, in order to hatch, or bring forth its young ones.

[The two Kinds of the *Eagle*, which have Places in the Catalogues of Birds uſed in Medicine, are the *Aquila fulva, ſive aurea. Will. Orn.* 58. *Aquila Germana. Geſn. De Avibus*, 149. *Aquila regalis, Schw. A.* 214. The Golden *Eagle*, and the *Halieætus. Jonſ. De Av.* 93. *Halieætus ſive Aquila Marina. Will. Orn.* 29. *Halieætus ſive Oſſifraga. Raii Syn. An.* 6. The *Oſprey*. The Gall of the firſt is ſaid to be good in Deafneſs; and the Marrow of the Thighs of the other to make Baits for Fiſh: But neither are ever uſed now.

The *Eagle* Stone is the *Ætites ſive Aquilinus Lapis, Worm.* 77. *Charl. Foſſil.* 31. Its Virtues ſeem altogether imaginary. There are ſeveral Kinds of it: The *Ochreoferreus Ætites*, the Baſtard *Eagle* Stone, the *Geodes. Woodw. Att.* 2. 9. *Boet.* 381. and the *Terra Sicula*, *Bezoardicum minerale. Mont.* 14. which are ferrugineous Bodies containing Earth, *&c.* The true *Ætites* is a Pebble with a looſe Nucleus.]

19. *Of the* Vulture.

THE *Vulture* is a Bird of Prey that is much like an Eagle, and has ſo quick a Scent, that it will ſmell a dead Carcaſe many Miles. Many are of Opinion that he differs not in Kind from the Eagle, but only in ſome other Characteriſticks, as that the Head and Neck of the *Vulture* are for the moſt part bare of Feathers, and are only covered with a ſhort white Down; that a little under their Throats they have about a Hand's Breadth covered rather with Hairs, like thoſe of a Calf, than Feathers; that the Craw hangs down like a Bag before the Stomach or Breaſt; that the Bill being ſtraight for two Inches, does then grow crooked; that among all rapacious Birds, none fly together in Flocks but the *Vultures*; and laſtly, that the Inſides of the Wings are covered with a ſoft Fleece of Down, which is proper only to the *Vulture*. *Pomet.*

There are ſeveral Kinds of *Vultures* deſcribed by Authors, as the Aſh-coloured, the Black, the Cheſnut, the Hare *Vulture*, the Golden, the White, the *Braſilian*, and the Vulturine Eagle. The two firſt differ in nothing but their Colour. The Cheſnut-coloured is leſs than an Eagle, having the whole Plumage of its Body of the Cheſnut Colour; the Feathers of the Crown are very ſhort if compared to Eagles, which is the Reaſon ſome have thought them bald. The *Hare Vulture* is ſo called from its preying upon Hares; is inferior in Magnitude, and has not a Breaſt ſo refulgent as the Golden *Vulture*, which has many Things in common with the Golden *Eagle*, but is every Way, or in all its Parts greater. The *Braſilian Eagle* is a rapacious Bird, of the Bigneſs of a Kite, having a long Tail, and Wings longer than it. The whole Plumage of the Body is black, with a little Tawny here and there mixed. It is headed almoſt like a Turkey, having a wrinkled Skin. Its Bill is long, hooked at the End, and ſharp; in the Middle whereof is one large Hole for the Noſtrils, tranſverſely ſituate; its Eyes are almoſt of a Ruby Colour, with a round black Pupil. Its Fleſh ſtinks like Carrion, for it feeds chiefly upon dead Carcaſſes; it is ill-looked, always lean, and never ſatisfied.

The *Vulturine Eagle*, though called ſo by the Naturaliſts, has nothing of the Eagle in him; its Shape is unuſual; the Bill is ſtraight almoſt to the Middle,

Middle, and towards the Point bent into a remarkable Hook, after the Manner of *Vultures*, white towards the Head, the reſt of it black, the lower Chap wholly white. The *Iris* of the Eye is not ſo fiery as in Eagles, but whitiſh, and the *Pupilla* black; the whole Head whitiſh or grey; the Neck, half way from the Head, almoſt bald, ſet with a few white Feathers, and ſome ſmall ones, like rough curled Hairs, higher than the reſt of the Plumage, as if they were fine long Briſtles; on the Back there is as it were a kind of Hood, reaching to the Middle thereof, and ending in a ſharp Peak, reſembling a Triangle. The Colour of the whole Plumage is of a dark Cheſnut, inclining to black. The Fat is the only Thing belonging to the Vulture Kind that is ſold in the Shops: It is uſed to anoint with in Palſies and other nervous Caſes.

[The *Vulture*, that has a Place in the Catalogues of medicinal Birds, is the *Vultur niger*. *Aldr. Ornith.* 1. 271. *Vultur nigricans*. *Char. Ex.* 71. The Fleſh, Fat, Gall, Brain, and Dung of this Bird are recommended as having their ſeveral Virtues, but none of them are ever ſeen in the Shops, or preſcribed in the preſent Practice.]

20. *Of the* Frigat.

Pomet. THE *Frigat* is a Bird which the *Indians* call ſo becauſe of the Swiftneſs of its Flight. The Body of this Bird is no bigger than a Pullet's, but its Stomach is very fleſhy. All the Feathers of the Males are as black as Ravens. The Neck is pretty long, the Head ſmall, with two great black Eyes, and the Sight more piercing than the Eagle's. The Bill is pretty thick, and altogether black, about ſix or ſeven Inches long, and ſtraight to the End, where the upper Beak is crooked like a Hook: The Claws are very ſhort, being divided into two, as the *Vulture's*, but are entirely black. The Wings are ſo prodigiouſly great, that it is ſeven or eight Feet from the Extremity of one Wing to the other, and that not without Reaſon, ſince his Wings are ſometimes employed to carry him above three hundred Leagues from Land. It is with a great deal of Trouble that this Bird can raiſe himſelf, but when he has once taken his Flight, he keeps his Wings extended almoſt without any Motion or Fatigue. If the Weight of the Rain, or the Impetuoſity of the Winds force him, he mounts above the Clouds, and ſoars beyond Sight into the middle Region of the Air; and when he is at the higheſt, clearly diſtinguiſhes where the *Dorado* gives chace to the Flying-Fiſh, and throws himſelf down like Lightning; not ſo as to ſtrike upon the Water, for then it would be difficult for him to riſe again; but when he comes within twelve or fourteen Paces, he makes a large Turn, and lowers himſelf as it were inſenſibly, 'till he comes to ſkim the Waters where the Chace is given; in paſſing he takes the little Fiſh in its Flight along the Water, either with his Bill or his Talons, and ſometimes both together.

The Male carries a great red Comb, like that of the Cock, not upon his Head, but under the Throat; and this Comb does not appear but in the old ones. The Females have none, but they have Feathers that are whiter, eſpecially under the Belly. As the *Herons* in *Europe* have Heronries, which are certain remote Corners of Woods, to which they retire, as Places of Refuge, where they meet, rooſt, preſerve themſelves, and multiply; ſo theſe Birds, for a long Time, made a little Iſland, near *Guaduloupa*, their Habitation; where all of that Species thereabout come to rooſt at Nights, and build their Neſts in the proper Seaſon. This little Iſland was called the *Iſle of Frigats*, and bears the Name to this Day, though the Birds have left the Place; for in the Years 1643 and 1644, ſeveral People chaſed them ſo ſeverely, that they were forced to abandon the Iſle.

The Reverend Father *Du Tertre*, Apoſtolical Miſſionary in the *Antilles*, moved by the large Commendations given to the Oil drawn from theſe Creatures, by Means of two or three People, took more than an Hundred of them in leſs than two Hours Time. They ſurprized the large ones upon the Branches, or in their Neſts; and as they riſe with a great deal of Trouble to take Wing, it was an eaſy Matter to beat them down with long Sticks. There was not one of thoſe, ſays this Author, that flew away, but at taking Wing vomited two or three Fiſh, as big as Herrings, half waſted: He believes they diſcharged themſelves in order to fly away with the more Eaſe. The Oil or Fat of theſe Creatures is a ſovereign Remedy for *Sciatica* Pains, and for all others proceeding from a cold Cauſe. It is held in great Eſteem throughout all the *Indies*, as a precious Medicine.

[The Oil ſo much commended here, is obtained from a large Bird, called the *Man of War Bird*, common in many of the *American* Iſlands, but has never been of fame enough among us to get into uſe, or make it worth any one's while to import it.]

21. *Of Birds Neſts.*

Pomet. THE Birds Neſts which the People of *Siam* have brought into *France* for many

many Years, are nothing but an Excrement or Foam of the Mouth, of certain Birds called *King's Fiſhers*, which are very common in *France*, eſpecially in *Normandy*. The *King Fiſhers* of *France* frequent the Sea Coaſt, Rivers, and watry Places; they are of the Size of a Swallow, or of a Quail; their Feathers and their Bills are of various Colours, as green, red, and blue; and they have a great many ſeveral Names; as the *Alcyon* Martin, the Martin-Fiſher, the Martlet, the Bird of St. *Martin*, *&c.* Theſe Animals uſually build their Neſts among Reeds, or upon Rocks. The *Indian* King-Fiſhers, eſpecially thoſe about the Kingdom of *Camba*, when they are going to breed, throw out of their Bills a white Froth, with which they build a Neſt, of the Bigneſs and Shape of a Cup, where they lay their Eggs, and hatch their young ones: Theſe Neſts are of a white Colour, tending to yellow, and of a hard dry Conſiſtence; the Taſte being inſipid, and almoſt like that of *Vermicelli*.

The *Chineſe* are ſuch Lovers of theſe Birds Neſts, that it is almoſt incredible what Quantities are ſent to *Pequin*, the Capital of *China*. They are uſually valued at fifty *Tabers* the hundred, which is about ſix hundred Livres, or fifty Pounds of our Money. They aſſign mighty Virtues to this Neſt; as that it nouriſhes extremely, being boiled in Water with a Fowl and Ginger; they reckon it very good for curing Pains at the Stomach, and for reſtoring thoſe that are in a languiſhing Condition. Theſe Neſts were formerly little known; and it was believed that they were made of the Froth of the Sea; but ſince the People of *Siam* have brought them us, they are become very common. There are, beſides, other Parts belonging to Birds, which we ſell, and have a conſiderable Trade in; as Quills, Pencils, and Down from the Swans, Geeſe, and other Fowl, which are brought us from *Gaſcoigny*, *Normandy*, *&c.* as alſo the Swallow Stones, which are little Stones uſed like thoſe taken out of Cray-Fiſh; and to take out any Filth or Dirt that falls into the Eyes.

[The *Chineſe* Birds Neſts are the Neſts of the *Indian* Swallow, the *Hirundo Maritima*. *Act. Phil. Lond.* N° 285. *Hirundo Sinenſis*, *Nido Edulo Bontii*. *Will. Orn.* 15. *Hirundo Chinenſis*. *Bont.* 66. The Neſts are of the Bigneſs of a Gooſe's Egg, roundiſh and pellucid, of a Subſtance reſembling Gum Tragacanth or Icthyocolla. They are found on the Rocks upon the Coaſts of *China* and *Japan*. When mixed in Broth or warm Milk, they ſwell and make a thick Soup, much eſteemed in the *Eaſt*, as a Reſtorative, and Provocative to Venery, as well as an excellent Food.

The Swallow Stones are the *Lapis Chelidonius*. *Worm. Muſ.* 72. *Buſonites minor Caſtanei ſubfuſci coloris*. *Luid. Lith. p.* 70. Teeth of the *Lupus Piſcis*, *Woodw. Att.* 2. 27. They are about the Bigneſs of a ſmall Pea, and ſaid to be found in the Stomachs of young Swallows, but are really dug out of the Earth in the Iſle of *Malta*, and are the Teeth of a Fiſh buried there.

They are hung about the Arms or Necks of Children, as a Remedy for the Epilepſy.]

22. *Of* Cantharides.

THE *Cantharides* are Flies which the Peaſants about *Paris* bring us, and which they find in great Plenty upon *Aſh-Trees*, *Roſe-Buſhes*, and on the Blades of Corn. The Wings of theſe Flies are of a fine ſhining Green to look upon, becauſe of their blue Colour mixed with a gold yellow; but the whole is venomous, and of a fœtid Smell. They have a large Sort in *Italy*, but they are of no Uſe. Chuſe ſuch as are new, dry, and whole, without being crumbled to Powder. *Pomet.*

The Uſe of *Cantharides*, at this Day, is chiefly external; but there are ſome Countries where they are frequently given inwardly, by ſuch as underſtand how to prevent their dangerous Effects. They are of very great Service to the Apothecary, not only for the Bliſtering Plaiſter, that is always ready compounded by them, but to uſe freſh upon all Occaſions where they are required. They kill the *Cantharides* with the hot Fumes of the ſharpeſt Vinegar, encloſing them in an earthen Veſſel, having its Mouth covered with a fine thin Cloth; afterwards they dry them, and putting them up in wooden Boxes, they keep them for the Space of two or three Years. Theſe *Cantharides*, tho' rarely preſcribed inwardly, are very efficacious in the Hands of a wiſe Phyſician who knows how to correct them, and make them ſpecifical, in a *Gonorrhœa*, Suppreſſion of Urine, Ulcers of the Bladder, Stone, Gravel, *&c.* They are moſt frequently adminiſtered in a Tincture mixed with Spirit of Wine, Camphire, *&c.* But to promote the Expulſion of Urine, nothing can be more ſafe than the anointing the *Perinæum*, or lower Part of the Belly, and the Region of the Navel, with the Oil, wherein *Cantharides* have been boiled.

Some at this Time uſe all the Parts of the *Cantharides* promiſcuouſly; but the Head, Wings, and Legs, are to be caſt away. If a Bliſtering Plaiſter made of them be applied to a tender delicate Body, or upon fine ſkined Women, it will cauſe a Strangury, or Scalding, and Heat of Urine, which is eaſily remedied by drinking of Milk, Barley-Water, or Emulſions of Almonds, or the cold Seeds. The volatile Salt of the *Cantharides*

is

A Nest of Bees
A Man calling in a Swarm of Bees.
A Hive of Bees.
A Hive of Bees
A Dead Ox.
A Swarm of Bees
A Dead Lion.

is one of the moſt powerful Diureticks that is to be met with in the World; ſo that ſome Authors affirm it is able to break or diſſolve the Stone. It is ſo pungent and biting, that it is apt to raiſe little Bliſters upon the Tongue, when taſted; ſo that it is not to be taken alone, but in ſome ſmooth oily Subſtance, or other proper Vehicle: Doſe from one Grain to three. The Tincture is more gentle, and leſs hazardous than the *Cantharides* themſelves.

[*Spaniſh* Flies, as they are commonly called, are the *Cantharides*, *Mouff. Inſ.* 144. *Cantharides Dioſcoridis. Charlt. Ex.* 47. *Cantharides vulgares officinarum. Raii Inſ.* 101. Their principal Uſe is in bliſtering Plaiſters, but there are ſome who give them inwardly with great Succeſs; one of the firſt of theſe was Dr. *Groenveldt*, a *Dutch* Phyſician, who practiſed in *London*, and after a ſucceſsful Uſe of them for many Years, was benevolent enough to communicate what he had learnt of them to the World, in a Book entitled *De tuto Cantharidum Uſu interno*, in which he gave the Method by which he always prevented their ill Effects. The Thanks he received for this were, the being thrown into a Priſon. However, there have not been wanting, both at that Time and ever ſince, Perſons of Judgment, who have had Courage enough to try and reap the Advantage of the Diſcoveries he paid ſo ſeverely for communicating.]

23. *Of* Bees.

Pomet. THE *Bees*, or *Honey-Flies*, are little Inſects, the Nature and Conduct of which is no leſs wonderful, than their Labour is neceſſary and uſeful, ſince they furniſh us with Honey and Wax; both which are very conſiderable Commodities. But as I never kept *Bees* myſelf, I have been obliged to have Recourſe to a Friend, who communicated to me what, by many Years Experience, he had obſerved concerning them, that I might compare it with what had been ſaid by others upon that Subject.

Some Naturaliſts will have it, that the Origin of *Bees* comes from the dead Lion and the Ox; and that inſtead of Worms that uſually breed in the Bodies of other Animals, the *Bees* generate in the Bodies of theſe Creatures. This Extraction appears to me to be very wide of Truth, from an Experiment made by a certain Perſon of what *Virgil* ſays in his fourth *Bucolick*, which he found altogether falſe. The Fact is related in a little Tract ſuppoſed to be writ by a Country Clergyman, who ſays thus:

" *Virgil* appeared to me to be an Author of " Solidity enough to ground a probable Opinion " upon, and whoſe Credit was ſufficient to in- " duce me to make a Trial, which I unluckily " did, and thought I had poiſoned the whole Vil- " lage; for I cauſed to be ſtrangled a young " Bull, *Bina cornua ferens*, giving him a thouſand " Strokes with a Cudgel as he was dying, which " was more than I could warrant from the Poet: " for his Burial, I took the bruiſed Members, " with the two Horns, and put them into a great " wooden Tub, with four little Windows open to " the four Quarters of the Wind in order, as " *Virgil* ſays, to produce Thouſands of *Bees*. " The King is ſaid to be bred from the Brain, the " working *Bees* from the Stomach, and the Drones " from the Guts: the King makes War upon " his neighbouring States, both by Sea and Land; " he marſhals his Army in *Battallia*; he rewards " his Captains, and Generals; he puniſhes the " Cowards with Death, and makes the Rogues " and Deſerters run the Gantlet; beſides a Thou- " ſand old Womens Tales, which ſeveral People " relate, and believe to this Day. But inſtead " of the Swarms of *Bees*, which I expected from " the Body of this Animal, there were Thouſands " of Maggots produced, with an inſufferable " Stench, that I thought would have infected all " the Neighbourhood: And the Stink was ſo great, " that all the Country fancied they were threatened " with the Plague" You may ſee from hence how falſe common Opinions are. And as I am not a capable Judge, I ſhall content myſelf to make ſome Obſervations, founded upon Experience, as you will find in the following Relations; and thoſe who deſire to be inſtructed further, muſt conſult the beſt Authors who have writ upon this Subject.

Obſervations upon Bees, *according to an Account delivered me by an underſtanding Perſon.*

The Production of *Bees*, at firſt, is, that they breed from a Kind of little white *Germen* or Sperm, that is poſited at the Bottom of the ſmall Holes or Sockets, that make up the Honey-Comb, which the *Bees* make in their Hives, and which they begin at the End of the Hive. This Sperm, aſſiſted by the natural Heat of the *Bees*, encreaſes and becomes a Kind of white Maggot, which at the beginning of its Formation, has no Reſemblance of the *Bee*, but in a Month's Time it becomes like one, but of the ſame Colour with the Maggot, and after continuing ſo a little while, it grows darker coloured, and comes out of the Socket. The *Bees* generate from *February* to the End of *October*, if the Hive be in good Condition: they ſwarm in *May* and *June*; but the *May* Swarms are more valued, becauſe they

they are ſtronger than thoſe that are later; becauſe the Seaſon is more favourable, and the Heat more temperate; whereas the Swarms of *June* cannot be ſo ſucceſsful, by reaſon they are uſually attacked with too much Heat and Dryneſs at firſt; ſo that they can neither ſupply themſelves ſufficiently with Proviſions for their preſent Occaſions, nor lay up Stores for Winter.

How the Bees *work their Honey.*

This I have obſerved with particular Care and extraordinary Application, having ſpent a great deal of Time, watching the Hives every Hour of the Day, to ſatisfy my Curioſity in ſeeing the *Bees* work, having provided them Glaſs Hives for the Purpoſe. Towards the End of the Winter, as ſoon as it is gentle Weather, and the Air begins to free itſelf of the great Coldneſs; in the Month of *February*, the *Bees* venture out of their Hives, range the Fields, and bring home Wax of different Colours; as white, yellow, Lemon coloured or red, which ſticks, like little Lentils, on the hinder Parts of their Thighs; and which, when entered into the Hives, they induſtriouſly quit themſelves of, and form with it their Holes or Lodgments, which they compoſe of ſix Sides, thinner and finer than Talc, and almoſt as tranſparent. It is obſervable, that the ſame Hollows, or Sockets, are the Places wherein they depoſit their Sperm, whence are generated the other *Bees*, and which are filled with Honey, as they become empty by the Production of the young *Bees* which they encloſe. They collect their Honey-Comb, or Wax, from all Sorts of Flowers, as the Roſe, the Orange, the Peaſe Bloom, and the Daiſy Flowers.

They bring, beſide the common Wax, a purpliſh kind firmer than the yellow, and ſerving them to ſtop the Holes and Cracks about their Hives: this Wax is of a ſtrong Smell, and very different from the common Kind.

Of the Manner how the Bees *gather their Honey, and the moſt proper Times to take it.*

The beſt Seaſon of the Year for the *Bees* to gather their Honey, is towards the latter End of *April* and in *May*, at which Times they go out by break of Day, when the Air is gentle and ſerene, and gather the Dew, which is more plentiful and common at that Time than any other of the Year: They return as quick as they can into their Hives, to diſcharge into the Holes aſſigned them, the Honey-Dew they have gathered from the Simples of the Field, and which they have ſucked into their Bodies, and throw it up again, as Pigeons do their Food wherewith they feed their Young: And when they have filled a Hole or Socket with this Honey, they cloſe and ſeal it up with a ſmall Piece of Wax, to prevent it from flowing out again.

Towards the End of *June* and *July*, when the Dews are not ſo plentiful as during the Months of *April* and *May*, it happens ſtill there are ſome dewy Mornings in which the *Bees* are not leſs induſtrious than at other Times, to make their Harveſt: and likewiſe it falls out ſometimes that the Fruits of the Earth, as the Corn and the like, are damaged by certain cold drizzling Rains, which are however favourable for the *Bees*, giving them further time to make their Harveſt.

It is obſervable, that when they ſwarm, and that the young ones which compoſe the Swarm are come out of the Hive, they make as it were a Cloud of Flies in the Air, that looks black, and is formed, as they march out, into Squadrons and Battalions, like an Army. They follow cloſe their Leader, or the Principal amongſt them, who is much longer than the others, and whoſe Wings are much ſhorter, and who is of a reddiſh Colour. When they loſe their Leader, they become Vagabonds, and this is a certain Loſs to the Proprietor. When the Swarm are got out, they uſually aſſemble together, and lodge upon ſome ſhady Branch, rather than in any other Place; and being there cloſely knit, it is then proper to hive them, for fear they ſhould deſert; for ſhould they ſtay long till the Sun ſhines upon them, they will then ſeparate and fly away. When they are hived it is proper to ſet them in the Shade from the Heat of the Sun, which might melt their new Wax.

It is alſo to be obſerved, that the *Bees* Wax, for three Years together, is very plentifully productive in breeding of the *Bees*; and that the Age of the Honey-Comb is very eaſy to be known by its Colour; for the firſt Year it is whitiſh, the the ſecond it is yellow, and the third brown; but when older it turns black, is barren, and without Production, and then the *Bees* ceaſe to make Honey, and breed any more Swarms.

I have Hives made of two Pieces, in Form of a Barrel, or Sugar Loaf, cut in the Middle; ſo that I need not deſtroy the *Bees*; and I take the Honey of theſe Hives from Year to Year, by lifting up one Year one Part, and the following Year another, according as they are found full, and inſtead of thoſe that are full of Honey I put empty ones. One very remarkable Thing is this, that *Bees* delight much near Water, and watry Places, uſing a great deal of it in aſſiſting them to make Honey. I have been informed of this by ſeveral of my Friends, and particularly by an Officer of the King, who having *Bees* in a Garden at *Argen-*

teuil,

teüil, where there was a Fiſh-Pond, the *Bees* uſed to go, and come conſtantly to take up Water to carry to their Hives; upon which I aſked him, what he thought of it? And he told me, that it was a Thing he had always obſerved ſince he kept *Bees*.

Care muſt be taken not to have any Space or open Hole in the Top or Bottom of the Hive; for in *July* and *Auguſt* a kind of Butterflies breed and enter the Hives, and engender large, ſhort, hard Maggots, which make a kind of Webs like thoſe of Spiders, which joining the Combs together, produce a Heat, ſo that in two or three Days the *Bees* will be gone, and quite forſake it, after having pillaged it. Theſe Maggots, tho' but few at firſt, will multiply ſo, that in leſs than five or ſix Days they will not leave one Ounce of the Honey-Comb behind, but inſtead of it leave their Eggs; which together with the Webs that are formed, fill up the Whole of the Hive.

It is further obſervable, that amongſt the *Bees* there are Drones which will not go into the Fields at all; or if they do, which is not but from Noon till about four a-Clock, they bring nothing Home with them, but on the contrary eat the Honey made by others; and the induſtrious *Bees* kill the Drones, which are much larger and blacker than the others, and have no Stings; but when you preſs their Tails there appear two little Horns like tranſparent Skins, which are yellow at the End. In *Poland* and *Muſcovy* the *Bees* make their Hives in the Trunks of old Trees, and afford Plenty of Honey, on which the Peaſants almoſt live, without any Aſſiſtance, which is contrary to the Nature of ours. Upon this, *Munſter* and *Guyon* relate a ſurprizing Thing: A certain Peaſant falling into one of theſe Trees where the *Bees* made Honey, in a large Foreſt in *Muſcovy*, as he was ſearching for the Honey-Comb, and not being able to get out becauſe the Hollow of the Tree was too deep and wide, a Bear providentially coming to this Place to ſeek for Honey, the Peaſant immediately catched the Bear by the Paw, and was drawn out from the certain Danger he was in of periſhing in the Tree.

Lemery.

Apis, or the *Bee*, is a Sort of Fly that makes Honey and Wax, and is ſuppoſed to take its Name from being a Fly without Feet, which is not ſo in Fact, for it has Feet, but carries them cloſe to its Belly. It has four Wings; the Tongue is long, which it carries uſually out of the Mouth; it has ſmall Teeth, and the Sting cleaves to the Belly. The Antients pretended, that the *Bee* was generated from the Lion or the Bull; but the vain Trials ſeveral have made are ſufficient to confute ſuch a Notion, as being no other than the Fancy of the Poet. Indeed we read in the Holy Scripture, that *Samſon* found in the Carcaſs of a Lion, that had been killed ſome Days before, a Swarm of *Bees* and Honey; but they were never generated from the Fleſh of the Lion.

The Origin of them is certainly the ſame as that of other Flies, but only their Production is ſlower; yet from the white Maggot they become a perfect *Bee* in a Month's Time. The large *Bee*, which they call the King, becauſe of the others that attend and follow him, is a Male *Bee* that is capable of impregnating a great many Females, after the ſame Manner as one Bull does all the Cows of a Village. This *Bee* is much larger than the reſt, but he has ſhorter Wings. His Colour is reddiſh, inſtead of being brown, as all the others are. The *Bee* ſucks the Virtue of the Flowers, and receives it into her Pouch or Throat, from whence ſhe diſgorges it into the Hive, in order to work it up to Honey; ſhe carries alſo the Wax ſticking to her Thighs. The whole Inſect yields a great deal of volatile Salt and Oil. They are proper, being dried, to make the Hair grow. Being reduced to Powder, and mixed with Oil of Lizards, they make a kind of Liniment wherewith they rub the Head. The eſſential Salt of them is ſo volatile, that it is difficult to keep it in a dry Form. It is a moſt ſubtile and penetrating Thing, and one of the moſt powerful of Diureticks and Diaphoreticks.

24. *Of* Honey.

Pomet.

WE have three Kinds of *Honey* in *France* brought from ſeveral Parts, *viz.* *White Honey*, which is made without Fire, which ſome call *Virgin Honey*, as well becauſe it flows of itſelf, without preſſing, as becauſe it is made from the firſt Year's *Honey-Comb*. The ſecond ſort is made of all kinds of *Honey-Combs* put together (after being well cleanſed) into a Bag, from whence by the help of preſſing there flows a white Honey, but very different from the former; not only becauſe it is not of ſo fine a white, but becauſe the Taſte is not ſo agreeable. The third is the *Yellow Honey*, which is made from the *Combs* put over the Fire in a Kettle, with a little Water, and then put into Bags, and ſqueezed. The *Yellow Honey* is more or leſs fine, according to the Degree of Heat it receives; for if it be too much heated, inſtead of being a fine Yellow, it will be brown, and of an ill Smell. They ſay likewiſe, that the Honey is more or leſs beautiful and good, according to the Quantity of Water which is uſed to heat it.

The fineſt and moſt eſteemed *Honey*, is that of *Languedoc*, which is white; eſpecially that of *Corbiere*, a little Borough about three Leagues beyond *Narbonne*, which is the Place from whence comes the whiteſt and pureſt *Honey*, commonly called *Narbonne Honey*, tho' falſly ſo; for at *Narbonne* they do not know what you mean by *Narbonne Honey*, but are very well acquainted with that of *Corbiere*: the Name has been given to it, becauſe *Narbonne* is a great City, and much better known than *Corbiere*, which is but a ſmall Place. This true Honey, to have its proper Qualities, ought to be new, thick, candied, and entirely like Sugar-Royal, of a ſweet piquant Taſte, and a little aromatick. Next after this is that of other Parts of *Languedoc* and *Provence*, but very much different and inferior to that of *Corbiere*; not only becauſe it is never ſo white, but becauſe it is not ſo pleaſant to the Taſte or Smell, and has not the Roſemary Smell of the other, unleſs it is given it by Artifice. The third and laſt Sort is the white *Honey* about *Paris*, of the Country for twenty or thirty Leagues round, which gives it the Name of *Country Honey*; this is met with ſometimes ſo good, that, except in Smell, it is ſcarce inferior to that of *Corbiere*; that the *Narbonne Honey* muſt excel in theſe, may be readily granted, becauſe the Taſte and Scent of *Honey* proceeds from the Plenty and Goodneſs of the Flowers with which the *Bees* are fed. And as *Languedoc* and *Provence* are warm Countries, and conſequently full of aromatical Herbs and Flowers, as Thyme, Roſemary, Stœchas, *&c.* therefore the *Honey* is better, and of a more pleaſant Smell, and more bought up, eſpecially to make pectoral Ptiſans of, which is its chief Uſe; the Country *Honey* being principally employed in the great Compoſitions, and to eat in *Lent*.

As to the yellow *Honey*, the beſt that comes to *Paris*, and the moſt ſet by, is that of *Champagne*, which to be good, ſhoud be freſh or new, of a good Body, of a golden Yellow, the moſt candied, and leaſt full of Wax that may be; the Fault otherwiſe proceeds from the ill making of it; but the true *Champagne* is of much the beſt Sale, and of more Virtue than all the Honeys brought from ſeveral other Parts, as *Tourain*, *Picardy*, and eſpecially *Normandy*, which is ill-ſcented, reddiſh, and of a very bad Sale, tho' it is more purgative than that of other Parts. This *Honey* is very eaſily known, both by the Colour and Smell; and likewiſe becauſe it uſually comes in Stone Pots, ſuch as Butter comes in from *Normandy*. This *Honey*, tho' not ſo fine as the others, is yet very proper for the Apothecaries to make *Honey of Roſes*, *Violets*, or the like. There are ſeveral other Ends this *Honey* ſerves for; as to diſtil into a Water, Spirit, or Oil, which are reckoned proper to make the Hair grow, and to take out Marks, Spots, or Freckles in the Face. Some likewiſe aſſign to the Spirit of *Honey*, well rectified, the Power of diſſolving Gold or Lead.

Mel, or *Honey*, is a compounded Body of divers Parts of Flowers, which the *Bee* extracts, and receives into her Stomach to carry to the *Hive*, where ſhe diſgorges herſelf, and fills her Cell which ſhe has made in the Honey-Comb before for that Purpoſe. There are two Sorts of *Honey* in general; one white, and the other yellow: The white is made of the firſt Year's Stock, without Fire or Preſſing, which is called *Virgin-Honey*; and the ſecond is preſſed from the Wax, with Force, and by the Addition of Heat. The white *Honey* is finer, and more pleaſant for the Palate, and conſequently better for internal Uſes. The yellow has a little more Acrimony than the white, and therefore is more laxative, and externally a good Deterſive. Raw *Honey* is apt to gripe and ſwell the Belly, but being clarified, it opens, cleanſes, nouriſhes, and reſtores in Conſumptions; is pectoral, diuretick, and one of the beſt Opthalmicks in the World. *Lemery.*

The ſeveral Preparations made of *Honey*, and commonly ſold, are, Clarified *Honey*; the Spirit, Oil, and Water, the Tincture, and Vinegar, with Mead, Metheglin, and Hydromel. Clarified *Honey* is made with the Whites of Eggs; the Water, by putting *Honey* into a large Glaſs, or earthen Body, and diſtilling in Sand with a gentle Heat, until acid Drops begin to come; then ceaſe the Fire, and keep the Water for Uſe. To make the Spirit and Oil, take what remains in the Retort aforegoing, and put it into an earthen one, or glaſs one coated; but let it be ſo large, that two thirds of it may be empty: Place your Retort in a reverberatory Furnace, with a large Receiver, luting the Junćture; begin the Diſtillation with a ſmall Fire, for about three Hours, to warm the Retort; then increaſe it by little and little, ſo will the Spirits come forth, with a little black Oil, and fill the Receiver with Clouds; continue the Fire till all is come over, then ſeparate the Spirit from the black ſtinking Oil by Filtration; the Spirit will be in a pretty Quantity, the Oil little and inconſiderable. The Spirit of *Honey* is an excellent Aperitive, cools the violent Heat of Fevers, quenches Thirſt, and ſtrengthens the Stomach, and may be put into Juleps, to give them a pleaſing Acidity. It may be rectified by diſtilling it in a glaſs Cucurbit in Sand. What aſcends firſt is Flegm; that which riſes laſt is the ſtrongeſt

ſtrongeſt of all, and is uſed to cleanſe old Ulcers, as the Oil is to ſcale rotten Bones.

Tincture of *Honey* is made of pure *Virgin Honey*, mixed with waſhed Sand or Bone-Aſhes, whereon is thrown the beſt rectified Spirit of *Honey*; then let them ſtand in Digeſtion in a Cucurbit, having a flat Bottom, till the Spirit is tinged of a golden Colour, which decant, pouring new Spirit upon the Fæces, ſo long till it will be no longer tinged; mix the tinged Spirits together, and abſtract in *Balneo Mariæ*, till only a third Part remains, which is the Tincture, and one of the nobleſt Medicines for inveterate Coughs, Phthiſicks, and Catarrhs, from a Quarter of a Spoonful to a whole one. *Mead* is compoſed of one Part of *Honey* to eight Parts of Water, well boiled, and worked up with Yeſt Blood-warm, or clarified with the Whites of Eggs, Shells and all: Some add Aromaticks; as Cloves, Nutmegs, Cinnamon, Lemon-Peel, and Ginger; others Alteratives, as Thyme, Marjoram, Mint, Balm, Roſemary, Cowſlip, *&c.* ſome Diureticks, as Sweet-Briar, Eryngo, Tamariſk, *&c.* and ſo every Perſon makes it to his Fancy, whether for medicinal Uſes, or other Purpoſes. *Metheglin* is made of one Part *Honey*, and four Parts Water; to which may be added, Balm, Sage, Mint, Roſemary, Thyme, Bay-Leaves, Angelica, Savoury, *Roman* Wormwood, Geranium Moſchatum, Origanum, Nutmegs, Mace, Cloves, Cinnamon, Ginger, or the like, in the boiling of the Liquor; and in tunning of it up, ſome add black Currants, others Raiſins of the Sun. To make *Hydromel*, take of the beſt *Honey* eight Pounds; Raiſins four Pounds; Tamarinds half a Pound; fifteen Quarts of Water; boil all ſo long till an Egg will ſwim on the Top; let the *Fæces* ſettle; then decant the clear Liquor into a Caſk, adding to every five Pounds four Ounces of Spirit of Wine rectified; let it ſtand ſix Months, and then drink of it as you pleaſe. All the Preparations of *Honey* are pectoral and diuretick.

25. *Of* Bees-Wax.

Pomet. BESIDES the different ſorts of Honeys, and the Uſes made of them, we have a great Trade in yellow and white *Wax*. The firſt ſort is made from the Preſſing of the Honey-Comb over a Fire, with a ſufficient Quantity of Water; and when all is diſſolved, they ſtrain it through a Cloth; this done, they melt it, and ſcum off the Droſs and Froth, and afterwards caſt it into Cakes. Some Perſons, to refine the Wax, uſe *Roman*, or ſome other Vitriol; but for my own Part, the beſt Secret I know of, is to purify it well by melting.

That which we call *Wax*, is, in its natural State, the Honey-Comb which contains the Honey in the Hive. *Poland*, *Barbary*, *Bretagne*, and ſeveral Parts of *France*, furniſh us with a great deal of yellow *Wax*; but that of *Dantzick*, *Bretagne*, and *Champagne* is reckoned the beſt; but it is of no Conſequence what Place it comes from, ſo it be pure and of a good Kind. Chuſe ſuch as is of a high yellow Colour, a good Smell, eaſy to break, and that does not ſtick to the Teeth; and take care that it be the ſame on the Inſide as the Outſide; and, when in large Cakes, as that from *Dantzick*, that there be no Water, Stones, or Earth in the Middle, or that it be not mixed with Reſin, white Frankincenſe, or Pitch, or coloured with Turmerick or *Roucou*.

The Uſe of yellow Wax is conſiderable for ſeveral ſorts of Works; as Tapers, Candles, and other Wax-works. It is of great Uſe in Medicine; for it ſerves to give a Body to Ointments and Plaiſters; and likewiſe to make Sealing-wax for great and leſs Deeds. Some will have it, that yellow Wax has no Virtue in Phyſick. But by the Retort there is made with Wax, mixed with Earth, Bole, or Oak-aſhes, a white thick Oil, like Butter, which is called Butter of Wax, which ought to be white, and have the Smell of Wax. Of this Butter, together with Bole, Chalk, or the like, in Powder, by means of a Glaſs Retort on a Sand-fire, they draw a clear white Oil, like Water, that is of an agreeable and pleaſant Smell. The Butter and Oil of Wax are much valued for the Cure of Chilblains, eſpecially thoſe that are apt to chop, and other Maladies of the like Nature. That which remains in the Bags, after the Wax is ſtrained out, is nothing elſe but the dead Bees and other Filth: It is uſed by the Farriers. We meet with, beſides this, in the Hives, a kind of red Wax, called *Virgin Wax*, or *Propolis*, which is that the Bees uſe to ſtop up the Chinks or Holes of the Hives, to hinder the cold Air from entring. And therefore the more Cracks or Holes there are about a Hive, the more Propolis will be found there.

This was once much uſed, but at preſent is hardly known in the Shops, though it is very good in nervous Caſes.

Of White Wax.

The *White Wax* is made out of the yellow, cut by a certain Engine into ſmall Flakes, and then bleached in the Sun, by which it will become very white. It is then caſt into round Cakes, ſome thicker, ſome thinner. That is the beſt which ſmells well, and chews hard, not being mixed.

mixed with Sheeps Suet, and is withal of a clear Colour, without any Caſt of Yellowneſs. The beſt, and moſt proper to turn white, is the yellow *Wax* of *Bretagne*, which when it is well made, as that uſually is of *Chateau Gontier*, eight Leagues from *Angiers*, which paſſes for the beſt Sort in *France*, will be pure, white, clear, tranſparent, in thick Cakes, that, when broken betwixt the Teeth, does not ſtick, neither has any ill Taſte or Scent.

It is with this fine *Wax* we make the fineſt Works; as Tapers, Wax-Candles, Flambeaux, Figures, and other Curioſities in Wax. And we reckon, after the *Chateau Gontier Wax*, the ſecond Sort is that of *Angiers*; the third that of *Mans*; the fourth that of *Holland*, which is generally brought in great Cakes of four or five hundred Weight; and the firſt Sort is that we call the *Dutch Wax Royal*; the fifth is that of *Amboiſe*; the ſixth of *Chaumont* near *Troyes*; the ſeventh and the worſt is that of *Roüen*, becauſe of the great Addition of Suet they put in, and it is better or worſe according to the Quantity of Suet that is mixed with it.

[*White Wax* is emollient and leſs reſolvent than the yellow; becauſe the Dews have waſhed away a great Part of its Salts.]

Of the ſoft Red *and* Green Wax.

The ſoft *Red Wax* is made of *White Wax* melted with Turpentine that is waſhed, and then coloured with Vermilion or Alkanet. This Wax ought to be of a good Conſiſtence, a fine Red, and well made. The chief Uſe of this, as well as the Green, is for the Lawyers to ſeal Writs and Deeds with. The *Green Wax* is made the ſame Way, only Verdigriſe is uſed inſtead of Vermilion.

Of the Black Indian Wax.

In ſeveral Parts of the *Indies*, as well *Eaſt* as *Weſt*, they have little Bees, which hive, or make their Neſts in the Hollows of certain Trees; the Figure of which is in the Plate of Bees. Theſe Bees depoſit their Honey in little Cells of black Wax, which are of the Size and Shape of Pigeons Eggs: The Honey is very peaſant, and of an Amber Colour. The *Indians* uſe this Wax to make Tapers of, and gather from the Tree the Balſam called *Tolu*, in Veſſels made of it. Some Authors ſay, that there is an Animal like a Cat, that is black, which the *Indians* call *Hierat*, or the Honey-Beaſt, which climbs the Trees, and eats all the Honey; and that which is ſurprizing is, that this Animal draws out the Honey-Comb with his Paw, and does no Damage to the Bees; and the Bees do not hurt him, becauſe they have no Stings like ours. This Wax was formerly much uſed in *Spain*, and a little in *France*; but at preſent we know not what it is, being one of the ſcarceſt Drugs we have. All the Kinds of Wax are naturally compoſed of Oil, volatile Salt, and Flegm, without Earth; being emollient, reſolutive, and proper for Ointments, Cerecloths, and Plaiſters.

[The Bee, like all other living Creatures, is produced from a Male and Female of the ſame Species. There are in every Hive three Sorts of them, the Mules, or common Bees; and the Drones which are the Males, and have no Sting; and the Females, or Queens, commonly but one in a Swarm, in which are perhaps a hundred Drones, and ten thouſand common Bees. The Queen will, in one Summer, give Birth to eight thouſand young ones. As to the Honey, notwithſtanding that the White is generally preferred, the Yellow is beſt in Medicine, as it is not ſo apt to candy, and is more ſpirituous.

It is penetrating and deterging, and therefore good in all Obſtructions from viſcid Humours, but not proper in thin hot Habits. Many Authors relate that Honey has been found in Places where there were no Bees; but as they never talk of its being formed into a Maſs, or lodged in Combs, in all Probability they only mean a Honey-Dew, which is indeed what the Bees make their Honey from.

The Chymical Preparations of Wax are but little uſed, but more than half the Ointments and Plaiſters of the Shops owe their Conſiſtence to it.]

26. *Of* Ambergriſe.

Ambergriſe is the deareſt and moſt valuable Commodity we have in *France*, and the leaſt underſtood, its Nature and Origin being the moſt conteſted; if I ſhould relate what Authors have ſaid upon this Subject, it would make a Volume of itſelf. But to reproach no body, and not to repeat what ſo many Authors have ſaid, I ſhall affirm, that *Ambergriſe*, which we have brought us from ſeveral Parts, and chiefly *Liſbon*, is nothing elſe but a Maſs of Honey-Combs that fall from the Rocks into the Sea, or are torn off by the Waves of the Sea, the Violence of the Winds, or otherwiſe. Theſe Honey-Combs being in the Sea, whether by a Property of the Sea-Water, or by the Virtue of the Sun Beams, are rendered liquid, and floating upon the Water, as they are often found. *Pomet.*

Many Perſons will be ſurprized at what I advance, that *Ambergriſe*, whoſe Nature hath been hitherto

hitherto ſo little known, comes from nothing but Bees Wax, which I could not have affirmed, if a Friend of mine had not aſſured me, he had ſeen a Piece that was one half *Ambergriſe*, and the other half Wax; and to confirm what I ſay, Mr. *De Monconys*, Lieutenant-General of *Lyons*, at Page 71, of his *Voyages*, affirms that he was informed in *England*, that *Ambergriſe* was nothing but Honey-Combs the Bees make upon the large Rocks, which are on the Sea-ſide in the *Indies*, which heated by the Sun, looſen and fall into the Sea, and by its Agitation are brought to Perfection; and that having broken a large Piece of *Ambergriſe*, which was not yet perfectly concocted, he found in the Middle of its Subſtance, the *Honey-Comb* and the *Honey*, both together: And for further Confirmation of this, we may add, that when the *Ambergriſe* is diſſolved in Spirit of Wine tartarized, there remains at laſt a Subſtance entirely like Honey. *Ambergriſe* therefore appears to be no other than the Production of the Honey-Comb, by the large Maſſes it is ſometimes found in, not indeed of three Hundred Weight, as ſome have writ, but however of thirty or forty Pounds.

Mr. *Tavernier*, amongſt other Things on this Subject, ſays, that in the Year 1646, or 1647, a *Zealander*, that was of one of the beſt Families of *Middleburg*, who was Governor for the *Dutch Eaſt-India* Company in the Iſle of *St. Maurice*, which is on the Eaſt of *Madagaſcar*, found on the Shore a Piece of *Ambergriſe* forty-two Pounds Weight, which he ſent to the Company; but, as ſuch Perſons have ever ſome Enemies, and the Piece appearing as if ſomething had been taken from it on one Side, the Commander was accuſed of having taken half, of which however he juſtified himſelf at *Batavia*.

As to the Choice of *Ambergriſe*, which ſome have called by the Name of *Oriental Ambra*, let it be in fine Pieces, of a greyiſh Colour on the Outſide, marked with little black Spots within, of a ſweet pleaſant Smell; and meddle not with that which is ſoft, fat, muſty within and without, and which is full of Dirt and Filth, that is got when the *Ambergriſe* was liquid, or before it gained its Solidity. The beſt Trial of it is a Diſſolution in Spirit of Wine; for that which is pureſt, and leaves the leaſt *Fæces*, is the beſt. The Fictitious is known by the Smell as well as Colour; the Materials of which it is made, appearing either too black or too white: they are commonly Muſk, Civet, Aloes Wood, Storax, *Labdanum*, Goat's Blood dried, *&c.*

Ambergriſe, beſides its Uſe for the Perfumers by reaſon of its excellent Scent, is a very good Medicine to warm the Stomach, and prevent the Cauſe of the Gout from attacking the vital Parts; it refreſhes the Animal Spirits by its volatile Sulphur, ſtrengthens the debilitated Parts, and reſtores in Conſumptions. As *Ambergriſe* is a very dear Commodity, thoſe who buy Quantities of it, muſt take great Care that there be no Mixtures in it, or that it be not counterfeited. The Fineneſs of the Subſtance of this Drug, is the Reaſon that it is never expoſed to the Violence of the Fire, but only diſſolved in Spirit of Wine, or Spirit of Roſes, or ſome ſuch like *Menſtruum* to prepare it, exalt its Smell, and ſeparate it from its earthy Parts: And this is called by the Name of *Tincture* or *Eſſence* of *Ambergriſe*.

Of Eſſence *of* Ambergriſe.

Eſſence of *Ambergriſe*, uſed by the Confectioners, Perfumers, Diſtillers, and others, may be made after theſe ſeveral Ways: To make Mr. *Charas's* Eſſence, take choice Ambergriſe, two Drachms; Sugar-candy, two Drachms; Spirit of Wine, four Ounces; ardent Spirit of Roſes, half an Ounce; put them into a Glaſs Matraſs, with a blind Head, luted in the Junctures, ſet in the Heat of the Sun, Horſe-Dung, or Sand; diſſolve and make a Tincture; decant the clear, and keep it for Uſe in a Glaſs cloſe ſtopt: The Doſe internally is three Drops in Cinnamon-Water, or any reſtorative Liquor. Another Eſſence is made thus: Take *Ambergriſe*, and white Sugar-candy, in Powder, of each two Drachms; Muſk one Drachm; Oil of Cinnamon, Citrons, Oranges, Roſes, Lavender, of each two or three Drops; mix and beat it up into a Paſte, and diſſolve it over a gentle Heat, in Spirit of Wine, in a Bolt Head; or you may make it with *Ambergriſe* alone, in Spirit of Wine tartarized, digeſting in a Sand Heat, or Horſe-Dung, for ſome Time.

The Way to make any odoriferous Thing yield its Scent, is by opening the Body of it (which done, the Smell exerts and diffuſes itſelf immediately) in ſuch Vehicles as have Power either to diſſolve the ſeparated Particles, or extract their *Sulphur* or Tincture. *Ambergriſe* is opened by grinding it firſt with Sugar-candy, then with Oil of *Ben*: It is alſo opened by grinding it with the Yolk of an Egg, and ſeveral other Ways. *Ambergriſe*, in its natural State, ſcarcely affords any Scent at all; but if it be opened, and excited by Solution, with a convenient Proportion of Odours and volatile Sulphur, ſuch as that of *Civet*, it preſently yields a ſweet and pleaſant Flavour. For Example: Take ten Grains of *Ambergriſe*, and three of *Civet*; beat them together in a Mortar, and the *Ambergriſe*

griſe will preſently melt; upon which, put two or three Drops of Juice of Lemons, ſo will you have a Perfume of an admirable Sweetneſs. There is beſides the *Ambergriſe* we commonly ſell, a white Kind which is uſed in the Delicacies at the Tables of Perſons of Quality; as alſo a black Kind like *Liquid Labdanum*, which is ſaid to have been thrown out of the Stomachs of Fiſh that had kept it there ſome Time; this is uſed by the Perfumers, becauſe it has an agreeable Smell, and is cheap. All the Kinds are found on the Sea Shores, particularly thoſe of the *Archipelago*, becauſe of the frequent Earthquakes that Part of the World is ſubject to, which diſlodge all the Combs the Bees make on the Rocks at the Sea Side.

Ambra-griſea, ſeu Ambra Cineritia, *Lemery.* or *Ambergriſe*, is a valuable Commodity. It is very dry, and almoſt as hard as a Stone, light, opaque, greyiſh, and ſcented: It is found in Pieces of different Bigneſs, floating upon the Water in ſeveral Parts of the Ocean, as towards the Coaſts of *Muſcovy* and *Ruſſia*, and particularly in the maritime Parts of the *Indian* Seas. There was a Piece of a prodigious Size, that was ſaid in the Year 1694 to be carried into *Ireland*, that weighed 182 Pounds. The *Naturaliſts* have differed much in their Opinions concerning the Production of *Ambergriſe*, 'till of late it ſeems to be univerſally agreed, that it is made from the Honey-Combs that fall into the Sea from the Rocks, where the Bees had formed their Neſts; and this is confirmed by Experience, becauſe ſeveral Perſons have ſeen Pieces that have been one half *Ambergriſe*, and the other nothing but the plain Honey-Comb: And others again have met with large Pieces of *Ambergriſe*, where, in breaking of it, they have found in the Middle the Honey-Comb and the Honey too. Chuſe ſuch as is clean, well dried, light, and ſpotted within with little black Spots, of a ſweet pleaſant Smell; but avoid the moiſt, ſoft, and foul *Ambergriſe*, as being good for nothing: It is called *Ambra Cineritia*, as being of an aſh Colour. It ſtrengthens the Brain, the Heart, and the Stomach; procures Alacrity, and makes the Spirits gay, provokes Luſt, and is a good Antidote againſt Poiſon or Infection in Men; but raiſes the Vapours in Women, therefore let them avoid it. We meet ſometimes, amongſt the Druggiſts, with a white *Ambergriſe*, which differs from the other not only in Colour, for it is nothing ſo ſtrong, nor half ſo good. There alſo is a black *Ambergriſe*, but it is good for nothing in Phyſick, and but of very little Uſe for the Perfumers.

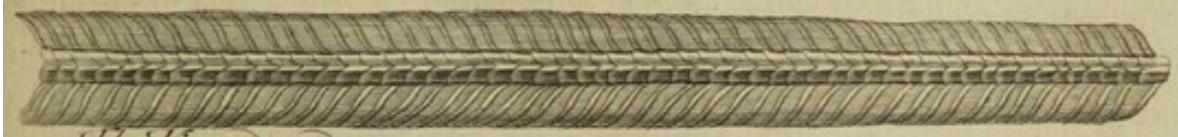
[*Ambergriſe* is the *Ambra*, *Aldr. Muſ. Met.* 430. *Succinum griſeum*, *Ambragriſea vulgo*, *Char. Foſſ.* 15. *Ambragriſea*, *Mont. Ex.* 12. There have been a Multitude of different Opinions about the Production of this precious Perfume; but the true Account of it is, that it is a ſoft Bitumen, oozing out of the Bottom of the Sea, and afterwards hardening. It frequently contains ſmall Stones, Pieces of Shells, and the Beak Mouths of Fiſh of the Calamary Kind, which have been miſtaken for the Beaks of Birds. It picks up theſe while ſoft at the Bottom of the Sea.

Ambergriſe was unknown to the antient *Greeks*, for no Author mentions it before *Aetius*. It is an excellent Cephalick and Cordial, enlivens the Spirits; and is very effectual in Faintings, and all other Affections of the Head and Nerves, and among the Eaſtern People is greatly eſteemed as a Provocative.]

27. *Of the* Viper.

THE *Viper* is a Kind of Serpent that is very common in ſeveral Parts of *France*, but chiefly in *Poictou*, from whence almoſt all the *Vipers* come that we ſell at *Paris*. Theſe Animals were terrible or frightful to all the World heretofore, but they are very familiar to us at preſent; inaſmuch that there are very few People of Quality in Places where they are to be had, but what make Uſe of them as good Diet, and a ſpecifical Remedy againſt ſeveral ſorts of Diſeaſes. This may be ſeen in Mr. *Charas's* Treatiſe of them, wherein he has produced all that can be ſaid on that Subject; to which the Reader may have Recourſe at his Pleaſure. I ſhall content myſelf in directing him to chuſe the largeſt, livelieſt *Vipers*, and ſuch as are newly taken; and to take Care that they are put into temperate Places, becauſe extraordinary Cold or Heat is hurtful to them: They ought likewiſe to be careful when they receive any freſh *Vipers*, to take them out of the Boxes they are brought in, and to take from them the dead ones, if there are any, as ſometimes it happens; and to put them into a Tub with Bran or Moſs; not that it ſerves them to feed upon, as ſome fancy, becauſe theſe Creatures never eat after they are taken; and notwithſtanding this, they will continue alive ſix Months. It is likewiſe to be obſerved, that they are to be taken either by the End of the Tail, or elſe with a Pair of Tongs; becauſe this Animal, when he finds himſelf ſqueezed, bites whatever he meets with; and the Biting of the *Viper* being very dangerous and even mortal, is the Reaſon why the Takers of them ought to be very cautious. The Keepers of them ought to be ſo likewiſe, leſt by Miſchance they ſhould eſcape and get into any Houſe, which would be very

Pomet.



The Viper dry'd.

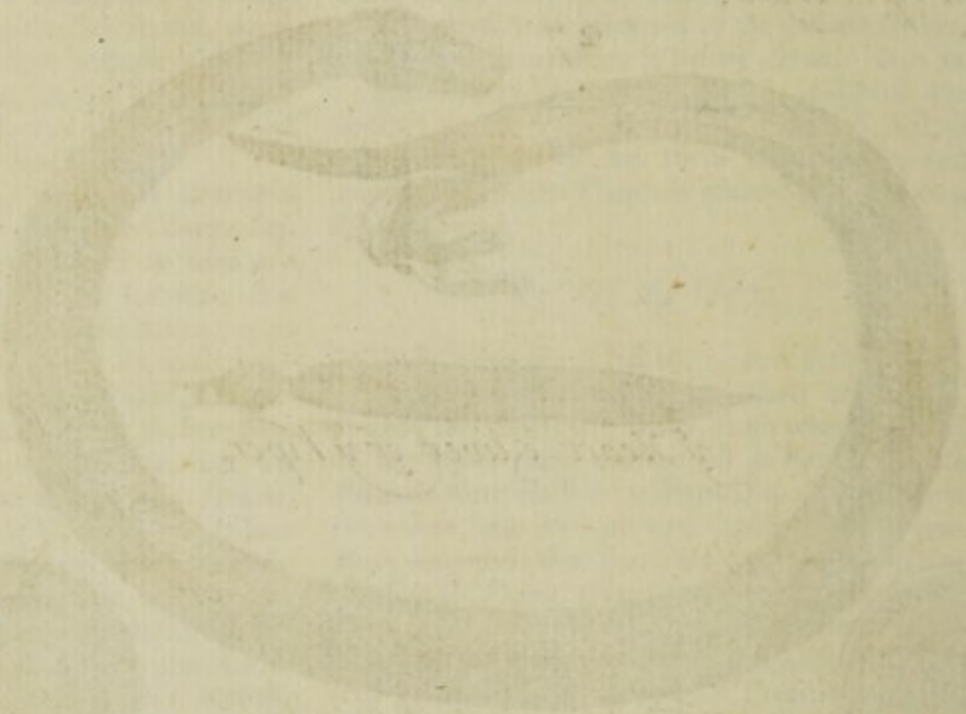
27

ye Heart & liver of ye Viper.

A Viper bringing forth young ones.

29

The Sea Skink.



very dangerous, eſpecially where there are Children.

We have a great many dried *Vipers* brought from *Poictiers*, which ought to be heavy, large, long, well dried, and the freſheſt killed that can be got; for in a little Time after they are dead, the Worms will eat them in ſuch a Manner, that nothing will be left but the Skeleton. You ought to be careful likewiſe, that every Bundle or Parcel of *Vipers*, which is uſually a Dozen, have the Hearts and Livers along with them, theſe being the moſt noble Parts of the Animal, and weigh three Ounces and a half; and ſometimes, but very rarely, four Ounces; and take Care they be not ſuch as have died of themſelves, which you may eaſily diſcern, by their extraordinary Blackneſs. Some will ſay, that there are Snakes ſold for *Vipers*; but this I cannot affirm, having never known it to be done at *Poictiers*. There is, beſides, a great deal of Vipers Powder ſold; but thoſe that buy it ſhould take ſpecial Care, becauſe there is nothing more liable to be adulterated. The Hearts and Livers, reduced to Powder, and ſifted through a fine Silk Sieve, is what ſome call *Bezoar Animal*, pretending that this Powder, thus made, has the ſame Virtues with the *Oriental Bezoar*, treated of before.

They bring us alſo from *Poictiers*, the volatile and fixed Salt of *Vipers*, the Fat, and the black Oil that is made by the Retort, whoſe Virtues and Preparations you have thus deſcribed by Mr. *Charas*. Take *Vipers*, all their Parts very well dried, cut them into ſmall Pieces, with which fill a large Retort of Earth, or Glaſs well coated; fill it almoſt quite up to the Top, fix to it a very large Receiver, luting the Junctures well, place it on a naked Fire, in a cloſe Reverberatory Furnace, with its Dome; ſhut up the Regiſter of the Dome, and the Door of the Fire-place, make a gentle Fire in the Cinder-place, which keep on Foot for two Hours, only to heat the Retort and Furnace; then removing the Fire into its Place, keep it in the ſame Heat for two Hours longer; at the End whereof encreaſe the Fire one Degree, giving a little Air to the Regiſter of the Dome, continuing it ſo for two Hours more; and encreaſe the Fire to the third Degree for the ſame Time; after which ſet the Regiſter of the Dome quite open, encreaſing the Fire to the higheſt Degree, which continue ſo long till nothing comes out of the Retort, and that all the Vapours in the Receiver be converted into Salt or Liquor; then ceaſe the Fire, and the Veſſels being cold, unlute the Receiver, and diſſolve the Salt in the Liquor, or Spirit.

To rectify it, put all this diſtilled Matter into a Glaſs Matraſs, with a long Neck; place it in a Sand Heat, cover it with its Head, and join to it a ſmall Receiver, luting well the Joints, and give it a gentle Heat, ſo will the volatile Salt aſcend, white and cryſtalline, to the Top of the Head, which take and put up into a Glaſs Bottle, ſtopping it very cloſe. Continue the Rectification, ſeparating and keeping apart the Spirit, which is the remaining Part of the volatile Salt, diſſolved in ſome Flegm, and the Oil; and cauſe all the volatile Salt, and oily Parts, to aſcend, caſting away that which lies at the Bottom of the Matraſs, as a Thing of no Uſe.

This volatile Salt of *Vipers* is reckoned an Antidote againſt Poiſons, and a perfect Cure for the Biting of the *Viper*, or any other Kind of Serpent, or venomous Creature: It is alſo prevalent againſt the Meaſles, Small-Pox, Plague, or Peſtilence. It reſiſts Putrefaction in the higheſt Degree, becomes ſpecifical in intermitting Fevers, chiefly the *Quartan*; and there is ſcarce a Medicine known in the World more able to purify the Maſs of Blood, and give it its natural Fluidity: whence it does ſuch conſiderable Feats in chronick Caſes; as Scurvies, *Eryſipela's*, Scald Heads, and ſtrumous Breakings-out; cauſing the foul impure Humours to perſpire through the Pores of the Skin. It is alſo one of the moſt powerful Remedies in Nature for Gout, Rheumatiſm, and Venereal Relicks; for it opens, penetrates, attenuates, and is ſudorifick; ſo that it drives out any corrupted or malignant Humours, through the Habit of the Body; it diſſolves coagulated Blood, removes Inflammations, prevents Apoſthumes, and cures Pleuriſies. This Salt is very aperitive, and opens Obſtructions both of the Head and other Parts; and relieves all Diſeaſes of the Brain and Nerves; as Palſies, Convulſions, Vapours, Fits of the Mother, and the like; ſo that both for external and internal Uſes, there is ſcarcely found a more univerſal Medicine.

All other Preparations of *Vipers*, as Powders, fixed Salts, Tinctures, Decoctions, Broths, Jellies, Wines, Eſſences, Troches, Elixirs, Extracts, *&c.* compared with the volatile Salt, are nothing, for in that is to be found the Sum of all that is in the *Viper*: The Oil is ſo fœtid, that it cannot be taken inwardly; outwardly it may be uſed to ſmell to, and to touch the Noſtrils with in Vapours and Fits; but if it be made into an Elixir, with Spirit of Nitre, and Spirit of Wine tartarized, it is a moſt fragrant Medicine, chears the Spirits, ſuppreſſes Vapours, and invigorates Nature to a Miracle.

Le Febure teaches us how to fix this volatile Salt, which is done by Acids, *viz.* with well rectified Spirit of Salt, dropping it upon it, diſſolved in its own Flegm, 'till the Effervescency and Strife ceaſes,

ceaſes, by which the volatile Salt is united to the Acid: Now though there be no great Need of this, yet it may be of ſome Uſe to watry Stomachs; and though the Taſte and Shape of this Salt, thus fixed, much reſembles Bay Salt, it is quite another Thing in its Effects. This is evident by mixing it with double its Weight of Salt of Tartar, and ſubliming in proper Veſſels; for then the volatile Salt will aſcend with its firſt Force, Strength, and Virtue.

Lemery.

Vipera, or the *Viper*, is a kind of Serpent, which comes alive out of the Belly of its Parent, and not from an Egg, as the other Kinds do. It is about as long as one's Arm, and two Inches thick; ſometimes bigger, and ſometimes leſs, but never arrives at the Size of the large *Snake*, though in outward Appearance they are very like them. They are covered with a ſmooth Skin, a little ſcaly, on the Backſide of ſeveral Colours as in Waves, ſoft and viſcous underneath, and of very cloſe Pores. The Jaws are ſet on both Sides with little Teeth, like the Snakes; but beſides theſe little Teeth, there is on each Side a kind of a Tuſk, or a long, ſharp, cutting Tooth, that is ſometimes forked. In the Jaw is a Bladder, full of a yellowiſh Liquid; the Tongue is long and cloven, which it darts out with great Violence; being provoked, it looks like a Firebrand, which proceeds from the quick Motion or Agitation of the Spirits. This Tongue was ſuppoſed to be venomous, but it contains no manner of Harm in it: The Eyes are very ſmall. The *Vipers* breed in wild ſtony Places in *Dauphiny* and *Poictou*: They live, being at Liberty, on Rats, Frogs, Worms, and ſeveral other Inſects; but when taken and confined, they will live about a Year, without any other Subſiſtence but the Air they receive by the little Holes made in the Tubs or Cheſts wherein they are kept: The Reaſon why they live ſo long without eating, is, becauſe the Pores of the Skin are ſo cloſely contracted, that they emit but very little Spirits or *Effluvia*.

They take the *Vipers* in Spring Time, or Autumn, becauſe they are then fatter, and more active than in any other Seaſon: The Peaſants take them with little wooden Tongs made for that Purpoſe, and carry them in Bags to the Apothecaries. They are much more ſprightly and gay when they are in the Field, than after they are taken, becauſe they then draw themſelves up into a narrower Compaſs, and contract their Pores. Theſe differ from other Serpents, not only as to the two Teeth that are in their Jaws, but likewiſe by a different Connection of their *Vertebræ*, which hinders them, when they are taken by the Tail, from twiſting and turning about the Arm or the Tongs, as the Snake does.

The *Viper* bites with his long Teeth, and ſhoots into the Wound a Spirit, or very volatile acid Liquor, which inſinuates into the Veſſels, coagulates, by little and little, the Blood, and interrupts the Circulation; from whence flows Death, if not prevented. This Effect has a great deal of Analogy with that which happens upon ſyringing, through Curioſity, ſome acid Liquor into the Veins of a Dog, or other Creature; for in a ſhort Time he falls into Convulſions and dies.

The Accidents which attend thoſe who have had the Misfortune to be bit by a *Viper*, are firſt of all, that they grow pale, and then turn bluiſh, as the Blood is more or leſs tinged in the Veins and Arteries. In the ſecond Place, they become reſtleſs, melancholy, and ſleepy; the Pulſe intermitting, becauſe the Courſe of the Spirits being intercepted by the *Coagulum* that is made in the Veſſels, the Blood cannot circulate but with Difficulty. In the third Place, they are chilly or cold, have Inclinations to vomit, and convulſive Motions; becauſe the ſaline and acid Particles which are introduced into the Blood, and which are pungent, prick or irritate the internal Coats of the Veins and Arteries. And laſtly, they die, becauſe the Blood growing ſharper, and coagulating ſtill more and more, the Paſſage of the Spirits is entirely ſtopped, and there can be no Circulation, without which they cannot live.

The Remedies againſt the Biting of *Vipers* are external and internal. The external are, the ſpeedy binding of the Part wounded, if poſſible, making the Ligature tight, in order to hinder the Poiſon from ſpreading further; but if the Part that is bit cannot be bound, you ought inſtantly to apply upon it the Head of the *Viper* that did the Miſchief, after being bruiſed, or elſe that of another *Viper*; otherwiſe, to heat a Knife, or ſome Piece of flat Iron red-hot, and hold it near the Wound as hot as the Patient is able to bear it; or to burn upon the Wound a little Gun-powder; or elſe ſcarify, and apply Treacle with Garlick and Sal Armoniack bruiſed together.

Theſe external Remedies open the Pores of the Wound, and make the envenomed Spirits flow; but it ought to be obſerved, that theſe ſorts of Medicines ſhould be uſed upon the Spot where the Biting is made; for if there be Time given to the Poiſon to enter into the Veſſels of the Body, before Application, all will be uſeleſs, becauſe the Poiſon returns no more to the Wound. But though external Remedies ought not to be neglected upon this Occaſion, they are what bring but little Relief, in Compariſon of thoſe Things that may be

given inwardly; for the Venom of the *Viper* being very ſubtil, it paſſes inſtantly into the Blood, and therefore the Patient muſt take ſuch Medicines as have Power to break the Points of the Acids, diſſolve the Blood, and other coagulated Humours, excite or promote the Circulation, and puſh forward by Perſpiration and Urine whatever Poiſon of the *Viper* may remain.

The volatile Salts of Animals are efficacious for theſe Intentions, becauſe they are alcaline, very volatile, rarifying, ſudorifick, and aperitive That of *Vipers* is preferable to all others, becauſe it is the moſt ſubtil; but inſtead of that, we may uſe the volatile Salt of *Harts-horn*, that of Urine, or human Skull. *Venice-Treacle* is very proper, if old, to relieve this Malady, becauſe it is compoſed of Ingredients chiefly attenuating and rarifying; but when it is new we cannot uſe it with Succeſs, becauſe the *Opium*, which has not yet been rarified by Fermentation, will fix the Poiſon, and rather thicken the Humours, than rarify and diſcharge them.

The largeſt *Vipers*, and ſuch as are well fed, ought to be choſen, and ſuch as are caught in Spring-time or Autumn, when they are in the beſt Condition. The Trunk of the *Viper*, ſeparated from the Skin and the Entrails, is adminiſtered againſt Poiſons, to purify the Blood in the Small-Pox, intermitting and malignant Fevers, boiled in Broths, or taken in Powder, from eight Grains to two Scruples, or a Drachm. The Fat of the *Viper* is ſudorifick, reſolutive, and anodyne, taken internally or externally; the Doſe from one Drop to ſix. The Liver and Heart of the *Viper* being dried and powdered, are called *Bezoar-Animal*, and are reckoned the moſt powerful Part of the *Viper*. The Gall is ſudorifick; the Doſe being one or two Drops. The Word *Vipera* comes from *Vi*, Force, and *parere*, to bring forth; the Antients believed that the Female *Vipers*, in the Pleaſure of Coition, eat off the Head of the Male; and that the young ones, to revenge the Death of the Father, ripped open the Belly of the Mother; but the Word *Vipera* ſeems rather to be derived from *viva*, alive, and *parere* to bring forth, which is as much as to ſay, the kind of Serpent that is brought forth alive, becauſe all the other Kinds are produced from Eggs.

28. *Of* Treacle, *commonly called* Venice-Treacle.

Pomet. TREACLE is a Compoſition of certain choice Drugs, prepared, powdered, and reduced into an Opiat or liquid Electuary, with Honey. *Treacle* takes its Name from the *Viper*, which the *Greeks* call *Therion*, or *Thyrion*; and it was compounded by *Andromachus* the Father, a Native of *Candia*, and firſt Phyſician to *Nero*. The *Venetians*, of late Years, have got the Reputation of being thought the only People who have the true Way of preparing the *Treacle*; but beſide them at preſent the Apothecaries of *Montpellier* make ſuch vaſt Quantities of it, that one may ſee Multitudes of their *Treacle* Barrels; and among them they have reduced it to ſo low a Price, that a Pound of good Honey will ſell for more than the ſame Weight of this pretended *Treacle*. If I was to publiſh the Frauds that are committed in preparing this Antidote, I am ſatisfied the Magiſtrates would preſently put a Stop to the Abuſe, both as to that which is ſold about at Markets and Fairs, as what is ſold at *Paris* for ſixteen or eighteen Pence a Pound. Though, notwithſtanding it is ſold at ſuch a low Price, thoſe who deal in it get conſiderably, becauſe what they ſell is nothing but the worſt Honey, into which is incorporated a Parcel of rotten worm-eaten Roots and Drugs, that are no better than the Sweepings of Shops; to promote or recommend the Sale of this, they cover the Pots with a printed Paper, whereon are two *Vipers* that compoſe a Circle, crowned with a *Fleur-de-Lis*, which contains this Title, *Fine Venice Treacle*, though it is made at *Orleans* or *Paris*.

As to that of *Montpellier*, I have ſeen it often made there, with all the Exactneſs that can be; but what is ſent to the Fairs for common Sale, they mix with large Quantities of boiled Honey, being obliged to ſell it at about eighteen Pence a Pound; though that which is true ſtands them in above forty Pence a Pound. The *Treacle* Makers are called by the honeſt Apothecaries, to ridicule them, Muſtard-Makers. As to the *Treacle* made at *Venice*, I can ſay nothing to it, not knowing directly how they make it; but as to what is made at *Paris*, by Meſſieurs *Charas*, *Geoffry*, *Joſſon*, *Bolduc*, and *Rouviere*, I have ſeen it prepared with all the Care imaginable. And I can affirm, for a certain Truth, that there was a large Quantity thereof made in *March* 1688, without ſubſtituting any one Thing for another, and with the fineſt and beſt Drugs that were ever ſeen, being deſigned for a Maſter-Piece, or Trial of Skill; but as we are not immortal, and that thoſe who ſell this may be capable of knowing the true Compoſition, and of making it themſelves aright, in order to prevent Abuſes, I ſhall here give you the true Receipt; which I would not have done, if Mr. *Charas*, who has writ a particular Treatiſe of *Treacle*, had mentioned the Names of the Drugs in *French*: his Book is entitled, *The Natural*

Hiſtory of Animals, Plants, and Minerals, that make up the Compoſition of Andromachus's Treacle.

Andromachus's *Treacle.*

Take Troches of Squills, ſix Ounces; Troches of Vipers and Hedycroy, Long Pepper, Opium prepared, of each three Ounces; red Roſes, Florentine Orrice, Juice of Liquorice, wild Navew Seed, Tops of *Scordium*, *Balſam* of *Judæa*, fine Cinnamon, and Troches of Agarick, of each one Ounce and an half; Myrrh, *Arabian Coſtus*, Saffron, *Caſſia Lignea*, *Indian* Spikenard, Flowers of Camels Hay, *Olibanum* in Tears, White and Black Pepper, Dittany of *Crete*, Tops of white Horehound, fine Rhapontick, *Arabian Stœchas*, *Macedonian* Parſley Seed, Mountain Calamint, Turpentine of *Cyprus*, Cinquefoil-Root, Ginger, of each ſix Drachms; Poley Mountain, Ground Pine, *Storax* in the Tear, Spicknel, true *Amomum*, Valerian, Celtick Spikenard, ſealed Earth, Germander, *Indian* Leaf, calcined *Roman* Vitriol, Gentian Root, Gum Arabick, Juice of *Hypociſtis*, Fruit of the Balſam-Tree, Aniſeed, Fennil-Seed, common *Cardamum*, *Marſilian* Hartwort, Treacle-Muſtard, Flowers of St. *John's* Wort, Seeds of Biſhop's Weed, Gum Sagapen in Tears, of each four Drachms; *Caſtor*, long Birthwort, Candy Carrots, *Jews* Pitch, Flowers of the leſſer Centaury, *Opopanax*, and *Galbanum*, of each two Drachms; choice Honey three times the Weight of all; *Spaniſh* Wine as much as to give the due Conſiſtence.

To make the Troches of Squills. Take Pulp of baked Squills, twelve Ounces; Flower of the bitter Vetch, ſix Ounces; beat them into a Maſs, and form them into Troches. Troches of Vipers are made of the Fleſh boiled in Water with Dill and Salt, and cleanſed from the Bone, eight Ounces; Crumbs of Bread dried and ſifted, two Ounces. According to Mr. *Charas* they are made up of Dittany Root inſtead of Bread Crumbs. For Troches of *Hedycroy*, take yellow Sanders, Herb-Maſtick, Marjoram, *Aſarabacca*, of each two Drachms; Camels Hay, *Calamus Aromaticus*, the great Valerian, Aloes Wood, true Balſam, Cinnamon, *Arabian Coſtus*, of each three Drachms; Myrrh, Saffron, *Indian* Leaf, Spikenard, *Caſſia Lignea*, of each ſix Drachms; true *Amomum*, one Ounce and an half; Maſtick in Tears, a Drachm; *Spaniſh* Wine enough to form into a Maſs. The Way of making all theſe Troches is to be met with in moſt *Diſpenſatories*, eſpecially thoſe of *Paris*, *Bauderon*, *Charas*, and others.

The Grand Treacle reformed by Monſieur d'Aquin, *the King's Phyſician.*

Take dried Vipers, with the Hearts and Livers, twenty four Ounces; Troches of Squills, Extract of Opium, of each twelve Ounces; Roots of *Contrayerva*, *Virginia* Snake Root, *Angelica*, the great Valerian Spignel, Gentian, Birthwort, *Coſtus*, Indian and Celtick Spikenard, Cinnamon, Oil of Nutmegs by Expreſſion, Saffron, Dittany of *Crete*, *Indian* Leaf, Water Germander, Mountain Calamint, Poley Mountain, Ground Pine, Flowers of St. *John's* Wort, and the leſſer Centaury, *Arabian Stœchas*, *Amomum*, ſmall Cardamums, *Macedonian* Parſley-Seed, Biſhop's-Weed, *Marſilian* Hart-wort, and Myrrh, of each eight Ounces; Reſin of *Storax*, *Opopanax*, Gum Sagapen and *Caſtor*, of each four Ounces; a mellaginous Extract of Juniper-Berries, ſeventy-two Pounds; *Malmſey* Wine, one Quart.

This Preſcription of Treacle has been better received than that of *Andromachus*, of later Years, by Reaſon of the vaſt Number of Ingredients, and the little Virtue that moſt of them have, which was the Reaſon why Mr. *d'Aquin* expunged what was ſuperfluous, and added other Things more neceſſary; the Deſcription of which Additions he gave to Mr. *Charas* to inſert in his Royal Galenical *Pharmacopœia*. As to the Virtues of Treacle, I ſhall not inſiſt on that Topick, becauſe there are ſeveral Authors who have treated of them; beſides the ſeveral printed Papers diſperſed with it, that come from *Venice* or *Montpellier*, that explain the Uſe of it. In ſeveral *Diſpenſatories* we meet with a third Sort of Treacle, called the *Diateſſaron*, becauſe it is compounded of four Drugs, which are the Gentian, round Birthwort, Bay-Berries, and Myrrh, all reduced into Powder, and made up with Honey, and Extract of Juniper, into an Electuary. This Treacle, tho' of a ſmall Price, is not wanting in good Qualities, being very uſeful for all Sorts of Cattle. Some People call it the *Poor's Treacle*, or *German Treacle.*

[And with the Addition of Ivory Shavings, in equal Quantity to the reſt, it is what is commonly ſold under the Name of *Diapente*; this is much uſed by the Farriers, who chuſe to buy it in the Powder, not mixt into an Electuary.]

Along with this Medicine, we have brought from *Montpellier* a Treacle-Water, called ſo, becauſe Treacle is the Baſis of it, and by Reaſon its Virtues, in ſome Meaſure, are like it. The *Montpellier Treacle-Water* of *Bauderon* make thus; Take fine Treacle, three Ounces; Roots of Tormentil, *Angelica*, Vipers Graſs, Dittany of *Crete*, and

and Saſſafras, of each two Ounces ; Bole, one Ounce ; Juniper-Berries, Citron-Seeds, *Carduus Benedictus*, Sorrel, and Purſlane-Seed, of each half an Ounce; Betony, Marygold, Balm, Water Germander, Borrage, and Bugloſs, of each one Handful ; fine Cinnamon and Mace, of each two Drachms; Vinegar of Roſes, made of White-Wine, two Pounds; Juice of Citron and Verjuice, of each ſix Ounces : Chuſe and prepare all your Drugs according to *Bauderon's* Diſpenſatory; and from thence, by a Glaſs Alembick, you may draw a clear Water, of a ſtrong Smell of Treacle, having the ſame Virtues with it: But the ſmall Power there is in Vinegar, Juice of Citrons, and Verjuice, to diſſolve and raiſe the Virtue of the Aromaticks in Diſtillation, made the Sieur *de Pelerin* lay aſide this Preſcription, and follow that which Mr. *Charas* has given us in his *Diſpenſatory*, Page 1030, which will appear much more reaſonable.

Mr. Charas's *Treacle-Water.*

Take Roots of *Gentian*, *Angelica*, *Maſter-wort*, *Valerian*, and *Contrayerva*, of each two Ounces; Citron and Orange-Peel, not candied, but dry, fine Cinnamon, Cloves, and Juniper-Berries, of each one Ounce ; Water Germander, and St. *John's* Wort Flowers, of each one Handful: Spirit of Wine, Walnut and Carduus Water, of each one Quart; fine Treacle, four Ounces ; you draw from thence a very odoriferous Water, more efficacious, and better to keep than the former. It is very proper to reſiſt all Poiſons, and prevent Infections. The Doſe is from one Drachm to four, in a convenient Liquor. Likewiſe it is given ſometimes alone, in a ſmall Quantity. Mr. *Charas* ſays, that there is a Treacle-Water made, by diſſolving of Treacle in equal Parts of Spirit of Wine, and Vinegar diſtilled. They alſo make Treacle-Vinegar ſometimes only by diſſolving it in ſtrong Vinegar, which is uſed againſt the Infection of the Air, to waſh the Hands, Temples, and Noſtrils with.

When the *Roman Orvietan* was firſt known in *France*, we had it from *Rome*, and ſome other Parts of *Italy*, as *Orviette*, from whence it takes its Name; but ſince that the Sieur *Contugi* came to *Paris*, and, under Pretence of the King's Permiſſion, took upon him the whole Management of this Medicine, the Druggiſts have left off to trade in it, either thro' Fear, or becauſe the Demand for it was not conſiderable. But they afterwards underſtood, that when the King gave his Authority to the Sieur *Contugi*, to ſell and trade in *Orvietan* at *Paris*, he did not intend to exclude the Druggiſts or Apothecaries at *Paris* from making it, as has been declared by an *Arreſt*, leſt he ſhould deprive *France* of a Remedy ſo valuable and neceſſary to the Publick : As notwithſtanding all the Care the Sieur *Contugi* could poſſibly take to make it in its greateſt Perfection, he never could make it ſo good as that of *Italy*, becauſe the Ingredients, which are very numerous, have not ſo great Virtues in *France* as in *Italy*, where the Heat of the Climate more exalts the Virtues of Simples than with us.

Orvietan.

Take Roots of Vipers Graſs, *Carline* Thiſtle, Maſter-wort, Angelica, Biſtore, Birthwort, Contrayerva, white Dittany, Galingal, Gentian, ſmall *Arabian* Coſtus, true Acorus, *Macedonian* Parſley-Seed, Leaves of Sage, Roſemary, Goats Rue, *Carduus Benedictus*, Dittany of *Crete*, Bay and Juniper Berries, of each one Ounce; Cinnamon and Cloves, of each half an Ounce; dried Vipers with their Hearts and Livers ; old Treacle, of each four Ounces ; white deſpumated Honey, eight Pounds to make it into a Body. By conſulting of *Bate's Pharmacopœia*, you may ſee how far this Recipe differs from that which he ſays Sir *Robert Talbot* communicated to him, and which we may ſuppoſe he brought from *France*.

Of Mithridate.

Take choice Myrrh, Saffron, white Agarick, Ginger, fine Cinnamon, *Indian* Spikenard, Frankincenſe, and *Thlaſpi*, or Treacle Muſtard-Seed, of each ten Drachms; *Marſilian* Hartwort, Balſam of *Judæa*, Camels Hay, *Arabian Stœchas*, *Coſtus*, *Galbanum*, *Cyprus* Turpentine, Long Pepper, *Caſtor*, Juice of *Hypociſtis*, *Storax* in Tears, *Opopanax*, and *Indian* Leaves, of each one Ounce; *Caſſia Lignea*, Poley Mountain, White Pepper, Water Germander, wild Carrots, Fruit of the Balſam-Tree, Troches of *Cephi* and *Bdellium*, of each ſeven Drachms; Celtick Spikenard, Gum Arabick, *Macedonian* Parſley, *Opium*, the leſſer *Cardamum*, Fennel, Gentian, red Roſes, and Dittany of *Crete*, of each five Drachms; Aniſeed, *Aſarum*, the true *Acorus*, great Valerian Orrice, and Gum *Sapagenum*, of each three Drachms ; Spignel, *Acacia*, the Sea-Skink, and St. *John's* Wort Seed, of each two Drachms and an half; *Spaniſh* Wine, a ſufficient Quantity ; fine Honey, the Weight of all the Ingredients except the Wine; and make all into an Electuary.

Of

Of Troches of Ciphi.

Take fat Raiſins, *Cyprus* Turpentine, each three Ounces; choice Myrrh, Camels Hay, each an Ounce and half; fine Cinnamon, half an Ounce; *Calamus Aromaticus*, three Drachms; *Bdellium*, Spikenard, *Caſſia Lignea*, *Cyperus*, Juniper-Berries, Aloes Wood, each two Drachms and a half; Saffron, a Drachm; fine Honey, *Spaniſh* Wine, enough to make them into Troches. The Way of compounding Mithridate differs nothing from that of Treacle; and as to theſe Troches, the *Diſpenſatories* of *Bauderon* and *Charas* ſhew us the Manner of preparing them.

[In regard to all theſe Compoſitions, as they have properly no Buſineſs in a Work of this Nature, I ſhall not add to the Length of this Chapter, by ſaying any thing farther about them, eſpecially as we have now a new *Diſpenſatory*, in which they are all very greatly reformed and amended]

29. *Of the* Sea-Skink.

Pomet. THE *Sea-Skink* is an amphibious Animal, pretty much like a ſmall Lizard. It is about half a Foot long, and an Inch in Diameter, having a ſharp Noſe, covered with Scales. It has two little piercing Eyes, and a Mouth divided to the Place where the Ears ſhould be ſeated, had this Creature any. It has a great many little white and red Teeth, and goes upon four Feet, little more than an Inch high, which are very like thoſe of an Ape. Its Body is covered with little round Scales, different from thoſe of the Head, which are long and large. They are greyiſh, inclining to brown upon the Back, and of a Silver grey under the Belly. The Body of this Animal grows ſtill ſmaller to the End of the Tail, like the Viper's.

There are a great many of theſe little *Skinks* to be found in the *Nile* in *Egypt*, from whence they are brought us by the Way of *Marſeilles*, only the Entrails are taken out, and the ſmall End of the Tail is cut off. Chuſe ſuch as are the biggeſt, longeſt, heavieſt, moſt dry and entire, and leaſt worm-eaten, to which they are very ſubject. They are reckoned proper to reſtore Warmth in old Age, and Decays of Nature, to encreaſe the *Semen Virile*, and are one of the Ingredients of *Mithridate*.

The Reverend Father *Du Tertre* ſays, that he ſaw not only in *Guadeloupa*, but likewiſe in other of the *American* Iſles, the true *Skinks*, altogether like thoſe brought from *Ægypt*. They are, he ſays, a ſort of *Lizard*, by the Inhabitants of *Guadeloupa* called *Mabouia*, and in ſome other Iſles, the *Land Pike*. Theſe *Skinks* are more fleſhy than other Lizards, the Tail is thicker, and the Legs and Feet are ſo ſhort, that they creep upon the Ground. Their Skins are covered with an infinite Number of little Scales, like thoſe of Snakes, but of a yellow Colour, ſilvered, and ſhining, as if rubbed with Oil. Their Fleſh is good againſt Poiſon, and the Wounds of envenomed Arrows.

Lemery. *Scincus Marinus*, or the *Skink*, is a little amphibious Animal, reſembling a ſmall Lizard, or rather a little *Crocodile*, as long as one's Hand, ſometimes thicker than an Inch, covered with little Scales of a Silver Colour, eſpecially under the Belly, having brown Streaks croſs the Back; the Head is oblong, and thicker over the Jaws than the Neck; the Eyes very little; the Noſe ſharper than that of the *Lizard*, covered with Scales as the reſt of the Body is; the Mouth is cut in very deep, ſet with a great many little white Teeth. Some Authors call it *Crocodilus Minor*, or the little *Crocodile*. It is bred in the *Nile*, and ſeveral other Parts of *Ægypt*, and feeds upon aromatical Flowers. It never grows bigger than as we have it brought to us. They open the Belly and take out the Entrails, then fill it with Poley, or ſome other dried aromatical Herbs, in order to preſerve it. This Creature affords a great deal of volatile Salt and Oil. Some People prefer the Kidneys before the reſt of the Body; but there is no Difference in the Virtue of any of them.

[The *Skink* is the *Scincus*, *ſeu Crocodilus Terreſtris*, *Raii Syn. Anim.* 271. *Scincus quem et Crocodilum Terreſtrem vocant. Geſn. De Quad. Ægyp.* 24. *Scincus Marinus. Mont. Ex.* 6.

It is brought to us dried from *Ægypt*, but is never uſed except as an Ingredient in ſome officinal Compoſitions]

26. *Of* Silk-worms.

Pomet. THE *Silk-worms* are little Inſects, whoſe Origin is altogether ſurpriſing, as well as the various Shapes and Changes they undergo. Several Authors have writ of them; and amongſt the reſt Mr. *Iſnard*, in a little Treatiſe of his, at the 254th Page, gives this Account of their Original. "At the Time when the Mulberry-"Leaves are ready to gather, which ſhould be five "Days after their Budding in the Beginning of "the Spring, they take a Cow, which is almoſt at "Calving, and feed her wholly with Mulberry-"Leaves, without giving her any Thing elſe to "eat of Herbs, Hay, or the like, till ſhe has "calved; and this they continue for eight Days "longer;

" longer; after which they let the Cow and Calf " both feed upon this some Days together, with- " out any other Mixture, as before: They kill " the Calf after it has been filled or satiated with " the Mulberry-Leaves and the Cow's Milk; then " chop it to Pieces to the very Feet, and with- " out throwing any thing away, put all together, " the Flesh, Blood, Bones, Skin, and Guts, into " a wooden Trough, and set it a-top of the " House in a Granary, or Garret, till it is cor- " rupted; and from this will proceed little Worms, " which they lay in Mulberry-Leaves, to raise " them afterwards, just as they do those which " are produced from the Eggs; and these Silk- " worms are abundantly more fruitful than those " from the Eggs; so that those who deal consi- " derably in them, never fail every ten or twelve " Years to raise them this Way."

There are so many Particulars relating to the Management and Breeding of these little Creatures, that it would be troublesome to dwell upon this Subject; besides, it has no relation to my present Purpose; and since Mr. *Isnard* has writ an entire Book upon it, I shall refer those to it who would know further. These little Animals supply us with a Commodity so valuable, that formerly those only of the best Quality were clothed with it. There are several Colours of Silk; as white, yellow, and the like: These different Silks are found in little Balls of the Size and Shape of a Pigeon's Egg; and by the means of warm Water, and certain *Windles*, they wind them into Skains, and then dye them of what Colour they please.

I shall not detain you with a Description of all the different Silks that we have brought us from several Parts, contenting myself only to say, that what is used in Physick is the Natural; that is to say, the *Ball*, or what is wound up naturally, and without passing thro' hot Water, to which the Antients gave the Name of Raw-Silk; or rough as it comes from the *Silk-worm*. This Silk, after it is reduced to Powder, which is not very easy to do, is brought into several Compositions, as Confections of *Alkermes*, *Hyacinth*, *&c.* They use likewise Silk dyed scarlet, to give to Women in Child-bed, instead of *Alkermes*. Several Authors say, that Silk has the Virtue of making the Heart pleasant, and the Spirits brisk, and to cleanse the Blood. Those who use the Balls of Silk ought to take care, before they reduce it into Powder, to cut it asunder, and take away the Worm that is within, sometimes fresh, and sometimes rotten, with the first Skin that wraps it about, as not fit to be taken inwardly; and those who would have the best, use nothing except the Silk that is wound off, because the rest is nothing but Dross, or Refuse Stuff. It may be reduced to Powder, by cutting it very fine, so that it will pass thro' a Sieve; for to beat it, will be a tedious Work; besides it will lose half. As to the Confections of *Alkermes* and *Hyacinth*, the scarlet Silk ought to be preferred to all other, tho' almost all Authors recommend the Raw-Silk, which is that which is white, or of a Gold Colour, and which has not been dyed.

There are several other Reptiles which we sell, as the Leeches which are found in Ponds and Ditches, and which the Surgeons apply to several Parts of the Body, and chiefly those where Cupping-Glasses cannot be easily fixed. There are several Sorts of Leeches; the best of which are the smaller kind, which have small Heads, reddish Bellies, with Streaks upon the Back, that are of a Gold Colour. They are to be met with in clear running Water. Throw away the venomous Sort, which have thick Heads, and are of a green Colour, that shine like Glow-worms, and are streaked with blue, and found in muddy Waters; for instead of relieving the Patient, they will cause Inflammations, Apostlumes, Fevers, and malignant Ulcers that are sometimes incurable. To keep these Leeches, put them into clean Water, that must be renewed from Time to Time, to which some will add Sand and Earth.

We sell, besides these, the Powder, volatile Salt, and Oil of Toads, as well as the Stone that is found in the Head of the large and old ones, to which the Antients attributed great Virtues; and Mr. *Charas* treats of it very largely, in his *Chymical Dispensatory*, *Page* 794; to which those who desire to know further may have Recourse. There are some who rank the Toad-Stone among the precious Stones, not only because it is scarce to be met with, but because it is endowed with so many excellent Virtues, being proper to resist all Sorts of Poison. The white is the most valued, tho' those which are of another Colour, are endowed with no less Virtues: They frequently impose upon the Buyer, instead of the Toad-Stone, a little round or longish Stone, that is found in several Parts of *Europe*.

We sell likewise volatile Salt, Oil, and Powder of *Millepedes*, or Hog-Lice, to which Mr. *Charas* assigns great Virtues. The Powder is given with Success in Nephritick Cholicks, Retentions of Urine, the Jaundice, Diseases of the Eyes, and all Obstructions. Mr. *Charas* attributes also great Virtues to the volatile Salt of *Canthorides*, Earth-Worms, and Ants; as may be seen in his *Chymical Pharmacopœia*. We sell likewise the Oils of *Scorpions*, simple and compound, which we have ready made from *Provence* and *Languedoc*, and for which we have a better Price than for those made

made by the Apothecaries at *Paris*; and which, without Diſpute, are much better, becauſe the *Scorpions* are moſt frequent in thoſe Provinces. And the other Ingredients have alſo more Virtue there, from the Warmth of the Climate. The firſt or ſimple Oil of Scorpions is only made of Scorpions and Oil of bitter Almonds: The Compound is that of *Matthiolus*, which is made of the following Drugs, *viz.* of Scorpions, old Oil Olive, the Flowers, Leaves, and Seed of St. *John's* Wort, Germander, Mountain Calamint, *Carduus Benedictus*, Water Germander, leſſer Centaury, Vervain, Dittany of *Crete*, Zedoary, White Dittany, Gentian, Tormentil, round Birthwort, *Storax*, Benjamin, Juniper-Berries, *Nigella* Seed, fine Cinnamon, *Calamus Aromaticus*, long *Cyperus*, white Sanders, Rhubarb, Myrrh, Aloes, *Indian* Nard, Saffron, Treacle, Mithridate, and White Wine; the Quantities of theſe Ingredients you will find in *Matthiolus's* ſixth Book of Poiſons; or in *Bauderon*, or *Charas's Diſpenſatory*, whereto thoſe who deſire to make it may have Recourſe. This Oil is one of the moſt difficult Compoſitions in Pharmacy, becauſe of the different Mixtures, and the Difficulty of getting the Scorpions alive from *Provence* or *Languedoc*.

Lemery.

Bombyx, ſive Vermis lanificius, the *Silk-worm*, is a Kind of Caterpillar, or a Worm as long and thick as one's little Finger, divided from one Part to another in a Sort of Rings; having under them uſually fourteen Feet, ſix in the fore Part, which are very ſmall, and eight on the hinder Part, which begin after the third Ring: The two laſt are much larger than the reſt; the Shape of them is ugly to look upon; their Subſtance very moiſt and viſcous. They are clothed with a very thin tender Skin, eaſy to break, and of a brown or whitiſh Colour, with ſome Spots. The *Silk-worm* is produced in the Spring, from a little round Egg, that is like a Poppy-Seed; is fed with Mulberry-Leaves freſh gathered; for if they are decayed, they kill the Silk-worms. When they are grown to their full Size they eat no longer, but ſpue out of their Mouths a kind of thick, gluey, or viſcous Slaver or Foam, which they ſtretch, extend, and work to a Silk Web, and then wind into a *Clue*, that is ſometimes white, and ſometimes yellowiſh, and in this the Animal is wrapped, and lies ſeveral Days, ſtill working till it dies; but if you do not in time throw this *Clue* into Water to draw off the Silk, it will quit this thick Clothing, pierce thro' the *Clue*, and ariſe a fine, white, gaudy, active Butterfly; and if you leave after this Manner a Number of them, you will have a diverting Sight, to ſee the Male and Female Butterflies careſſing, and making Love; from whence, afterwards, you have Eggs.

The Silkworms yield Abundance of Flegm and Oil, but little volatile Salt. They are reckoned very good to cure a *Vertigo*, if after they are dried and powdered you apply the Powder upon the Head, being firſt ſhaved. The Silk upon the *Clue*, before it is caſt into the Water, is called *Sericum crudum*, or Raw-Silk. It ought to be cut aſunder to uncover the Worm within it. This yields a little Flegm, a good deal of Oil, but very little volatile Salt and Earth. It is thought proper to recruit the Spirits, and purify the Blood, being taken in Powder. Some People hold, that if you feed a Calf with Mulberry Leaves, then kill and cut it to Pieces, and expoſe it to the Air, upon a Houſe, it will produce Silk-worms; but this Thought wants Confirmation. In the Parts where they trade in Silk, as *Savoy*, *Languedoc*, and *Provence*, they put their Silk-worms in Chambers, where they are diſpoſed in Repoſitories or Niches, where they make their *Clues*; good Quantities of which they preſerve on purpoſe to have Eggs, and they throw the reſt into warm Water, wherein the Worms die.

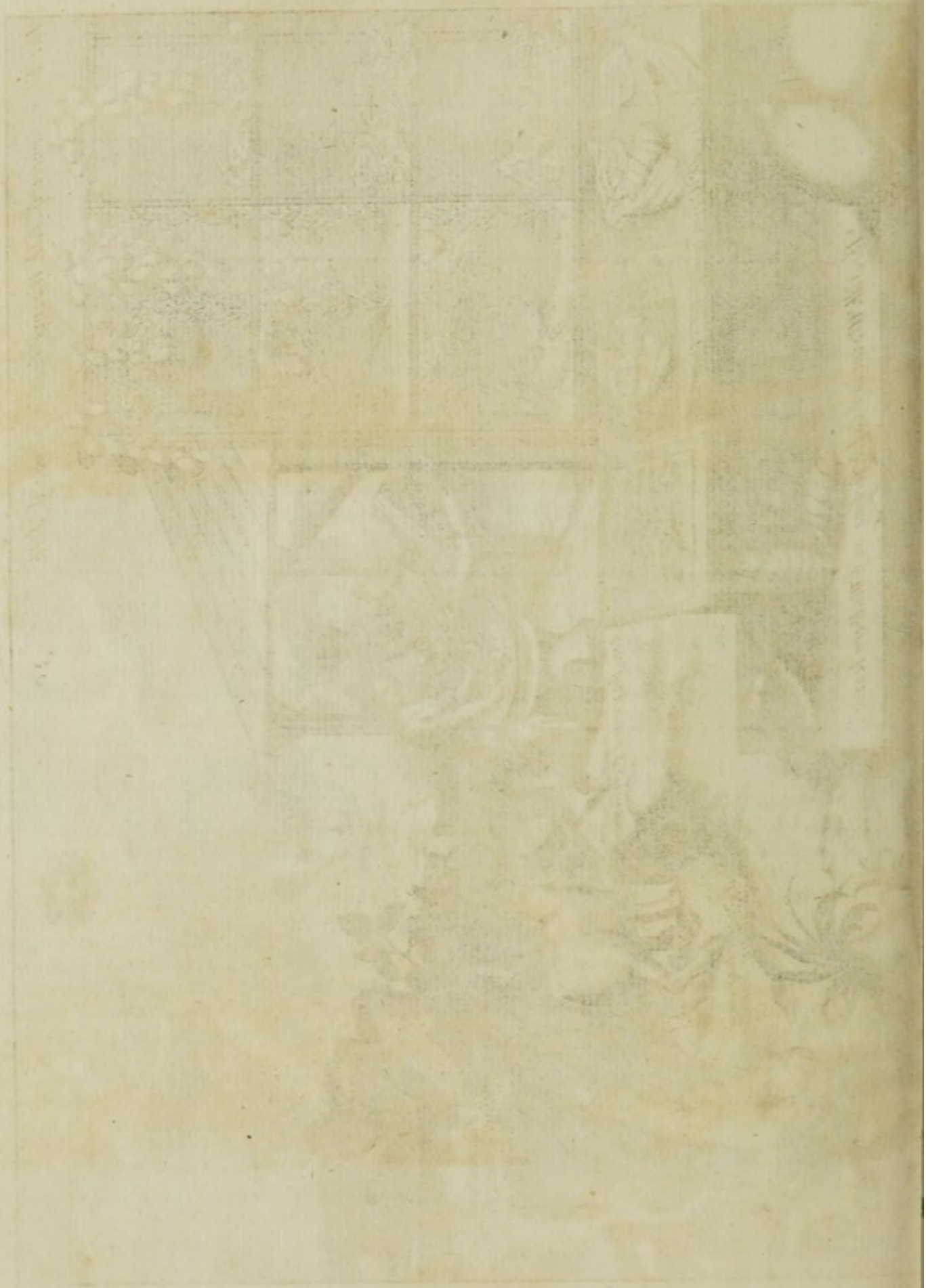
[The Silk-worm is the *Bombyx*, *Aldrov. De Inſ.* 278. *Jonſ. De Inſect.* 114. Its Origin is from the Eggs of a Female Butterfly, as all the other Caterpillars have theirs. Mr. *Iſnard's* Account of their Production, is much ſuch another Story, as *Virgil's* of the Bees, for unleſs the Silk-worm Butterfly would lay its Eggs in putrified Fleſh, which it is moſt certain ſhe never does, it is altogether impoſſible young Silk-worms ſhould ever be found there. The Raw-Silk was once in eſteem as a Cordial and Sudorifick, but at preſent is never heard of in the Shops.

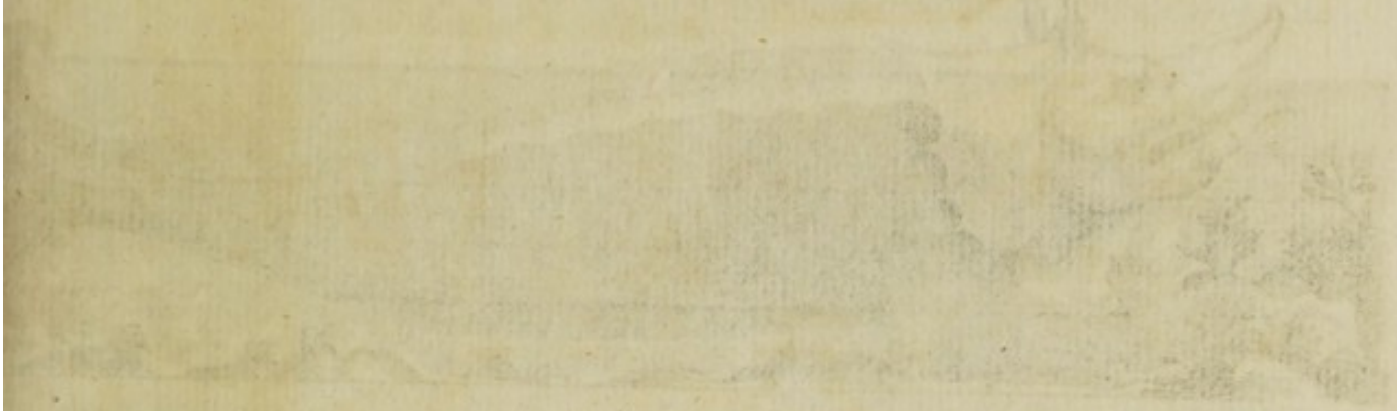
The Toad is the *Buſo*, *Jonſ. De Quad.* 131. *Buſo ſive Rubeta*, *Raii Syn. An.* 252. *Rana Rubeta tum Paluſtris tum Terreſtris*, *Geſn. De Quad.* 54. The dried Toad is a good Medicine in Dropſies, being a powerful Diuretick taken in Powder from two Scruples to a Drachm.

What is commonly called the Toad-Stone, and generally believed to be taken out of the Head of the Toad, is a ſmall Subſtance of various Colours, ſometimes brown, ſometimes black, ſometimes greeniſh, and ſometimes of a duſky green and whitiſh-brown marble together, concave on one Side, and convex on the other.

Theſe Stones, as they are called, are not taken out of the Toads Head, but are the *Dentes Molares* of the Sea Wolf, the *Lupus Marinus Schonfeldii*. *Jonſ. Tab.* 47. *Lupus Marinus noſtras et Schonfeldii*. *Raii Icth.* 130. They have been formerly ſuppoſed good in peſtilential Diſeaſes, and Antidotes againſt

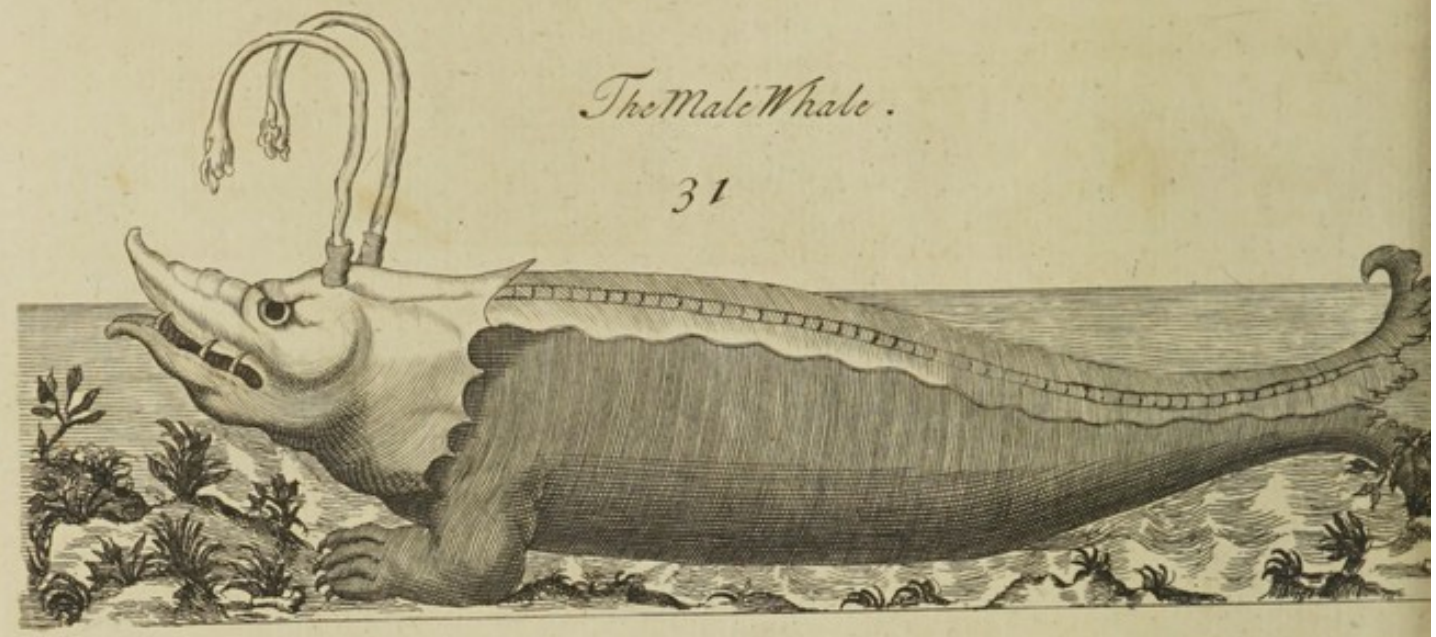
The Plane where ye Silk Worms feed & make ye Silk. 30
how they wind ye Silk.
A Calf cut into pieces from whence ye Silk Worms are feed.
A Cow feeding on ye Mulberry leaves.
The Silk Worm turn'd into a Butter-fly.
The Silk Worm in ye Cod, & feeding on ye Mulbery leaves.





The Male Whale.

31



The Female Whale.

againſt all Kinds of Poiſons, but are wholly neglected in the preſent Practice.

Millepedes are the *Aſelli Millepedes et Oniſci* of the Shops, the *Aſellus lividus major. Raii Hiſt. Inſ.* 42. *Onixus ſive Aſellus. Aldrov. de Inſ.* 632. Of theſe there are many Preparations, but the beſt Way of taking them is certainly the ſwallowing them alive, and the next to that their Expreſſion made with Wine.

The Scorpion is the *Scorpio, Jonſ. de Inſ* 95. *Scorpius, Raii Hiſt. Inſ.* 9. It is an Animal ſomething reſembling a Crab, but ſmaller, it has eight Legs, and is of a black or duſky brown Colour, the Oil is much in Eſteem as a Remedy againſt the Creatures Poiſon, which it may indeed eaſily be, by its own Virtues, whether it receive any thing from the Scorpion or not. The Aſhes of them, when burnt, are alſo commended in the Stone and Gravel, but ſeldom uſed.]

31. *Of the* Whale.

Pomet. THE *Whale* is the largeſt of all Fiſh, it is found in the Northern and North-Weſt Seas. The *Skeleton* of one was ſhewn at *Paris* 1658, whoſe Skull was between ſixteen and ſeventeen Feet long, weighing four thouſand ſix hundred Pounds; the Jaws ten Feet wide, and fourteen Feet long, weighing each eleven hundred Pounds. The Fins, which looked like Hands, twelve Feet long, and weighing each ſix hundred Pounds. The Ribs twelve Feet and a half long, each weighing fourſcore Pounds. The Joints of the Back, from the Head to the End of the Tail, forty five Feet long; the firſt Joints weighing fifty Pounds each, and the others leſs, according as they come nearer the End. I ſhall not trouble myſelf to give an Account of all that relates to this Animal, or the Manner of taking it, becauſe ſeveral Authors have treated of it; but I ſhall only ſay, that there are two Sorts of Whales; the one is called *Cachalot*, which differs from that which is called the *Whale*, in that the Mouth of the *Cachalot* is furniſhed with little flat Teeth, without a Beard or Whiſkers, which is contrary to that which commonly bears the Name of the *Whale*, which has nothing but Whiſkers. Theſe Whiſkers are what we call *Whale-bone*. It is from the Fat of theſe Animals, that they draw *Whale Oil*, which is a very great Commodity, eſpecially in Times of Peace, by reaſon of the great Uſe they have for it in *France*, as well for Burning, as ſeveral other Uſes, wherein it is very neceſſary. We have two Sorts of Whale Oil come to *Paris*, the beſt of which is, that which we call Oil of the Great Bay, which is by the *French* made of the Fat immediately after it is taken from the *Whale*; whence it comes that the *French* Oils do not ſmell ſo ill as thoſe made in *Holland*, becauſe the *Dutch* do not make their Oils from the Fat ſo ſoon as it is drawn from the *Whale*, but bring it into *Holland* to be melted; wherefore we ought to prefer the *French Oils* to thoſe of *Holland*, which are eaſily known, becauſe the *Dutch* are red and ſtinking, and yet are clear. The great Quantities we have of Whale Oil, come from the Northern Sea, eſpecially *Greenland*, from whence the *Hollanders* are ſupplied, becauſe the greateſt Number of *Whales* are found there.

Of Sperma Ceti.

The *Sperma Ceti*, according both to the Antients and Moderns, and which, tho' improperly, is called ſo at this Day, is the Brain of a Sort of Whale called by the *Biſcayians Byaris*, and by the People of *St. John de Luz*, *Cachalot*. This Animal is named by ſome, the Male Whale, and in *Latin*, *Orca*; it is about twenty five Feet long, and twelve Feet high; each of the Teeth weigh a Pound, and are very uſeful for ſeveral Sorts of Works: Theſe Creatures are very common at *Cape Finiſterre*, on the Coaſt of *Galicia*, and in *Norway*. In the Year 1688, there was one taken by a *Spaniſh* Ship, that carried it to *St. Sebaſtian's*, from the Head of which were taken twenty four Barrels of Brain, and from the Body ninety ſix Barrels of Fat: They ought to be undeceived who believe that *Sperma Ceti* is any thing elſe but the Brain of the *Cachalot*; and I can affirm this with Certainty, not only having ſeen this prepared, but having prepared it myſelf, in the following Manner.

This *Sperma Ceti* is uſually prepared at *Bayonne*, and *St. John De Luz*; and this Work is ſo rare in *France*, that there are but a few Perſons at the latter Place, who know how to prepare it. Thoſe who perform this, take the Brain, and melt it over a gentle Fire; then they caſt it into Moulds like thoſe wherein they refine Sugar; and after it is cooled and drained from the Oil, they melt it again, and proceed after the ſame Manner, till it is well purified and very white; then, with a Knife made for the Purpoſe, they cut it into Scales or Flakes, juſt ſo as it appears when brought to us. As this Commodity is of ſome Conſequence, by Reaſon of its Price, I muſt tell you, you ought to chuſe ſuch as is in fine white Flakes or Scales, that are clear and tranſparent, of the true natural Smell; and take Care that it be not augmented with white Wax, as it happens but too often, which is eaſy to diſtinguiſh, as well from the Smell of the Wax, as becauſe it is very thin, and of a more unpoliſhed white.

white. Likewise carefully observe, that it be what is made of the Brain of the Whale, because that which is made of the Fat, is very apt to turn yellow, and this is the Reason we sometimes meet with *Sperma Ceti* that immediately turns yellow on being exposed to the Air; we have no Commodity which is so sensible of the Air as this, which is the Reason why it ought to be carefully kept in Glasses, or in Barrels, close stopped from the Entrance of any Air, lest this Drug turn yellow. It dissolves easily in unctuous Liquors, and is therefore a common Ingredient in Pomatums, and other such Compositions. Women in Child-bed take of it, to a Spoonful, to remove After-pains, and assist their Cleansings; and it is an excellent Remedy in Bruises, Inflammations, Pleurisies, or the like, taken with Syrup of Violets, Oil of sweet Almonds, &c.

Balæna, sive Ceta, sive Cetus, or the *Whale*, is a vast Fish bred in the Northern Seas, whereof there are many Kinds. From the Flesh of this they make the *Whale* or *Train Oil*; and from the Brain of a Sort of Male Whale, which they call the *Orca*, *Byaris*, or *Cachalot*, is made what we call *Sperma Ceti*. The Fish is common along the Coast of *Galicia* in *Spain*. When the Brain is separated from the Head, they melt it with a gentle Fire, and cast it into Moulds to cool; then they separate the Oil, and so repeat the Work till the Matter is clear and white; after which they divide it into Scales or Flakes for Sale. This was called *Sperma Ceti*, because the Antients believed that it was the Sperm of the Whale that floated on the Sea. Several Moderns have rejected this Opinion, but would establish another which is as foreign from the Truth as the former. They say that the *Sperma Ceti* is a *Sea Bitumen*, or a kind of Sea Froth, that is driven by the Waves to and fro. It is astonishing that the Origin of this has been a Secret so long; for it is not above two and twenty Years, since it was known that this was drawn from the Head of the Whale. The *Sperma Ceti* is resolutive and mollifying. They use it in Pomatums to soften and smooth the Skin; in Ointments or Liniments, to dissolve the Hardness of the Breasts: In Injections of the Womb, to soften the same; and it is given inwardly, to correct the Acrimony of Humours in the Breast or Belly. The Dose from half a Scruple to two Scruples.

[The common Whale from which we have the *Train Oil*, and Whale-bone, is the *Balæna vulgaris. Ald. de Pisc.* 688. *Balæna vulgaris edentula dorso non pinnato. Raii Syn. Pisc.* 6. *Balæna major laminas in superiore maxilla habens bipennis, Fistula carens. Sib. Phal.* 27. *Balæna vulgo dicta, sive Mysticetus Aristotelis Musculus, Plinii, Gesn. de Aquat.* 114. It is common in the Northern Seas. The *Train Oil* is made from its Fat, and the Whale-bone, as it is called, is found in its Mouth in *Laminæ* of a horny Substance.

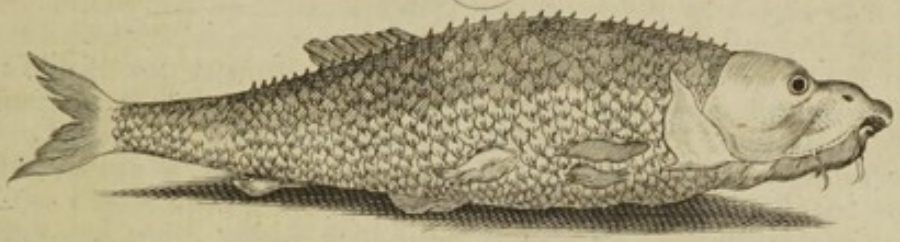
The *Sperma Ceti Whale* is the *Balæna macrocephala quæ binas tantum pinnas laterales habet. Sib. Phal.* 12. *Balæna major inferiore tantum maxilla dentata macrocephala bipennis. Raii Syn. Pisc.* 15. It is principally caught in the *Greenland* and *Iceland* Seas. What we call *Sperma Ceti* used to be prepared from a natural fat Substance, found in the Ventricles of the Brain, the Diploe of the *Cranium* and circumjacent Parts of this Fish; sometimes by simple Meltings as described by our Author, and sometimes by boiling in a strong *Lixivium*, till all the Humidity being evaporated, a white solid Matter, like Soap, remained; this being cleansed from the coarse Oil, and Salts of the *Lixivium*, by repeated Meltings and Washings, they divided with Knives, into *Laminæ*, as we see it. But of late, they have found a Way of making it out of any sort of Oil.]

32. *Of the* Fish-Glue, *or* Isinglass.

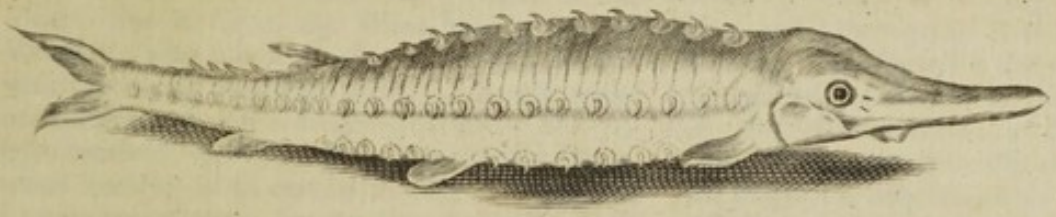
THAT which we call *Fish-Glue*, or *Isinglass*, the *Latins*, *Gluten Alkanac*, the *Greek*, *Ichthyocolla*, and the *Arabs*, *Alcana*, is the mucilaginous Part of a Fish, whose Back is full of little white Scales that are prickly and ranged in Order, commonly found in the *Muscovy* Seas; which is the Reason that almost all the *Isinglass* we have from *Holland*, is brought thither from *Archangel*, where is kept a famous yearly Fair. Several who have writ of this Fish whereof they make the *Isinglass*, and among others, *Rondelet*, have said that it has no Bone, which is the Reason why it is called the Fish without Bones. They have pretended also, that it has no Prickles, which is very wide of the Truth, because the Back of it is so well furnished with them, that there is not any Fish, how strong soever, will dare to bite it; the Scales, though they are small, are very sharp, as represented in the Cut, which I had engraved from the Original which I have in my Hands. The Antients imagined, that it was of the cetaceous Kind, that is to say, that it resembled in Nature and Bulk, the Whale or Dolphin, because the Head is very thick, heavy, and large, the Mouth very long and open, and that there grows to the Upper Jaw a certain long Excrescence, hanging down like a Beard. As to the Flesh, it is sweet and gluey, and consequently of little Relish, if it be not salted some Time before it is eat. *Pomet.*

32

The Ising-glass Fish

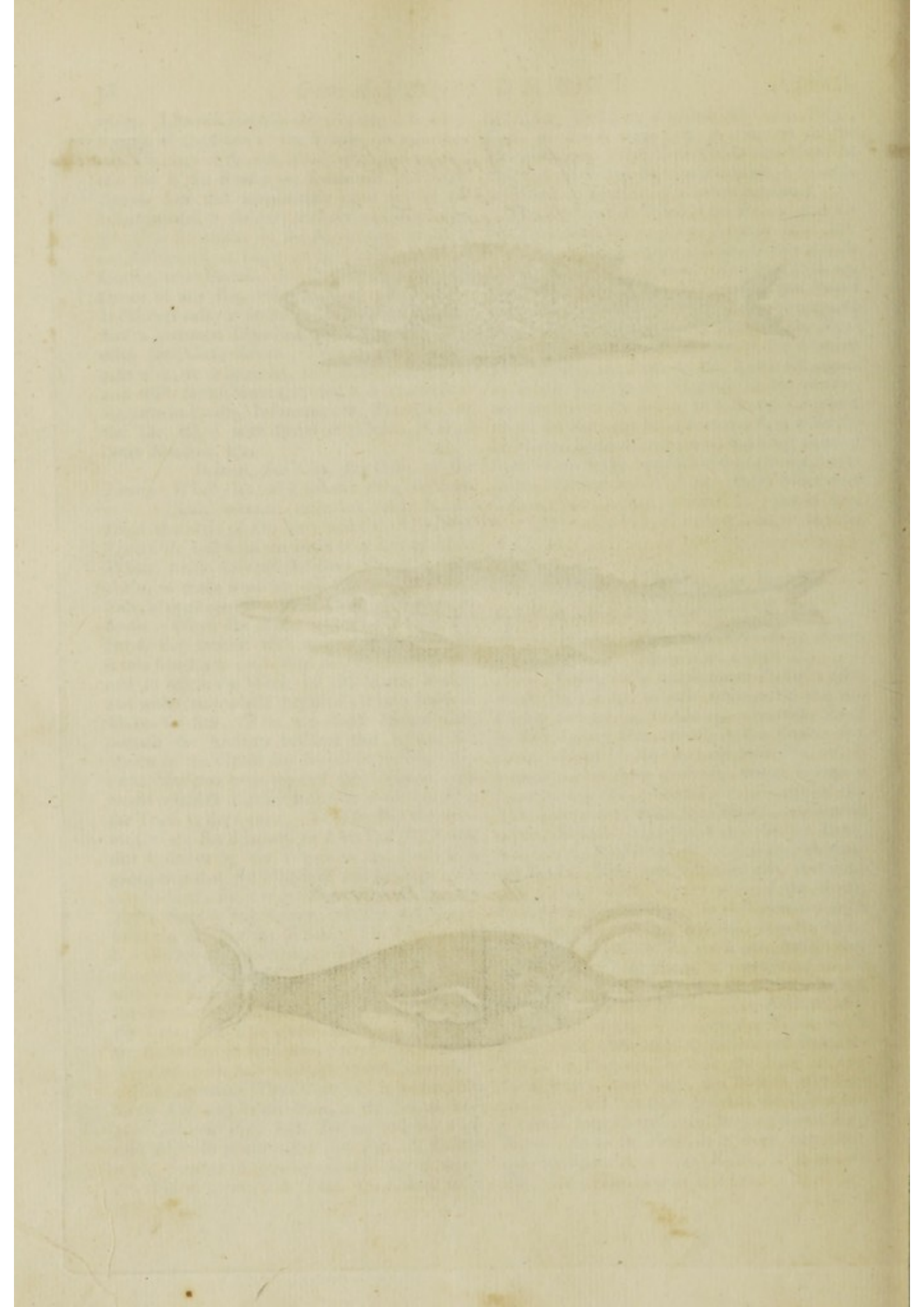


The Silurus.



33

The Sea Unicorn



As to the Manner of making the *Iſinglaſs*, the ſinewy Parts of the Fiſh are boiled in Water, till all of them be diſſolved that will diſſolve; then the gluey Liquor is ſtrained, and ſet to cool. Being cold, the Fat is carefully taken off, and the Liquor itſelf is boiled to a juſt Conſiſtency, then cut into Pieces, and made into a Twiſt, bent in Form of a Creſcent, as commonly ſold, then hung upon a String, and carefully dried. That which is cleareſt and whiteſt is beſt; and which being boiled in Water and Milk, will almoſt all diſſolve. It is chiefly made in *Muſcovy*; and that which is called the Patriarch Sort, which is four ſquare, very thin and white, almoſt tranſparent, is the choiceſt; the next is the *Czar's* Sort, which is the large Horſe-ſhoe, or twiſted Kind, that is in thin Rags, and clear; a meaner Sort is that which is yellow and brown within; and that in ſquare Books or Cakes, is the worſt of all.

The Uſe of *Iſinglaſs* is very common in *France*, but not in Phyſick; for I believe, beſides what is uſed in making the *Diachylon* Plaiſter, that all the Apothecaries in *Paris* ſcarce uſe a Pound in the Year: But it ſerves the Wine-Merchants and Vintners, who uſe it to fine their Wines, for which formerly they were blamed, though without Reaſon. For it is a very great Error that has been received, that *Iſinglaſs* was a poiſonous Drug, when nothing is ſo certain as that it has no ill Quality whatſoever; but the Fiſh from whence it is made is one of the principal Foods of *Muſcovy*, the Jelly being very wholeſome; the Fleſh of the Back of this Fiſh taſtes like Veal, and is very nouriſhing; the Belly eats like Pork, being very ſweet and good. *Iſinglaſs* is of a healing and ſtrengthening Property; uſed in Broth and Jellies, it ſtrengthens the Back, ſtops a Dyſentery and continued Purging. It is good in *Gonorrhœa's*, and the *Fluor albus*. Being of an alcalious Nature, it abſorbs Acids, and eaſes the moſt inveterate Pains of the Stomach. The neceſſary Uſes to which this is put, are in ſeveral Sorts of Silk Works, to give a Luſtre to Ribbons and other Silks, and to whiten Gauzes. It is a principal Ingredient in the counterfeit Oriental Pearl. We have from *England*, *Holland*, and other Parts, a ſort of *Iſinglaſs* folded in little Books, that is of ſmall Uſe in *France*, becauſe it is very hard to diſſolve, and never white. Some Perſons have aſſured me, that it was made of the Remainder of that which is made in little Wreaths; and others will have it, that it comes from the mucilaginous Parts of a Fiſh ſome Authors call *Silurus*, or *Sturio*, the *Sturgeon*, which it a very ſcarce Fiſh in *France*. It is ſometimes to be met with in our Rivers; but becauſe of its Rarity, and its being excellent Meat, thoſe who find them ſell them for three or four Hundred Livres.

Ichthyocolla, *Iſinglaſs*, or *Fiſh-Glue*, is a Paſte or Glue made of the Skin, Fins, Tail, Entrails, Sinews, and other mucilaginous Parts of a great Sea-Fiſh, called *Huſo*, or *Exoſſis*, from being without Bones, that is twenty-four Feet long, and weighs four Hundred Weight. It is uſually met with in the Seas about *Muſcovy*, in *Hungary*, and other Parts of the *Danube*. They make the *Iſinglaſs* by cutting all theſe Parts of the Fiſh in Pieces, which they ſteep in hot Water, and then let it boil over a gentle Fire till it is diſſolved, and reduced into a Jelly. They ſpread this upon Inſtruments made for the Purpoſe, that it may dry, and be made into a Kind of Parchment. When it is almoſt dry, they uſually roll it up into Wreaths of different Shapes and Sizes. The *Dutch* furniſh us with almoſt all we uſe. *Lemery.*

[The *Iſinglaſs* Fiſh is the *Ichthyocolla*. *Rond. De Piſc.* 2. 177. *Raii Ichthiogr.* 244. *Huſo Ichthyocolla*. *Schrod.* 5. 329. It is caught in the *Danube*, *Volga*, and other great Rivers; but it is to be obſerved, that *Iſinglaſs* is not made from this Fiſh only, great Quantities of it being alſo boiled from the *Huſo Germanorum*; a Fiſh very different from this, though generally confounded with it. The *Iſinglaſs* is unqueſtionably the beſt, as well as moſt ſafe, and innocent thing uſed in purifying Wines; and in Medicine it is admirable in all Diſorders that ariſe from too thin and ſharp a State of the Fluids.]

33. *Of the* Narwal, *or* Sea Unicorn.

THE *Narwal*, ſo called by the *Iſlanders*, and by ſome others, *Rhoar*, by us the *Sea Unicorn*, is a large Fiſh, which ſome reckon to be a Sort of Whale; it is found plentifully in the Northern Seas, eſpecially along the Coaſt of *Iceland* and *Greenland*. This Sea-Monſter carries at the End of his Noſe a white weighty Horn, that is ſmooth, and of a ſpiral Figure. It is of different Sizes and Weight, as may be ſeen in the Cabinets of the Curious; as that of Mr. *Morin*, Phyſician to the late Mademoiſelle *de Guiſe*, which I have ſeen and handled, and which is repreſented in the Figure. And Mr. *Charas* told me, he had one longer and thicker than that in the Treaſury of *St. Denis*. They are the Pieces of this Horn, that we ſell at *Paris*, as they do elſewhere, for the true Unicorn's Horn, to which ſome People aſſign large Virtues, which I ſhall neither authorize nor contradict, having never had ſufficient Experience of it. *Pomet.*

There is another Fiſh beſides, that they give the Name of the *Sea Unicorn* to, which is met with in different Parts of the World. Mr. *Dumantel* ſays he ſaw a prodigious one, in an Iſle near *St. Domingo*, in the Year 1644. This *Unicorn*, ſays he, purſued a ſmaller Fiſh with that Violence, that he threw himſelf out of the Depth of Water neceſſary to ſwim in, and ran himſelf upon a great Bed of Sand, where half of his Body being uncovered, he could not recover himſelf to get into the Deep again, and by that means the Inhabitants of the Iſland took him. This Fiſh was about eighteen Foot long, and of the Thickneſs of an Hogſhead. About the Middle he had ſix great Fins, that at the Ends were like Oars; two of them were placed inſtead of Ears, and the other four along the Belly, at equal Diſtance, being of a Vermillion Colour; and all the Body was covered with large Scales, as big as a Crown Piece, which were of a Blue, that appeared to be ſpangled with Silver. Near the Neck the Scales were browniſh, more compact and cloſe, and made a ſort of Collar; the Scales under the Belly were yellow: The Tail was forked, the Head a little thicker than that of a Horſe, and almoſt of the ſame Shape; it was covered with a hard brown Ski . And as the *Unicorn* has a Horn on the Forehead, this *Sea Unicorn* has one perfectly fine, nine Feet and an half long, that ſtands directly on his. It is exactly ſtraight, and grows taper from the Front of the Head, or Baſis of the Horn, to the Tip, where it is ſo ſharp, that with Force it will drive through the hardeſt Body. The thick End was about ſixteen Inches Circumference; and from hence to about two thirds of this wonderful Horn, it was faſhioned like the Screw of a Preſs, or rather waved in Form of a twiſted Column, ſaving that the Furrows were ſtill leſſened until they became altogether ſmooth about four Feet two Inches from its Original. The Bottom was covered with an aſh-coloured Skin, that had on it a little ſhort Hair as ſoft as Velvet, of a Fillemot Colour, but underneath was as white as *Ivory*. As to the other Part that appeared altogether bare, it was naturally ſmooth, and of a ſhining black, marked with ſome fine white and yellow Streaks, and ſo hard, that a good File could ſcarcely touch it. The Creature had no Ears erected, but two great Gills, as other Fiſh; the Eyes being of the Size of an Hen's Egg. The Apple of the Eye was of a Sky-blue, enamelled with Yellow, and ſurrounded with a Vermillion Circle, that was ſucceeded by another very clear one, that ſhone like Cryſtal. The Mouth, like that of the Horſe, was cleft and ſet with ſeveral Teeth; thoſe before being ſharp; and the others in the Jaws behind large, and raiſed with little Bunches. The Tongue was of a proportionable Length and Thickneſs, which was covered with a rough red Skin.

This prodigious Fiſh had, beſides, upon its Head, a kind of Crown raiſed above the reſt of the Skin two Inches or thereabouts, made in an oval Form, and ending in a Point. Above three Hundred People of the Iſle eat plentifully of the Fleſh of it, and found it very delicate. It was larded with a white Fat; and being boiled, it parted into Flakes like Cod Fiſh, but had a much more ſavory Taſte.

The Head and Horn of this Fiſh were preſerved ſome Time in that Iſland, but being afterwards made a Preſent to a curious Perſon, the Ship in which he was bringing them over was loſt, and in it this precious Rarity.

We ought to undeceive thoſe who believe that what we now call the *Unicorn's Horn*, the *Latins*, *Unicornis*, and the *Greeks*, *Monoceros*, is the Horn of a Land Animal, whereof mention is made in the *Old Teſtament*, ſince it is nothing elſe but the Horn of the *Narwal*, which, as to the Choice of it, ought to be the whiteſt, largeſt, and heavieſt. Some Time ago theſe Horns were ſo rare, that Mr. *Racq*, a Phyſician at *Florence*, ſaid that a *German* Merchant ſold one of them to a Pope for 4500 Livres, which is very much different from what they are at preſent, ſince we can buy the very fineſt at a much eaſier rate.

Narwal, *Rhoar*, or the *Sea Unicorn*, is a very large Fiſh, that carries upon his Front a Horn of five or ſix Feet long, that is heavy, white, ſmooth, and twiſted, being of a ſpiral Figure, and hollow within, very like Ivory. He carries this for his Defence, and with it will attack the biggeſt Whales. This Horn affords a great deal of volatile Salt and Oil; is cordial, ſudorifick, and proper to reſiſt Infections, and cure Epilepſies. The Doſe is from half a Scruple to two Scruples. They wear it alſo in Amulets hung about the Neck, to preſerve them from infectious Air. Thoſe who keep theſe for Curioſities, have the Horn entire, and chuſe the longeſt and moſt weighty. *Lemery.*

[The *Narwal* and *Unicorn's* Horn I have already ſpoken of in the Chapter of the *Unicorn*.

As to this other Kind, I am afraid Mr. *Dumantel's* Story is too ſtrange to be true, no Author of any Credit having ever ſeen or mentioned any ſuch Fiſh.]

34. *Of the* Sea-Horſe.

THERE is in the Rivers *Nile* and *Niger*, and others of *Africa*, an Animal *Pomet.*

The Sea Horse.

34

The Whale

mal that has ſome Reſemblance to an Ox, which I thought proper to give you the Hiſtory of, upon Account of the Teeth which we ſell. This Animal has nothing of the Likeneſs of a Horſe; but as to his Size rather looks like an Ox, and his Legs are like the Bear's. He is about thirteen Feet long, and four Feet and an half broad; and three Feet and an half high from the Belly, which is rather flat than round; the Legs are three Feet about, and each Foot is a Foot broad, the Head is two Feet and an half in Breadth, three Feet long, nine Feet about, and looks very thick in reſpect of the reſt of the Body; the Mouth is a Foot wide, the Noſe is fleſhy, and turns up; the Eyes are ſmall; the Ears little and ſhort, not above three Inches long; the Hoofs are cleft into four Parts, and the Tail is like that of a Hog; the Noſtrils are winding, and about two Inches and an half deep, the Muzzle has ſome Reſemblance to that of the Lion or Cat, and is hairy, though there is no Hair upon the reſt of the Body. It has ſixteen Teeth in the Under-jaw; and the two which are at the End are half a Foot long, and two Inches and an half broad, and half a Foot thick; on each Side one may alſo ſee ſeven Grinders that are ſhort, but thick; it has alſo as many in the Upper-jaw, which it moves as the Crocodile: Its Teeth are as hard as a Flint Stone. The Antients believed that this Animal emitted Fire when he ground his Teeth one againſt the other.

The *Æthiopians*, and other People of *Africa*, eat the Fleſh of them; and they are an amphibious Creature, living both on the Land and in the Water. Father *Vandenbrock* ſays he ſaw four Sea Horſes feeding in the Country of *Lavango*, during his Journey to *Angola*, which were like huge Buffalo's; their Skins were very ſhining; their Heads like a Mare's; their Ears ſhort, and their Noſtrils large; having two Tuſhes in their Mouths like the Boar's. Of all the Parts of this Animal, there is nothing uſed in *France* but the Teeth, with which, by reaſon of their Whiteneſs and Hardneſs, they make artificial Teeth for People who have loſt them. Though *Matthiolus* ſays, that the Aſhes of the *Hippopotamus*, or Sea-Horſe, incorporated with Tar, or other fat Body, will make the Hair grow. The Tooth worn, or a Ring made thereof, helps the Hemorrhoids, and eaſeth the Tooth-ach. A Ring made of the Pizzle, and worn, is ſaid to cure the Cramp. And the Teſticles have the Virtue of *Caſtor*.

Lemery.

Hippopotamus, or the *Sea-Horſe*, is a four-footed Animal, as big as an Ox. The Head is very thick, reſembling more that of a Calf than a Horſe; the Mouth is a Foot long, and the Jaws ſet with ſtrong hard Teeth, that will ſtrike Fire like a Flint with Steel, and are very proper to make artificial Teeth with. Theſe Creatures delight to live in the large Rivers within Land, that they may enjoy both Land and Water, feeding upon Fiſh, Fleſh, Plants, Pulſe, and even Men, Women, and Children, if they can meet with them. The Skin is ſo thick, that it is able to defend from all manner of external Violence, no Bullet or Spear being able to pierce it; the Aſhes whereof take away Spots from the Skin; and the Fat, applied to the Pulſe or Stomach, relieves againſt Fits of the Ague, and is emollient and nervous.

[The *Quadruped*, called the *Sea-Horſe*, is the *Hippopotamus*. *Jonſ. De Quad.* 67. *Raii Synopſ. Animal.* 123. *Mont. Ex.* 5. The Teſticles and Teeth of this Creature have had many Virtues aſcribed to them, but are never uſed at preſent.

The other Sea-Horſe, as it is called, which is often kept by the Druggiſts, and hung up as a Curioſity in the Shops of Country Apothecaries; and which our Author has figured in the ſame Plate with the former, though he has given no Account of it, is the *Hippocampus*, *Rond. De Piſc.* 2. 114. *Raii Ichthiogr.* 157. *Bellon. De Aquatil.* 446. It is an odd ſhaped little Fiſh, caught in the *Mediterranean*. It is the Aſhes of this, and not of the *Hippopotamus*, which *Dioſcorides* recommends, mixed with Tar, to make the Hair grow.

It has alſo been ſaid to be a Remedy for the Bite of a mad Dog, but at preſent it is never uſed.]

35. *Of the* Sea-Cow.

Pomet.

VACCA Marina, *Manati*, or the *Sea-Cow*, according to the Relation of Father *Du Tertre*, is a Fiſh altogether unknown in *Europe*. It is ſometimes from fifteen to ſixteen Feet long, and ſeven or eight Feet about; it has the Muzzle of an Ox, and the Eyes of a Dog. The Sight is very weak, and it has no Ears, but in their ſtead two little Holes, whereinto one could ſcarcely put a Finger; by theſe Holes it hears ſo exquiſitely, that the Weakneſs of the Sight is ſufficiently ſupplied by the Quickneſs of the Hearing. Under the Belly, next the Head, are two little Feet in form of Hands, having each four ſhort Fingers and Nails, and therefore it was by the *Spaniards* called *Manati*, which is to ſay, the Fiſh with Hands. From the Navel it grows leſs and leſs, till it forms the Tail, which is in the Shape of a Baker's Peel. It is a Foot and an half broad, five or ſix Inches thick, clothed with the ſame Skin as the Body, and entirely made up of Fat and Nerves. This Fiſh has no Scales like

other

other Fiſh, but is covered with a Skin thicker than that of an Ox; the Hide is of a very brown Slate Colour, like that of the *Sea-Wolf*. The Fleſh taſtes like Veal, but it is a great deal finer, and covered, in ſeveral Parts, with three or four Fingers thick of Fat, of which they make *Lard*, as they do of Hog's. This is excellent, and ſeveral People melt it and caſt it into Cakes, which they eat with Bread inſtead of Butter.

The Fleſh of this Animal being ſalted, loſes much of its Taſte, and becomes as dry as Wood; but I believe that muſt be attributed to the Salt of the Country, which is very corroſive They find in the Head of this Animal four Stones, two large ones, and two ſmall ones, to which they aſſign the Property of diſſolving the Stone in the Bladder, and bringing away of Gravel from the Kidneys; but I cannot approve this Practice, ſince this Medicine is too emetick, and acts upon the Stomach with too much Violence. The Food of this Fiſh is a ſmall Herb that grows in the Sea, which it feeds upon as the Ox does on thoſe of the Field; and after having glutted itſelf with eating, it hunts out for the freſh Water up the Rivers, where it drinks plentifully twice a Day. After having eat and drank its Fill, it lies ſleeping, with the Snout or Muzzle half out of Water, whereby it is diſcovered at a good Diſtance by the Fiſhermen, who preſently ſet about to take it after the following Manner:

Three or four Men, or ſometimes more, take a little *Canoe*, which is a ſmall Boat, all of a Piece, hollowed out of a Tree, in Shape of a Shallop: The Rower is upon the Stern of the *Canoe*, where he ſo manages the Flat of his Oar, moving it in the Water, as not only to direct the *Canoe*, but to move it forwards ſo ſwift, as if carried by a Sail before the Wind. The Spear-man, which is he that ſtrikes the Beaſt, ſtands upright on a little Plank, at the Head of the *Canoe*, holding the Spear in his Hand, which is a Sort of Pike; at the End of which is fixed a Harping-Iron, or Javelin. The third ſits in the Middle of the Boat, to manage the Line or Cable, that is tied to the Harping-Iron, to draw when the Beaſt is ſtruck; they all keep perfect Silence, becauſe this Creature hears ſo exquiſitely, that a Word, or the leaſt Noiſe of the Water daſhing againſt the Boat, is enough to awake her, and put her to Flight, and diſappoint the Fiſhermen of their Hopes. It is diverting to ſee how the Spear-man trembles, as it were, for fear the Prize ſhould eſcape, and fancies the Rower, or Steerſman, does not employ half his Strength, though he does whatever he can with his Hands, and keeps his Eye fixed on the Spear, by the End of which the Spear-man points out the Tract he muſt keep, to come at the Place where the Fiſh lies faſt aſleep. When the *Canoe* is within three or four Paces of it, the Spear-man gives a Stroke with all his Strength, and darts the Iron at leaſt half a Feet into the Fleſh; the Shaft falls upon the Water, whilſt the Iron Head remains ſticking in the Breaſt, which is now half taken. When this Animal perceives herſelf ſo violently ſtruck, ſhe muſters up all her Strength, and makes uſe of it to eſcape; ſhe bounds like a Horſe broke looſe, cuts the Waves, as an Eagle does the Air, and makes the Sea foam, covering it with white all the Way through which ſhe paſſes, believing the while ſhe is eſcaping from her Enemy, whom notwithſtanding, ſhe carries along with her; inſomuch that one would take the Spear-man for *Neptune* drawn in Triumph by a Sea Monſter. In ſhort, after having thus, for ſome time, drawn her Deſtruction after her, and loſt a great Share of Blood, her Strength fails her; and being as it were brought to Bay, ſhe is forced to ſtop ſhort to take a little Reſt; though ſhe no ſooner lies by, but the Spear-man, to bring himſelf nearer, draws the Line, and makes a ſecond Stroke with more Violence than the former, at which ſhe is able to make but ſlender Efforts, and in a little Time is reduced to an Extremity, and then the Fiſhermen eaſily enough drag her a-ſhore at the firſt little Iſland they come at, where they put her into the *Canoe*, if big enough to hold her. The Female of this Species has two young ones at once, and has under her Belly two Teats which they ſuck; the young always follow the Dam ſo cloſely, that when they catch her they are alſo ſure of them. The Fleſh of this Animal makes a conſiderable Part of the Food of the Inhabitants of thoſe Countries: They carry ſeveral Ship-Loads of it every Year from the *Terra firma*, and the neighbouring Iſles; and as well at *Guadaloupa*, *St. Chriſtopher's*, *Martinico*, as other adjacent Iſlands, they ſell a Pound of it for a Pound and a half of Tobacco.

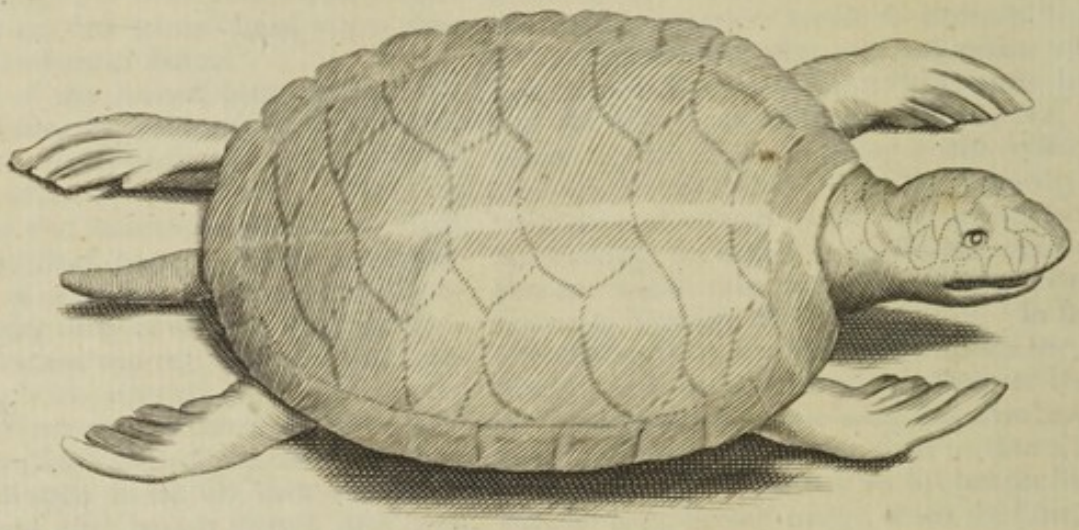
The Stone taken from this Animal has many medicinal Uſes aſſigned to it, and was a Thing unknown to the Antients. It is a whitiſh Stone, or rather a Bone taken out of the Head that is white and hard; ſometimes like a Tooth, and ſomewhat reſembling the whiteſt Ivory, but much harder. It is a fixed *Alcali*, abſorbs Acids, eaſes the Pain of the Stomach, cures Heart-burnings and the Cholick; is good againſt Stone and Gravel, and to expel Urine. The Powder is made by Levigation, and is given from a Scruple to a Drachm. The Calx is made by calcining it either alone, or with Sulphur and Nitre. Doſe from half a Drachm to a Drachm, in any appropriate Liquor.

Manati

# of Animals.

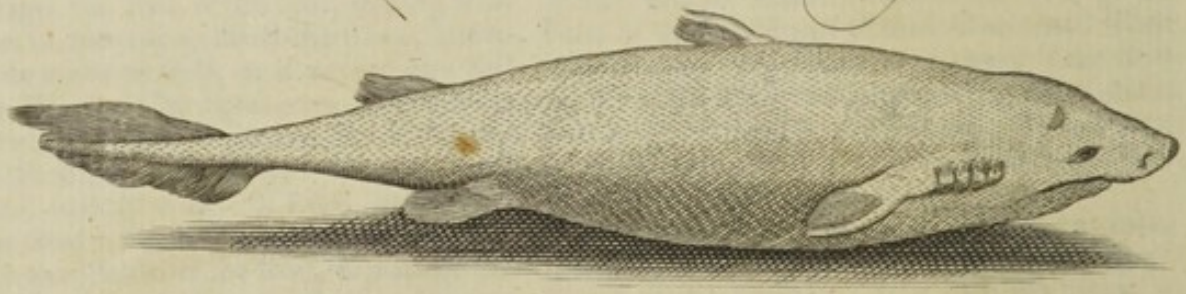
36

The Sea Tortoise.

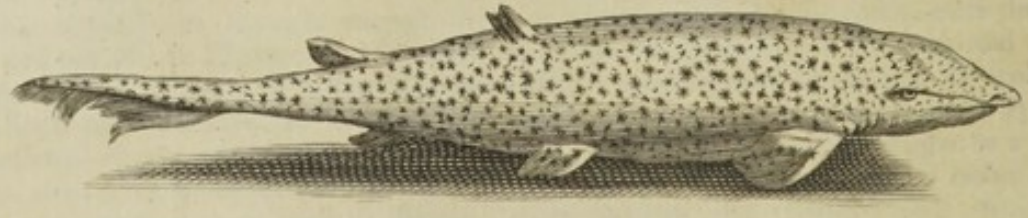


37

The Sea Dog.



The Rouſette.



Manati, vel Vacca Marina, the *Sea-Cow*, is a large Fiſh of *America*, of fifteen or ſixteen Feet long, almoſt round, being five or ſix Feet Diameter, of a frightful Figure. The Head is like a Calf's, but the Snout is more meagre, and the Chin thicker; the Eyes are ſmall, and require a great Light, for the Sight is very weak; the Ears are nothing but two little Holes, though the Hearing is very fine. The Skin is uſed to make Shoes of; the Fat or Lard, beſides that the Inhabitants eat it for Butter, is a good Emollient, and diſcuſſing Unguent. The Stones taken out of the Head, which are of two different Sizes, are reckoned emetick; though they are given inwardly in Powder, to twelve Grains and upwards, for nephritick Pains, and Stone in the Kidneys and Bladder.

Lemery.

[The *Sea-Cow* is the *Manati Indorum*, *Ald. De Piſc.* 728. *Manati Phocæ Genuſ. Cluſ. Evot.* 132. *Manati ſeu Vacca Marina. Raii Syn. An.* 193. It is an amphibious Creature, and feeds on Vegetables.

The Stone of the Head, as it is called, is the *Os Petroſum*, which has been greatly commended, but it is at preſent never uſed.]

36. *Of the three Kinds of* Tortoiſes, viz. *The Frank or True* Tortoiſe, *the* Kaouanne, *or Great-headed* Tortoiſe, *and the* Caret, *or Leaſt* Tortoiſe.

THE Figure which I have given of the *Tortoiſe* is ſo exact, ſays the Reverend Father *Du Tertre*, that it would be loſing of Time to give any Deſcription of its Shape; and I ſhall think it ſufficient to deſcribe what is peculiar to thoſe of the Iſles, and what diſtinguiſhes them from the *European* Sort. We may ſay in general of the three Sorts of *Tortoiſes*, that they are dull, heavy, ſtupid Animals, and almoſt without Brains; for in all the Head, which is as big as a Calf's, there is not found above the Bigneſs of a ſmall Bean of Brain: Their Sight is excellent; their Bulk ſo large, that the Shell they carry on their Backs is ſometimes five Feet long, and four broad: Their Fleſh, particularly that of the *Frank Tortoiſe*, is ſo like that of an Ox, that a Piece of *Tortoiſe* compared with a Piece of Beef, cannot be diſtinguiſhed but by the Colour of the Fat, which is of a yellowiſh green. There are of theſe *Tortoiſes*, which taken from the Bone yield half a Barrel of Proviſion, without taking in the Head, the Neck, the Feet, the Tail, the Guts, and the Eggs, which are ſufficient to feed thirty Men. Beſides which, they make from the ſuperfluous Fat, fifteen or twenty Pots of Oil, which is as yellow as Gold, excellent for frying withal, and all ſorts of Sauces, eſpecially when new; for when old it is fit for nothing but Lamps. The Fleſh of the *Tortoiſe* is ſo full of vital Spirits, that being cut in Pieces over Night, it will ſtir the next Day.

Pomet.

I believed a long Time that the *Tortoiſes* of theſe Parts had three Hearts; for from the upper Part of the Heart, which is as large a Man's, proceeds a large arterial Trunk, to which are joined two other, as it were, Hearts, on eace Side one, about the Size of an Hen's Egg, and of the ſame Shape and Subſtance with the former; though I have ſince changed my Opinion, and believe firmly that they are nothing but the Ears of the Heart; yet be that as it will, 'tis certain that when rightly diſplayed upon a Table, it makes the Reſemblance of a *Fleur-de-Lis*, which may be reckoned a good Omen of the future Succeſs of the *French* Colonies in *America*, ſince the Providence of God, which does nothing in vain, has planted, as it were, the *Fleur-de-Lis* in the Heart of this Animal, as the Hieroglyphick of this Country.

Of the Kaouanne, *the* Loggerhead, *or Great-headed* Tortoiſe.

This differs from the true *Tortoiſe*, in that the Head is much larger, in Proportion to the Body, than that of other *Tortoiſes*; it is more miſchievous than the other Kinds, and defends itſelf with its Mouth and Feet when they are about to take or turn it: And though it is much the largeſt of the three Sorts, it is notwithſtanding the leaſt eſteemed, becauſe the Fleſh is black, of a Sea-Smell, and an ill Taſte. Thoſe who fiſh for it mix it with the true *Tortoiſe* to get a Price for it, but it communicates its ill Taſte to it. The Oil made from it is acrid, and ſpoils the Sauces with which it is mixed, and is only uſed when the other cannot be had: However, it is not altogether uſeleſs, becauſe it ſerves to burn in Lamps.

Sometime after the Shell of this Kind of *Tortoiſe* is taken off, when the Cartilages begin to rot, there fly off from it eight Flakes much larger than thoſe of the Caret, but thinner and marbled with black and white. They are uſed in ſome Kinds of Work, and if they were thicker, would vye with the Caret Shell.

Of the Caret, *or Small* Tortoiſe.

The *Caret* is the leaſt of all the three Kinds of *Tortoiſes*. The Fleſh of it is not ſo good as that of the *Frank Tortoiſe*, but is a great deal better than that of the *Kaouanne*; the Oil drawn from it is excellent for Weakneſs of the Nerves, *Sciatica*

tica Pains, and all cold Defluxions. I know Perſons who have found it very uſeful for Diſeaſes of the Kidneys, cauſed by over-ſtraining, *&c.* but that which makes it particularly valuable, is the Shell upon its Back, that is worth ten Shillings a Pound. What they take of this from the *Caret* conſiſts of thirteen Leaves or Plates, eight of which are flat, the other five hollow or bending; of the flat there are four large ones, which are a Foot long, and ſeven Inches broad. The fine *Caret Tortoiſe* Shell ought to be thick, clear, tranſparent, of the Colour of Antimony, and marbled brown and white. There are of them that bear ſix Pounds of Flakes of this Shell upon their Backs; they make Combs and other fine Works of them, that are very beautiful and valuable. The Way of raiſing the Flakes from the large Shell, which is properly the *Tortoiſe's* Houſe, is by making, when all the Fleſh is taken out, a Fire underneath; and as ſoon as the Heat affects the Flakes, they are eaſily raiſed with the Point of a Knife.

Teſtudo, the *Shell-Fiſh*, or *Tortoiſe*, is an aquatick four-footed Animal, that is very ugly in all its Limbs, but covered with a fine large Shell, ſmooth, hard, bony, oval, and marbled, or ſtained with ſeveral Colours. This Creature may be reckoned amphibious, living upon Land and in the Water. There are different Sizes of them; but thoſe in *America* are often met with of five Feet long, and four Feet broad; their Fleſh is good Food, and has the Taſte of Beef, and yields a yellow Oil, very proper for the Lamp. The *Europeans* uſe the *Tortoiſe* Fleſh in their Kitchens as good Meat. They abound with a great deal of volatile Salt and Oil, are proper for Diſeaſes of the Breaſt, and Conſumptions; and are very reſtorative being eaten in Subſtance, or elſe the Broth of the Fleſh. The Blood dried, is eſteemed in epileptick Fits; the Doſe being from twelve Grains to a Drachm. *Lemery.*

The Way of Fiſhing for the Tortoiſe.

There are three Ways of *Tortoiſe* Fiſhing, *viz.* in coupling Time, with the Spear, and when they come aſhore. The *Tortoiſes* begin to couple in *March*, and continue it till the Middle of *May*. I ſhall not take Notice of all the Circumſtances that relate to this; it will ſuffice to ſay, that it is done on the Water, ſo that they are eaſily diſcovered; and they are no ſooner perceived, than two or three People throw themſelves preſently into a *Canoe*, make towards them, and come at them with Eaſe. They ſlip a Nooſe around their Neck, or one of their Feet; or, having no Line, they lay hold of them with their Hand, by the Neck, where it is uncovered by the Shell; ſometimes they take both of them together, but moſt commonly the Female eſcapes, and the Males at that Time are very lean and hard Meat, but the Females very good. *Pomet.*

The Spear for the *Tortoiſe* is much of the ſame Sort as that for the *Sea-Cow*, only inſtead of the barbed Iron, a Piece of ſquare Iron of about half a Finger's Length, and very ſharp, is faſtened to the Top of the Spear, to which is tied a Line; the Spear being thrown at the Back of the *Tortoiſe*, the Iron Head is ſtruck half Way into the Shell, which being of a hard bony Subſtance, it ſticks as firm as if fixed in a ſolid Oak. The *Tortoiſe* perceiving himſelf ſtruck, makes the ſame Struggle to get looſe as the *Sea-Cow*, and the Spear-man uſes the ſame Diligence to take him. Some ſay that the Force abates proportionably to the Blood that is loſt; but they are ignorant that the *Tortoiſe* does not loſe a Drop of Blood at the Place where it is wounded, 'till the Iron is taken out.

The Time of taking the *Tortoiſe* upon Land is from *April* to *Auguſt*; for at that Time the *Tortoiſe* perceives the Inconvenience of its Bulk by its own Weight and great Quantity of Eggs, which are ſometimes above two Thouſand, and being forced by a natural Neceſſity, ſhe quits the Sea, during Night, and comes to find out upon the Shore a proper Place to lay her Burthen in, or at leaſt ſome Part of it; and having found out one convenient for this Purpoſe, which is always a Heap of Sand, ſhe contents herſelf that Night, in only taking a View of the Place, and retires gently into the Sea again, leaving the Buſineſs to be done the Night following, or very ſpeedily; all the Day ſhe feeds upon the Plants growing on the Rocks in the Sea, without being far diſtant from the Place where ſhe is to lay her Burthen.

The Sun being upon the Declenſion, they may be ſeen drawing near to Land, and watching here and there, as if they miſtruſted an Ambuſcade: And as their Sight is very piercing, if they perceive any Body on the Shore, they will ſeek out for another Place wherein they have more Confidence; but if they ſee no Body, they come aſhore when it is dark. After having obſerved all Sides with great Diligence, they begin to work and dig in the Sand with their fore Feet, making a round Hole of a Foot broad, and a Foot and a half deep; which being made, they lay therein two or three Hundred Eggs, as big and round as a Tennis-Ball. The Egg-Shells are ſoft as wetted Parchment; the White will not boil hard at all, though the Yellow hardens eaſily. The *Tortoiſe* remains above an Hour in laying her Eggs; and during that Time a

Coach

The Draw Net.
38
The Tunney or Spanish Mackrell
39
Anchovies
The Sardin

Coach might drive over her Body, and ſhe not ſtir from the Place. Having diſcharged her Burthen without Interruption, ſhe covers the Hole ſo dexterouſly, and throws the Sand about every where ſo naturally again, that it is extremely difficult to find the Eggs: That being done, ſhe leaves them, and returns to the Sea. The Eggs are hatched in the Sand in about forty Days Time; at the End of which the little *Tortoiſes*, being as big as young Quails, make ſtrait to the Sea, without being ſhewn the Way. Thoſe that are taken by the Way, they fry whole, and ſo they are delicious Meat.

[The Kinds of *Tortoiſe* of which any Part is uſed in Medicine, are the Land *Tortoiſe*. *Teſtudo terreſtris vulgaris Raii Synopſ. An.* 243. *Teſtudo terreſtris Jonſ. de Quad.* 144. *Aldrov. de Quad. Ovip.* 705. The Blood of this kind is eſteemed good in Hectics and Epilepſies.

2. The *Turtle*, or *Sea Tortoiſe*, *Teſtudo marina vulgaris Raii Syn. Anim.* 254. *Teſtudo marina Ald. de Quad. Ov.* 712. *Jonſ. de Quad.* 147. The Gall of this Species is eſteemed good in Diſtemperatures of the Eyes, and the dried *Penis* in the Stone.

And, 3. The Freſh-water *Tortoiſe*. *Teſtudo aquarum dulcium et lutaria. Raii Syn. An.* 254. *Teſtuda aquæ dulcis et lutaria. Aldrov. de Quad. Ov.* 710. *Jonſ. de Quad.* 146. The Blood and Gall of this are ſaid to poſſeſs the Virtues of the former, but none of them are much uſed with us.]

37. *Of the* Sea-Dog.

Pomet. THE *Sea-Dog* is a pretty large Fiſh, that is found in ſeveral Parts, but eſpecially about *Spain*, and at *Bayonne*. Of all the Parts of this Fiſh, we deal in none but the Skin, which we ſell, becauſe of the great Service it is of to the Workers in Wood, as Turners, *&c.* being very proper to poliſh withal. The true *Dog-Skins*, to be fine, ought to be large and broad, of a rough Grain, not too large nor too ſmall, and ſupplied with Ears and Fins. The Brain of this Fiſh dried is very aperitive and good in the Gravel, and for Women at the Time of their Delivery; the Doſe is from a Scruple to a Drachm in White Wine.

We have beſides, from the *Lower Normandy*, the Skin of a Fiſh that is very like the *Sea-Dog*, and which they call *Doucette*, or *Rouſette*, the *Spotted-Fiſh*, which ſome Workmen uſe inſtead of the Dog-Skin, tho' there is a good deal of Difference, becauſe the Dog-Skin is very rough, and the *Rouſette* very little ſo; and beſides, the Dog-Skin is always brown, and the *Rouſettes* are of different Colours, and conſtantly ſpotted on the Back with ſmall Stars; they are alſo much leſs, which is the Reaſon why theſe Skins are very little uſed at *Paris*, and indeed ſcarce any where but in *Auvergne*. Thoſe two Kinds of Skins are alſo ſerviceable to other Tradeſmen, as Sheath and Caſe-Makers. We ſell likewiſe another Fiſh-Skin, which has no othe Uſe in *France*, *England*, and other Parts, than to make Knife Handles of.

Muſtelus, or *Galeus lævis*, is a Kind of *Sea-Dog*, which the *Italians* call *Peſce Columbo*; it is a Fiſh that weighs above twenty Pounds; it is covered with a Skin that has no Scales, that is ſoft to the Touch, and of a whitiſh Colour; it has no Teeth, but the Jaws are rough, and it feeds upon Fiſh. The Fat is reſolutive and emollient. *Lemery.*

There is another kind of Dog-Fiſh, which is called *Galeus Aſterius*, *ſive Muſtelus Stellaris*, or the *Star Dog-Fiſh*, that is like the former, only for the Spots upon it that are in the Form of Stars. The Virtues and Uſes of it are the ſame with the other. This Fiſh is called *Muſtelus*, as if you ſhould ſay, *Mus ſtellatus*, becauſe this Fiſh, in its Colour, ſomewhat reſembles that of a Mouſe or Rat, and every one of the Species are ſpangled with Stars.

[The Sea-Dog, or Hound-Fiſh, is the *Canis marinus aut Galeus. Schonef. Ichth.* 29. *Galeus acanthias ſive Spinax. Raii Ichthiogr.* 56. *Aldrov. de Piſc.* 399. The other kind, or *Starry Dog-Fiſh*, is the *Catulus major vulgaris. Raii Ichth.* 62. *Canicula Ariſtotelis Rondeletio Aldr. L.* 3. *cap.* 34.

Their Skins are uſed by Artificers in different Kinds of Work, but I know of no Uſe that was ever made of either of them in Medicine.]

38. *Of the* Tunny-Fiſh.

THE *Tunny*, which the *Latins* call *Pomet. Thunnus*, is a pretty large, heavy, big-bellied Fiſh, which is plentiful in the *Mediterranean*, eſpecially about *Provence*, and at *Nice*, from whence comes what we ſell. There are likewiſe a great many of them upon the Coaſt of *Spain*. The Time of fiſhing for the *Tunny* is in *September* and *October*; and there are ſo many things peculiar therein, that it is by the Fiſhers generally ſhewn to Strangers. Theſe two Months are the Time when the *Tunny* runs from the grand Ocean into the *Mediterranean*, towards the *Levant*, as the *Anchovies* do. When the Month of *September* comes, they caſt into the Sea large Nets made of Ruſh Cords, which they call *Madragues*, which are divided as it were into ſeveral Partitions, of which the firſt is larger than the

the others; ſo that the *Tunnies* entring the larger firſt, do not return till the Net is full, which it is in a ſmall Time, where the Fiſhery is good, as well from the Plenty of the Fiſh, as becauſe when one *Tunny* is gone in, the reſt follow in a Flock like Sheep. The Net being taken out of the Sea, the Fiſh die, not being able to live out of the Water; then they hang them up in the Air, open them, take out their Entrails, and take off the Head; and having cut them in Pieces, broil them on large Gridirons, and fry them in Oil Olive; and after having ſeaſoned them with Salt, Pepper, and Cloves, and ſome Bay Leaves, they put them into little Barrels, thus dreſſed, and ready to eat with freſh Oil Olive, and a little Vinegar, to tranſport into ſeveral Parts.

We have two ſorts brought to *Paris*, which have no other Difference but that ſome have the Back Bone taken out, and for that Reaſon are called *boned Tunny*, and are uſually put up in little white Wood Barrels, broad at the Bottom, and narrow at Top; that which has the Bones left in it is in little round Barrels. Chuſe both ſorts new, firm, well done in good Oil, and the Fleſh white like Veal. Its Uſe is very common in *Europe* and ſeveral other Parts of the World; as well becauſe it is always ready to eat, as becauſe it is of an excellent Taſte, like Veal. They commonly catch with the *Tunny* another Fiſh, which the *Provincials* call *Imperadro*, or *Emperor*, and Sea Hogs are alſo ſeen there; they are always two and two together; but as they are accuſtomed to leap out of the Water, they get out of the Nets and ſuffer not themſelves to be taken; it is wonderful to ſee how they leap both together in one Moment, and fall again into the Sea at once, as if they were tied together.

Thunnus, vel Thynnus, or the *Tunny*, *Lemery.* is a large, heavy, big-bellied Fiſh, which is found plentifully in the *Mediterranean* Sea, in *Provence*, *Italy*, and *Spain*. It is covered with large, ſmooth, ſtraight Scales, and eats Sea Wrack, and other ſort of maritime Food. The Fleſh is firm, very good to eat, being of a Veal Taſte, but is ſalted to prepare and keep it for Tranſportation, when it is called *Tunny*. It is very nouriſhing, and of good Juice, and yields a great deal of volatile Salt. It is reckoned proper to reſiſt Poiſon, againſt the Bite of a Viper, *&c.* being eat, and applied outwardly. This Fiſh is called *Thunnus*, from the *Greek* Word Θύω, to be carried with Impetuoſity, becauſe this Fiſh moves ſo ſwiftly.

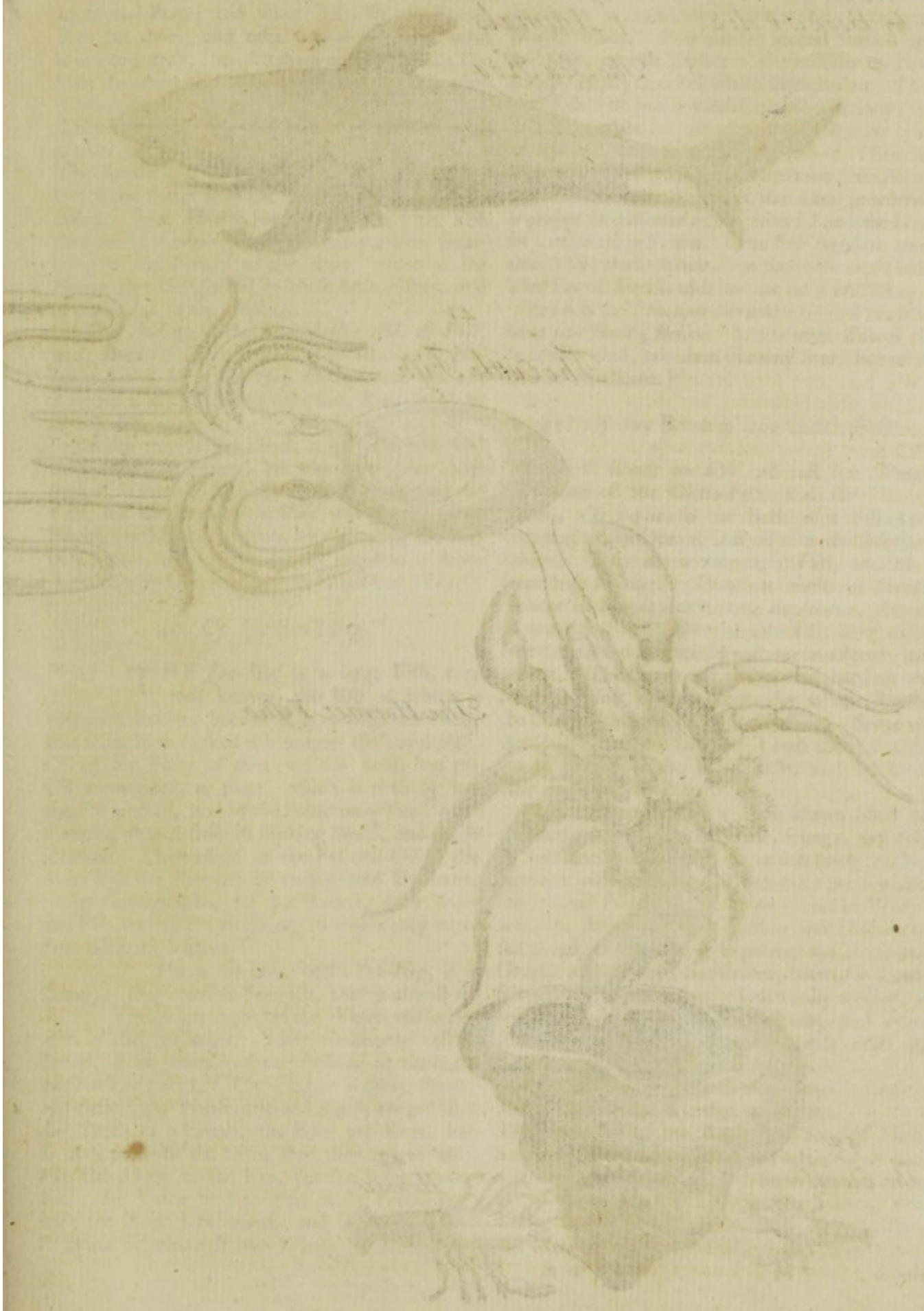
[The *Tunny*, or *Spaniſh* Mackarel, is the *Thynnus ſeu Thunnus Raii Ichthiogr.* 167. *Thunnus Aldr. de Piſc.* 112. *Orcynus Rond. de Piſc.* 1. 249. It is a good Food, and is much commended againſt venomous Bites, but I am afraid is but a feeble Remedy in Caſes of ſuch Conſequence.]

39. *Of* Anchovies.

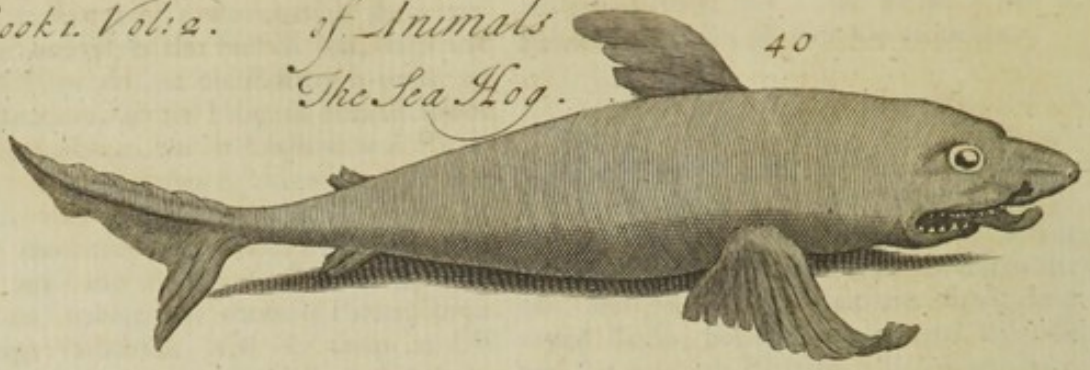
BEſides the *Tunny*, we ſell *Anchovies*, *Pomet.* that come from the ſame Parts as the *Tunny*; and we have conſiderable Trade with them; we chuſe the leaſt and neweſt, white without, and red within, that are firm, and have round Backs, becauſe they pretend that the large and flat ones are Pilchers. When the Barrels are opened, the Pickle ought to be well taſted, and of a good Smell.

Anchovies are taken in ſeveral Parts, as in the River of *Genoa*, in *Catalonia*, at *Nice*, *Antibes*, *St. Tropez*, and other Places in *Provence*. They are taken moſt commonly in the Night, and always in *May*, *June*, and *July*, which are the three Months in the Year that they come from the grand Ocean into the *Mediterranean* to go to the *Levant*. When they fiſh for the *Anchovies*, and would take a Quantity, they light a Fire upon an Iron Grate at the Poop of the Ship, to the end that the little Fiſh following the Light, may be the eaſier taken; but that which is very remarkable in this Fiſhing, is, that the *Anchovies* that are taken by means of the Fire, are not ſo good, or ſo firm, nor will they keep ſo well, as thoſe which are taken without it. The Fiſhery being done, they tear from the Head the Gills, and other ſuperfluous Garbage; and this is the Difference betwixt them and the Pilchers, where they are left in; and not, as Mr. *Furetiere* ſays, becauſe of the Gall, which he, in his Book, takes notice of to be in their Heads. As to the manner of ordering them, they do nothing but range them in little Barrels of different Weight and Sizes, not weighing above five or ſix and twenty Pounds, in which they put a due Quantity of Salt with the Anchovies. We ſometimes, but very rarely, have dried Pilchers, prepared the ſame Way as red *Herrings*; but the little Conſumption there is of them gives no Encouragement to the Dealers to make any Demands for them. Being at *Royan*, a little Town of *Xaintogne*, where there are a great many Pilchers, ſeveral Fiſhermen aſſured me, that theſe Fiſh never ſwarm but in Shoals, and that under the Conduct of a King, or Captain, like the Bees.

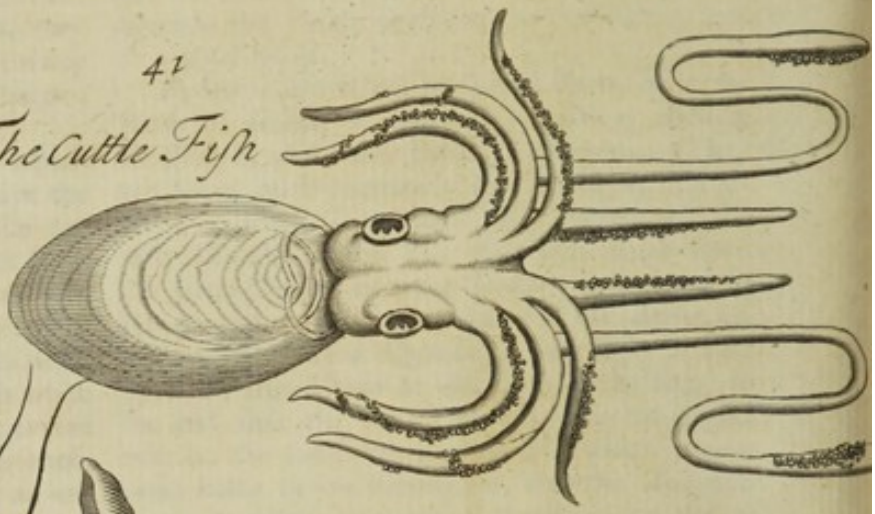
Apua, ſive Aphya, or the *Anchovie*, is a little Sea Fiſh, as thick and long as one's *Lemery.* Finger, having a thick Head. The Eyes are broad and black; the Body of a ſilver white, and reddiſh within, and the Back round. They do not ſwim but in Companies, and cling faſt



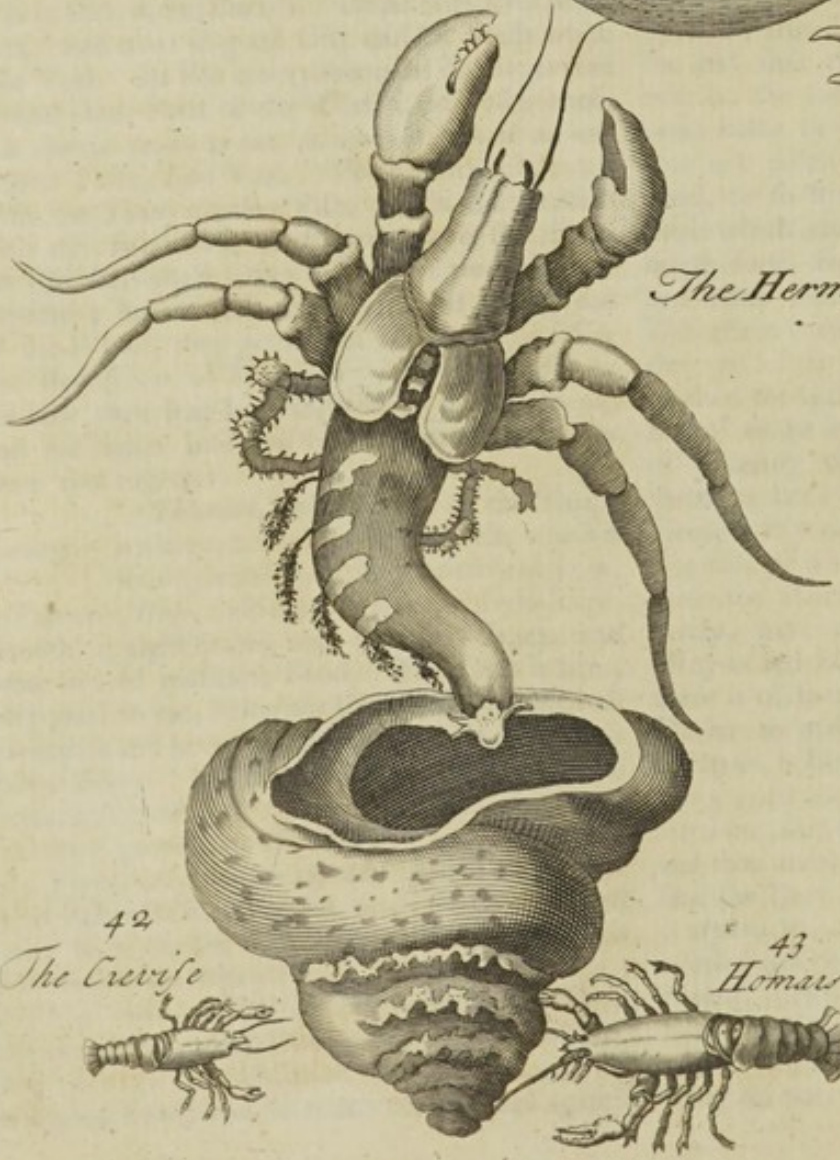
40
The Sea Hog.



41
The Cuttle Fish



The Hermet Fishe



42
The Crevise

43
Homars

faſt one to the other. The Fiſheries are made in ſeveral Parts; and when the Fiſh are taken, they gut them, and take out of the Head what is apt to putrify, then ſalt them up in Barrels. The little *Anchovies* are valued more than the large ones. They contain in them a great deal of Salt and Oil. They are aperitive, and proper to raiſe the Appetite; but they ſerve more for Food than Phyſick. The *Sardin* is a kind of *Apua*, that is ſomething larger and flatter than the *Anchovy*, but not ſo well taſted. The *Melette*, or *Sprat*, is a little Fiſh they eat in *Languedoc*, and which partakes ſomething of the Nature of the *Apua*, which is the Name given in general to theſe little Fiſhes, and in particular to the *Anchovy*.

[The *Anchovy* is the *Encraſicolus Ald. de Piſc.* 214. *Rond. de Piſc.* 1. 211. *Raii Ieth.* 225. *Halecula Bellon. De aquat.* 169. *Encraſicholus quos alii Engraules, alii Lycoſtomos appellant, Rondelet. Geſn. de Aq.* 68.

Beſides the Uſe in Food, it is ſometimes laid to the Feet in Fevers; but whatever good ariſes from it, is more to be imputed to the Salt than the Fiſh, for the Heat of the Part will put the ſaline Particles in Motion, which, by vellicating the ſenſible Fibres, may very naturally occaſion a more than ordinary Derivation of the Fluids that Way.]

40. *Of the* Sea Hog.

Pomet. THE *Sea-Hog* is a large Fiſh, very well known, the Uſe of which is very conſiderable, becauſe it is ſo excellent Food, that ſome have ranked this among the royal Fiſh. Of all the Parts of this, we ſell none but the Oil aromatized, or plain, which is nothing but the Fat melted, and by the Addition of ſome Aromaticks, altered from its ſtinking Smell, and made pleaſant. They aſſign to the Fat and Oil of the *Sea Hog*, the Property of curing cold Humours. Some Apothecaries, by the Retort, draw from this Fiſh ſeveral Preparations, to which they attribute different Virtues.

Lemery. *Porcus marinus*, or the *Sea-Hog*, is a large nimble Sea Fiſh, that is almoſt always leaping out of the Water, and ſwims with a vaſt Swiftneſs. They commonly call it *Simon*, *quaſi ſimum roſtrum habens*, as having a flat Noſe or Snout. The Tongue is ſhort, broad, and fleſhy; the Teeth little and ſharp, ranged like the Teeth of a Comb; the Eyes are large, but ſo covered with the Skin, that they appear only like the Apple of the Eye, yet the Sight is very fine; the Voice is like that of a Perſon crying; the Back is hollowed, and bent outwardly. It ſwims by means of two Wings, or ſtrong able Fins, which are ſet on at the Place of the Shoulders. It comes to its Growth in ten Years, and will live to thirty. *Pliny* relates ſeveral Stories, true and falſe, on this Subject. He will leap on board a Ship, uſually attended with a Companion. Theſe two Fiſh will make their Leaps ſo regularly, that they ſeem to be joined together. There are many of them taken in fiſhing for the *Tunny*. They are very good to eat, and yield abundance of Oil and volatile Salt. The Stomach, dried and powdered, is proper for Diſeaſes of the Spleen, and the Liver for intermitting Fevers. The *Sea-Hogs* are made almoſt like the Dolphins, but they are not ſo little. The Fat of both is uſed to the ſame Purpoſes.

[This is the *Phocæna Rondeletii Geſn.* 838. *Phocæna ſeu Turie-, Bellon.* It is a large Fiſh of the cetaceous kind, common in many Seas, but of no Uſe in Medicine.]

41. *Of the* Bone *of the* Cuttle-Fiſh.

THAT which we ſell, and call the *Pomet.* Bone of the *Cuttle-Fiſh*, and the *Latins*, *Os Sepiæ*, is the Back of a Fiſh very common in the Ocean, and alſo in the *Mediterranean*. They are a very ugly Fiſh, and of a ſurpriſing Nature. They eat them in ſeveral Towns in *France*; as *Lyons*, *Bourdeaux*, *Rochel*, *Nantz*, *&c.* The Bone of this Fiſh is of different Sizes, though the largeſt never exceeds half a Foot. The Bones are white, and hard on one Side, and ſoft on the other; for which Reaſon the Goldſmiths uſe them for caſting. Some uſe the *Cuttle-Bone* to clean the Teeth with; but the main Uſe is for the Goldſmiths, and for thoſe who caſt *Venetian Lac.*

This Bone conſiſts of a hard brown Shell on the Outſide, with a thick, white, ſpungy, dry Pulp or Subſtance underneath it, which being rubbed between your Finger, will become a pure white, fine, ſubtil Powder, that being drunk in Water, helps the Aſthma, and is good againſt Diſeaſes of the Breaſt and Kidneys, expelling the Stone and Gravel, and curing a *Gonorrhœa*, taken for a conſiderable Time together. Outwardly applied, it helps Spots, Clouds, Films, Pearls, and other Impediments of Sights, and likewiſe dries up Rheums, and other watry Humours.

Lemery. *Sepia*, the *Cuttle-Fiſh*, is a deformed Sea Fiſh, reſembling much a *Polypus*. The Covering of the Back is a Sort of Shell, Scale, or Bone, as broad as one's Hand, an Inch thick in the Middle, but thinner on the Sides, light, hard without, and ſpongy within, very white, and ſomething of a ſaltiſh Taſte. They call it *Os Sepiæ*, or *Cuttle-Bone*. The Gold-

ſmiths uſe it for Moulds to caſt Forks and Spoons in. This Fiſh carries under its Throat a Bladder, or Receptacle, full of an Humour that is blacker than Ink, which it diſcharges into the Sea, when purſued, to intercept the Sight of the Fiſhermen. It has two kinds of Arms, or Trunks, fixed to the Head, which ſerve it for ſwimming, and to take what it can catch. Beſides theſe, it has ſix Feet which have Teeth on the upper Part of them, and two much larger underneath. It lives on ſmall Fiſh, is good Meat, and brought to the Table in ſeveral Parts of *France*. As to its medicinal Uſe, it is deterſive, aperitive, deſiccative, proper to take away Sports on the Face and Skin, to clean Teeth, provoke Urine, and bring away Stone and Gravel. Doſe from half a Scruple to half a Drachm. The Eggs or Spawn of the *Cuttle-Fiſh* provoke Urine and the Terms.

[The *Cuttle-Fiſh* is the *Sepia Jonſ. Exang.* 7. *Rondelet.* 1. 498. *Loligo Sepia Merr. Pin.* 191.

The principal Uſe now made of the Bone is in Powders for cleaning the Teeth, tho' it is a good Diuretick and Detergent.

The black Liquor it has in a Bag in its Neck, is ſaid to be a ſtrong Purge, but I believe few have ever tried it.]

42. *Of the* Hermit-Fiſh, *or* Soldier.

Pomet. THE *Hermit-Fiſh*, ſays Father *du Tertre*, is a kind of ſmall Crab, of three or four Inches long, or more; one half of the Body of which is like a *Sea Locuſt*, or *Graſhopper*, but clothed with a Shell that is a little harder. It has four Feet, which are like thoſe of a Crab, two Biters, one of which is not much bigger than one of the four Feet, and the other much broader than one's Thumb, that ſtrangely ſhuts the Mouth of the Shell wherein it lodges. All the reſt of the Body is a ſort of Pudding, in a pretty rough thick Skin, as thick as one's Finger, and half the Length, or more. At the End is a little Tail, made up of three ſmall Nails or Shells, like the Tail of a *Sea-Graſhopper*. All that Part is full of a Subſtance, like that in the Shell of a Crab, but red; which being expoſed to the Fire, or ſet in the Sun, melts, and runs into Oil, which is a Balſam for freſh Wounds, which I have made Trials of on ſeveral Perſons with good Succeſs.

They deſcend once every Year to the Sea Coaſt; whether it is to waſh, and to caſt their Eggs, as the Crabs do, I know not: But this I know, that they go to change their Shells, which every one endeavours to find out according to his Size; and finding out what may fit them, they run themſelves backwards therein, and ſo cloath themſelves a-new; and being armed like Soldiers with theſe foreign Shells, they march to the Mountains, and take up their Quarters among the Rocks and hollow Trees, living upon rotten Leaves and Fruit; among other things they ſometimes feed on the Manchineal Apple, which ſo alters them, that inſtead of a wholeſome Food, they become almoſt a Poiſon, encreaſing in Bulk; and the Shell becoming too ſtraight for them, by reaſon of their Growth, they are obliged to go down to the Sea-Coaſt to change their Houſes. The Curious, who have made Obſervations of what happens during the Exchange, have ingenuouſly owned to me, they took a great deal of Satisfaction in the Sight; for they ſtop at every Shell they meet with, conſider it diligently, and having met with one they believe for their Turn, they immediately quit the old one, and run themſelves ſo ſwiftly backwards into the other, that one would think they were either afraid of the Injury of the cold Air, or aſhamed to be ſeen naked.

Ariſtotle, who ſaid that theſe Animals never fight, but for their Victuals, or when they couple, might have added, that they will fight for their Lodging; for if two of them meet at the ſame time ſtripped, to enter into one and the ſame Shell, they will bite each other, and battle it, till ſuch time as the Weaker yields, and quits the Shell to the Conqueror, who having clothed himſelf with it, takes three or four Turns upon the Shore, and if he finds it does not fit him, he quits it again, and has immediate Recourſe to his old one, and then ſeeks out for another; and thus they will change five or ſix times, till they meet with one for their Purpoſe. They carry in their Shells about half a Spoonful of clear Water, which is a ſovereign Remedy againſt the Puſtles and Bliſters that the Droppings of the Manchineal Tree raiſe upon the Skin.

Cancellus is a ſort of very ſmall Craw- *Lemery.*
fiſh, called the *Hermit*, or *Bernard the Hermit*, becauſe it retires from the others, and enters into the firſt Shell it meets which. The Figure of his Body is longiſh, but in Size of the Bulk of a Spider, only that it is a little larger. It carries upon its Head two little, ſlender, reddiſh Horns; the Eyes are raiſed, the Mouth is ſet with fine Hairs, that may be called a Beard. The two upper Legs are bent up again, and ſerve inſtead of Hands to reach to the Mouth, where it has Teeth. They are found near the Rocks, and are good Meat, ſeveral eating them after they are waſhed and boiled. They afford a great deal of volatile Salt, and are proper for Stone and Gravel, being aperitive.

In ſeveral of the *American* Iſles they meet with a kind of *Cancellus*, or *Craw-fiſh*, that is much bigger than that I have been ſpeaking of, and that is three or four Inches long, and called the *Soldier*, becauſe he is clothed and armed with a foreign Shell. Thoſe who would know further, may be ſatisfied from the Reverend Father *du Tertre*, who has writ concerning this Animal, [*as* Pomet *has already taken Notice of.*] The Inhabitants of the Iſles where this Fiſh is taken, make an Oil of them, by hanging them in the Sun, ſo that the Subſtance that melts from them makes an Oil of a Conſiſtence as thick as Butter, and of a very fœtid Smell; the Virtues of which are wonderful in rheumatick Pains, to which the Inhabitants of the Country are very ſubject. They ſell this Oil very dear, becauſe it is very ſcarce in *France*.

[The *Hermit-Fiſh*, or Foreign Heir, as he is called by ſome, is the *Cancellus Aldrov. de Exang.* 218. *Geſn. de Aq.* 161. *Cancellus quibuſdam Bernhardus Eremita dictus Charlt. Ex.* 58. *Cancer in Teſtis degens. Merr. Pin.* 192.

The Aſhes of this Fiſh are ſaid to be a powerful Diuretick; the Oil which we have from *America* has been much uſed in Rheumatiſms, but is almoſt neglected at preſent.]

43. *Of the* Sea-Crab *and* Craw-Fiſh.

Pomet. THERE are two Sorts of *Sea Crabs*, ſays Father *du Tertre*, which are commonly called *Homars*, which differ only in this, that the one Kind has two large Pinchers longer and broader than ones Hand, and very ſtrong, and the others have none, but have two large Beards hairy like the Feet of a Crab, and as long as ones Arm; theſe grow to a vaſt Size, ſo that ſome are three Feet long. The Fleſh is white and more reliſhing than the common *Crabs*, but it is harder, and not ſo eaſily digeſted. It is eat with Lemon Juice, Vinegar, and Pepper. They find them in the Night with Lights on the Sands, or ſtony Places, from whence the Tide is retired.

There are no Part of the *Sea-Crab* uſed in Medicine, but the black Tips of the Claws, called *Chelæ Cancrorum*, which are prepared either by Levigation or Calcination. The firſt is by beating them to a fine Powder, and grinding on a Marble with Roſe-Water, or the like. The next Way is putting them in a Crucible, and burning them till they are white, and then reducing them into a fine Powder, as before. Theſe Preparations are *Alcalies* in their Nature, and ſuch as Phyſicians call a fixed *Alcali*. They cure Heart-Burnings, take away Sourneſs from the Stomach, abſorb Acidities, and eaſe Pains in the Bowels, proceeding from ſharp Humours. They are ſometimes given with good Succeſs in the Whites in Women and the *Gonorrhœa* in both Sexes. They are commended to cool, dry, cleanſe, and diſcuſs, and are good againſt Cholicks, ſalt Humours, *&c.*

As to the *Craw-Fiſh*, we ſell nothing but certain little white Stones, made in Form of Eyes, from whence they take their Name, tho' very improperly, ſince they are nothing but little Stones which are found in the Head of the large *Craw-fiſhes*. Theſe Stones, which are called *Crabs Eyes*, or *Oculi Cancrorum*, are never found but in *May* and *June*, which are at the Times that the *Craw-fiſh* leave their Shells. The *Craw-fiſh* or *Creviſe Stones*, which we now ſell at *Paris*, come from *Holland*: And, if we can believe a Phyſician of the *Poland* Envoy, who was a very honeſt able Man, and remained a long Time in *Holland*, he aſſured me, that what we ſell now under the Denomination of *Crabs Eyes*, was nothing but a white Earth waſhed, and made into little Paſtiles, and moulded with little Inſtruments made for that Purpoſe, with Holes of proper Sizes, to form it, and afterwards baked to a Dryneſs and ſent over to us. To prove this, he aſſured me he ſaw two Perſons at *Amſterdam*, who did nothing elſe but counterfeit theſe little Stones; ſo that now it is no longer doubted but the greateſt Part of the *Crabs Eyes* made uſe of in the Shops is nothing elſe but an artificial Paſte reduced to Powder. What I have to add to this, is, that there may indeed be Counterfeits of *Crabs Eyes*, as there are of almoſt all other Drugs, but we need not therefore conclude that all we ſell are ſo, neither need the Quantities we receive of theſe Stones be objected as a Proof they are not genuine, for in the *Eaſt-Indies*, where the Fiſh which produce them breed them more abundantly than here, the Shores of Rivers are in ſome Places covered with them, and they are gathered up by Handfuls, and it is from thence that the *Dutch* bring the Quantities they have. In *Sileſia* they have alſo great Quantities of them, as alſo in *Poland*; and they are brought from *Dantzick*, *Hamburgh*, *Denmark*, *Norway*, and *Swedeland*, and are found almoſt every where upon the Shore of the *Baltick* Ocean.

And what ſtrengthens our Opinion of their being genuine, is, that in burning they blacken and calcine as all Bones and Shells do.

There are ſeveral Preparations of them, but the levigated Powder is only uſed, and that chiefly to abſorb Acids, open Obſtructions, and cleanſe the urinary Paſſages of Gravel; to provoke Urine, and bring away the Stone, and other tartarous Coagulations: The whole Fiſh is alſo ſometimes calcined in a Crucible and brought to Aſhes, which

we

we ſell. If they are rightly prepared, they ought to to be yellow; for if they are of a black Colour, they are too much burnt, and good for nothing.

[The *Crab*, whoſe Claws is uſed in Medicine, is the common *Sea-Crab* the *Cancer Mæas Rond.* 1. 560. *Cancri Marini maximi apicibus Chelarum nigricantibus, Ind. Med.* 25. *Pagurus, Bellon. De Aquat.* 368. *Cancer Sebon. Iɛth.* 30. What we call *Crabs Eyes* are often adulterated, but the genuine are Stones formed in two Bags, one on each Side, of the Stomach of *Crabs, Craw-fiſh, Lobſters, &c.* and found in great Plenty on the Coaſts of the *Baltick.* They are found in the Bodies of theſe Animals, only at certain Times of the Year, for in *June* and *July*, when they caſt their Shells, there are none to be found in them, but a new Stomach being formed at that Time, as well as a new Shell, a milky Juice ſoon fills the Bags, out of which the Stones are formed.]

44. *Of the* Boutargo *and* Caviere.

Pomet. BOutargo, or *Potargo*, is the Spawn of a Fiſh, which the People of *Provence* call the Mullet, very frequent in the *Mediterranean.* The beſt is that which comes from *Tunis* in *Barbary.* It is likewiſe made at *Martegue*, eight Leagues from *Marſeilles.* The reddeſt is moſt valued. They eat it on Faſt-Days with Oil Olive and Lemon.

There is alſo a Stone found in the Head of this Fiſh, which is aperitive, and good for the Stone, the Doſe is from half a Scruple to two Scruples.

The *Caviere*, or *Cavial*, which we have, comes from *Italy*, is made in ſeveral Parts of the *Levant* from the Spawn of a Fiſh, which ſome have aſſured me was the *Sturgeon*, which I ſhall not aſſert to be ſo, not knowing it poſitively. I ſhall only ſay this, that they eat a great deal of it in *Italy*, and but little in *France*, it not being ſo well known, no more than the *Boutargo*, eſpecially at *Paris.*

Lemery. *Mugil, Cephalus*, or the Mullet, whereof *Boutargo* is made, is a Sea and River Fiſh, which has a great Head, from whence it is called *Cephalus*, which ſignifies a Head; the Muzzle is thick and ſhort, the Body oblong, covered with Scales. They find a Stone in its Head, which is called *Echinus*, or *Sphondilus*, becauſe it is ſet with Prickles. This Fiſh is common in the *Mediterranean*; it ſwims with an extraordinary Swiftneſs, and gives ſome Diſturbance to the Fiſhermen. It is good Meat, and yields Abundance of Oil and Phlegm, with ſome little volatile and fixed Salt. The Ventricle being dried and reduced to Powder, is proper to ſtop Vomiting, and ſtrengthen the Stomach: This Stone found in the Head is very aperitive, and proper to diſſolve the Stone in the Kidneys and Bladder. The Doſe is from half a Scruple to two Scruples. The Spawn of the Fiſh ſerves to make *Boutarg* of, which is uſually eat on Faſt-Days.

[The *Mullet*, the Spawn of which which makes *Boutargo*, is the *Mugil. Raii Iɛth.* 214. *Cephalus Rond. de Piſc.* 1. 260.

Caviere is the Spawn of the *Sturgeon*, *Sturio Ald. de Piſc.* 517. *Sturio ſive Silurus. Salv. de Aq.* 113. prepared with Salt, Vinegar, *&c.* and is more properly a Food than a Medicine.]

45. *Of the* Shark.

THIS Fiſh is called by the *Spaniards Pomet. Phyburon*, by the *Dutch Haye*, and by the *French*, *Requiem*, becauſe it devours Men, and ſo is the Occaſion that *Dirges* are ſung over them: It is in Shape very like the *Sea-Dog*, or *Hound-fiſh* deſcribed before. He is one of the moſt gluttonous Animals in the World; nothing comes amiſs to him; tho' it be a Log of Wood he will ſwallow it, provided it be but greaſy, for he ſwallows without chewing. He is furious and bold, and will throw himſelf to the Shore, and remain almoſt on the dry Land, that he may have the Opportunity of catching the Paſſengers. Sometimes he will bite at the very Oars with his ſharp Teeth, for Rage and Madneſs that he cannot get at the Men which are in the Boat. There is found in his Head two or three Spoonfuls of Brain that is as white as Snow, which being dried, reduced to Powder, and taken in white Wine, is excellent for the Gravel. The Reverend Father *du Tertre* has made a long Diſcourſe of this Animal, to which the Reader may have Recourſe. Some have given the Name of *Tiberon* to this Animal, and others that of the Fiſh with two hundred Teeth; and he is ſo furious, that with one Bite he will ſnap off the Thigh of a Man

Beſides theſe Animals, and Parts of them whereof I have treated, we ſell, tho' very rarely, the Bone of the *Shark's* Head, as alſo thoſe of the Crocodile, Carp, Perch, *&c.* with the Jaws of the Pike; and, in *France*, the Druggiſts are permitted to ſell all Sorts of Salt-Fiſh, either Wholeſale or Retale.

Carcharias, Canis Marinus, or the *Sea-Dog*, is an *American* Fiſh, that grows to a large Size, ſo as to be two Ton Weight. It is long and thick, covered with a rough Skin. The Head is very great, and like a Dog's; the Mouth long and broad, furniſhed with Abundance of triangular Teeth, that are hard and ſharp. The Eyes are large and round, the Body cartilaginous, the Tail about *Lemery.*

about a Foot and a half long, and forked; the Fins are great, it ſwims in the deep Sea, but ſometimes enters into the Mouths of the Rivers to purſue its Prey; it lives on Fiſh and Fleſh, but is very eager after that of Man. *Johnſton* relates, that he found in one of theſe *Sea-Dogs* a whole Man. They are of ſeveral Sizes. Their Fleſh is eat, but it is not good. The Skin is of great Uſe to ſeveral Artiſts. The Head contains in it two or three Ounces of Brain, that is very white. The Teeth are uſed to rub Children's Gums with, to make their Teeth cut.

[The *Shark* is the *Canis Carcharias. Ald. De Piſc.* 383. *Canis Carcharis ſeu Lamia Raii Iĉth.* 47. *Canis Ariſtoteli ſive Carcharis Jonſ. de Piſc.* 13. The petrified Teeth of this Fiſh are what are called *Gloſſopetræ*, they are hung by the good Women about Childrens Necks, in Imagination that they aſſiſt them in the Time of cutting their Teeth. They are alſo ſaid to be cordial, alexipharmick, and ſudorifick taken inwardly, but I believe few have tried them.]

46. *Of* Pearl.

Pomet. THE *Pearls* are little round Bodies, or rough and roundiſh, that are found both in the Eaſtern and Weſtern Seas. There are ſeveral ſorts of them, which are more or leſs valued, according as they are large, round, and of a fine Water, and according the Place from whence they are taken, as the following Account from Mr. *Tavernier*, who in his Travels has made a curious Enquiry after them, will ſhew. Theſe Pearls are found, ſays he, both in the Eaſt and Weſtern Oceans. And though I have never been in *America*, yet as well for the Reader's Satisfaction, as that nothing may be omitted, I ſhall relate all the Parts where the Pearl Fiſhings are, beginning with thoſe of the Eaſt. Firſt of all, there is Pearl Fiſhing about the Iſle of *Bahren* in the Gulph of *Perſia*. This belongs to the King of *Perſia*, and therein is a good Fortreſs that entertains a Garriſon of three Hundred Men. The Water which they drink in this Iſland, and that of the Coaſt of *Perſia*, is like ſalt Water, and of an ill Taſte, and what none but thoſe of the Country are able to drink. As for Strangers, if they will have freſh Water, they muſt pay for it; being only to be had a League or two off, by putting to Sea five or ſix Perſons in a little Veſſel, and drawing Water with a Bottle from the Bottom of the Sea, where for about two or three Foot at the Bottom of the Water is ſweet, and pleaſant to drink. When they that dive to the Bottom of the Sea to draw up this Water have filled the Veſſel, and ſtopped it cloſe, they give a Pull to a ſmall Cord, which is tied to one of thoſe in the Boat, which is the Signal to his Comrades to pull him up.

During the Time that the *Portugueſe* were poſſeſſed of *Ormus* and *Maſcatè*, every Veſſel that went out to fiſh, was obliged to take from them a Paſſport, that coſt fifteen *Abaſſis*, and they kept always ſeveral Brigantines to ſink ſuch as refuſed. But ſince that the *Arabs* have retaken *Maſcatè*, and that the *Portugueſe* have no Forces upon the *Gulph*, every Man that fiſhes, pays only to the King of *Perſia* five *Abaſſis*, whether he has Succeſs in his Fiſhery, or catches nothing at all. The Merchant alſo gives ſome ſmall Matter to the King out of every thouſand Oyſters.

The ſecond Fiſhery of *Pearls* is oppoſite to *Bahren*, on the Coaſt of *Arabia Fœlix*, near the City of *Catiſa*, which belongs to a Prince of the *Arabs*, with all the Country thereabouts. All the *Pearls* taken in thoſe Parts are moſtly ſold in the *Indies*; becauſe the *Indians* are not ſo difficult to be pleaſed as we, and will take the rough as well as the round. They likewiſe carry ſome to *Balſara*. Thoſe that go into *Perſia* and *Muſcovy* are ſold at *Bander-Congo*, two Days Journey from *Ormus*. In all the Places I have named, and other Places of *Aſia*, they admire the *Pearl* that is upon the yellow Water, more than the white, becauſe they ſay the *Pearl*, with that Water, retains its Livelineſs, and will not fade; but that the white will not laſt above thirty Years without loſing its lively Colour; and not only the Heat of the Country, but the Sweat of the Perſon that wears them, will diſcolour them with an ugly yellow.

Before I leave the Gulph of *Ormus*, I muſt beg leave to give an Account of that admirable *Pearl*, which the Prince of the *Arabs* had, who took *Maſcatè* from the *Portuguſe*, who took then the Name of *Imeneĉt*, Prince of *Maſcatè*, but was called before that, *Aceph Aen Ali*, Prince of *Norenvaè*. It is no other than a petty Province, but the beſt of all the *Arabia Fœlix*. There grows every thing that is neceſſary for human Life, but particularly the fineſt Fruits, and eſpecially Grapes, whereof they may make excellent Wine. This Prince had the fineſt *Pearl* that was in the World; not for its Size, for it weighed not above twelve Carats, or its perfect Roundneſs; but becauſe it was ſo clear and tranſparent, that you might almoſt ſee clearly through it. As the *Gulph* over-againſt *Ormus* was not above twelve Leagues over from the *Happy Arabia* to the Coaſt of *Perſia*, and the *Arabs* were at Peace with the *Perſians*, the Prince of *Maſcatè* came to pay a Viſit to the *Kan* of *Ormus*, who treated him very magnificently, and invited to his Entertainment, the *Engliſh* and

Dutch,

Dutch, and ſeveral other *Europeans*, of which Number I was one. When Dinner was over, the Prince took this *Pearl* from a little Purſe that hung about his Neck, and ſhewed it to the *Kan* and all the Company. The *Kan* would have bought it, for a Preſent to the King of *Perſia*, and offered him to two Thouſand Tomens, but it would not do. Since that, I paſſed the Sea with a *Banian* Merchant, which the Great *Mogul* had ſent to that Prince to offer him Forty Thouſand Crowns for that *Pearl*, which he would not take. This Story lets us ſee as to what relates to Jewels; thoſe which are fine are not always brought into *Europe*, but rather carried out of *Europe* in *Aſia*; becauſe in all thoſe Parts, they ſet a great Price upon precious Stones and Pearls that are of an extraordinary Beauty, except in *China* and *Japan*, where they do not mind them at all.

The next Place, in the Eaſtern Parts where there is a Fiſhery of *Pearls*, is in the Sea that beats upon a large Town, called *Manar*, in the Iſle of *Ceylon*. Theſe are the fineſt for their Water, and their Roundneſs, of all the other Fiſheries, but there are rarely any found that exceed three or four Carats Weight. There are, moreover, upon the Coaſt of *Japan*, *Pearls* of a very fine Water, and very large, but uneven or rough; but they never fiſh for them, becauſe, as I have been ſaying, the *Japoneze* do not value Jewels. Although the *Pearls* which are found at *Bahren* and *Catifa* are a little upon the yellow, they will yield as good a Price as thoſe of *Manar*, as I have obſerved; and throughout all the Eaſt, they allow they are then come to their full Maturity, and will never change Colour.

I come now to the Weſtern Fiſheries, which are all in the great *Gulph* of *Mexico*, along the Coaſt of *New Spain*, and they are five in Number, lying in Order, from the Eaſt to the Weſt, as follows. The firſt is along the Iſle of *Cuba*, which is not above three Leagues about, and five, or thereabouts, diſtant from the *Terra firma*. It is in ſix Degrees and a half of Northern Latitude, and one Hundred and ſixty Leagues from *St. Domingo*, in the Iſle called *Hiſpanioka*. This is a very barren Soil, and wants every Thing, eſpecially Water, which the Inhabitants are obliged to fetch from the *Terra firma*. This Iſland is famous in the *Weſt-Indies*, becauſe it is the Place where there is the greateſt Fiſhery of *Pearls*, though the largeſt of them, exceed not five Carats Weight.

The ſecond Fiſhery is in the Iſle of *Margarit*, that is to ſay, the Iſle of *Pearls*, a League from *Cuba*, which it very far ſurpaſſes in Bigneſs. It produces every Thing neceſſary for Life, only that it wants Water as well as *Cuba*, and they are forced to bring it from the River *Cumana*, near *New Cadiz*. This Fiſhery does not yield the moſt Plenty of all the Five that are in *America*, but is eſteemed the Chief, becauſe the Pearls which are found here excel the other in Goodneſs, as well for their Water as their Bigneſs. One of theſe laſt, which I have had in my Poſſeſſion, being ſhaped like a Pear, and of a fine Water, weighed fifty five Carats, and I ſold it to *Cha Eſt Kan*, Uncle to the Great *Mogul*. Several Perſons are ſurprized, and wonder why we ſhould carry Pearls out of *Europe* into the *Eaſt-Indies*, where they have ſo many: But they ſhould take Notice that in their Fiſheries of the Eaſt, they do not meet with ſuch large ones as in the Weſt; adding to this, that all the Kings and great Lords of *Aſia*, will give a greater Price than thoſe in *Europe*, not only for Pearls, but all ſorts of Jewels, that have any Thing excellent in them, except Diamonds.

The third Fiſhery is at *Comogota*, pretty near the *Terra firma*. The fourth is at *Rio de la Hacha*, along the ſame Coaſt. The fifth and laſt is at *St. Martha's*, about ſixty Leagues from *Rio de la Hacha*. All theſe three Fiſheries produce pretty large *Pearl*, but for the moſt Part they are ill ſhaped, or irregular, and of a black or leaden Water. As for the *Scotch Pearl*, and thoſe found in one of the Rivers of *Bavaria*, though there have been Necklaces of them valued at a Thouſand Crowns and upwards, yet they are not to be equalized with the oriental or occidental *Pearl*. Of later Years there has been a Fiſhery diſcovered in a certain Part of the Coaſt of *Japan*, and I have ſeen ſome of the *Pearl* which the *Dutch* have brought from thence, that have been of a fine Water, and large, but irregular.

Before I finiſh this Chapter, I will give you a Remark worth Conſideration, in Relation to *Pearls*, and the Difference of their Waters; ſome being very white, ſome inclining to yellow, and others upon the black, which are, as it were, of a leaden Colour. As to theſe laſt, they are met with no where but in *America*, and their Colour comes from the Nature of the Soil, which is fuller of Mud than that of the Eaſtern Parts. In the Return of the Cargo which the Sieur *du Jardin*, the famous Jeweller, had in the *Spaniſh Galleons*, there were ſix *Pearls*, perfectly round, but as black as Jet, and which, one with another, weighed twelve Carats each. He gave me theſe, among other Things, to carry to the *Eaſt-Indies*, and ſee if I could diſpoſe of them; but I brought them back again, and could meet with no Body that would look upon them. As to the *Pearls* which are inclined to yellow, that comes from hence, that the Fiſhermen ſelling the Oyſters in Heaps, and the Merchant

chant ſtaying ſometimes fourteen or fifteen Days before they open, to take out the *Pearl*; ſome of theſe Oyſters, during this Time, loſe their Liquor, which waſtes and ſtinks, and the Pearl becomes yellow from the Infection; which is ſo true, that in all the Oyſters that keep their Liquor, or Water in them, the *Pearls* are always white; but they wait till the Oyſters open of themſelves; becauſe if they ſhould open them by Force, as we do ours here, they would endanger the damaging and ſplitting the *Pearl*. The Oyſters of the *Streights* of *Manar*, open naturally five or ſix Days ſooner than thoſe of the *Gulph* of *Perſia*, becauſe the Heat is much greater there, which is in the tenth Degree of Northern Latitude, than in the Iſle of *Bahren*, which is in the twenty-ſeventh; and therefore among the *Pearls* that come from *Manar*, there are but few yellow ones. In ſhort, the People of all the Eaſtern Countries are much of our Minds, in relation to Whiteneſs; for I have always made it my Obſervation, that they love the whiteſt *Pearl*, the whiteſt Diamonds, the whiteſt Bread, and the faireſt Women.

Margaritæ, *Uniones*, *vel Perlæ*, *Pearls*, *Lemery.* are little Stones almoſt round, oval, or ſhaped like Pears, compact, hard, ſmooth, white, ſhining, and of different Sizes, which are formed in certain Oyſters, whoſe Shells are of different Bigneſs: But there ſome of them met with that are three or four Times as big as the *Roüen Oyſters*. They fiſh for theſe Pearl Oyſters in the Eaſtern and Weſtern Ocean, as you may ſee at Length in Mr. *Tavernier's* Travels. The Antients called theſe Pearls *Uniones*, becauſe they believed there never was but one in an Oyſter; but they were deceived, for we ſometimes find ſeven in a Shell. They are bred from a viſcous, or ſaline, glutinous Humour, that is condenſed and petrified in ſeveral Parts of the Fiſh. Inſtead of a particular Part being aſſign'd for the Generation of *Pearl*, they breed indifferently in all the Parts of the Oyſter, but are moſt commonly found in the largeſt and beſt ſhaped Oyſters rather than in others; theſe Oyſters are as good to eat as the common Sort. Sometimes we meet with Pearl in Muſcles, and other Shell Fiſh, as well as in Oyſters. All *Pearl* is eſteemed cordial, proper againſt Infection, to recruit and reſtore loſt Spirits; but their chief Virtue is to deſtroy Acids, as other Alcalies do, and likewiſe to correct the Acrimony of the Stomach. *Pearl* is likewiſe good againſt a canine Appetite, a Flux of the Belly, the Hemorrhage, *&c.* The Doſe from ſix or ten Grains to a Drachm.

47. *The Manner of the* Pearl *breeding in the* Oyſter.

I Know, that on the Authority of ſeveral antient Authors, that were not well informed in the Nature of Things, it is commonly believed that *Pearl* is bred from the Dew of Heaven, and that there is never above one in a Shell; but Experience has let us ſee the contrary: For as to the firſt, the Oyſter never ſtirs from the Bottom of the Sea, where the Dew can never come; and as to the other, it is certain that there are found from ſix to ſeven *Pearls* in a ſingle Oyſter; for I have one in my Hands, where there are ten *Pearls*, that were in the Courſe of Formation. It is true, they are not all of the ſame Size, for they breed in the Oyſter juſt as Eggs in the Belly of the Hen; for as the largeſt Egg advances firſt to be excluded, the leaſt ſtay behind, till they have acquired their Bigneſs; ſo the largeſt *Pearl* advances firſt, and the other leſs, not having attained to their Perfection, remain under the Oyſter at the Bottom, till they are grown to the Size that Nature has appointed for them; but we cannot ſay there is a Pearl in every Oyſter, for there are ſeveral opened in which there are none at all. *Pomet.*

The Pearl-Fiſhing in the *Eaſt-Indies* is twice a Year; the firſt is in *March* and *April*, and the ſecond in *Auguſt* and *September*; and the Sale of them is from *June* to *November*. The People are ſo poor, and live ſo miſerably along the Coaſt on the *Perſian Gulph*, that they muſt ſtarve but for this Fiſhery, for they have neither Bread nor Rice, and eat nothing but Dates and Salt-Fiſh; and they muſt go twenty Leagues in the Country before they can meet with a Plant. The more Rain there falls in a Year, the better the Pearl-Fiſhing is. Many have imagined, that the deeper in Water the Oyſter is found, the Pearl therein is the whiter, becauſe the Water is not ſo hot, and the Sun finds greater Reſiſtance to get to the Bottom; but that is only a groundleſs Fancy. They fiſh from four to twelve Fathom deep; and this Fiſhery is upon the Banks, where there are ſometimes Two hundred Barks, or little Veſſels, at a Time, in moſt of which there is not above one Diver, or two at moſt.

Theſe Boats go off every Day from the Coaſt before the Sun riſes, with a Land-Breeze, which laſts till ten a Clock in the Morning, and in the Afternoon they return with the Sea-Breeze, that conſtantly, about eleven or twelve at Noon, ſucceeds the other. The Banks upon which they fiſh, are five or ſix Leagues out at Sea, and when they come there, they fiſh thus for the Oyſters:

They tie a Cord under the Arms of those that dive, of which those that remain in the Boat take hold of the End. They tie to the great Toe a Stone of eighteen or twenty Pounds, of which those that are in the Boat take hold also by a Cord. They have besides a Net made like a Sack, whose Mouth is made round like a Circle, that it may keep open, and this Net is tied like the rest. Then the Diver goes down into the Sea, and as soon as he is at the Bottom, where he is quickly by the Weight of the Stone, he nimbly unties the Stone, which those in the Boat draw up again. As long as the Diver can hold his Breath, he put the Oysters into the Net, and when he finds he can hold no longer, pulls the Cord that is tied under his Arms, which is the Signal that he would come up, and those that are in the Boat draw him up as quick as possible. Those at *Manar* are more expert at fishing, and stay longer in the Water than the Fishermen of *Bahren* and *Catisa*, for they put nothing in their Noses or Ears to keep out the Water, as they do in the *Gulph* of *Persia*.

After they have drawn up the Diver into the Boat, they take about half a Quarter of an Hour's Time to empty the Net of the Oysters. In the mean while the Diver recovers his Breath, and then returns to the Bottom of the Sea, as before; which he does several Times for ten or twelve Hours together, and then returns to Land. To conclude this Discourse of Pearl, we ought to observe, that throughout *Europe* they sell by the *Carat*, which is four Grains, as well as that of the Diamond Weight; but in *Asia* they use several Weights. In *Persia* they weigh Pearls by the *Abas*, and an *Abas* is an Eighth less than our *Carat*. In the *Indies*, especially in the Great *Mogul's* Countries, and in the Kingdoms of *Golconda* and *Visapour*, they weigh by the *Ratis*, and that is also an Eighth less than the *Carat*.

Goa was formerly the Place where the great Trade of *Asia* lay for Diamonds, Rubies, Sapphirs, Topazes, and other precious Stones. All the Miners and Merchants came here to sell whatever was fine from the Mines, *&c.* Here also was the great Commerce of Pearls from all Parts of *Asia*, as also of those from *America*. As for *Africa*, this Sort of Traffick is unknown to them, because the Women there are contented with Pieces of Chrystal, or some Grains of false Coral, Glass Beads, or yellow Amber, to make Necklaces and Bracelets of. As to the Pearl we usually sell, called *Seed Pearl*, which is for medicinal Uses, being proper to reduce into Powder by the Mortar or Muller, it ought to be white, clear, transparent, and true Oriental, rejecting all other Kinds, especially the *Scotch* or *Brussels Pearl*, being nothing but an artificial or counterfeit Sort. The Use of Pearl is to put in Potions, or other Cordial Compositions. The Ladies of Quality use the fine ground Powder of it, to give a Lustre and Beauty to the Face. They make of it likewise, with Acids, *&c.* a Magistery and Salt, to which they attribute large Virtues; besides other imaginary Preparations; as the *Arcanum* of Pearl, the Flowers, Spirits, Essences, Tinctures, and the like, to pick Fools Pockets; but the best and only useful Preparation of it, is the Powder well levigated.

[*Pearls* are a morbid Excrescence from the Shells they are found in, of a stony Substance, and consisting of several *Strata*, like the *Bezoar* and other Animal Stones, and have no other Virtues however extolled than those of the Shell they are bred in.

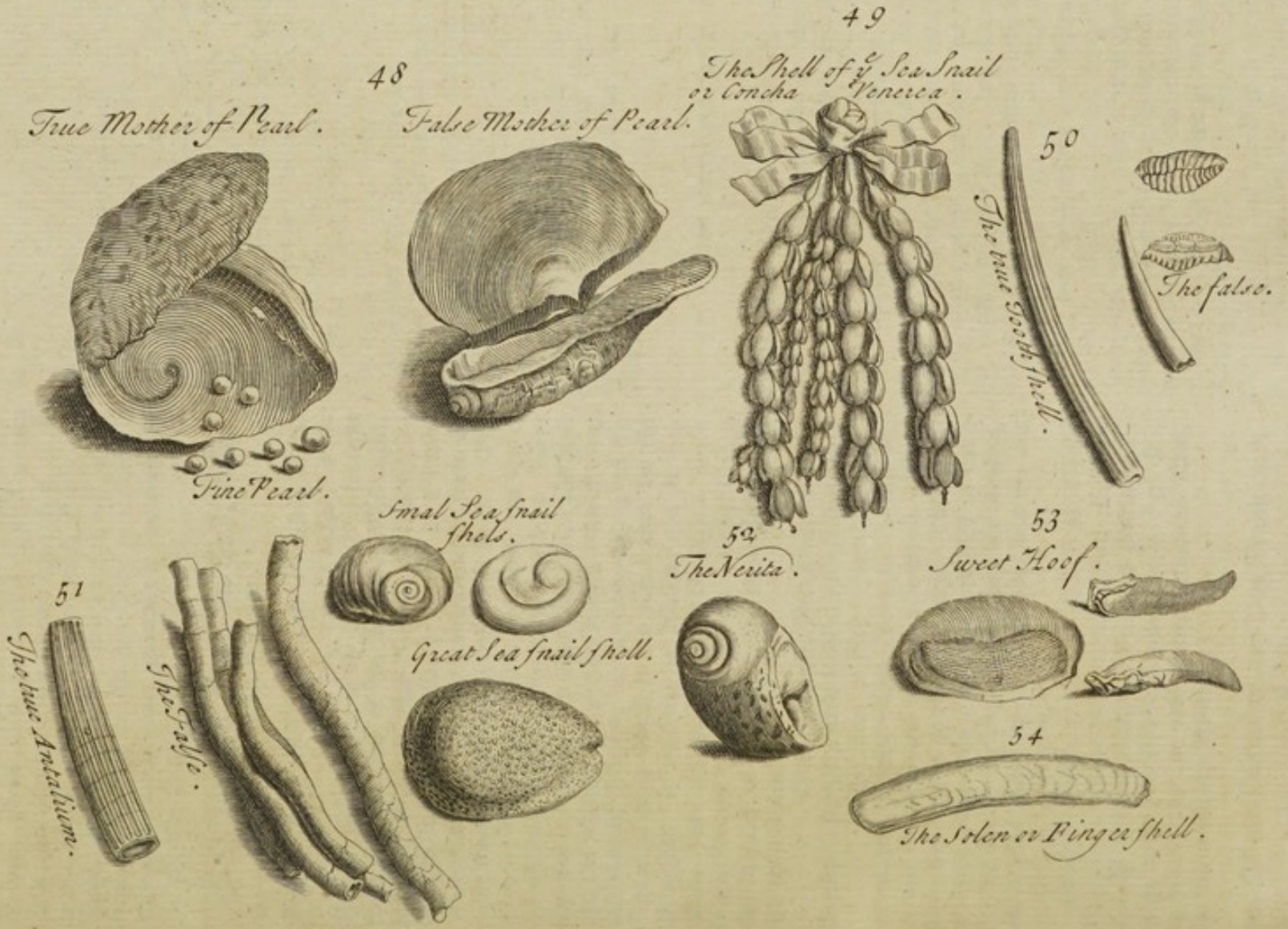
The *Scotch Pearls* are found in the common Oyster, and are often as big as a small Pea, and sometimes, though seldom, larger.

The oriental and occidental Pearls, of which the former are most esteemed, and of those, especially those of *Ormus*, are found in the *Concha Margaritifera plerisque Berberis antiquis Indis dicta. List. Hist.* and in Oysters and Muscles, of many Kinds.]

48. *Of* Mother of Pearl.

WE bring to *Paris* great greyish Shells that are rough and uneven on the Outside, and of a white, inclining a little to be greenish within, which they call, though improperly, by the Name of *Mother of Pearl*; not because the Pearl is bred in them, as a great many People believe, but because they are on the Inside of the Colour and Water of oriental *Pearl*, as they are also without, when they are prepared with *Aqua Fortis*. These Shells serve for several Sorts of fine Works: And as they are alkaline and approach to the Virtues of Pearl, a great many People preserve and grind them into Powder, after which they form them into Troches, and sell them for prepared *Pearl*. *Pomet.*

The *Mater Perlarum* or *Nacre de Perles*, in *English*, *Mother of Pearl*, is a kind of Oyster, of which there are several Sorts that are within of the Colour and Beauty of the oriental *Pearl*. I have preserved by me one of these Shells that weighs seventeen Ounces, and is as broad as both my Hands. Chuse the whitest, and of the best Lustre. They make of these Shells Snuff-Boxes, and a great many other fine polished Works, that are neat, smooth, and *Lemery.*


48
True Mother of Pearl.
Fine Pearl.
False Mother of Pearl.
49
The Shell of ye Sea Snail or Concha Veneree a.
50
The true Tooth shell.
The false.
51
The true Antalium.
The False.
Smal Sea snail shels.
Great Sea snail shell.
52
The Nerita.
53
Sweet Hoof.
54
The Solen or Fingee shell.

and very agreeable to the Eye. And likewiſe grind it to Powder on a Porphyry, and it is uſed by the Women amongſt their Pomatums, for a *Fucus* to beautify the Face.

[The *Mother of Pearl* is the *Concha Margaritifera*, *Mont. Ex.* 6. *Bellon. Aq.* 202. *Concha Mater Unionum*, *Rond. Aq.* 2. 33. *Concha Mater Unionum dicta*, *ſive Margaritifera*, *Bonan.* 93. 11. n. 1. It is one of the many Shells in which *Pearls* are found. It is as good an Alkali as the reſt of the ſame Claſs, and though not often preſcribed, is very often uſed, being generally a Succedaneum for the true *Pearl*.]

49. *Of the* Shell *of the* Sea Snail, *called* Concha Venerea.

Pomet. WHAT we call the *Porcelain*, or *Sea Snail Shell*, and the *Latins*, *Concha Venerea*, is the little white Shell that is brought from ſeveral Parts of the *Eaſt* and *Weſt-Indies*, hung in Strings in the Nature of Beads, and brought to us in Bunches; ſo that in a Parcel where there are ſeveral of theſe Bunches, there are more than a Thouſand of theſe little Shells. The *Siamois*, *Arovargues*, and the People of *New Spain*, uſe theſe little Shells as we do Money here. They are uſed in Powder with us as Pearl; chuſe the leaſt and the whiteſt. There are ſeveral Sorts of them deſcribed by *Johnſton*, but we have only given the Figure of one, which is the Kind kept by the Druggiſts. It was once an Opinion, that the fine *China* Ware was made of theſe Shells, *&c.* but it is now known to be made of an Earth; though the Manner of Painting it, and other Particulars, are yet a Secret.

Lemery. *Concha Venerea*, *Porcelaine*, or *Puce-lage*, is a little *Sea Snail Shell*, ſomething larger than a Pine Kernel, longiſh, white, and ſmooth, which is brought us from the *Indies*, ſtrung ſeveral together like Beads. They ſerve the Natives there for Money. They make a better white than *Pearl*, and are uſed in Paint for the Face. Beſides which, they are alcaline, and a good Sweetner of the Blood, but are not much uſed in Phyſick.

[The *Porcelaine*, or *Money Shell*, is the *Concha Venerea*, *Conchula Cytheriaca*, *Mont. Exot.* 6. *Venerea in Mari Siculo et Tarentino frequens*, *ubi vulgo vocatur Porcelletta*. *Bonan.* 145. n. 251. It is an Alkali, like the reſt of the Teſtaceous Kind, but never uſed in Medicine.]

50. *Of the* Dentalium, *or* Dog Tooth-ſhell.

Pomet. THE true *Dog Tooth-ſhell*, or *Dentalium*, not *Dantalis*, as it is commonly called, is a kind of Pipe of about three Inches long, thick at one End, and ſmall at the other, made like a Dog's Tooth, of a greeniſh ſhining White, adorned with ſtraight Lines that go from one End to the other. It is hollow, and light, of the Size of a Quill at the thick End, and ſmaller by Degrees, to the other End.

This true *Tooth-ſhell* is ſo rare, that it was never rightly deſcribed by any one; and if it were not that Mr. *Tournefort* has given me one, the Figure of which is engraved in Plate 86, I ſhould have been obliged to paſs it over in ſilence, and ſay, with *Schroder* and others, that it was that ſmall hollow Pipe of ſeveral Colours, which is very commonly found on the Sea Side, and ſold in the Shops for the *true Dentalium*, and which the Apothecaries improperly uſe as ſuch in ſeveral *Galenical* Compoſitions. Several likewiſe uſe a Bone from the Head of a Sea Fiſh for the true *Tooth-ſhell*. As to the Virtues of this, it is an Alcali, to be uſed as other teſtaceous Powders.

[The *Tooth-ſhell* is the *Dentalium*, *Mont. Exot.* 6. *Dentale lævum*, *album*, *altera extremitate rufeſcens*, *Liſt. Hiſt. Conch.* 4. *Sect.* 11. n. 2. *Tubulus Dentalis lævis*, *Lang. Meth. Teſt.* 5. It is found in the *Britiſh* Seas, and is of an oblong, ſlender, cylindrical Shape, ſomething crooked, and open at both Ends. It has been made an Ingredient in many Compoſitions, but is very little uſed at preſent.]

51. *Of the* Antalium, *or* Entaglia.

Pomet. THE true *Antalium* is as little known as the former, ſince the Apothecaries conſtantly, for the true *Antalium*, uſe a hollow Pipe, of different Colours and Sizes, not exceeding, however, that of a large Quill. Theſe Pipes are found at the Bottom of the Sea, and upon Rocks, ſometimes ſeparate, and ſometimes ſeveral of them together; they ſerve for ſeveral little Sea-Worms to creep into. And ſeveral Authors, eſpecially *Rondelet*, an eminent Phyſician of *Montpelier*, calls theſe Pipes, *Tubili Marini*. I ſhall not ſtop here to relate the long Diſcourſe of *Renou* in his Book, but affirm, according to Mr. *Tournefort*, who is a Man of the greateſt Perſpicuity, as well in Plants as Shells, that *Europe* has bred theſe many Years, that the true *Antalium* is another ſort of Pipe, which grows likewiſe at the Bottom of the Sea. This Pipe is about an Inch and a half long, and the Bigneſs of a large Quill at the thick End, and that of a little Quill at the other. It is hollow and thick at one End, and ſlender at the other. As to the Colour it is always white,

white, but differently ſo, being found of a greeniſh white, and a more unpoliſhed white, *&c.* As to the Choice of theſe two Pipes, there is no other than to take the true; for the Virtue of the *Antalium* is nothing different from that of the *Dentalium*, they being both Alcalies and Driers.

[The *Entaglia* is the *Entallium*, *Charlt. Ex.* 63. *Tubulus dentalis ſtratus*, *Lang. Meth. Teſt. Tubulus aut Siphunculus maris. Bonan*, 91. It is like the Tooth-ſhell, but longer and thicker, of a greeniſh Colour, and ſtriated. It is brought to us from the *Eaſt-Indies*, and poſſeſſes the Virtues of the former, and other teſtaceous Subſtances, but is very little uſed.]

52. *Of the* Umbilicus Marinus.

Pomet. WHAT the *Latins* calls *Umbilicus Marinus*, i. e. *Sea-Navel*, is the Covering of a Sea Snail, that is very common in the *Mediterranean*, which *Rondelet* calls *Cochlea cælata*. This Lid is tied to one End of the Fiſh, and when it retires into its Shell it draws after it the Lid or Covering, which ſhuts the Mouth of the Shell ſo exactly, that the Sea-Water cannot enter. *Rondelet* informs us, with good Reaſon, that the true *Umbilicus Marinus* is a Shell very different from this *Covering*, which he deſcribes in the 38th and 39th Chapters of the ſame Book; but Cuſtom has decided this Controverſy in Favour of his Covering, which muſt be uſed when the *Umbilicus Marinus* is preſcribed: It is of different Sizes. That which is moſt frequently ſeen is not much broader than a Farthing, and of about the Thickneſs of a Crown-Piece. It has its Denomination from the Similitude it bears to that Part, of which it bears the Name. It is flat on one Side and convex on the other, and of different Colours, the flat Side being ſometimes whitiſh, but commonly of a mottled brown, and the convex Side, white with a Mixture of yellowiſh or reddiſh. Some inſtead of this, tho' it is not very ſcarce, uſe the Shell of a Sea-Snail called *Nerita*, of which Mr. *Tournefort* gives the following Account.

The Hiſtory of the *Nerita* is very confuſed in both antient and modern Authors. But that which *Rondelet* takes for the *Delian Nerita*, is a kind of Sea-Snail that is found in the *Mediterranean*, and which the Waves caſt upon the Sands in the ſame Places with the *Solen*. Theſe Snails are as big as the Land-Snails, and pretty like them in Shape; but they are much thicker, ſmoother, and uſually redder within: Outwardly they are met with of different Colours. *Rondelet* ſays, that the Sort he ſpeaks of are marked or ſpotted with Black, but this Kind is ſcarce. I have ſeen ſome all white, others that have been of a Roſe-Colour, and ſeveral other Varieties. Thoſe alſo which *Bellonius* deſcribes reſemble the Figure of thoſe of *Rondeletius*, but he has not mentioned their Colour. He ſays they are called *Bigomet*, or *Bigorneau*, in *Bretagne*, and *Virlis* at *Paris*. Beſides the *Nerita* ſome Apothecaries uſe, inſtead of the *Umbilicus Marinus*, a ſmall Plant, whoſe Leaves are round and thick, which the Antients called *Cotyledon*, or *Umbilicus Veneris*, Navelwort, becauſe the Leaves pretty much reſemble the Shape of the Navel. This Plant is pretty ſcarce at *Paris*, but very common in *Languedoc*. But the Thing which ought to uſed where *Umbilicus Marinus* is ordered is the *Operculum* of the Shell-fiſh before mentioned.

[The *Umbilicus Marinus* is the *Operculum* of the *Cochlea trichiformis*, *ſtriata*, *rugoſa*, *papilloſa*. *Lang. Meth. Teſt.* 51. *Cochlæa cælata*, *Aldr. De Exang.* 393. *Cochlea cælata*, *Antonomaſtice dicta*, *Bonan.* 114. It is common in the *Mediterranean*. It has the Virtues of the other Teſtacea, and has been uſed to be hung about Childrens Necks, and as a Preſervative againſt the Cholick.]

53. *Of* Sweet-Hoof.

Pomet. THE *Unguis Odoratus*, or *Sweet-Hoof*, is likewiſe the Lid or Cover of a certain Shell-fiſh called *Conchylium*; this is of different Sizes; but for its Shape it reſembles the Claws of ſome Animals. It is thin, of a brown Colour, eaſy to burn, and of an unpleaſant Smell, like that of Horn, which is quite contrary to its Name; and I cannot underſtand what Reaſon the Antients could have to call it *Unguis Odoratus*, as well becauſe it has no Reſemblance to Hoofs, if it has any to the Claws or Talons of any Animal, as becauſe the Scent is ſo far from being agreeable, that it is very ſtinking. *Dioſcorides* calls this Covering *Unguis*, *ſive Onyx*: This Covering, ſays he, is like to that of the Purple-fiſh. That which is found in the Lakes of the *Eaſt-Indies*, amongſt the Spikenard, is of a very pleaſant Smell, becauſe the Fiſh to which it belongs feeds on this Plant. This Author prefers that which comes from the *Red-Sea*, to that which is found on the Coaſt of *Babylon*, which is blackiſh, and much leſs. They burnt in his Time one and the other for the Vapours, becauſe, ſays he, the Smell comes near to that of *Caſtor*; which confirms what I have ſaid, as the Smell of *Caſtor* and the other are both very diſagreeable: Wherefore it ſhould no longer be called *Unguis Odoratus*, but only *Blatta Bizantia*, that is, of *Conſtantinople*. As this is very ſcarce, they ſubſtitute in its Place the *Solen*, both Male and Female, whereof this which follows is the Deſcription.

[The

[The *Conſtantinople Sweet Shell* is the *Blatta Byzantina Arabum. Ald. De Exang.* 346. *Operculum cochlearum marinaram ſubrotundum vulgare. Lang.* 56. It is of an oblong Figure, a tough Conſiſtence, and diſagreeable Smell, and ſerves as a Cover to a kind of Murex or Purple-fiſh.

It is the general Opinion, that this and the *Unguis Odoratus* are the ſame; but whoever will carefully read *Dioſcorides*, will find them to be two entirely different Things, and that the true *Unguis Odoratus* was not an *Operculum*, but a Shell-fiſh, found in the Lakes, made by the Overflowings of the *Ganges* in the *Eaſt-Indies*; it was probably of the *Pectunculus* Kind, and named *Unguis* and *Onyx*, from the Reſemblance to the Nail of the human Finger. We need not therefore wonder, with our Author, at the Name, as not ſuiting what is now ſold under it, as it certainly was never intended for it.]

54. *Of the* Solen, *or* Finger-Shell.

Pomet. THIS is a Shell of two Pieces, that are joined together at one End, from four to five Inches long, and from ſeven to eight Lines in Breadth, hollow like a Spout, arched above, thin, ſquare at the Ends; and which, when joined together, are like a ſmall Trunk, or one of thoſe Caſes wherein they put a Knife and Spoon for the Table. *Rondelet* calls the Male *Solen*, that whoſe Shell is bluiſh, or of a Slate-Colour, and this is agreeable to *Apuleius's* Sentiment; and he calls the Female *Solen*, that which has the white or ruſſet Shell, and which is generally leſs than the other. Theſe two *Species* are very common in the *Mediterranean*. I have gathered them upon the Sands in the Iſles of *Hieres*, and on the Coaſt of *Martigues* in *Provence*, and in *Languedoc*, on the Coaſt of *Peraut* and *Cette*. They meet with, beſides, a kind of *Solen* on the Coaſt of *Normandy*, whoſe Shells are white, inclining to purple; but they are thicker than thoſe of the *Mediterranean*, and about ſeven Inches long, and an Inch broad.

Together with theſe Shells aforementioned, we ſell the Inſide of the Oyſter-ſhells, after they have been calcined to a Whiteneſs, and made into Troches. It is obſervable, that it is difficult to preſerve or keep thoſe Troches whole, becauſe they fall into Powder like Lime. Oyſter-ſhells calcined make very good Lime, which is the Reaſon why the *Dutch* uſe nothing elſe. Some Authors, as *Ettmuller*, in a Treatiſe of his of Animals, ſay, that the Oyſter-ſhells burnt are very proper to cure peſtilential Buboes, being applied upon them: He obſerves, likewiſe, that they ſerve inſtead of Pearl. Beſides theſe Shells there are Abundance of others, which I have not mentioned for three Reaſons: The firſt, becauſe they are not uſed. Secondly, becauſe I have little or no Knowledge of them. And, in the third Place, becauſe Mr. *Tournefort*, who has the compleateſt Knowledge of theſe Curioſities, deſigns, in a little Time, to give the Public an exact Account of them.

Solen, *Dactylus*, *vel Digitus*, or the *Finger-Shell*, becauſe of its Reſemblance to a Finger, is a ſmall Shell, ſomething larger than one's Finger, and an Inch thick, made up of two Pieces like the Muſcle, but joined together at the End, and hollow like a Pipe. This contains in it a little Fiſh of the ſame Shape, which when it would feed, puts the Head out at the End of the Shell that is not joined together, and draws it in again like the Tortoiſe. This Fiſh is good Meat, when well waſhed from the Sand, whereof it is full. The Fleſh is a litle viſcous, and it ſometimes caſts a Light like the *Phoſphorus*. The Shell is alkaline, reſolutive, drying, opening, *&c.* being taken inwardly. The Doſe is from half a Scruple to two Scruples. They uſe it externally in ſome Cerats and Ointments, in the Place of the *Dentalium*, which is ſcarce. *Lemery.*

[This is the *Solen*, *Worm. Muſ.* 256. The common Male and Female are the *Solen Maſ. virgatus et ſubcæruleus*, and *Solen fæmina unicolor. Liſter. H. Conch.* 9. 412. The calcined Shell is ſaid to be a good Diuretick, but is never uſed at preſent.]

BOOK II.
Of *FOSSILS.*

PREFACE.

I underſtand by the Word Foſſil, *every Thing that is found in the Bowels of the Earth*; *as* Metals, Semi-Metals, Minerals, Bitumens, Stones, *and* Earths. *As my Deſign is to begin with* Metals, *I ſhall firſt obſerve, that by the Word* Metal, *I mean a Body that is hard, of a Subſtance alike in all its Parts, that may be melted by the Fire, is ductile, and may be extended by the Hammer, and is different from* Minerals, Bitumens, Earths, *and* Stones, *as will be ſhewn hereafter. There is great Diſpute concerning the Number of* Metals; *ſome will have them to be nine, others ſeven, and others ſix; thoſe who make them nine, would have* Quickſilver, Biſmuth, *and* Braſs, *to paſs for* Metals: *But as this Opinion is not well grounded, becauſe* Biſmuth *is not a perfect* Metal, *and* Braſs *is a Compoſition, I ſhall agree with thoſe who have concluded that the Number is ſeven, which anſwers to the ſeven Planets, and the ſeven Days of the Week; that is to ſay,* Gold *to the* Sun, *and to* Sunday; Silver *to the* Moon, *and to* Monday; Iron *to* Mars, *and* Tueſday; Quickſilver *to* Mercury, *and* Wedneſday; Tin *to* Jupiter, *and* Thurſday; Copper *to* Venus, *and* Friday; *and laſtly,* Lead *to* Saturn, *and* Saturday. *Some Perſons will have it that* Mercury *is but a* Semi-Metal; *but as I think it not proper to diſcuſs that Matter here, I ſhall refer the* Reader *to the Chapter of* Mercury, *and begin here with* Gold, *which is the chief of all* Metals.

1. *Of* Gold.

GOLD is the moſt perfect of all Metals, which has occaſioned its being called the *King of Metals*, the moſt precious, the heavieſt, and moſt malleable, and of a ſhining yellow Colour. *Gold* is brought from many Parts of the World, but it comes in the largeſt Quantities from the Mines of *Caravana* in *Peru*, and of *Valdivia* in *Chili*, where it is ſo common, that it has been uſed for the ſame Purpoſes as Pewter, Braſs, or Iron are here; and though this is the richeſt Country for *Gold* of any that has come to our Knowledge, yet the Inhabitants are very poor, by reaſon of the Dearneſs of all Proviſions. There are ſeveral other Places where Gold is found; but the greateſt Quantity comes from *Peru*, becauſe there it is moſt frequently found, and is refined with the leaſt Trouble and Expence.

Africa, *Aſia*, and *Europe* produce *Gold* of four different Sorts. The firſt is in Bits of different Sizes, which is ſo fine and ſoft, that you may make an Impreſſion upon it with a Seal, as if it were upon Wax. This natural *Gold* is called *Virgin Gold*. The ſecond is in Grains. The third in Ore. The fourth in Sand. Theſe three laſt Sorts are generally found after great Rains, in thoſe Places through which the Torrents of Water have paſt; and even in the Bottom of Rivers, eſpecially ſuch as have run through Mines of *Gold*; as thoſe of *Datzin* and *Diguvira* in *Africa*, where there are Negroes who make it their whole Employment to ſeach for it in the Bottom of the Rivers. We have *Gold* brought from ſeveral Parts, as *Peru* in the *Weſt-Indies*, *Hungary*, and *Germany*, but the laſt is the worſt of all. The Choice of *Gold* is to have it of as fine a Colour, and as pure as may be. The greateſt Part of the *Gold* we have in *France*, comes from *Peru*, whence it is brought in Wedges or Ingots to *Cadiz*, by the *Spaniſh* Galleons. The Company in *France* bring from *Senega* a *Gold* which they call *En Aurillet*. This is wrought by the Savages, which they fetch from the Kingdom of *Galan*, which is near that of *Tombut*. The *Dutch* likewiſe bring *Gold* from *Sumatra*, and other Places of the *Eaſt-Indies*, together with their Peppers, and other Commodities of thoſe Countries. There is yet another Sort of *Gold*, which is that of the *Alchymiſts*, of which I ſhall ſay nothing, becauſe I have no Knowledge of

of it, leaving it to thoſe who chuſe to amuſe themſelves, and ſeek the Ruin of their Families, in an Operation that does not ſeem to have much Poſſibility in it. By the Means of Chymiſtry, they extract from *Gold* many Things that are uſeful for human Life. The firſt Preparation of *Gold* is the refining of it, which is done after four Manners; to wit, the firſt by Antimony, which is the beſt; the ſecond by the *Cupel*; the third by *Aqua Regia*; the fourth by the *Cement*. They call that which is refined by Lead, and Aſhes deprived of their Salt, or Bones burnt, *Coppel Gold*, which is that the Gold-beaters uſe to make *Leaf Gold* of. That which is refined by *Aqua Regia*, is called *Gold* by *Departure*, or Precipitation. Laſtly, That which is called *Gold* by *Cement*, is that which is refined by the Means of a Paſte compoſed of Brick, common Salt, *Sal Ammoniack*, *Sal Gem*, and Urine. There is a fifth Refinement of *Gold* by *Mercury*; but as theſe Matters are too long to be here particularly deſcribed, I ſhall refer the Reader to the ſeveral Books of Chymiſtry which treat thereof.

Regulus of Gold.

The *Regulus of Gold* is Gold refined by Antimony, and afterwards thrown into a Braſs Mortar, warmed and greaſed in the ſame manner as that into which is thrown the *Regulus* of Antimony. This Operation is ſeldom uſed becauſe of the Charge, and is ſeldom done but by ſuch as have the Curioſity of having Gold that is extremely fine.

Leaf Gold.

What we call *Leaf Gold* is that which is refined by the Cupel, and then by the Help of a certain Kind of Skins, or Beaſts Bladders (which the *French* Workmen call *Baudrucee*) is by Hammering reduced to Leaves extremely light and thin.

It is a ſurprizing Thing to think that a Gold-beater can reduce an Ounce of Gold into 1600 Leaves, each of which ſhall contain ſeven and thirty Lines ſquare. And Monſieur *Furetiere* ſays, that they can reduce Gold into one hundred and fifty-nine thouſand ninety two Times its ſuperficial Size; and the Wire-drawers into ſix hundred and fifty one thouſand five hundred and ninety Times. There are five Sorts of *Leaf Gold* amongſt the Gold-beaters of *Paris*: The fineſt and moſt durable is that which is ſold to the Sword-Cutlers, wherewith they work their gilt and flowered Blades. The ſecond is that which they ſell to Smiths and Armourers to gild their Iron and Weapons. The third is that which is uſed in gilding of Books. The fourth is uſed by Gilders of Wood, and Painters. The fifth is that uſed in Phyſick, which the Apothecaries put into ſeveral of their Powders and Confections, as well for the Virtue of it, as for Ornament.

They grind theſe Leaves of Gold, or the Clippings of them, which they call *Bracteolæ*, with Virgin Honey, and then put them into Muſcle-ſhells; and this they call Gold in Powder, or in the Shell. This Gold, ſo prepared, is uſed for Painting in Miniature.

Aurum Fulminans, *or* Crocus *of Gold.*

The *Aurum Fulminans*, or *Crocus Auri*, is Gold in File-duſt diſſolved in *Aqua Regia*, and precipitated into a brown Powder by Oil of Tartar *per Deliquium* poured upon the Diſſolution. This Powder dried has much more Force, and takes Fire ſooner than Gun-powder. This Preparation of Gold is a Sudorifick very proper in the Small-Pox, given from two Grains to ſix. It is likewiſe good to ſtop Vomiting, and ſuppreſs the too vigorous Operation of mercurial Medicines.

Amalgamation of Gold, *or* Gold-Powder.

The Powder, or ground Gold, is made by calcining Gold with Mercury and *Sal Ammoniack*; this is called *Gold* in *Powder*, or amalgamated, and is uſed by the Gilders, becauſe it ſpreads eaſily. There are ſome who omit *Sal Ammoniack* in their reducing Gold to Powder, and only make uſe of Mercury. There are ſeveral other Preparations of Gold; as Tinctures, Extracts, and the pretended *Aurum Potabile*. But ſince they are not received by the World, I ſhall only ſay what all all agree in, that the greateſt Property of Gold is to give all Sorts of Perfections and Conveniences to him that is Maſter of it.

Gold, in *Latin*, *Aurum*, *Sol*, *Rex Metallorum*, is the moſt ſolid, weighty, com- *Lemery.*
pact, and precious of all Metals. It is generated in many Mines in different Parts of the World; but the greateſt Quantity is brought in Bars or Ingots from *Peru* to *Cadiz* by the Galleons of *Spain*. There is Gold likewiſe found in *Aſia*, *Africa*, and *Europe*, ſometimes in a Maſs, which is called *Virgin-Gold*, ſometimes in Grains, ſometimes in Ore, ſometimes in Duſt or Spangles.

The firſt is called *Virgin-Gold*, becauſe it comes pure out of the Mine, without any further need of Preparation, and is ſo ſoft as to receive the Impreſſion of a Seal, and is found in greater and leſſer Pieces.

The ſecond is in Grains, but not ſo fine as the firſt.

The

The third is a Gold mixed with other Metals, and the Marcasite or Mineral Stone, which are formed together as a Stone, called *Gold Ore*. The fourth is a Gold in Duſt, or Spangles mixed with Sand.

The three laſt Sorts of Gold are generally found at the Bottom of Rivers, after great Rains and Torrents of Water, and the Negroes either dive for or waſh them out of the Sands.

Gold is refined ſeveral Ways; by the Cupel, by Departure, by Cementation, and by Antimony.

The refining of Gold by the Cupel and Departure, is done after the ſame Manner as that of Silver, of which hereafter.

Gold is refined by Cementation in the following Manner: They make a hard Paſte with *Sal Gem*, and *Sal Ammoniack*, Chalk, and Urine. This Paſte is laid with Gold, *ſtratum ſuper ſtratum*, in a Crucible, which is placed in a Furnace, and a large Fire being made about it, the Matter is left to calcine for ten or twelve Hours, that ſo the Salts may penetrate the Foulneſs of the Gold, and throw it off in *Scoria*; and ſo the Crucible being taken off from the Fire, the Gold will be found ſeparated from the *Scoria*.

Gold is refined by Antimony after this manner: They weigh the Quantity of Gold they would refine, and make it red-hot in a Crucible, by a ſtrong Fire, and then throw in four Times the Quantity of Antimony in Powder; ſoon after which the Gold will melt, for Antimony is full of a ſaline Sulphur, which not only very much augments the Heat, but, piercing into the Metal, divides the Parts very ſpeedily: Then the impure or groſs Matters that were in the Gold is ſwallowed up by the Antimony, to which they readily join themſelves, and ſo ſeparate into *Scoria*, of which the more volatile Parts are diſſipated into Smoke. They leave this Matter in the midſt of a great Fire, till it ſends forth Sparkles, and then they pour it into an Iron Mortar warmed and greaſed, beating it about till the *Regulus* fall to the Bottom. When all is cold, they empty the Mortar, and with a Hammer ſeparate the *Regulus* from the *Scoria*. They weigh this *Regulus*, and put it into a Crucible over a ſtrong Fire, to be melted a ſecond Time; then, by little and little, they throw in three times as much Salt Petre to purify the Gold from any of the Antimony that may happen to remain. They continue a very violent Fire about the Crucible till the Fumes are gone off, and the Gold remains in Fuſion clear and neat: Then they turn it into a Mortar as before; and, when it is cold, they ſeparate the *Scoria* that are found underneath it; then they waſh it, and wipe it with a Cloth. This *Regulus* of *Gold* is as fine as poſſibly can be; and this Way of refining is preferable to all others, when they would cleanſe Gold exactly from other Metals.

The Cupel will cleanſe Gold very well from *Marcaſites*, and even from ſuch Metals as are called imperfect, but not from Silver. This Metal is ſo bound up and joined with Gold, that Recourſe muſt be had to the Departure before it is poſſible to ſeparate them.

Though the Departure ſeparates Gold from Silver; yet when the Gold is precipitated, it generally carries with it ſome Portion of the Silver.

The Cementation often leaves the Gold undiſcharged of ſome Particles of other Metals, and the Salts entring into the Gold, diſſolve a little of it. But Antimony is a Devourer, which ſpares no other Metal but Gold; yea it will oftentimes gnaw off ſome little Portion of it, and by that Means create ſome Diſpleaſure to the Refiner.

The Degrees of the Fineneſs of Gold are called Carats: A Carat of Gold is of the Weight of a Scruple, and by conſequence twenty four Carats make an Ounce.

Gold that is entirely fine, is called Gold of twenty four Carats; becauſe if you put an Ounce of ſuch Gold to the Proof, it will not be diminiſhed: But if an Ounce of Gold will waſte a Scruple in the Proof, it is Gold of twenty-three Carats; if it waſte two Scruples, it is Gold of twenty-two Carats, and ſo of the reſt. But many Refiners believe that there is no Gold of twenty-four Carats; for let them refine it never ſo well, there will ſtill remain ſome light Portion of Silver. Gold eaſily mixes and unites with Quickſilver, and this is what is called *Amalgama* of Gold. To make it, they put Gold cut into very minute Pieces into a Crucible, leaving it to be red-hot; to this they put eight times as much Quickſilver, ſtirring it with a ſmall Iron Rod, and when they find it incorporated, they caſt it into an earthen Veſſel full of Water, where it cools and remains ſoft as Dough. They waſh it ſeveral Times to take away the Blackneſs, they then ſeparate the ſuperfluous Mercury, that is not well united to it, by putting it into a Cloth, and preſſing it gently with the Fingers. They throw a great deal of Quickſilver upon Gold, that it may charge itſelf with it as much as poſſible; for the more Mercury enters into the Amalgama, the ſofter it will be, and the more pliable; but Gold can receive no more than a certain Quantity, becauſe when its Pores are once full, the reſt that is added is uſeleſs.

The Amalgama of Gold is uſed by the Gilders, becauſe it is eaſily ſpread over the Work prepared for it.

Gold, when refined, will be extended by the Hammer more than any other Metal. The Gold-

beaters

Beaters reduce it into very thin Leaves, which they put into little Books. These Leaves of Gold are used for Gilding. They are used likewise in compounding of Medicines, and are preferable to all other Preparations of this Metal; not only because they are easily mixed, but because they appear like Spangles, which beautify and set off the Composition.

As Gold is the most weighty, the most compact, firm, and beautiful of all Metals, so it has likewise been esteemed the most perfect; and a numerous Sect of Philosophers, called Alchymists, have thought that the Production of Gold was the principal Design of Nature in all Mines; and that it had been obstructed from its due Course by some Accident, when it produced other Metals. But this Opinion is not approved by all; and one may very reasonably believe that Iron, Lead, Copper, and other Metals, that are called imperfect, have the Perfection which they ought to have, according to their own Nature, as well as Gold. This Sentiment of the Alchymists has led them into another Chain of Reasonings, which are not more just than the former: They believe that they can perfect the imperfect Metals, by supplying the Failure of Nature, and consequently that they can make Gold. It is this Operation, which they call the Great Work, or the Search of the Philosophical Stone. To arrive at which, some of them make a Mixture of these Metals with some Matters proper to refine them, and calcine them a long Time in a strong Fire, to arrive at their Perfection, as if Nature had wanted Heat to produce them.

Other put Metals into a Digestion upon the Fire, in saline and piercing Liquors, so to draw out the Mercury, which they say is a Matter disposed to be reduced into Gold.

Others seek for a Seed of Gold in Gold itself, and believe they shall find it there, as they do the Seed of a Vegetable in a Vegetable, and that of an Animal in an Animal. To accomplish this, they endeavour to open Gold by Dissolvents; and they put it to digest by the Fire of a Lamp, or the Heat of the Sun, or that of Smoke, or Fume, or some other Degree of Heat, always equal, which approaches nearest to that which Nature makes use of.

Others look for the Seed of Gold in the Minerals, as in Antimony, where they pretend there is a Sulphur and a Mercury like to that of Gold. Others hope to find it in Vegetables, as in Honey, Manna, *Rosa Solis*, and Rosemary; and others in Animals, as in the Spittle, the Blood, the Brain, the Heart, and the Excrements.

Others imagine they can catch the Seed of Gold, by fixing the Rays of the Sun after a certain Manner; for they look upon it as a thing incontestable, that the Sun is Gold melted in the Center of the World, and that it is cupelled by the Fire of the Stars that surround it; and that the Rays which it casts, and that shine on all Sides of it, are the Sparkles which rise from it after the same Manner that they do in refining Gold by the Cupel.

I should enlarge too much, if I would here repeat all the Fancies of the Alchymists, and the Manners of Working, which they have invented to arrive at the Perfection of their Designs. They have spared neither Time, Pains, Watching, Care, nor Money; and a great many of them having spent the better Part of their Life in this Labour, have so exhausted their Spirits, their Healths, and their Pockets, that they have fallen into a deep Melancholy, Madness, incurable Diseases, and a most miserable Poverty.

But the ill Success of these Alchymists has not hindered other Persons from entering the same Lists; the Hopes with which they flatter themselves, that they shall find the Means of making Gold does so far prepossess their Minds, that they become incapable of thinking seriously of any other thing than what may contribute to the grand Work. They think no body reasons so well as the Alchymists. They treat all People that do not come up to their Sentiments as Infidels, and they assume to themselves, exclusive of all others, the Name of the true Philosophers, or the Philosophers, by way of Excellence. If they speak, it is by Monosyllables; if they explain themselves, it is in such obscure Terms, and heightened Expression, that very often they do not understand themselves. If they write, it is that it may not be comprehended. If they work, it is with Mystery, giving sublime Names to all the Ingredients they make use of. Gold is by them called the Sun; Silver, the Moon; Tin, Jupiter; Lead, Saturn; Sal Armoniack, the solar Salt, or the Mercurial Salt of the Philosophers; Nitre is *Cerberus*, or the infernal Salt; the Spirit of Nitre, the Blood of the *Salamander*; Antimony, the Wolf, or the Root of the Metals, or *Proteus*; and so of the rest. Their Preparations are all philosophical; and even the Bricks of which they build their Furnaces participate of that Quality. Besides, these Gentlemen look upon themselves to be far above all other Persons. They think they are the Depositaries of the richest Secrets of Nature. They explain every thing to their own Advantage; and, according to their own Prejudices, they call themselves the Holy Nation, and the elect People. King *Solomon*, according to their Opinion, was of the Sect of Alchymists, because Gold was so common in his Days. And the Spirit

of God which ſwam upon the Water, and is ſpoken of in *Geneſis*, was the univerſal Spirit of which Gold is made. I could relate a great many more of their Opinions, as extravagant as theſe, but I am afraid of growing tedious to the Reader.

That which the Chymiſts aſpire to by their great Labour is, as I ſaid before, to find out the Seed of Gold. And ſeveral of them pretend that they have attained to it, and are in full Poſſeſſion of it, and it is this which they call the Powder of Projection. They attribute to it the Virtue of turning any Metal whatſoever into Gold; but we ſee no Experiments of this pretended Fact: Thoſe that have been made upon ſeveral Occaſions, have been only Tricks, or Slight of Hand, by which they throw Duſt into Peoples Eyes, and engage them to blow the Bellows, and bear Part of the Charges with them.

It is eaſy to apprehend that the Seed of Metals is not to be found in them, becauſe their Production does not arrive by Vegetation, as in Plants, but proceeds from a Congelation that is made by Waters, loaded with Salts of different Natures, and ſulphurous Earth, as they have acknowledged who have wrought in them.

The Alchymiſts ſay, that their Seed of Gold is a Mercury which they have drawn from Metals; but beſides that it is ſtill a Queſtion, whether they can draw a Mercury from Metals, it is not probable, that if they can draw it, it ſhould be the Seed of Gold.

They affirm likewiſe, that the Seed of Gold is in every thing, that it abounds in the Spirit of the Univerſe, and that Dew, Manna, and Honey, having the Impreſſions of the Spirit, the Seed of Gold may therefore be drawn out of them. We agree with them, that the Univerſal Spirit ſerves to the Production of Gold, as it ſerves to that of other Mixtures; but it is by an Acid that it contains, and not by a Seed, at leaſt the Name of Seed is never given to this Acid; and then there is no more Reaſon to think that the Univerſal Spirit abounds in the Seed of Gold, any more than in the Seed of the groſſeſt Mineral, the moſt uſeleſs Plant, or the moſt deſpicable of Animals.

Although all the antient Authors have eſteemed and preſcribed Gold as the greateſt Cordial, when taken inwardly, yet we do not find this Virtue to be in it; for Experience ſhews us, that it paſſes by Stool in the ſame Weight and the ſame Condition in which it was taken, becauſe it is too hard to be penetrated and digeſted by the weak Acids of the Body: But it is however proper, and very convenient for them who have taken too much Mercury, for it amalgamates with it in the Body, and fixes it in ſuch a Manner, that it hinders it from acting as it did before. And this Mixture is afterwards thrown out by Stool or Urine. It is likewiſe good for Colick Pains of the Glaziers and Plumbers, which are cauſed by the Vapours of their Lead.

Mercury clings ſo eaſily to Gold, that if a Perſon ſalivated with Mercury has any Pieces of Gold in his Pocket, they will commonly grow white in a little Time, without his touching them. But this Mercury is expelled by putting the Gold in the Fire, and afterwards rubbing it with a little Oil of Tartar.

The *Aurum Potabile* of the Chymiſts is nothing but a Chimæra: They pretend that they can reſolve Gold into its firſt Principles, and ſeparate the Salt and Sulphur of it, ſo that they cannot be revived into Gold any more than the Oil and Salt that are drawn from a Vegetable, can be put into the ſame Plant again. They call theſe pretended Salts and Sulphurs of Gold, potable Gold, becauſe they can be diſſolved in all Sorts of Liquors, and be taken as a Potion: They attribut to it the Virtue of being a Preſervative againſt all Sorts of Illneſs, and ſay that it cures all Diſeaſes, prolongs Life, and, in a word, is the univerſal Medicine.

The noble Qualities of the *Aurum Potabile* are grounded upon many other Chimæras. The Alchymiſts and Aſtrologers affirm, that there is a great Correſpondence, and a peculiar Intercourſe between the Sun and Gold, by the Influences which they communicate one to the other; and that Gold is therefore conſequently impreſt with the Influences of the Sun: That the Sun is the Heart of this great World, and having that Quality, it ought, by the means of Gold its ſubſtitute, to diſplay its Virtues over the Heart of the little World, which is that of Man. That the Quality of the Sun is to warm, revive, rejoice, and cleanſe the Body from all ill Humours, and to render Life happy, long, and free from Diſtempers: That all their Principles being certain, there is no Room to doubt that Gold has theſe excellent Virtues; but that as this is a Body very hard and ſolid, its Qualities are ſo encloſed and concentred, that they cannot be well perceived without reducing them to their firſt Principles, which are the Sulphur and the Salt that they call *Aurum Potabile*.

It is not difficult to confute all theſe Arguments; they are ſo weak, and have ſo little Foundation, that they fall of themſelves. *Firſt*, The Alchymiſts take it for granted, without proving it, that Gold can be reſolved into its firſt Principles, ſo that Salt and Sulphur may be drawn out of it; but this Metal is really ſo ſolid, and ſo conjoined in its inſenſible Parts, that they could never find

find a Means to diſſolve it radically, nor to ſeparate any of its Principles, notwithſtanding all their Pains and Application. They extend, they divide, they attenuate, they rarify it, into inſenſible Parts, by Means of their Diſſolvents, but hitherto they have done nothing but diſguiſe it; for it ſtill remains entire Gold, and is ready to be reduced to its primitive State by Fuſion. The other Preparations of Gold, which ſome Perſons would put upon us for the Salt and Sulphur of this Metal, are found, when ſtrictly examined, to be nothing elſe but Gold extremely rarified, diſſolved, and diſguiſed by ſome Ammoniacal Salt; but this Gold is revived again, by freeing it from this Salt, and making it paſs through the Fire.

Nay, though in Proceſs of Time they ſhould come to be able to diſſolve Gold radically, ſo as to extract the Salt and Sulphur, yet it would ſtill remain a Queſtion, what would be the Virtue of theſe Principles? Which could only be known by the Experiments that ſhould be made with them; but there is Room to believe, that the Effects would be different from what they would perſuade us. The Intercourſe of Gold with the Sun, and the peculiar Influences that they would have it receive from thence, are Fancies, which carry no Probability with them: We ſee the Sun diſplays its Warmth and Rays upon all Bodies, without any Appearance of its making a Diſtinction.

Although there is no *Aurum Potabile* in the World, and that it is uncertain what Effect it would have could we find it, yet the very Name of *Potable Gold* impoſes upon a great many People, and gives an Opportunity to Mountebanks to cheat them with Impunity; for they draw Tinctures from ſome Ingredients, whoſe Colours come near to that of Gold, and ſell them at a very great Rate, under the Title of *Aurum Potabile*. This Sort of Cheat is what generally ſucceeds beſt; for Patients are prepoſſeſſed in Favour of ſuch Medicines as carry great Names, and have a ſpecious Appearance: Men are likewiſe apt to cry up that which is dear. So the Name and the Price gains an Eſtimation. It likewiſe often happens, that theſe Tinctures, which go by the Name of *Aurum Potabile*, produce ſome good Effect, becauſe they can take care to make them with ſuch ſpirituous Menſtruums, as comfort the Heart, and expel ill Humours by Perſpiration; then it is cried up for a Miracle, and the Effect is attributed to the Gold, which can have no Share in it, as having never entered into the Liquor.

Others, who are leſs Cheats than thoſe I have ſpoken of, diſſolve Gold in ſome ſpirituous Liquors, after the common Manner; and as the Diſſolution of Gold is always yellow, they make it paſs for the true *Aurum Potabile*, altho' it is only Gold divided, and may be reduced to the ſame State that it was in before.

Beſides, I cannot ſee that the Perfection of Gold muſt neceſſarily give it the Preference in Phyſick to other Metals; on the contrary, this Perfection, being an exact Contexture of the Parts, and a very great Solidity, is a Reaſon why this Metal is ſo much the leſs diſpoſed to be digeſted and diſtributed into the Veſſels of the Body; Iron, Mercury, and the other Metals, which are called imperfect, are much more tractable, for we put them into a Way of penetrating through the whole Body, and producing conſiderable Effects: What is Perfection with the Workman, is often an Imperfection with the Phyſician; and we make better Uſe of the mixt Bodies, whoſe Principles are naturally rarified and diſſolvable, than of thoſe, which through too much Firmneſs are rendered, as it were, incorruptible.

[To what has been already obſerved, it may be added, that Gold is often found in Orpiment, in a kind of *Pyrites*, of an aſhy purpliſh Colour, and hid in the Ores of other Metals, eſpecially Silver.

Gold, in all common Fires remains fixed, and even when expoſed to the Focus of the ſtrongeſt Burning-Glaſs, ſuffers that Heat a great while before it begins to evaporate: it never contracts Ruſt, and is only diſſoluble in *Aqua Regia*, but may be calcined by common Sulphur if ſet on Fire and flaming. The Analyſis or Reſolution of this Metal, has hitherto been attempted without Succeſs; its Sulphur and Earth are ſo ſtrictly united as not to be ſeparable by the common Powers of Fire, and before the Burning-Glaſs entire Parcels of it fly off, without any apparent Reſolution into its Principles.

The Uſe of Gold in Phyſick was unknown to the antient *Greeks*; the *Arabians* firſt gave it inwardly, imagining it muſt have great Virtues, but in all Probability it has really none, and the preſent Practice knows it in no other Intention, than the gilding Pills and Boluſes.]

2. *Of* Marcaſites.

UNDER the Name of *Marcaſite*, according to Monſieur *Morin*, Doctor of Phyſick of *Montpellier*, is to be underſtood a metallick Mineral, which is loaded with Sulphur and Earth. This in the Fire ſwallows up the metallick Matter which gets looſe, and the Sulphur carries up with it Parts which being more ſubtil, mercurial, and leſs fixed, are evaporated; *Pomet.*

ſo that there remains nothing but a Body, which is vitrified and uſeleſs.

Altho' from this imperfect Mineral, no Metal can be drawn by Fuſion, whatever elſe be mixed with it to promote the Separation, yet it is much ſearched into by all true Chymiſts, and preferred to thoſe from which Metals may be extracted, which ſome improperly call *Marcaſites*; and it is with juſt Reaſon, for the Principles not being yet well united, it is the leſs difficult to ſeparate them, and conſequently to determine and multiply them by their Operations.

They who work in Mines throw theſe Subſtances by, and ſeparate them from the Ore, which is ſo much the better, by how much the leſs Earth and Sulphur there is in it.

It is eaſy to conceive, that each Metal has its proper *Marcaſite*; which is, as it were, its Seed or Bud; and the more it ferments, and the nearer it approaches to a metallick Perfection, the farther it recedes from the Nature of a *Marcaſite*.

It muſt nevertheleſs be obſerved, that we ſell commonly but three Sorts of *Marcaſite*, which are thoſe of Gold, of Silver, and of Copper. That of Gold is uſually a little round Ball, very weighty, and difficult to break. That of Silver is almoſt of the ſame Make, but is not ſo high coloured. That of Copper is either round or long, and oftentimes irregular, and of the Largeneſs of a Tennis Ball. This *Marcaſite* is very hard, but if you leave it in a moiſt Place, the Moiſture will penetrate it, and turn it all to Vitriol, and ſo it comes to nothing. When you break in Pieces theſe *Marcaſites* of Copper, they are of a yellow Gold Colour, and radiated like a Sort of Sun. Theſe are the Deſcriptions of the *Marcaſites* we commonly ſell, but for thoſe of Iron, Tin, and Lead, I cannot, to this Day, learn poſitively what they are. There are ſome who affirm poſitively that the Load-Stone is the *Marcaſite* of Iron; the Biſmuth, or natural Tin-Glaſs, that of Tin; and the Mineral Zink, or Spelter, that of Lead. And there are others who ſay that Tin and Lead are the ſame thing, and differ only in Colour, grounding themſelves upon this, that the Antients called Tin White Lead, and Lead Black Lead, ſo that there cannot belong to them two Sorts of *Marcaſites*; and my Sentiments muſt concur with theirs; ſeeing it has not been poſſible for me to find any natural Biſmuth or Tin Glaſs, as I ſhall ſhew hereafter.

It is remarkable, that tho' I ſay we ſell but three Sorts of *Marcaſites*, yet there are very few large Druggiſts Shops where there are not found ſeveral other Sorts, as the ſquare, the flat, the grey, the black, the yellow, and the like. And this happens, becauſe they give the Name of *Marcaſite* to every thing they do not know, and take to be Mineral; and the Buyer, not knowing what it is, any more than he that ſells it, it often happens, that they who work it are deceived, and loſe their Labour.

I have by me a white *Marcaſite*, full of Veins of Gold, which was brought from the *Iſles*, and was affirmed to me to be true Gold Ore.

The *Marcaſite*, is a metallick Mineral, of which there are ſeveral kinds; for all Stones which contain more or leſs of a Metal are called by this Name. But three Sorts are more principally intended by the Word *Marcaſite*; that of Gold, that of Silver, and that of Copper. *Lemery.*

The two firſt are in little Balls, of the Bigneſs of a Nut, almoſt round, weighty, browniſh without, but of different Colours within; for one has the Colour of Gold, the other of Silver, but both bright and ſhining.

The *Marcaſite* of Copper is as large as a little Apple, round or oblong, brown without, yellow and cryſtalline within, bright, ſparkling, and eaſy to be broken.

The *Marcaſites* are taken out of the Mines. They contain a great deal of Sulphur and vitriolick Salt, eſpecially that of Copper.

[The *Marcaſites* of the *Arabians*, were the various kinds of the *Pyrites*, and ſince their Times various imperfect Ores have been known in the Shops, under the Name of *Marcaſites*, with the Addition of that of the Metal they were ſuppoſed to belong to, but what is now kept there, under the Name of *Marcaſite*, without any Addition, is Biſmuth or Tin-Glaſs, of which we ſhall treat hereafter.]

3. *Of* Silver.

SILVER, which the *Spaniards* of *Peru* call *Plata*, is the beſt and moſt perfect Metal next to Gold. It is white, hard, extenſible, and very agreeble to the Sight. It is alſo called *Luna*, becauſe of its bright white Colour, and the Influences it was ſuppoſed to receive from that Planet. The moſt famous Mines for Silver are thoſe of *Rio de la Plata*, that is the *River of Silver*, and of *Potoſi*, in *Peru*, which were diſcovered in the Year 1545. The Encloſure which bounds the Extent of them, is called *Potoſi*, which is a Mountain ſituated in a flat Champain, riſing in the Form of a Sugar-Loaf, above a League in Circuit below, and a Quarter of a League on the Top. The Silver coming out of the Mine is refined with Mercury, or Quickſilver; and there have been ſome Years in which they have taken out of *Pomet.*

of theſe Mines three hundred thouſand Weight of Silver, pure and neat; for the refining which they made uſe of ſix or ſeven hundred thouſand Weight of Quickſilver; for the more they refine it with Quickſilver, the better it is. There are ſeveral other Silver Mines in the *Indies*, in *Europe*, and even in *France*.

Silver is of itſelf a very pure Metal, and eſpecially when it has been well refined, the Chymiſts perform ſeveral Operations upon it; the firſt of which is its Purification.

Purification of Silver *by the Cupel.*

Silver purified by the Cupel, is Silver which is put into melted Lead, and by means of the Fire, and a certain Quality inherent in it, the Lead works upon the Silver as the White of an Egg does upon Sugar, ſeparating all its Droſs when it is well refined. They granulate it after the Manner that we ſee it, which, if it be Proof, ought to be well refined, white, and very ſhining. This ſort of Silver is made uſe of in ſeveral of the following Chymical Operations.

Of the Cryſtals of Silver, *or the Vitriol of* Luna.

They extract the Cryſtals of Silver from cupelled Silver diſſolved in Spirit of Nitre, when the Moiſture is almoſt evaporated, they take out the Cryſtals, which being applied to the Fleſh, make an *Eſchar*, as the *Lapis infernalis*.

Of the Lapis Infernalis, *or the* Silver Cauſtick.

The *Infernal Stone* is ſo called, becauſe of its burning Quality, and its black Colour. It is made of cupelled Silver diſſolved in Spirit of Nitre, afterwards perfected by the Fire, and poured into a Mould, warmed and greaſed on the Inſide, where growing cold it coagulates, and becomes a Stone of the ſame Shape that the Mould has given it.

This Stone ought to be made choice of in little Pieces of a Finger's Length, dry and ſolid, of a brown Colour, approaching to that of Iron, which will neither burn the Fingers nor Paper, unleſs moiſtened, and does not melt, when expoſed to the Air, without Difficulty, but will immediately burn any Place that is moiſtened as ſoon as it is laid upon it; which are the true Marks of the *Infernal Stone*, when rightly prepared with the cupelled Silver. You ought to reject that which is green, and turns the Paper it is wrapt in of that Colour, that grows wet, and is eaſily diſſolved in the Air, becauſe it is made with Copper. Some uſe the common Plate Silver, or the Burnings of old Silver Lace, but the Stone they make is not ſo good as the other. This Stone is much uſed by Surgeons to burn and conſume dead and ſuperfluous Fleſh; but ſpecial Care muſt be taken not to touch the ſound Fleſh, becauſe the Stone will not fail to burn it, and cauſe an Extremity of Pain, eſpecially if the Place be wet.

The *Lapis Infernalis* has the Property of ſtaining Marble, and entering into it; ſo that upon ſawing the Marble, the ſame Figure ſhall appear within that was on the Outſide, and will never wear out. You work with it as if it were a Crayon, and the Colour it makes is black.

Of the Tincture *of* Silver.

The *Tincture* of *Silver* is a Diſſolution of Silver in Spirit of Nitre, which they precipitate by means of a Solution of Salt; then they put this Silver *Calx* into Spirit of Wine acuated with volatile Salt of Tartar, and volatile Salt of Urine, and thence draw a beautiful, celeſtial, blue Tincture, very much recommended againſt the Epilepſy, the Palſy, Apoplexy, and the other Diſeaſes of the Brain. The Doſe is from ſix to fifteen or ſixteen Drops.

Silver, in *Latin Argentum*, or *Luna*, *Lemery*. is a Metal very compact, weighty, hard, white, ſmooth, and ſhining, very extenſible by the Hammer; and reſiſting the Cupel. It is taken from ſeveral Mines in *Europe*, but the greateſt Quantity comes from *America*, and eſpecially from *Le Rio de la Plata*, in *Peru*, where it is often found intermixed with ſmall white cryſtalline Stones, and with Gold, Copper, or Lead. Being taken out of the Mine, it is refined with Quickſilver, and then tranſported. They who would render it as fine as poſſible, refine it by the Cupel, and by Departure, in the following Manner:

They make the Cupel red-hot in the Fire, and they put four or five Times as much Lead as Silver to cupel it; they let the Lead melt, and extend itſelf, ſo that one Part of it, in a little Time, enters into, and fills the Pores of the Cupel; they caſt the Silver into the midſt of the Cupel, where it is not long before it melts; they blow the Fire till it is ſo ſtrong, that the Flame encompaſſes the whole Matter; then all the Impurities unite with the Lead, becauſe that Metal being ſulphureous, it cleaves to and embraces the groſs Bodies better than the Silver. The Fire drives the impure Mixture to the Circumference, in the ſame manner as Scum, or *Scoria*, and the Silver remains fine and clean in the Middle. They know

know that the Refinement is perfected, when no more Fume ariſes; then they pour the Silver into a Mould, to let it cool, and this they call Silver of the Cupel. The *Scoria* of Silver, mixed with Lead, make the Litharge, of which I ſhall treat hereafter. Theſe *Scoria* conſiſt of the Parts of ſome other Metals, or the Marcaſites which were mixed with the Silver when it is taken out of the Mine.

It is to be noted, that Silver, being thrown into melted Lead, runs ſooner into a Fuſion, than if it were put alone to melt in a Crucible, becauſe the ſulphureous Parts of Lead contribute to the ſpeedy Fuſion of Metals.

This Purification of Silver clears it from all other Metals but Gold, which likewiſe reſiſts the Cupel, ſo that one cannot be altogether aſſured that this Silver of the Cupel is entirely Silver; therefore if one would ſeparate it from any little Quantity of Gold that may be in it, Recourſe muſt be had to another Operation, called the *Departure*, and this is the Manner of Proceeding.

They melt together in a Crucible by a ſtrong Fire, three Parts of Silver, and one Part of Gold: They throw this Mixture, when melted, by little and little, into cold Water, where it coagulates into Grains; they throw away the Water, and dry theſe Grains, and then put them to diſſolve in two or three Times as much *Aqua Fortis*; the Silver is diſſolved, and the Gold is precipitated to the Bottom of the Veſſels, becauſe it cannot be penetrated by this Diſſolvent.

It is to be remarked, that in this Operation they mix Gold with the Silver, that if the Silver ſhould contain any ſmall Quantity of Gold, it might be drawn precipitated along with that which was added. This precipitated Gold is called *Gold by Departure*, and they can eaſily turn it into an Ingot, by melting it in a Crucible over the Fire, with a little Borax, and pouring it into a Mould.

This Diſſolution of the Silver is thrown into an earthen Veſſel, in which there is a great deal of Water, and a Plate of Copper, where it is left for five or ſix Hours, or till all the Silver is precipitated, and ſticks to the Copper Plate, and then they gather it together and dry it; and it is this they call the Precipitate of Silver, and ſometimes the Calx of Silver. The Water in which this Precipitation was made, becomes blue, becauſe of ſome Portion of Copper diſſolved in it, and is called the *Second Water*; it is uſed to deterge, and to eat proud Fleſh, being applied outwardly.

Silver alſo may be precipitated, by mixing Salt Water in the Diſſolution; for the Sea Salt will produce the ſame Effect as the Parts of the Copper, that is to ſay, by puſhing rudely againſt the Points of the *Aqua fortis*, which hold up the Particles of the Silver, it will break them, and make them let go their Hold, ſo that the Silver having nothing to ſupport it, will, by its own Weight, fall to the Bottom.

The Silver, ſo precipitated, is caſt into an Ingot, by melting it in a Crucible, with a little Salt-Petre, and afterwards pouring it into a Mould. This Silver is the fineſt of all, and of twelve Penny-Weight, if it has ſo much; but there is always ſome little Allay of Copper to be found in Silver, let it be never ſo well refined.

That which is called *Carat* in Gold, is a Penny-Weight in Silver; ſo an Ounce of very fine Silver is of twenty Penny-Weight, or twenty-four Scruples. which make twenty-four Times twenty Grains. This Ounce of Silver ſhould not be diminiſhed by the Proofs; but if it loſe a Scruple by the Cupel, the Silver is but of nineteen Penny-Weight ſixteen Grains; if it loſes two Scruples, it is ſeventeen Penny-Weight twelve Grains; but they do not expreſs themſelves by twenty Penny-Weight in Silver, as they do by twenty-four Carats in Gold; for they double two Pence in Silver, and ſay Silver of twelve Penny-Weight, to expreſs Silver of the utmoſt Purity; Silver of eleven Penny-Weight and an half, Silver of eleven Penny-Weight, to denote the Degrees of its Fineneſs, and ſo of the reſt.

Plate Silver contains one Part Copper to twenty-four Parts Silver; and Silver of the Cupel has but one Quarter Part Copper, to twenty-four Parts of Silver.

They beat the pureſt Silver, and reduce it into very fine and thin Leaves, which we make uſe of in Medicine. One may likewiſe uſe the Precipitate of Silver inſtead of theſe Leaves.

Silver is proper for thoſe who have uſed too great a Quantity of Quickſilver, either by Frictions, or taken inwardly, for it binds or amalgamates itſelf with it in the Body, and depriving it of its Weight, takes away its Virtue. It may be taken from four Grains to a Scruple, and a larger Doſe may be given without Fear of any Danger. It is pretended by ſeveral Authors to be an infallible Medicine for Diſeaſes of the Head and Brain; but Experience ſhews us, that it is of no Uſe in ſuch Caſes.

The Aſtrologers and the Alchymiſts call it *Luna*, becauſe they imagine this Metal to be of the ſame Matter as the Moon, and that it receives continual Influences from her for its Nouriſhment.

[Silver, as found in the Mines, is diſtinguiſhed into native, and rude; the native is that which is found pure in the Mine, either in Fiſſures of Rocks

Rocks or Stones, or mixed with Sand or Earth without Stones. This is ſeen in many various Forms, in ſmall oblong Veins, fimbriated, in ſmall Filaments like Hairs, granulated, in the Form of Branches of Trees and in large Maſſes. Rude Silver is that which is found in Ores and muſt be refined by Fire: The Silver Ores are in ſome Mines red, which is occaſioned by their being mixed with Arſenick, in ſome of a Lead Colour, which is owing to the Sulphur contained in them, in other Black, Purple, Aſh coloured, *&c.* according to the different Subſtances they are mixed with; it is alſo found in Gold, Copper, Tin, and Lead Ores in different Quantities. Almoſt all the Lead Mines in *England* contain more or leſs Silver, but the richeſt are thoſe in *Cardiganſhire* in *Wales*. Silver is eaſily ſeparated from Lead, as obſerved by our Authors, but the extracting it from the *Peruvian* and *Mexican* Ores is much more difficult, becauſe the Ores are hard, and mixed with vitriolick, arſenical, or other Subſtances, which carry off with them a conſiderable Quantity of Silver, or burn it to *Scoria* with themſelves.

Silver is harder, and leſs ductile than Gold. Its ſpecifick Gravity to that of Gold is a little leſs than as five to nine, ſo that it is lighter than Lead; it never contracts Ruſt, and is diſſoluble by *Aqua fortis*, and not by *Aqua regia*. It is not deſtroyed by Lead, but being long expoſed to a ſtrong Fire with Antimony, is ſomething diminiſhed by the ſulphureous Parts of that Metal. When expoſed to the Focus of a great Burning-Glaſs, it flies all off in Smoak but very ſlowly, and does not vitrify, as many other Metals do; the Solution of pure Silver is limpid, and its Cryſtals are of no Colour, but if it contains any Copper the Tincture is greeniſh or blueiſh, the Taſte of the Cryſtals is intenſely better. Silver made to mix with common Salt, melts into a ſemi-deaphanous Maſs reſembling Horn; this is called *Luna cornea*, and it is very difficult to reduce it to Silver again, becauſe being volatile, if it be expoſed to a ſtrong Fire it flies almoſt all off in Vapour. Notwithſtanding all that has been ſaid by the *Arabians*, and ſince them by the Chymiſts, in Praiſe of the medicinal Virtues of Silver, it is yet a very great Queſtion whether it really has any or not, and the principal Uſe made of it in the Shops, is in the Leaf to cover Pills and Boluſes, inſtead of Leaf Gold, which is ſo often adulterated, that many fear to uſe it. It is alſo to be obſerved, that all the blue Tinctures of Silver, ſo highly commended by the Chymiſts, are not Tinctures of Silver but of the Copper contained in Silver; and therefore very unfit for internal Uſe, for a true Tincture of Silver muſt be altogether colourleſs, like Water.]

4. *Of* Iron, *or* Mars.

IRON, which the Chymiſts call *Mars*, *Pomet.* becauſe of the Influences they pretend it receives from that Planet, is a Metal the hardeſt, drieſt, and moſt difficult to melt of all others. It is compoſed of an Earth, a Salt, and a Sulphur, ill digeſted, and ill united, which makes it ſubject to Ruſt. There are Mines of Iron in *Spain*, *Germany*, *Sweden*, and *England*. The beſt in *France* are thoſe of *Champaigne*, *Lorain*, and *Normandy*. There are ſome in *Burgundy*, *Berry*, and other Places. An Iron Mine is ſometimes found within an Inch of the Surface, ſometimes one, two, three, four, five, or ſix Feet deep. The Ore is found in different Manners, ſometimes in Pieces, and ſometimes in Sand. I ſhall not diſcourſe here of finding out Mines by the Jugglers with a Rod of Hazel, becauſe Monſieur the Abbot *de Vallemont* has lately written a very exact Treatiſe about it.

The Manner of taking Iron *from the Ore, and making it into caſt Iron, and commonly called Sow-Metal.*

After the Ore is taken from the Mine, they waſh it in a running Water, to ſeparate the Earth from it, and then carry it into large Furnaces, where covering it with Coals, Flint-Stones, and Potters Clay, or Earth, by the means of two large Pair of Bellows wrought by a Water-Mill, it melts like Lead; and after ſcumming from it a Droſs, which when cold becomes like Glaſs, they ſtay the Bellows, and with an Iron Bar open a Hole which is in the Bottom of the Furnace, and immediately there comes out as it were a Stream of Fire, which runs into Holes made in the Nature of Moulds, of ſix, ſeven, or to ten Feet long, and a Foot broad. The Iron, thus thrown into theſe Moulds, is what the Smiths call Sow-Metal, or caſt Iron. It is to be remarked, that when they would make Cannon-Bullets, Mortars, Weights, Backs of Chimneys, or other Works, of this Sow-Metal, or caſt Iron, they take up the running Metal in great Iron Ladles, and put it into Moulds made in deep Sand, or elſe of caſt Iron.

It is alſo to be obſerved, that the finer the Work is to be, the longer is the Metal to remain in Fuſion; for the Matter continues but twelve Hours for the coarſer Works, and fifteen or eighteen Hours for the other. The caſt Iron of *France* cannot be touched by the File, as that of *Ger-*

many

many and other Places, but muſt be poliſhed with Maſons Duſt, or Emery.

Of Iron *in Bar, and other Kinds.*

When they would reduce this Metal into fine Iron, they take one of theſe Lumps of Sow-Metal, and carry it to a Sort of Forge, on a Level with the Earth, in the Middle of which is a Hole, into which the Matter flows as it melts. They melt the Metal by the Means of Charcoal, and two great Pair of Bellows, which are moved by Water. As this Matter melts, the Refiner ſtirs it with an Iron Bar; and the more vigorouſly the Matter is ſtirred, the more kindly will the Iron be, and be better qualified. After it is well ſtirred, they carry the Matter, when a little hardened, with large Tongs, to an Anvil, where, with a great Hammer, they beat it, to force out of it the Earth or other foreign Matter that might have remained in it; and then the Iron is made, and will endure the Filing. When they would reduce it to Bars, or any other Faſhion, they take this Maſs, which the Workmen call the *Piece*, and carry it to another Forge, and by the Help of Charcoal, and two Pair of Bellows wrought by two Men, they make it red hot, and then carry it to the Anvil, and with a wooden Hammer, with Iron at the End of it, they make it as long and as thin as the Hammerer pleaſes. There is one Thing remarkable, that is of no ſmall Conſequence, which is, that ſeeing the Hammerer can reduce but half this Piece into Bar, becauſe he muſt hold it faſt by the other Part, he therefore, with us, to cool it the ſooner, that he may go to work upon the other Part, throws it into Water; and this is the Cauſe that the *French* Iron is brittle: But this might be eaſily remedied, by letting it cool of itſelf. It may be objected, that it is not altogether the quenching it in the Water that makes it ſo brittle, but it proceeds oftentimes from the Mineral, or from its not being well ſtirred. I do not diſagree to this, but there is a Proverb which ſays, *Ill to Ill can never be good*; this is the Manner of making Iron into Bars.

Of Iron *in the* Gad, *and of* Iron Wire.

Iron in the *Gad*, or *Rod Iron*, is made from Iron in the Bar, which has been heated in a Kind of Furnace, and by Steel Mills cut into the Shape and Figure we ſee it in. The *Iron Wire* is made of the Rods drawn through little Holes, after the Manner that they make Wax-Candles: They begin with the largeſt Hole, and finiſh by the little one, ſtill diminiſhing the Size of it.

Of Iron Plates, *and of* Black *and* White Iron, *or* Tin, *as it is called with us.*

The *Iron Plates* are made of Bars heated, and made thin with Hammering. There are two Sorts of Plates, the great and ſmall. They make the *Black Iron* by beating the Plate with ſmaller Hammers: But beſides this, in *Germany* they make a white Iron of which they make ſeveral Utenſils. This is a ſoft Iron reduced into thin Plates, and afterwards covered with Tin, in which Operation it is ſaid they uſe *Aqua fortis*. There is white Iron made at *Nevers*; but that of *Germany* is moſt eſteemed, becauſe it is more white and brighter, and will not ruſt as the other.

Of Steel.

Steel is only *Iron* purified and made harder, by means of plunging it in cold Water after heating it in Furnaces with the Horns and Hoofs of Animals. The volatile Salts of which are ſuppoſed to penetrate the Subſtance of Iron, and turn it into Steel, which is finer or coarſer according to the Number of Times this Operation has been repeated. The fineſt *Steel*, which is that of *Kernent*, is alſo ſuppoſed in a great Meaſure to owe its Excellence to certain Drugs with which the Water it is plunged into, is impregnated, as will be related hereafter.

The beſt *Steel* is that which comes from *Germany*, and is called *Steel* of *Kernent*, from a Village in *Germany*, called *Kernent*, where the beſt *Steel* is made. This Sort is called *Steel* of a *double Mark*, and is uſed in making ſuch Inſtruments as are extremely fine; as Lancets, and other Chirurgical Inſtruments, Razors, Graving Tools, *&c.* The ſecond ſort is that they call *Roſe Steel*, becauſe when it is broken there appears ſomething in it like a little Roſe, of a Partridge-Eye Colour, and beſides, the Caſks that they come in are marked with a Roſe. This Steel is in little Bars, from one Foot to two Feet long, and half an Inch thick. There are likewiſe ſeveral ſofter Sorts of Steel which are but the Refuſe of the *Roſe Steel*, which ſome call *Steel* of the *ſingle Mark*. We have likewiſe Steel from *Hungary*, *Italy*, and *Piedmont*. There are alſo ſeveral Sorts made in *France*, as thoſe of *Vienne*, of *Rive* in *Dauphine*, or *Clamecy* in *Auvergn*, and of *St. Diſier* in *Champagne*; it is likewiſe made at *Nevers*, and at *la Charite*; and this they call *Common Steel*.

But of all the Sorts of Steel in *Europe*, there is none that comes near to that of *Kernent* for Goodneſs,

neſs, becauſe amongſt the hundred and fifty Iron Mines that the *Germans* are poſſeſſed of, there are none ſo proper for the making fine Steel as thoſe of *Kernent*, and there are, beſide, no People but thoſe of that Place, who exactly know the juſt Quantity of Arſenick, Tar, Orpiment, Sublimate, Antimony, white Copperas, and other Drugs, of which to compoſe the Water to dip it in: And this, in few Words, is the Reaſon why no fine Steel is made but in *Germany*, and that many Perſons ruin themſelves by endeavouring to counterfeit it. As to the tempering of common Steel, they make uſe of nothing but common Water.

There was formerly a Steel came from *Damaſcus*, and was very good; and if we will believe Mr. *Furetiere*, the Temper of it was made by the Impreſſions of the Air, when a Horſeman riding full Speed held it in his Hand and brandiſhed it in the Air. He alſo ſays, they wetted it by means of a wet Goat-Skin drawing its Edge over it as if they would cut the Skin.

Good Steel ought to be brittle, of a fine Grain, and as white as it can be made. The Chymiſts make ſeveral Preparations of it, of which hereafter. As for the Filings of Steel, they are of Uſe in Phyſick, the beſt are thoſe of Needles; its Proof is by putting it upon a lighted Candle; that which burns by halves, and puts out the Candle, is mixed with the Filings of Iron.

Of the aperitive Saffron *of* Mars, *or the* Crocus Martis.

The *Crocus Martis*, which is called aperitive, is a Preparation of Iron or Steel, which is made after three Manners: the *Firſt*, by expoſing Plates of Iron to the Dew. The *Second* is by ſprinkling the Filings of Iron with Rain Water, or Water mixed with Honey; from whence, after ſome Time, you ſhall have a Ruſt of a brown Colour. Theſe Preparations of *Iron* or *Mars* are very long in making, but very good for the Diſeaſes hereafter mentioned. But as theſe two Sorts, as I have ſaid, require much Time, and have but a bad Colour, they chuſe rather a *third* Way, which is to take a Piece of Steel, and heat it in a Smith's Forge, and then applying to it a Roll of Sulphur, melt it down, and reduce it into a Powder, and ſo melted, put it into a Crucible, together with more Sulphur, and reduce it by the Fire of a reverberatory Furnace, into a Powder of a beautiful red Colour: Others uſe the Filing of Iron inſtead of Steel.

The aperitive *Saffron* of *Mars* is commonly called *Crocus Martis aperitivus*, or *aperiens*, and is an excellent Remedy for the Dropſy, and to cure the Green-Sickneſs. The Doſe is from ten Grains to forty, in ſome Electuary, Conſerve, or Lozenge, or, as Mr. *Lemery* ſays, with ſome Purgatives.

Of the aſtringent Saffron *of* Mars.

The aſtringent *Saffron* of *Mars*, called *Crocus Martis aſtringens*, is one of the former Preparations of *Mars* waſhed ſeveral Times with Vinegar, and afterwards put into a Crucible, and by a ſtrong Calcination of five or ſix Hours, reduced to a reddiſh Powder, but not ſo beautiful as that above.

The Uſe of this *Crocus* is to ſtop Blood when voided, either above or below. It is taken in a like Doſe as the former, in Medicines proper for the Malady. The Ancients have given both of theſe, as well as many other things, the Name of *Crocus*, or *Saffron*, from their reddiſh Colours.

Of the Salt *or* Vitriol *of* Mars.

There are two Sorts of *Salt* of *Mars* or *Iron*, but the beſt is that which is made by putting Oil of *Vitriol* and Spirit of Wine in an Iron Pan, and when it has ſtaid there three Weeks or a Month, you will find at the Bottom a greyiſh Salt, which you muſt dry, and then preſerve it carefully. The other *Salt* of *Mars* is made by putting the Filings of Steel into diſtilled Vinegar, proceeding in the ſame Manner as you would make Salt of *Saturn*, as ſhall be ſhewn hereafter. The firſt *Salt* of *Mars* is an excellent Remedy againſt Obſtructions. The Doſe is from four to twelve Grains in any Liquor proper for the Diſtemper. As for the Choice of it, the whiteſt and drieſt is the beſt.

Of the Oil *of* Mars.

Oil of *Mars*, or *Iron*, as it is improperly called, is a Salt of Iron reſolved into Liquor in a Cellar. Some People uſe this Oil as the Salt, with this Difference, that they give it in a larger Doſe.

Of the Cryſtals *of* Mars.

Cryſtals of *Mars* are made by putting the Filings of Steel in Water, and putting upon it a good Spirit of Vitriol, and by putting it in a Cellar; they draw thence *Cryſtals* of a greeniſh Colour; which being dried, are made Uſe of to the ſame Purpoſes as the Salt or the Oil, but they muſt be given in leſſer Quantities, becauſe of their great Acrimony. Some Perſons pretend, that by a Retort they can draw a Spirit of Vitriol from theſe *Cryſtals*:

tals: But as this Spirit muſt be very weak, I would not adviſe any body to trouble themſelves about it.

Of the Tincture, *or* Syrup *of* Mars *with* Tartar.

They draw from the Ruſt or Filings of Iron, by the Help of *Tartar* and boiling Water, a blackiſh Tincture; which after having been evaporated and reduced to the Conſiſtence of a *Syrup*, is what they call *Tincture*, or *Syrup* of *Mars*; others cauſe almoſt all the Moiſture to evaporate, and ſo make that which we call the thick *Tincture*, or the Extract of *Mars*.

They attribute to theſe Tinctures the Property of being very good Aperitives; their Doſes are different, for the thicker the Tinctures are, the leſs of them muſt be taken; the ordinary Doſe is from a Drachm to half an Ounce.

Of the Tincture, *or aſtringent* Syrup *of* Mars.

They likewiſe draw from the Ruſt of Iron, with the Lees of Wine, or the Juice of Quinces, or any other aſtringent Juice, a *Tincture*, *Syrup*, or *Extract*, to which they attribute a binding Quality. The Doſe of theſe Extracts is likewiſe according to their Thickneſs, but the common one is from ten Grains to half a Drachm in ſome aſtringent Liquor.

Of Mars Diaphoretick.

Mars Diaphoretick is made of the Ruſt of Iron mixed with an equal Quantity of Sal Armoniack, by a ſubliming Veſſel: they draw thence Flowers which they diſſolve in Water, and then precipitate them by pouring upon the Diſſolution the Oil of *Tartar per deliquium*. They dry this Powder, which being dried is what they call *Mars Diaphoretick*, altho' the diaphoretick Virtue, which it may have got from the Sal Armoniack is not very great, becauſe it is almoſt all carried away by the Water.

Iron, in *Latin* called *Ferrum* or *Mars*, becauſe the Aſtrologers pretend that this Metal receives Influences from the Planet of that Name, is a Metal very hard, dry, and the moſt difficult to melt of all others. It is naturally compoſed of a vitriolick Salt, Sulphur, and Earth, very ill digeſted, and bound together, which makes it ruſt ſo eaſily. There are ſeveral Mines of it in *Europe*, and eſpecially in *France*, in *Champagne*, *Lorrain*, *Normandy*, *Burgundy*, and *Berry*. They take it up ſometimes in a *Marcaſite*, that is of the Bigneſs of Pig Nuts, and of the ſame Colour, ſtreaked with ſhining Metalline Veins, ſometimes in Sand. They waſh this *Marcaſite* to get the Dirt from it, then they put it into great Furnaces made on Purpoſe; they cover it with Charcoal, Flints, and Potters Clay, and by means of a very violent Fire, blown by huge Bellows, they put it into a Fuſion; they ſcum thence a Matter that is as it were vitrified, reſembling Enamel; then they let it run into Moulds, for great Wedges, about ten Feet long, and a Foot thick. This is called by the *French*, *Gueuſe*, commonly, Sow-Metal. The Ruſt of Iron, is Iron penetrated and rarified by the Moiſture of the Air, which the *Latins* call *Ferrugo*; it is aperitive by Urine, and aſtringent by the Belly, proper for all Illneſs cauſed by Obſtructions, and to ſtop Looſeneſs. *Lemery.*

Iron, made red-hot in the Fire, and ſeveral Times quenched in Water, renders the Water aſtringent and proper for Diſeaſes of the Belly. The Waters of a Smith's Forge retaining ſome ſaline and vitriolick Particles of the Iron, are aſtringent by the Belly, and aperitive by Urine.

Steel is Iron rendered more hard, more compact, more fine, and poliſhed, by Calcination and dipping it in Water. To do this, they lay Iron, and the Hoofs of Animals, *Stratum ſuper Stratum*, in a Furnace made on Purpoſe, near the Mines: they put Fire to it, and when the Metal is ſoftened and almoſt melted, they dip it in cold Water, that ſo the Pores which were opened by the Force of the Fire, may immediately be ſhut up; and they oftentimes repeat the Calcination and the Dipping.

The Hoofs of Animals, burnt in the Fire, produce two Effects: The firſt is, that they diſſipate the moſt volatile, the moſt ſaline, and the moſt rarified Particles of the Metal. The ſecond is, That a Portion of the volatile Salt which theſe Hoofs do naturally contain, is introduced into the Pores of the Metal. Now this Salt being rendered an Alcali by the Calcination, it abſorbs and deſtroys the Points of the vitriolick Salt, and the Acid which remained in the Iron; ſo that the Motion of this Salt being relaxed, the Metal does no longer rarify itſelf ſo much, which may contribute to give a good Quality to the Steel; but the principal one that it gains, comes from the Water it is dipt in, which is made on Purpoſe. They make Steel in many Places of *France*, *Italy*, *Piedmont*, and *Hungary*; but the beſt is made in *Germany*, at a Town called *Kernent*. Steel ought to be brittle, of a fine Grain, and white.

The Filings of Steel are proper to remove Obſtructions, for the Jaundice, and for Diſeaſes of the Spleen. The Doſe is from a Scruple to a Drachm.

Water,

Water, in which red-hot Steel has been quenched, called Chalibeate Water, is an Aſtringent.

It is remarkable, that in Iron there ſhould be two ſuch very differing and oppoſite Qualities, as of Drying and Moiſtening, Opening and Obſtructing, Aſtringing and Relaxing. Theſe Qualities are thought to be owing to the mixed Texture of the Body; the relaxing Quality, to the ſaline and more volatile Part; the Aſtringent, to the Earthy, and that which is more fixed.

The Salt of Iron is made in the following Manner. Take Oil of Vitriol, or of Sulphur *per Campanum*, two Pounds; Water, two Gallons; mix them well in a well-glazed earthen Jar, by dropping the Oil into the Water, and ſtirring it well with a wooden Rod; put into this Mixture, of Filings of Iron two Pounds or more, ſtirring it for half an Hour, then let it ſettle; decant off the clear Water, filter, and put it into a Frying-Pan, which over a Charcoal Fire evaporate to Drineſs, and ſo there will remain a pure white Salt at the Bottom. This Salt cures and opens the worſt Obſtructions in the Womb or Bowels; it ſometimes purges, and may be given to half a Scruple in a Glaſs of Wine alone, or ſweetened with Syrup of Violets.

After the Filings of Iron are turned into Ruſt, and a Tincture extracted from thence, the *Fæces* are a Kind of *Crocus* made without Fire, which are drying and binding, good againſt Fluxes, Bloody Flux, Gonorrhœas, Whites in Women, *&c.* They dry up Ulcers and Wounds, ſtop all Fluxes of Blood, the Flux of the Terms and Hemorrhoids; they ſtrengthen the Liver, dry up the Water in Dropſies, and running Ulcers in the Legs. Given from a Scruple to half a Drachm, in a proper Vehicle, every Night going to Bed.

The Copperas, or Vitriol of Iron, is made in great Quantities by a cementatory Calcination, then perfected by Diſſolution, Evaporation, and Cryſtallization.

Not only the Salt of Iron, but the Tinctures, are ſaid to open Obſtructions of the Reins, cure Ulcers in the Reins and Bladder, help the Cholick, Weakneſs of Stomach, or Want of Appetite; it gives eaſe in the Gout, and other Pains of the Joints, both by inward taking, and outward Application.

The Ruſt or Vitriol of Iron, and mixed with Vinegar, applied, is good againſt Tetters, Ringworms, Scabs, and running Sores, or Breakings-out, though of many Years Continuance, eſpecially if a little Roch Alum be mixed with it; it alſo takes away the *St. Anthony's Fire*, or any other leſſer Heats and Inflammations.

[No Metal is ſo neceſſary for the Uſes of Life as Iron, and by the Goodneſs of the Creator, none is found ſo plentifully in almoſt every Country. It is dug out of the Earth in very different Forms, in ſome Mines it is found pure, either granulated or in Lumps; in others it is met with in a heavy Stone of a dark yellow or reddiſh Colour, or in a heavy yellowiſh or reddiſh Earth. Some Ores yield the Metal contained in them only by breaking, and a few Hours Fuſion, others require a great deal of Labour to ſeparate it, and the Addition of Lime, Marle, or Stones, to facilitate the Fuſion.

The ſpecifick Gravity of Iron to that of Gold, is as three to ſeven, or thereabout; it is diſſolvable by all ſtrong Acids, and when expoſed to the Focus of a ſtrong Burning-Glaſs on a Tile preſently melts, and then becomes a brittle half vitrified Subſtance, but if laid on a Piece of Charcoal in the ſame Focus, it melts and flies all off in Sparkles. It conſiſts of a bituminous inflammable Principle, a vitriolick Salt, and a vitriolick vitrifiable Earth. This Earth united with any inflammable Subſtance by Fire, will become Iron, which accordingly is ſeen in burning inflammable Bodies, in the Aſhes of which Iron diſcovers itſelf to the Magnet, tho' no Signs of Iron are before diſcoverable in theſe Subſtances, even when reduced to the fineſt Powder.

That the vitriolick Salt is likewiſe in conſiderable Quantity, is evident from the Solubility of Iron in ſimple Water, from the Taſte of the Water in which Iron had been in Part diſſolved, and from the Heat which Filings of Iron conceive on often ſprinkling with Water, which ariſes from the Action of theſe Salts on the metallick Earth.

For medicinal Uſes Iron is preferable to Steel; the ſimple Powder of the Filings is by many ſaid to be better in many Caſes than any Preparation of it; the Salt, which is alſo much uſed, we make by putting warm Water acidulated with Spirit of Vitriol on the Filings of Iron, and after a warm Infuſion of twenty-four Hours, filtritating the Liquor and evaporating it to a Pellicle, and ſetting it in a cool Place, where it yields us a Salt in beautiful green Cryſtals.]

5. *Of* Quickſilver.

THAT which we call *Quickſilver*, crude and running Mercury, Hydrargyrie, liquid Silver, the *Proteus* of Nature, the fugitive Salt, or the mineral Spirit, is, according to Mr. *Charas*, a metallick, or mineral Liquor, of a volatile Nature, found in the Mines, and compoſed, as is believed, of a white ſulphureous Earth, and of its own proper internal Mercury. Some Authors, and Mr. *Charas* amongſt the reſt, ſay, that Mercury is not to be placed in the Rank of Metals: they

have given it the Name of a Semi Metal, becauſe it is neither hard nor malleable as the true Metals are, yet it eaſily unites itſelf to any other Metal, eſpecially to Gold, to which it often ſerves as an Intermediate to join it to other Metals. Its Colour of Silver, and the Diſpoſition it has to Motion, is the Reaſon why they call it *Quickſilver*; from the ſame Colour, and its Fluidity, it is named *Hydrargyrum*, that is to ſay, watry Silver, or water Silver. They call it *Mercury* from the Analogy which it is ſuppoſed to bear to the Planet of the ſame Name, or becauſe of the Variety of the Shapes it can take, ſuitable to what the Heathens repreſented of that Deity. It is likewiſe for the ſame Reaſon, and the Diverſity of Colours that may be given it, that it is named *Proteus*; and from its Fluidity and Volatility, it is called the *Fugitive Salt*.

Quickſilver is found in the Mines after different Manners, ſometimes incloſed in its own Mineral, and ſometimes as fluid as we ſee it; and this becauſe it is found ſo naturally, ſome have given the Name of *Virgin Mercury*; they find it ſometimes amongſt Earth and Stones, and very often embodied in a natural Cinnabar, as we ſhall ſee hereafter. They who take Quickſilver from its Ore, make uſe of great Iron Retorts to ſeparate it from its Mineral, or the other hard Bodies with which it is joined, and by the Means of Fire and freſh Water, into which it falls, they render it fluid, ſo as we commonly have it. The Ore of the Mercury is ſo like Antimony of *Poictou*, that if it were not for the Rays or Streaks, which are ſomewhat whiter, there is no Body that could find the Difference; when it is found running or liquid in the Ground, the Slaves who take it up have nothing to do but make it run through *Chamois* Leather to cleanſe it from its Impurities. There are but few Places in *Europe* from whence they take Quickſilver, which are *Hungary* and *Spain*, and the Mines of *Frioli* which belong to the *Venetians*. The Quickſilver Mines are ſo deep, that I have been informed it is a Work of five Hours to deſcend into them. The *Frioli* Quickſilver is brought into *France* by Way of *Marſeilles*, that of *Hungary* is carried to *Vienna* in *Auſtria*, and from thence to *Holland*, from whence we have it. That of *Spain* is tranſported to *Peru*, to ſerve to purify their Gold and Silver, as I have obſerved before. The *Spaniſh* Quickſilver was once common enough in *France*; this Quickſilver being put upon Silver a little heated, had the Property of gilding the Superficies, and of giving the Silver a very fine Gold Colour; this rich Quality, according to ſome Alchymiſts, which in Reality is nothing, and the Difficulty there is of having it at preſent, becauſe the King of *Spain* has expreſly prohibited the Tranſportation of it into other Countries, has made it ſo ſcarce as it is at preſent, as well as the natural Cinnabar. Some modern Authors have ſaid, that there is Quickſilver found in the *Indies*, *Poland*, *Germany*, and even in *France*; which perhaps may be true: But notwithſtanding all the Pains I have taken, I could never diſcover the Truth of it. It is true indeed, that a Mine of Cinnabar was lately found in *Normandy*, between *St. Lo* and *Charenton*, near a Place called *Le Foſſe Rouge*; but the great Charges of it obliged them to ſtop it up again. It is an Obſervation of Mr. *Lemery's*, that Quickſilver is uſually found under Mountains covered with white Stones, which are as brittle as Chalk. The Plants which grow upon theſe Mountains ſeem greener and larger than elſewhere, but the Trees which are near the Quickſilver Mine, rarely produce Fruits or Flowers, and their Leaves come out later than in other Places.

One of the Signs that diſcover a Mine of Quickſilver, is when in the Month of *April* or *May* there come thick Miſts or Vapours out of one particular Place, which cannot riſe far in the Air becauſe of their Weight: It is to ſuch a Place that they go to look for this Metal, and eſpecially if by chance it is ſituated oppoſite to the North Wind, for then they think the Mine will prove the beſt. They likewiſe find a great deal of Water about theſe Mines, which it is neceſſary to draw off at the Foot of the Mountain, before you can come to work them.

Chuſe ſuch Quickſilver as is white, running, clean, of a lively and beautiful Water, and reject that, which being put into any Copper Veſſels, ſuch as Scales of a Balance, or others, appears like Lead; that is to ſay, when its Colour is brown, and it leaves Tails or Trains behind it, as if it were roapy, or ſticks to the Hands when you handle it; which is of no ſmall Conſequence, becauſe the greateſt Part of the Quickſilver that is conſumed, is made Uſe of by Looking-glaſs-Makers, Goldſmiths, Burniſhers, Gilders, and others; and if by Miſchance or Roguery, in ſuch a Parcel of Quickſilver, as is uſed at one boiling, there ſhould be one Pound of Lead, it would ſpoil all their Works.

Beſides the Qualities before-mentioned, which ought to be in Quickſilver, one may prove it by putting a little of it in a Silver Spoon, and letting it evaporate over the Fire; if there remains a yellow Spot, it is a Mark that it is natural; if it leaves a black one, it is a Sign that it is mixed with Lead or Tin. Quickſilver is a Matter ſo very weighty, that Mr. *De Furetiere* ſays, that a ſolid Foot of Mercury weighs nine hundred forty ſeven Pound, and that a cubical Foot of the *Seine* Water

Water weighs but ſeventy Pound; that is to ſay, a Veſſel which will hold thirty five Pints of the Water of the River *Seine*, according to the *Paris* Meaſure, will contain nine hundred forty ſeven Pounds of Quickſilver. As *Quickſilver* is ſo extremely weighty, ſo it is no leſs ſtrong; ſince a fifty Pound Weight of Iron being put upon a Bouillon of Quickſilver, which, as it comes from *Holland*, is generally a hundred and threeſcore or fourſcore Pounds, it ſhall no more ſink in it than if it were an Ounce, which I could never have believed, unleſs I myſelf had ſeen it. As to the Properties of Quickſilver, they are ſo great, that they exceed Imagination; ſome Perſons pretend, that a Drachm Weight of Quickſilver has the ſame Effect as any greater Quantity whatever; and that if they preſcribe it in large Doſes, as they do ſometimes, eſpecially in the *Miſerere*, or Twiſting of the Guts, it is only that it may paſs the faſter, and diſentangle the Bowels. It is likewiſe a ſurprizing thing, that into whatſoever Shape you metamorphoſe Mercury, you may make it return to its firſt State of Nature, and that with a very ſmall Diminution. *Borrichius*, a *Daniſh* Chymiſt, ſays, in his Book of Chymiſtry, that having operated upon ſome Mercury for a Twelvemonth together, and having reduced it into ſeveral Forms, it took its own Shape again in the Fire, at laſt, by the Means of a little Salt of Tartar. The great Conſumption of Quickſilver, eſpecially in *France*, is the Reaſon why the *Dutch* have raiſed it two *Stivers* of their Money in the Pound, which is three *Sous*, or three Pence of ours. And ſince they have, for a long Time, engroſſed that Merchandize, it is not ſold there under ſix and thirty *Sous* the Pound. I ſhall not here recount the ſeveral Virtues that are attributed to this Metal, becauſe ſeveral Authors have treated of them, nor decide the Controverſy, whether it be cold or hot; but I muſt ſay this, that it is ſo cold, externally, that it is impoſſible to hold one's Hand in a Quantity of Quickſilver for the Space of a Quarter of an Hour. It is wrong to think, as ſome modern Authors have written, that the *Dutch* turn Mercury into Cinnabar, to tranſport it into other Places, and that for theſe three following Reaſons: *Firſt*, Becauſe Quickſilver is eaſily tranſported in Sheep Skins, put into Barrels, and filled up with Straw or Shavings. The *ſecond* is, that if we were obliged to revive Cinnabar into Mercury, we could not afford it at the Price we do: And all the Mercury that is reduced in *Holland* into Cinnabar, is uſed in *France* and other Places as Cinnabar, at leaſt there are only ſome very curious People, who reſolve to have their Mercury pure and neat, who give themſelves the Trouble to revive it. In the *third* Place, when the *Dutch* have a Mind to make their Quickſilver portable, they fix it very eaſily, and put it into all ſorts of Veſſels, even into Paper, and ſend it to them who have the Secret to make it run again without any Charges.

Quickſilver, called in *Latin Hydrargyrus*, *Mercurius*, *Argentum Vivum*, and by the Chymiſts *Azock*, is a Metal, or Semi Metal, fluid, running, of the Colour of Silver, very weighty, and yet volatile, penetrating, uniting, and amalgamating itſelf with Gold and Silver. It is found in ſeveral Mines in *Europe*, as in *Hungary*, and in *Spain*; and there is one Mine diſcovered about forty Years ſince in *Normandy*. *Lemery.*

As Mercury is a very fluid Body, ſo it is more difficult to be taken up than other Metals, for it inſinuates itſelf into Earths, and into the Clefts of Stones, ſo that you often loſe the Sight of it when you think you are juſt going to take it up. People are forced to go very deep in the Ground to find it, and the Men cannot work very many Years at it before they have the Palſy; ſo that few are employed in it but Criminals condemned to Puniſhment.

The Quickſilver is not always taken out of the Mine neat and running, but it is generally mixed with Earth, or reduced into a natural Cinnabar by ſome Portion of Sulphur that it had met with. That which has but a little Earth with it may be ſeparated by making it paſs through Leather; but when it has a great deal of Earth, or other Impurities, it muſt be put into Iron Retorts placed upon a Furnace, to which they fit a Recipient full of Water, and blow the Fire under the Retort till it becomes fierce, and makes the Mercury diſtil into the Water. Iron Retorts are the moſt preferable on this Occaſion, becauſe the Quickſilver endeavouring to get to this Metal, ſeparates itſelf the more willingly from the Earth, and is the more diſpoſed to be rarified and puſhed on by the Fire.

One is not always aſſured of the Purity of the Mercury that is ſold by the Merchant, for it may be vitiated by ſome Mixture which was made in the Mine, and could not be ſeparated by the Leather; or by the Addition of Lead, or ſome other Metal or Mineral, that the Sophiſticators may have put into it: it is therefore neceſſary to purify it before you uſe it.

The Method of the Ancients to purify their Mercury, and, as they ſaid, at the ſame Time to correct its cold Quality, which they ſaid it had in the fourth Degree, was by mixing it in a Stone Mortar, with Salt and Sage in Powder, and beating this Mixture for an Hour together with a wooden Peſtle, and afterwards ſtraining it through a Skin;

by this Means they rendered it clear and beautiful: But they had only taken off a ſuperficial Impurity which was of no Conſequence, which the Quickſilver by rolling about contracted in the Veſſels of Leather or Earth it was kept or tranſported in: If there were any Metal or metallick Matter in the Quickſilver, it would paſs with it through the Pores of the Skin, and that could make no Separation of it; as for the pretended cold Quality of the Mercury, that could not be corrected by this Preparation, and in ſhort the Metal continued in much the ſame Condition as before.

The ſure Means of having Quickſilver as pure as it is poſſible, is to revive it from Cinnabar after the following Manner:

Mix together two equal Parts of Powder of Cinnabar, and Filings of Iron, and fill about a half, or two thirds of a Retort with them, place it on a reverberating Furnace, and fit to it a Glaſs Recipient full of Water, without luting the Joints; encreaſe the Fire to the fourth Degree, you will find the Quickſilver diſtil and fall to the Bottom of the Recipient; keep it on the Fire till no more will riſe, and you will have got thirteen Ounces of running Mercury, from one Pound of Cinnabar; waſh it, and having dried it with Linen Cloths, ſtrain it through Leather. We may be ſecure that this Mercury is pure, becauſe if any Portion of Metal or Mineral had been mixed in the Mine with the Quickſilver, of which the Cinnabar was made, it would have remained at the Bottom of the Veſſel, and would not have been able to riſe with the Mercury and the Sulphur; and if after the Sublimation any ſtrange Body had been mingled with the Cinnabar, this Impurity, of what Nature ſoever, would be ſeparated by the Revivification or Diſtillation that I have been ſpeaking of. The Recipient muſt be filled with Water, that the Mercury which aſcends in a Vapour from the Retort, may by the Coldneſs thereof, be condenſed into a Liquor; but the joining of the Recipient with the Retort, muſt not be luted, becauſe that in the Diſtillation there always ariſes a great Quantity of Sulphur from the Cinnabar, which would mix itſelf with the Mercury, if it could not find a Place to get out at, and would reduce it to a Sort of grey Paſte, ſo that it would be neceſſary to diſtil it a ſecond Time.

The Iron, upon this Occaſion, ſerve as an Alkali to ſeparate the Acids of the Sulphur, which held the Mercury in the Cinnabar; and this Mercury being diſengaged from its Bonds, comes into a Condition of being rarified and puſhed on by the Fire. Quick Lime produces the ſame Effect as the Iron, but then there muſt be thrice the Quantity.

The Fluidity of the Mercury proceeds from this, that the inſenſible Particles, of which it is naturally compoſed, are all ſpherical or round; for their Figure rendering them uncapable of hooking one into the other, they roll about continually. The ſame Reaſon explains why this Metal, though it be ſo heavy, ſhould eaſily be volatilized by the Fire; for its round Parts being always diſunited, and having no Tie of one to the other, are all ſeverally light, and in a proper Condition to be puſhed forward, and elevated by the Fire. That which makes the Solidity and Firmneſs of other Metals is, that their inſenſible Particles having divers Figures, are ſo hooked, bound, and exactly united one to the other, that the Fire has no Power to ſeparate them, ſo as to let them be elevated.

Quickſilver is a Remedy for the *Miſerere*, in which the Patient ſwallows a Pound or more: It is voided by Stool, without any Alteration.

They uſe crude Mercury to kill the Worms, they boil it in Water, and then give the Patient the Decoction to drink, which muſt have taken but a very ſmall Impreſſion let it have boiled never ſo long; for the Metal is found to be of the ſame Weight, and the Decoction has no other Colour, Taſte, or Smell than common boiling Water; and yet it does not fail of producing a good Effect. Care muſt be taken that the Veſſel in which the Mercury is boiled be of Earth or Glaſs, and not of Metal, becauſe the Quickſilver would penetrate it. Mercury kills Lice and other Inſects that infect the Body; it cures the Itch, Tetters, and venereal Diſtempers. It reſolves and diſſipates hard Tumours in the Glands and other Parts. It removes Obſtructions, applied outwardly or taken inwardly. It is uſed in the Compoſition of ſeveral Unguents and Plaiſters. It is one of the beſt Remedies in Phyſick, to diſſipate and eradicate the groſſeſt, moſt foul, malignant, and inveterate Humours.

One of the moſt ſurpriſing Effects that Mercury produces, is to raiſe a Salivation, and ſo carry off the very *Radix* or Root of the Diſtemper in all venereal Foulneſſes. To explain this, it muſt be conſidered, that the venereal *Virus* conſiſts in a Humour that is ſalt or acid, tartarous and groſs; which fermenting by Degrees, corrupts the Blood and other Humours, and cauſes all the ill Accidents that follow it.

The Particles of Mercury which enter into the Body, either by Frictions of mercurial Ointments, or by the Mouth, being rarified, are diſtributed as a Fume, and apply themſelves particularly to the *Virus*, becauſe this acid Matter is more capable of uniting with them than any other Subſtance. They penetrate the Venom, and are penetrated by

by its acid Salt, almoſt in the ſame Manner as it happens in the Mixture that is made when one would prepare the corroſive Sublimate. The Heat and the Circulation of Humours ſoon make this Mixture of Mercury and Acid elevate and ſublime itſelf to the Brain, as the Fire elevates the corroſive Sublimate in a Matraſs, upon which the Head, the Gums, the Palate, and the Tongue, are ulcerated; the ſalivary Veſſels are relaxed; and there are the ſame Pains as if the corroſive Sublimate was put upon ſome Part that was excoriated. Theſe Accidents are accompanied by a copious and involuntary Salivation, which is maintained by the Acrimony of the Humours that deſcend from the Brain, and the Relaxation of all the ſalivary Veſſels. This Flux continues till all the acrid, virulent, and mercurial Humours are evacuated.

Since there is nothing able to ſubdue theſe venereal Diſtempers ſo ſpeedily, ſafely, and effectually as Mercury, it will be neceſſary to ſee the ſeveral Ways, by which it may be prepared as well for external as internal Uſes.

An Ointment, called the Neapolitan Ointment, *is prepared after the following Manner for external Uſes.*

Take of Quickſilver, cleanſed and ſtrained through Leather, three Ounces; kill it in a marble or wooden Mortar, with a ſufficient Quantity of the Oil of Turpentine, adding of Hogs-Lard, ſix Ounces; beat the Mercury and the Lard well together, until the Quickſilver diſappear, and make an Ointment to raiſe a Salivation after the following Manner:

Firſt bleed the Patient once or twice, or oftner, if you ſee Occaſion for it; then purge him according to the Strength and natural Conſtitution of his Body, making uſe of a Bath, half Bath, and Broths, with proper and ſuitable Herbs, ſo as to render the Humours more fluid, and fitting to riſe upon a Salivation, taking Care that the Salivation be raiſed, carried on, and promoted leiſurely and gradually; for in this reſpect moſt of our old Surgeons have erred, and not a few of our late Surgeons do ſtill err, in raiſing a Salivation too haſtily, and to ſuch a Height, that the Mouth, Tongue, and Tonſils are frequently ſeized with a Gangrene; wherefore a Salivation ought to be raiſed by Degrees, and the Mouth often looked into, ſo as that the Signs of an approaching Salivation may be duly and clearly diſcerned: Wherefore placing the Patient before a good and clear Fire, being firſt covered with Clothes ſuitable to his Diſtemper, begin the Friction at firſt with half an Ounce of *Neapolitan Ointment*, anointing him from the Soles of his Feet to the Calves of his Legs. Upon the ſecond Night uſe about two Ounces more of the ſame Ointment, in anointing him from the Calves of his Legs to his Knees: And upon the third Day let him reſt, eſpecially if you perceive the Signs of an approaching Salivation, that is, an extraordinary Heat and Dryneſs of the Mouth, a Swelling of the Gums and Salival Glands, attended with a frequent Spitting. Upon the fourth Day, having ſearched the Mouth to try whether the Orifices of the Excretory Veſſels be ſeized with an Inflammation, or ſmall Ulcers, another Friction is to be performed with two or three Ounces of the Ointment, anointing from the Knees to the Middle of the Thighs; and upon the fifth Day the Patient is to reſt again, abſtaining from the Uſe of the Ointment, eſpecially if you obſerve the Ulcers to enlarge, and a laudable Salivation to come on; but this depends upon the Nature of the Diſtemper, and the Strength of the Patient; for ſome require but four Frictions, others more; and nothing is more to be feared and avoided than too high a Salivation: If a fourth Friction be required, it is to be performed with two or three Ounces of the Ointment, anointing from the Middle of the Thighs to the Loins, Hips, and privy Members; and if a Friction ſhould happen to be required a fifth Time, you are to anoint the Hips and privy Members over again, extending to the Arms, and all the upper Parts of the Body, except the Head, Neck, and Breaſt.

If the Tonſils ſhould happen to be ſeized with a Gangrene, by Means of too high a Salivation, then having taken away ſome Quantity of Blood, you muſt inſtantly have Recourſe to Purgation, than which there is nothing more effectual; and it is to be frequently repeated, if neceſſary, and the Clothes wherewith the Patient was covered, during the Time of the Friction, muſt be taken off. Such a Salivation is approved of, whereby about two or three Pints of a viſcous or glutinous Humour are diſcharged every Day, and which is fully accompliſhed in the Space of twenty or twenty-five Days, or a Month at fartheſt. After the Salivation is over, the Patient is to be expoſed to the Air, and refreſhed and recruited by the Help of a Bath, Broths, and Foods of a good Nouriſhment; or elſe he muſt make uſe of a Diet-Drink made of the ſudorifick Woods and Roots for ſome Time after.

Some raiſe a Salivation by Emplaſtration, making uſe of the Plaiſter of *Vigo*, otherwiſe called the Plaiſter of Frogs, with a fourfold Quantity of Mercury. Others raiſe it with the Fumes of Cinnabar; and this is called Fumigation, which is a very good Way, eſpecially for ſuch as are troubled with Warts, Chaps, and Swellings about the Fundament.

Salivation is alſo raiſed by the Help of crude Mercury taken at the Mouth.

Take of crude Mercury an Ounce, well cleanſed and killed with *Venice* Turpentine; of the Conſerve of red Roſes, half an Ounce; of red Coral prepared, half an Ounce; of which take from half a Drachm to one or two Drachms, till ſuch Time as a due Salivation riſes.

The moſt common Preparations of Mercury for the venereal Diſtemper, are theſe which follow: Sweet Sublimate, or *Mercurius Dulcis*, or the white Eagle; the mercurial *Panacea*, Turbith Mineral, Mercury Precipitate, white, red, and green, *&c.* for Mercury, like *Proteus*, can be changed into ſeveral different Shapes and Colours, but by the Force of Fire it ſtill returns again to its own Nature, which the Chymiſts call Reviving.

Sweet Sublimate is thus prepared: Take of Sublimate Corroſive Mercury, and of crude Mercury, of each what Quantity you pleaſe; mix them well together, and put them in a Glaſs Body, to the Height of one Finger, or two; then ſublime them with a ſlow Fire gradually, and ſeparating the Sublimate from its Dregs, powder it over again, and ſublime it three or four Times over, mixing it well; and this is called *Sweet Mercury*, or the *White Eagle*.

The *Panacea* of Mercury is made by ſubliming of Mercury ten or twelve Times over. This *Panacea* will ſooner raiſe a Salivation than ſweet Mercury, which is ſometimes apt to purge downwards. They are both of them preſcribed from ten Grains to half a Drachm.

Take of Sweet Mercury twelve Grains, powder it, and make it up into a *Bolus*, with a ſufficient Quantity of the Conſerve of Roſes, or the Mucilage of Gum Tragacanth, to be given at nine o'Clock at Night, giving the next Night fifteen Grains, and the third Night twenty, till the Salivation be duly raiſed.

The *Panacea* of Mercury is to be uſed after the ſame Manner, by encreaſing the Doſe of it gradually, according to what Height you have a Mind to raiſe the Salivation.

A great many uſe to preſcribe ſweet Mercury one Day, and a purging Potion upon the other Day, endeavouring by that means to cure the venereal Diſtemper without Salivation; or elſe they mix ſweet Mercury with Purgatives, and give it in Pills, Bolus's, or Electuaries.

Take of ſweet Mercury and *Diagrydium* of each a Drachm; of Lozenges of *Coloquintida* a Scruple; powder them, and with a convenient Quantity of *Venice* Turpentine, make a Maſs of Pills for five Doſes.

White precipitate Mercury is thus prepared: Take of Mercury well cleanſed and ſtrained four Ounces; diſſolve it in a large Matraſs or Cucurbit, with three Ounces of Spirit of Nitre; adding to the Solution, of fair Water two Pounds; and pour again upon this laſt Solution, of ſalt Water two Pounds; and then the Mercury will, by little and little, precipitate or fall to the Bottom in the Form of a white Powder, which is to be ſweetened by often waſhing, drying, and burning, or kindling Spirit of Wine upon it. The Doſe of the Powder inwardly, is from four Grains to half a Scruple.

But outwardly it cures the Scab, and other cutaneous Diſtempers, being uſed after the following Manner: Take of white Precipitate one Drachm; of the Ointment of Roſes one Ounce; mix, and make an Ointment.

Yellow Precipitate, or Turbith Mineral, is thus prepared: Take of crude Mercury four Ounces; pour upon it of Spirit of Vitriol or Sulphur one Pound; put this Solution into a Retort, with a large Receiver, ſet it upon a ſlow Fire, and draw off all the Liquor, until it is dry, and ſo the white Maſs will be obtained, which is to be powdered and diſſolved in boiling Water, and then the Mercury will gradually precipitate in the Form of a yellow Powder, which is to be ſweetened by waſhing, and burning upon it Spirit of Wine. This Powder is to be given from three Grains to four or ſix. It purges vehemently, both upwards and downwards, but it ſafely and ſpeedily cures the *French Pox*.

The *Arcanum Corallinum*, the Coralline Secret, or the Dragon devouring itſelf, called alſo *Lampandra*, is, without any Addition, performed in the Space of two Months, by digeſting Quickſilver in an earthen Pot with a long Neck, by the Help of a Lamp; for the Mercury is by that Means changed into a bright red Powder, to be given from four Grains to ſix or eight, provided it be firſt ſweetened by burning Spirit of Wine upon it, otherwiſe it often provokes Vomiting.

[Quickſilver is ſometimes found fluid in the Earth, but commonly in Glebes, or in Form of a red ſulphureous mercurial Mineral, called Cinnabar, or of a ſtony Glebe, ſometimes red, ſometimes yellowiſh, ſometimes dark, and ſometimes of a Lead Colour. It is extracted from theſe Glebes, ſometimes by the Retort, but oftener and more expeditiouſly by a kind of Diſtillation *per deceníum*; the Miners beat it ſmall and put it into narrow necked earthen Veſſels ſtopped with Moſs; other ſuch Veſſels, only with wider Mouths, are buried in the Ground, and the Necks of the firſt are put into theſe others: in this Poſition their

their Necks are firmly cemented together, the lower Veſſels being wholly under Ground, and the upper, which contain the Quickſilver Glebe, and are inverted, wholly above Ground. An Area of a ſufficient Extent being filled with thoſe double Veſſels, a Fire is lighted round them, by means of which the Quickſilver drains thro' the Moſs into the lower Veſſels. They afterwards dig them up and put the Quickſilver into Bottles.

The Mines in *Hungary*, *Carinthia*, and *Friuli*, are very rich. When the Cinnabar contains a great Proportion of Sulphur, the Quickſilver cannot be extracted without ſomething to abſorb the Sulphur, and ſet the Quickſilver at Liberty and render it fluid, as the Addition of Pot-aſhes, Lime, Filings of Iron, or the like.

Quickſilver is the heavieſt of all Metals next to Gold, which is to Mercury in ſpecifick Gravity nearly as four to three, and therefore ſinks in it, whereas all other Metals ſwim on it; it may be amalgamated with all other Metals and metallick Subſtances, but moſt difficultly with Iron, Copper, and Antimony; it penetrates Metals, and diſſolves or makes them brittle, it readily unites with Sea-Salt, but not ſo eaſily with Nitre or Vitriol, it eaſily is diſſolved in Spirit of Nitre but more difficultly in Oil of Vitriol. It is very difficult to analyſe Quickſilver, becauſe as ſoon as any conſiderable Degree of Fire is applied to it, it flies off, but by a very gentle Heat, does in Time change it into a greyiſh Powder, which afterwards turns yellowiſh, and laſtly red. Expoſed to the Focus of a ſtrong Burning-glaſs, it preſently evaporates in Fumes without leaving any Remainder, but if the Calx before mentioned, be laid before the Burning-glaſs on a Tile, it firſt melts into a Subſtance like Glaſs, and then ſpeedily evaporates, leaving a little of a browniſh Powder behind, which afterwards vitrifies; if it be laid on a Piece of Charcoal it melts into Glaſs, then runs on the Coal, and becomes again pure Quickſilver before it evaporates: Hence it ſeems evident, that Quickſilver conſiſts of a volatile vitrifiable Earth and Sulphur, to which it owes its Splendor and Fluidity, for when deprived of its Sulphur by Calcination, it loſes both its Colour and Fluidity, but if theſe Particles of Sulphur be again reſtored to it, it recovers both again. Quickſilver was by the Antients reckoned a Poiſon, *Dioſcorides* aſcribes pernicious Effects to it, and *Galen* from his Authority reckoned it highly corroſive, for he ſays, he never tried it himſelf; the Name of it is not to be found in *Hippocrates*, whence it is to be ſuppoſed it was not in uſe in his Time. It is but about two hundred Years ago, that it got into Practice generally, and that from an Obſervation, that Shepherds gave it to their Cattle with Safety for the Worms. *Jacobus Carpenſis*, a Phyſician of *Bologna*, was the firſt who cured venereal Diſeaſes with it.]

6. *Of the mineral or natural* Cinnabar, *and likewiſe of the artificial* Cinnabar.

THE mineral *Cinnabar* is a red Stone, heavy and ſhining, which is found in many Places of the World, but the beſt and moſt eſteemed comes from *Spain*. I have taken a great deal of Pains to find the true Name of the Place where *Cinnabar* is found; a worthy Perſon has aſſured me, that he himſelf had ſeen and gathered it, and that the beſt was that of *Andulaſia*, upon the Lands of the Fathers of St. *Jerome*, and that it was there as common as Free-ſtone is with us. But Mr. *Charas* has informed me, that the great Mines of *Cinnabar* lie in the Mountains of *Sierra Morena*, and that the King of *Spain* maintains a great many Workmen there at his own Expence and Charges, to get the Mercury thence and ſend it to *Peru*. And as this Relation ſeems to me to be moſt probable, I take it for certain, that the large Quantity of *Spaniſh Cinnabar* that we had heretofore, and the ſmaller we have had lately, came from the Mountains of *Sierra Morena*; and the Cheapneſs of it, at one Time, ſufficiently ſhew us that it was not difficult or expenſive to take it out of the Mines, which may in ſome Meaſure favour the Sentiments of that Perſon who told me that it was found as commonly as Stones, and that it coſt nothing but the gathering. *Pomet.*

The natural *Cinnabar* is to be choſen of a high Colour, the moſt ſhining, and with as little Stone as poſſible; but ſince the true *Spaniſh Cinnabar* is become ſo ſcarce in *France*, there are ſo many Sorts of the other, that it is difficult to deſcribe them all, tho' nothing is at preſent more common, than to aſk for the right *Spaniſh Cinnabar*; they who ſell it, make no Scruple of giving one for the other, and ſo put off for it that of *St. Lo*, tho' very different, becauſe that of *Spain* is of a bright red Colour, and that of *St. Lo* of a dull one, and is leſs abounding in Mercury; ſome Perſons indeed, on the contrary to this, which is the generally received Opinion, have maintained, that that of *St. Lo* would yield fourteen Ounces of Mercury out of the Pound, as well as that of *Spain*, which I cannot contradict, becauſe I never tried it.

The mineral *Cinnabar* of *Spain*, though much demanded, has no other Property, that I know of, but that of yielding a pure Quickſilver, with which Alchymiſts make Vermillion, and pretend that

that they can make even Gold itſelf, by fixing it, and giving it a Tincture; for in reſpect of the Weight, it comes very near the true Gold. Mr. *Lemery* ſays, the natural *Cinnabar* is a Mixture of Mercury and Sulphur, which are ſublimed together by a ſubterraneous Heat, which is done by Nature almoſt after the ſame Manner as we make the artificial *Cinnabar*.

Mr. *Furetiere* has remarked, in his Book, that there is a mineral *Cinnabar*, which is a very red Stone, heavy, and not hard, reſembling the *Hæmatitis*, which contains Quickſilver, which drops from it of itſelf, without the Help of Fire. He ſays it is found about *Carniola*, and that it is the *Minium* of the Antients, and is a Poiſon. He ſays alſo the Word *Cinnabar* comes from the *Greek* Word *Kinabra*, which ſignifies the Smell of Goats, which is an inſupportable Smell; becauſe when they dig a Kind of *Foſſil Cinnabar* out of the Ground, according to *Matthiolus*, it caſts ſo rank and ſtrange a Smell, that they are forced to ſtop their Noſe and Mouth, for fear of being ſuffocated by it. I ſhould not have ſpoke of this latter *Cinnabar*, but that I look upon it to be a Falſity, and to diſſuade them who would believe that there is natural *Cinnabar*, from which the Mercury flows naturally.

There are ſo many Kinds of natural *Cinnabar*, that it would be difficult to name them all, but thoſe of *Carinthia*, *Armenia*, *St. Chriſtophers*, &c. are all much inferior to that of *Spain*.

The artificial *Cinnabar* in the Stone, is a Mixture of Mercury and Sulphur ſublimed and reduced to a Stone, in the Manner we ſee it. It ſhould be choſen in fair Striæ, and the higheſt in Colour that can be had.

The Uſe of *Cinnabar* is, as I have ſaid, to draw thence a Mercury, for thoſe who would have it clean and neat, as well to make the mercurial *Panacea*, as for other Operations where Mercury revived from *Cinnabar* is neceſſary.

Cinnabar in Stone is alſo of Uſe to Painters, after it is ground, becauſe it is of a more lively red than that which comes ready ground from *Holland*; but that which is troubleſome in it, is, that it dries very difficultly. It is likewiſe of ſome Uſe in Phyſick, as well in Fumigations, as other Forms, both inwardly and outwardly; tho' *Cinnabar* is ſeldom uſed inwardly but for Horſes, to make a Compoſition, called the *Cinnabar* Balls.

All the *Cinnabar* we have, both whole and ground, comes from *Holland*. And it is a ſurpriſing Thing, that they who make it, do it in Cakes of three or four hundred Weight, which they do eaſily, by putting into the Veſſel twenty-five Pounds of the Materials, that is to ſay, of the Sulphur and Mercury together; and when they are ſublimed, putting twenty-five Pounds more, and continuing after the ſame manner, till the Veſſel is full; and this is the Reaſon why the *Cinnabar* we ſee is diſpoſed in ſeveral *Strata*.

As for Vermillion, it is *Cinnabar* ground with Urine or *Aqua Vitæ*, or common, or Sea Water, after it is dried, tranſported to different Places.

There are two Sorts of Vermillion brought from *Holland*, the red and the pale, which happens according as they are more or leſs ground; for the more it is ground, it is the finer, but the paler is moſt uſed by thoſe who uſe it in making Sealing-Wax.

That Vermillion is to be made choice of that is well ground, dry, the leaſt earthy, and the moſt pure and clean that may be. It is certain that the *Dutch*, when they grind their Vermillion, mix it with red Lead, or ſome other drying Drugs, becauſe *Cinnabar*, when ground here, is difficult to dry, whereas it is otherwiſe in that which comes to us ready ground.

Vermillion is much uſed in *France* by them who make Sealing-Wax, Painters, and other Workmen. But Care muſt be taken not to uſe *Cinnabar* ground, and mixed with any fat Subſtance, to paint the Face; becauſe, as Mr. *Lemery* has well remarked, there is a great deal of Danger in it; and ill Accidents may attend it; the *Spaniſh* Wool may be uſed inſtead of it with Safety, as being made of nothing but *Safranum* of the *Levant*.

They draw from *Cinnabar*, or Vermillion, by the Help of Fire, and the Filings of Steel, or Quick-Lime put into a Retort, a Quickſilver that is very pure, and proper for all Uſes where Quickſilver is requiſite; but as it is very dear, becauſe of the Expence, every body, except they be very curious, make uſe of that of *Holland*. This Mercury ought to be extremely white and lively.

Cinnabar is a mineral Matter, ſolid, hard, weighty, bright, cryſtalline, of a very red Colour, diſtinguiſhed with Streaks, ſhining and ſparkling like Silver, compoſed of a Sulphur, and Quickſilver, and a little Earth. That which is impure, and of a yellowiſh Colour, mixed with a ſtony Matter, is to be rejected, as not being the true kind of *Cinnabar*, but rather a kind of *Auripigmentum*, or Orpiment. *Lemery.*

There are two Sorts, one natural, called mineral *Cinnabar*, the other artificial, called ſimple *Cinnabar*. The natural is found formed in Stones that are red, ſhining, and weighty, in the Quickſilver Mines of *Spain*, *Hungary*, *Germany*, *France*, and other Parts: That of *Spain* is accounted the beſt. That which is moſt weighty, clean, red, and ſhining, is to be preferred, becauſe the higher its Colour, the more Quickſilver it contains. The

natural

natural *Cinnabar* has been ſublimed by the ſubterraneous Fires, almoſt in the ſame manner as the artificial *Cinnabar*; but as in its Sublimation it is mixed with the Earth it meets with, it is not ſo weighty, pure, nor beautiful as the artificial, and contains leſs Mercury.

The artificial *Cinnabar* is made with three Parts of crude Mercury, and one Part of Sulphur, mixed and put into ſubliming Veſſels over a gradual Fire. It ought to be made choice of in fair Stones, very weighty, bright, with long, clear, and fine Points, of a browniſh red Colour. Each Pound of *Cinnabar* has fourteen Ounces of Mercury to two Ounces of Sulphur. Artificial *Cinnabar* being ground upon a Porphyry, is reduced to the fineſt Powder, of a moſt beautiful red Colour, made uſe of by Painters, and thoſe who make Sealing-Wax.

Theſe *Cinnabars* are made uſe of in Epilepſies and Aſthma's; to take inwardly from two Grains to half a Scruple.

Take of native *Cinnabar* ſix Grains; of the Conſerve of Lime-tree Flowers one Drachm. Make a *Bolus* to be given in the Falling-Sickneſs.

It is to be obſerved, that native *Cinnabar*, though it has been uſed and tried by a great many, will not raiſe a Salivation; whereas the other Kind of *Cinnabar* will do it ſpeedily and eaſily, which truly ought to be attributed to the large Quantity of Earth, with which natural *Cinnabar* abounds, that reſtrains it from ſubliming or riſing high enough for that Purpoſe.

If native *Cinnabar* be required to be made uſe of in Diſtempers of the Brain, and be not to be had, the *Cinnabar* of Antimony ought to be employed inſtead of it, rather than the fictitious or artificial *Cinnabar*; for this is more properly uſed in venereal Diſtempers, and chiefly by way of Fumigation.

Some chuſe the *Cinnabar* of *Hungary*, as being the moſt ſolid and heavy, repleniſhed with the beſt Sulphur and Mercury.

Native *Cinnabar* being ground into an impalpable Powder, is almoſt an univerſal Medicine, and may be given from ten to thirty or forty Grains, or a Drachm, in any convenient Vehicle, for forty, fifty, or ſixty Days together, taking it always at Bed-time. It may be taken two Days together, and ſometimes three, the next Day purging after it, and ſo to continue till thirty, or even fifty or more Doſes are taken.

It is an excellent Antivenereal; and being taken inwardly, expels the Pox, and all its Foulneſs out of the whole Body, and all its Juices. It ſweetens the Blood, takes away all manner of Pains and Aches in any Part; all manner of Swellings, Ulcers, and nocturnal Pains; kills Worms in Young and Old; is a Specifick for the Falling-Sickneſs, as ſaid before, and is excellent for Vertigoes, Apoplexies, Palſies, Lethargies, and all Diſeaſes of the Head and Brain.

The artificial *Cinnabar* is thus made: Take common Sulphur, in Powder, four Ounces; melt it in an earthen Pan upon Coals; add to it a Pound of Quickſilver; ſtir them continually with an Iron *Spatula*, till they are united in a black Powder, and the Mercury ceaſes to appear; being cold, grind it in an Iron Mortar to a ſubtile Powder; put this Powder into a Glaſs Retort well luted, and diſtil with a naked Fire; firſt with a gentle Heat, then with a ſtronger; then in a few Hours the Mercury and Sulphur will ſublime into the Neck of the Retort, the whole appearing of a greyiſh Red, or a dark Red Colour; beat it into a fine Powder, ſublime it again, and you have a moſt pure red Vermillion. It has all the Virtues of the former: But Phyſicians have not given it inwardly ſo much as the former, though it be full as ſafe.

[*Cinnabar* was a Name given by the Antients to ſeveral different Subſtances, and in the Time of *Dioſcorides* to a red aſtringent Drug brought from *Africa*, and ſuppoſed to be the Blood of Dragons, which was in all Probability what we call *Sanguis Draconis* at this Time; the ſame Name was alſo given to the *Minium* of the Antients, which they deſcribed to be a Mineral Subſtance of a red Colour, from which Quickſilver was extracted, and in after Times the Words *Minium* and *Cinnabar* were indifferently uſed, to ſignify the ſame thing: The true *Minium* afterwards becoming ſcarce, they frequently adulterated it with Lead Ore calcined to a Redneſs, and that calcined Subſtance came to be called *Minium*, and the Word *Cinnabar* became appropriated to the genuine Mineral from which Quickſilver might be extracted. And in this Senſe of the Words, whatever the Antients have ſaid of *Minium* and *Cinnabar* may be underſtood without Confuſion.

The native or foſſile *Cinnabar*, is therefore the *Minium* of *Dioſcorides*; *Cinnabaris*, *Mathiol.* 1355. *Lapis Minium*, *Aldr. Muſ. Mel.* 627. *Minium purum ſeu Cinnabaris nativa*, *Worm.* 126. It is properly Quickſilver Ore: It is found ſometimes pure, and ſometimes mixed with Stones. Of the pure *Cinnabar* there are ſeveral Kinds, one of a purpliſh red, which by powdering, is brought to a moſt beautiful clear red, another of a duſky Colour reſembling the *Lapis Hæmatitites*, and a third of a yellowiſh Colour, which is commonly ſo rich in Quickſilver, that when heated in a very ſmall Degree, it drops ſpontaneouſly from it; another Kind is found in a foſſile Stone formed of various Laminæ of an Aſh-Colour, and it has ſometimes been found in a whitiſh Stone of a metalline

Texture, and ſometimes in form of a Gold and Silver *Pyrites*, ſuch as was dug up ſome Years ago, in ſeveral Parts of *Normandy*. It is alſo found in *Hungary*, *Bohemia*, *Italy*, *Spain*, and *France*. The Painters of old were extremely fond of it, but they ſeldom uſe it now, becauſe the factitious Sort is cheaper, and anſwers all their Purpoſes as well. It is alſo given internally in Epilepſies, Vertigoes, Madneſs, and all ſpaſmodick Affections; that of *Hungary* or *Carinthia* is to be choſen for this Purpoſe, and that which is of a ſparkling ſhining Red, and free from all heterogeneous Particles; the yellowiſh Kind, though containing more Quickſilver, is to be rejected as being more impure. Sometimes, however, the beſt choſen native *Cinnabar* by means of vitriolick, or perhaps even arſenical Particles aſſociated with it, happens to excite Nauſeas, Vomitings, Anxieties, Heat, Burnings, *&c.* even after all the Cleanſing that can be given it by frequent Waſhings; and it muſt certainly, therefore, be moſt prudent to uſe either factitious *Cinnabar*, or that of Antimony, inſtead of it.

Factitious *Cinnabar*, or *Vermillion*, is a red heavy Maſs, friable, and marked with ſhining or ſilver Streaks, conſiſting of Quickſilver and Sulphur united by the Help of Chymiſtry, ſubliming the Mixture over a Fire.]

7. *Of the* Corroſive Sublimate, *and other Preparations of* Mercury.

Pomet. CORROSIVE *Sublimate*, which we have from *Holland* and *Venice*, is made of common Mercury or that revived from Cinnabar, Spirit of Nitre, Vitriol calcined to a Whiteneſs, and Sea Salt decrepitated, and by the Means of a ſubliming Veſſel reduced to a Lump that is white and ſhining.

That *Sublimate*, whether from *Holland* or *Venice*, is to be choſen, which is whiteſt and moſt ſhining, but the leaſt weighty and compact that is poſſible; but that is to be rejected that comes from *Smyrna*, which is weighty, and full of Sparkles, becauſe it is ſaid that it is made with Arſenick, which I cannot affirm, becauſe I am not certain of it; the beſt Way to prove it that I know, is to throw upon it a Drop of Oil of Tartar *per Deliquium*, or to rub it with a little Salt of Tartar; if it grows yellow, it is an infallible Mark that it is made of Mercury, and has the Qualities requiſite to it; on the contrary, if it turn black, it is to be rejected.

Corroſive Sublimate is made uſe of by ſeveral Perſons: as Surgeons, Goldſmiths, Farriers, and others. It is likewiſe uſed in Phyſick externally; but as it is one of the ſtrongeſt Poiſons we have, it ought not to be uſed without the greateſt Precautions; and the Perſons who retail it ought not to ſell it but to ſuch as have Occaſion for it by their Profeſſion, as the King's Ordinances require, by which it is expreſly forbid to ſell any Sorts of Poiſons, but to the Maſter of a Family: And theſe ſame Retailers are ordered to take a Note of him that buys it, declaring what he intends to do with it; and the Seller is to keep the ſame Drug under his own Lock and Key, ſo that no Body but himſelf may have the Sale of it. I hope this Advice will not be taken amiſs, becauſe it is deſigned for the public Safety.

Of Sweet Sublimate, *or* Mercurius dulcis.

The ſweet or dulcified Mercury, or Sublimate, called likewiſe *Aquila alba*, or the white Eagle, is corroſive Sublimate, and crude Mercury, reduced into a white Lump, with little ſhining Streaks, by the Means of Fire and Glaſs Matraſſes.

The ſweet Sublimate, or dulcified Mercury, ought to be white, ſhining, adorned with little hard Shoots, which being put to the Tongue, is inſipid; and reduced to Powder, is of a white Colour, a little upon the yellow. Great Care muſt be taken that it has been dulcified three Times at leaſt; for unleſs it has its neceſſary Qualities, that is, that it be very inſipid or without Taſte, it may produce very ill Effects. They who bring it from *Holland*, ſhould not ſo much look upon the beautiful Colour which the *Dutch* give it, as take heed that it has no Taſte: For to my Knowledge there has come ſome from *Holland* which might have had very ill Effects, if Care had not been taken; becauſe it had been ſublimed or dulcified but once.

The ſweet Sublimate is a very excellent Remedy to cure the Secret Diſeaſe, and to kill Worms in Children. The ordinary Doſe is from two Grains to thirty, taken in a *Bolus*, either of ſome Conſerves, or purgative Medicines.

Of the Mercurial Panacea.

The *Mercurial Panacea* is a ſweet Sublimate made of Mercury, revived from Cinnabar, and dulcified or ſublimated fourteen Times. I ſhall not be long upon this Point, becauſe the Directors of the Hoſpital of the Invalids have cauſed a long Tract concerning it to be printed. I ſhall only ſay, that this Medicine is very much demanded and valued, as well for its Novelty, as becauſe they pretend it is a general Medicine for the Cure of the abovementioned Diſeaſes; and they attribute ſo many Qualities to it, that they have given it

it the Name of *Panacea*, which is as much as to ſay, the Univerſal Medicine. They commonly make up this *Panacea* into little Pills, with the Mucilage of *Gum Tragacanth*, and when they are dry, they differ little in Colour or Size from the Coriander Comfit.

Of the White Precipitate.

The *White Precipitate* is a Quickſilver diſſolved in the Spirit of Nitre, and precipitated by Salt into white Powder. This Powder, after having been well waſhed and dried, is what we called the true *White Precipitate* of Mercury, to diſtinguiſh it from other Sorts of *White Precipitate*, of which one is made of corroſive Sublimate, diſſolved in a Water made of *Sal Armoniack*, and reduced into a white Powder, by caſting the Oil of *Tartar per Deliquium* upon the Diſſolution, and afterwards waſhing it and drying it as that abovementioned. The third is made likewiſe of the corroſive Sublimate reduced to Powder and put into warm Water; and when the volatile Spirit of *Sal Armoniack* has been caſt upon it, there will remain a white Powder, which after having been waſhed and dried, has the ſame Properties as the two others, which is to raiſe a Salivation, or to mix with Ointments or Pomatums to cure Tetters and cutaneous Diſtempers.

As theſe Precipitates, and generally all Preparations of Mercury, are violent Remedies, in which one may run ſome Hazard; ſo they ought not to be uſed but with great Precautions, and the Advice of underſtanding Perſons. The *White Precipitate* of Mercury ſhews itſelf to be in a good Condition when it is white and weighty, and exhales, being put upon a burning Coal; on the contrary, if it remains upon the Fire, or runs into Lead, it is an infallible Sign that it is nothing but white Lead ground, or ſome other white Powder, as that of *Roan*, or the like.

The Precipitate made with Sublimate, is extremely white, and much lighter than that which is made of crude Mercury; which may ſeem ſtrange, becauſe every thing made of Mercury is generally weighty, and this is the Reaſon why they that do not know it will not take it, although it is as beautiful and as good as that which is made of crude Mercury.

Of Red Precipitate.

The *Red Precipitate* is Mercury diſſolved in Spirit of Nitre, and afterwards put into a Glaſs Cucurbit in a Sand Head, to evaporate the Humidity; which done there remains a Maſs, which, by augmenting the Fire, acquires a red Colour, ſuch as that which comes from *Holland* is of. As for thoſe *Red Precipitates*, which are made by the Artiſts in *Paris*, and other Parts of *France*, they have as many different Colours as there are People who make them, and there are few of them can come up to that of *Holland*. 'Tis this which makes the greateſt Part of the *Red Precipitates* which are ſold, to be ſometimes red, and ſometimes of an Orange, or ſome other Colour, and never ſhining, unleſs it be that which comes from *Holland*; however, I will not ſay but it may be as good, though it be not as ſaleable. There are likewiſe two other Sorts of *Red Precipitate*, one of a Roſe Colour, which is made when, inſtead of putting the Diſſolution of Mercury in the Spirit of Nitre upon the Fire, they pour upon it hot Urine, and there will ſoon be a Precipitate of a Roſe Colour, which being waſhed is good for the Worms or the Itch, and may ſerve for the ſame Uſes as the *Red Precipitate* made by Fire. The third *Red Precipitate* is made of Sublimate diſſolved in warm Water, upon which they pour the Oil of *Tartar per Deliquium*. Mr. *Lemery* ſays, that this Preparation of Sublimate is the true *Red Precipitate*, but that it does not act ſo violently as that of Mercury. Theſe two laſt Precipitates are very ſeldom uſed, becauſe the firſt is moſt in Vogue, which ought to be faithfully prepared that it may be good; and Care muſt be taken that it be not mixed with red Led, which may eaſily be known by rubbing it upon a Piece of Gold, for if it makes it white, it is a Sign that is good, and that it is made of Mercury; but if it makes it black, it is a Proof that it retains a Tincture of Lead, and that it is mixed with it. You may likewiſe put it upon the Fire, and it is a good Sign if it exhales: However, I muſt ſay, that that which comes from *Holland* is moſt preferable, as well becauſe it is more beautiful, and conſequently more ſaleable, as becauſe we can ſell it cheaper, eſpecially in time of Peace, than any that can be made in *France*.

Of Yellow Precipitate.

The *Yellow Precipitate*, or *Turbith Mineral*, is Mercury revived from Cinnabar, diſſolved in the Oil of Vitriol, and afterwards with lukewarm Water precipitated to a yellow Powder, which being waſhed and dried, is uſed as a ſtrong Purgative and Emetick.

They likewiſe make a *Yellow Precipitate*, by diſſolving powdered Sublimate in warm Water, and pouring Lime-water upon it, and the yellow Powder, which will be found at the Bottom, after being waſhed and dried, may paſs for *Yellow Precipitate*,

cipitate, or *Turbith Mineral*. Mr. *Lemery* ſays, this Diſſolution or yellow Water, is called Phagedenick Water, or Water for Ulcers, becauſe it is proper to cleanſe and heal Ulcers. The Surgeons make frequent Uſe of it in the Hoſpitals; but the common Phagedenick Water is Lime-water into which they have put a little Sublimate.

Of Green Precipitate.

The *Green Precipitate* is made of Mercury and Copper, diſſolved in Spirit of Nitre, and afterwards thrown down to a Powder of a green Colour, which is made uſe of to purge upwards and downwards; and, as ſome pretend, it is a Specifick to cure venereal Diſtempers.

It is obſervable, that the more Copper is uſed in this Operation, the more Acrity it has, and greater will be its Effect. This Precipitation is very little made uſe of, and was very little known, before the Sieur *Matte de la Faveur*, the King's Diſtiller at *Montpellier*, gave us a Deſcription of it.

Of the Oil *of* Mercury.

The *Oil*, or, to ſpeak more properly, the Liquor of *Mercury*, is Quickſilver diſſolved in the Oil of Vitriol, and reduced into a white Maſs by the Means of Fire, which being put in a Cellar, will diſſolve and be reduced to Water. You may likewiſe make it with ſweet Sublimate, and *Sal Armoniack*; or inſtead of *Sal Armoniack*, you may uſe Salt of *Saturn*, or in the Room of Salt of *Saturn*, Sugar-Candy; and ſo of ſeveral other Sorts enumerated by ſeveral Authors.

[The moſt uſed of all the Preparations of Quickſilver, is the *Mercurius Dulcis* (or *Calomel*, as it is called when it has undergone four more Sublimations) and that with great Reaſon, as it is the mildeſt and ſafeſt of them all; it purges gently, divides all viſcous pituitous Humours, kills Worms, and is the great Remedy in venereal Diſeaſes. The Doſe is from five to fifteen Grains at Night going to Reſt; but if this Method be continued for ſome Days without purging between, it will raiſe a Salivation.

The *Mercurial Panacea* of the *French*, which *Lewis* the Fourteenth purchaſed the Secret of making, and cauſed to be made public, is made of crude Mercury, purified by being firſt made into Cinnabar, and then revived from thence. Of this Mercury, corroſive Sublimate muſt be made and ſublimed three Times, the two firſt with Sea Salt, and the laſt without any Addition; Part of this Sublimate is to be again reduced to running Mercury, by diſtilling with *Regulus* of Antimony; and this running Mercury, mixt with the remaining Sublimate, muſt be made into a *Calomel* by nine Sublimations, which is to be put into an aromatized Spirit of Wine, and digeſted for three Weeks, and afterwards ſeparated from the Liquor, and dried for uſe. It is an excellent Medicine in Venereal, and all other Caſes where Mercurials are proper, and is the leaſt purging of them all; but the Tedioufneſs of the Preparation makes it never to be met with.

The other Preparations of Mercury have their Virtues, and thoſe very great, but are not to be meddled with but by thoſe who well underſtand them; and indeed they are ſo ſubject to Adulterations, that they often deceive thoſe who ever ſo well know what Effects they would produce if genuine and well prepared.

Of the Adulterations of the ſeveral mercurial Medicines in uſe, and the pernicious Effects of them, I could ſay ſuch Things as thoſe who have not ſo much examined into them could ſcarce believe, but ſhall not publiſh them here, leſt, while I am warning others to beware by ſhewing what the Adulterations are, and how to be diſcovered, I teach ſome of our modern Chymiſts, as they call themſelves, to be greater Villains than at preſent their Ignorance will permit them to be.]

8. *Of* Tin.

TIN, which the Antients called *White Lead*, is a white Metal which is not ſo hard as Silver, yet harder than Lead; it is full of Sulphur, and therefore melts eaſily. Some have given it the Name of *Jupiter*, becauſe they pretend it draws Influences from that Planet. They pretend likewiſe, that it is formed of Silver and Lead, becauſe in the Tin Mines there is ſometimes both Lead and Silver, and ſometimes Diamond-like Chryſtals, which are fixed to the Rock from whence they take the Tin. Theſe are naturally poliſhed, ſquared, and pointed, and are of different Sizes, ſome as big as a Nut; but they are not hard, nor will they cut like true Diamonds. It is ſaid that Tin is compoſed of Earth, and an impure Sulphur, a metallick Salt, and a Mercury a little finer and better digeſted than that of Lead, and that it is a Friend to Gold and Silver; for when they are once mixed, it is difficult to part them.

The greateſt Part of the Tin which we have in *France* comes to us from *England*, in Pigs of different Weight, and eſpecially from the County of *Cornwall*.

There are three Sorts of *Tin* at *Paris*; the plain

plain Tin, the common Tin, and Pewter. The plain Tin, which is the moſt beautiful, and the beſt Sort, is the *Engliſh* Tin, as it comes from the Mine; in working it they incorporate it with Tin-Glaſs, Roſe Copper, and a little Zinck to purify it. Pewter is *Engliſh* Tin mixed with common Tin and Tin-Glaſs. Mr. *Lemery* has very well obſerved, that theſe Matters which are compoſed of ſtiff and brittle Parts, being united with the Tin, make its Parts firm, and render the Metal more hard, ſolid, and compact, and ſo it becomes ſounding or ringing; for it is neceſſary that all ſounding Matter ſhould be compoſed of rigid Parts ſo diſpoſed, that being ſtruck upon, they ſhould be agitated and tremble, by hitting one againſt the other, which cannot be done by Tin alone, becauſe it is ſoft and pliant.

To know the Degrees of Goodneſs in Tin, they take a white Chalk that is found near *Tonnerre* in *Burgundy*, and of this Chalk they make a ſort of Mould into which they pour the Tin when melted; and by Means of this Chalk the Artiſts know what Standard it is of, by the little Lines or Furrows found in it; or elſe they caſt Tin Bullets in Moulds, and that which is found lighteſt is eſteemed the beſt Sort, and this is the great Art and true Way of knowing. Some Authors ſay, that Tin or white Lead is found upon the Surface of the Earth, amongſt the Sands, and in Torrents dried up; and that it is found in Grains, which being waſhed are caſt into Moulds, in the Shape we ſee them. Beſides the different Uſes we make of Tin, the Chymiſts perform ſeveral Operations with it, as ſhall be ſhewn hereafter.

Beſides the *Engliſh Tin*, there is ſome that comes from *Germany*, but it is not ſo good, becauſe it is only the Refuſe of that which ſerved to tin their white Iron. We have alſo ſome brought from *Lorrain*.

Of Tin *in* Leaves.

Tin in *Leaves*, called by the *French*, *Appeau*, is an hammered *Tin*, which the *Dutch* have painted on one Side with their Varniſh, making it of what Colour they pleaſe; as yellow, red, black, ſky-colour, *&c.* The *Tin* in *Leaves* ought to be uniform, well varniſhed, whole, and as evenly rolled as poſſible. The *Dutch* ſend it in Boxes which hold commonly a Groſs, that is twelve Dozen.

This *Tin* was once much uſed in *France* by the Wax-Chandlers, but at preſent its greateſt Uſe there is for Coats of Arms and Atchievements uſed on the Death of Perſons of Quality.

Of Tin *in* Powder.

They reduce *Tin* into *Powder* two Ways, either with beaten Charcoal, or with Chalk, as ſhall be afterwards ſhewn in the Chapter of Lead. They who work upon *Tin*, inſtead of grinding it to Powder, burn it, that is, calcine it, and reduce it to a grey Powder, which is that which we and the Pewterers ſell under the Name of *Putty* of *Tin*, and uſe it to burniſh their Hammers with, and others to poliſh their Steel Mirrors. They who would make this *Putty* extremely white, calcine it 'till it becomes of a moſt beautiful white Colour. This *Tin* calcined to ſuch a Whiteneſs, is what the Chymiſts call the *Ceruſe* or *Calx* of *Tin*, and others the *Spaniſh White*, or *Bezoar* of *Tin*.

Some Authors affirm, that *Tin* may be reduced into a *Calx* or *Ceruſe* by the Help of Urine, and that the Urine acts upon *Tin*, as Vinegar upon Lead. Beſides the Uſes that the Chymiſts have for this calcined *Tin*, it is much uſed by the Potters, who make of it their beautiful Varniſh, or white Enamel that is upon the *Delft* Ware. But it is obſervable, that this Ceruſe of *Tin*, before it can be uſed by the Potters, muſt be expoſed to the Weather for a Twelvemonth, that ſo the Air may make a ſecond Calcination; but Care muſt be taken that it have no Impurities among it, becauſe they would make ſo many Spots upon the Works.

Of Salt *of* Tin.

The *Salt* of *Tin*, is *Tin* calcined, upon which they have poured diſtilled Vinegar; by Means of Fire, and a cool Place, they draw thence a white Salt in little Cryſtals, which they make uſe for Tetters mixt with *Pomatum*. It ought to be dry, white, light, and in little Shoots.

Of Flowers *of* Tin, *or of* Jupiter.

They draw from *Tin* and *Sal Armoniack*, by the Help of a ſubliming Veſſel, white *Flowers* of *Tin*. Inſtead of *Sal Armoniack*, others uſe Salt-Petre refined. They make alſo of the Flowers of Tin, by Means of the volatile Spirit of *Sal Armoniack*, or Oil of *Tartar per Deliquium*, a Magiſtery of *Tin*, which being dulcified, waſhed in Water, and dried, is of a very fine White; ſo that being mixed with *Pomatum*, it is uſed for Paint. The Flowers of Tin are often put to the ſame Uſes as the Magiſtery.

Of the Diaphoretick *of* Tin.

The *Diaphoretick Tin*, which Mr. *Lemery* calls the *Jovial Diaphoretick*, or the *Antihectick* of *Poterius*,

Poterius, is made of fine *Engliſh Tin*, and the *Regulus* of Antimony with Iron, melted together; and afterwards, by means of Salt-Petre and divers Lotions, they draw thence a Powder which is uſed for Diſeaſes of the Liver, the Small-Pox, and malignant Fevers, as the ſame Author tells us.

Lemery. Tin is a Metal ſoft, malleable, ſulphureous, white, ſhining, a little harder than Lead, and very eaſy to be melted. The Antients called it *Plumbum Album*, white Lead. It is taken out of the Mines of *England*, and other Places, and brought to us in Pigs. At *Paris* we have three Sorts of it.

The firſt is that Tin which is without Mixture, as it comes from the Mine, and this is the true Tin. The ſecond is the common Tin, which is an Allay of the natural Tin of Lead and Braſs. The third is the founding Tin, or Pewter, which is a Mixture of Tin, Biſmuth, and Copper, and a little Zinck. They ſometimes put in ſome *Regulus* of Antimony, and its ſulphureous vomitive Salt is not to be feared upon this Occaſion, becauſe it is abſorbed and mortified by the great Quantity of other Metals with which it is incorporated.

Natural Tin is not founding, becauſe it is too ſoft and pliant; for to render any Matter founding, it is requiſite that it be compoſed of firm rigid Parts, which being ſtruck, may tremble and hit one againſt the other; which Quality is found in the Tin which is hardned and made ſolid by Biſmuth, or by Antimony and Copper. This Tin, when fine and well compoſed, is very much like Silver.

Natural Tin is looked upon as proper for Diſeaſes of the Liver and the Womb, but I have found but little of this Virtue in my Experience of it.

[*Tin* is the *Plumbum Candidum*, *Kentm.* 85. *Fabr.* 16. *Plumbum Candidum alias Stannum*, *Charl. Foſſ.* 85. *Stannum Jupiter*, *Mont. Exot.* 13. There is ſome Confuſion among the Antients about *Plumbum* and *Stannum*, Lead and Tin, as we engliſh thoſe Words. The *Greek* Authors often uſe the ſame Names indifferently to expreſs both; and their Interpreters have rendered the Word κασσίτερος, both by *Plumbum* and *Stannum*. *Pliny* however ſays, that Term means only what he calls *Plumbum Album*, which he makes to be different from *Stannum*, which he ſays is a Kind of *Plumbum Nigrum*, found in the ſame Veins with Silver. But either this Diſtinction of *Pliny* between *Plumbum Album* and *Stannum* is groundleſs, or elſe the *Stannum* of the Antients was nothing but the purer and more ſhining Part of the Lead, or a Mixture of the *Plumbum Album* and *Nigrum*, or *Plumbum Nigrum* and Silver. *Agricola* mentions three Kinds of *Plumbum*, one white, which we now call *Tin*, another of an aſh-colour, which is our Biſmuth, and a third black, which is our Lead. Tin therefore is properly the κασσίτερος of the *Greeks*, and the *Plumbum Album* of *Pliny*. It is found in ſeveral Countries; but the richeſt Mines are in *Cornwall* and *Devonſhire* in *England*: It is commonly got either in Grains, or from a ſtony Subſtance, ſometimes black, ſometimes yellow, and ſometimes whitiſh. Some of theſe Stones are very hard, others brittle and crumbling. When it is taken out of the Mine, it is ſeparated from the Stones and Earth by waſhing, and then melted and caſt into Moulds. Various Subſtances are found mixed with Tin Ore, particularly one which is ſoft, and of a ſaponaceous Nature, ſoluble in Water, and containing pellucid Stones like Cryſtals, and ſome of other Kinds. Tin is the lighteſt of all Metals, its ſpecifick Gravity to that of Gold is as three to eight; being laid on a Tile in the Focus of a great burning Glaſs, it emits a thick roapy Fume in great Quantities, leaving a fine white Calx behind, which if held longer before the Burning Glaſs, turns to ſmall Chryſtals, or little pellucid Filaments. This Subſtance cannot be melted any more without the Aſſiſtance of Charcoal, by means of which it is again revived into Tin. The Filings of Tin thrown into the Flame of a Candle take Fire, and make the Flame blue, emitting a Smoak and Smell like Sulphur mixed with Garlick. Hence it is evident, that Tin conſiſts of a a vitrifiable Earth, and a ſulphureous Principle, mixed probably with an arſenical Salt. It melts the moſt eaſily of all Metals, but is ſoluble only in *Aqua regia*. The principal Preparations of it are the *Sal Jovis antihecticum Poterii*, and *Aurum Moſaicum*, but they are neither of them much uſed at preſent.]

Of natural Biſmuth, *or* Tin-glaſs.

Watever Pains I have taken to diſcover if there were any ſuch thing as true natural *Biſmuth*, it has always been impoſſible for me to find it; and all thoſe with whom I have converſed, either by Word of Mouth, or Letter, have agreed that there was no other *Tin-glaſs* than that we ſell, which is an artificial one, as I ſhall ſhew preſently. However, I ſhall not be poſitive that there is no ſuch thing, but only ſay that is has not come to my Knowledge, and therefore I cannot contradict them who have written, that *Tin-glaſs* was a ſulphureous Marcaſite, which is found in the Tin-Mines, or that

that it is a mineral Body, or half Metal, compoſed of the firſt Matter of Tin, which is yet imperfect; and that it is found in the Tin-Mines, and has a Subſtance that is very hard, weighty, brittle, and of a groſs Grain, ſmooth, white, and ſhining. They ſay likewiſe, that it is called *Tin-glaſs*, becauſe when it is beat to Powder, there appear in it ſeveral little Subſtances, ſmooth as Glaſs. They call it alſo the *Marcaſite*, by way of Excellence, becauſe it ſurpaſſes all others in Whiteneſs and Beauty. They ſay it contains an arſenical Salt, which is dangerous to be taken inwardly.

This however I ſhall venture to affirm, that they have all run into the Error of thinking the *Biſmuth* we ſell, a natural, whereas it is an artificial Subſtance.

Of the ordinary Tin-glaſs.

The common *Tin-glaſs*, which ſome call *Biſmuth*, is a Mixture of Tin, Tartar, and Salt-petre, from whence, by the Means of Fire and a Crucible, they draw a *Tin-glaſs* very white and pure, and much whiter than the *Tin-glaſs* that is brought from *England*. And this Difference, as I have been told, proceeds from nothing but the Degree of Fire.

Tin-glaſs may not improperly be called the *Regulus* of *Tin*, ſince it is ſo in Effect. And it is a Thing ſo probable, nay, ſo ſure, that the *Tin-glaſs* we ſell is artificial, that the very Figure demonſtrates it; for it is eaſy to ſee that it is a Metal melted and caſt in a Mortar, warmed and greaſed, as they do to other Sorts of *Regulus*. And it is ſo true, that *Tin-glaſs* is artificial, that I have made it myſelf, and am ready to ſhew it to thoſe who will not believe me.

Tin-glaſs ſhould be made Choice of, that is in fine Scales, white, and eaſy to break; and that is to be rejected which is in little Scales, and, in a Word, comes near the Figure of *Regulus* of Antimony, as well as that which being broke in two, has ſome greater and ſome leſſer Scales, and is of a dark Colour.

The Uſe of *Tin-glaſs* is for the Pewterers, who at preſent make uſe of it inſtead of *Regulus* of Antimony; or elſe for the Chymiſts, who from thence draw Flowers, and a Magiſtery, or white Precipitate.

To draw the Flowers of *Tin-glaſs* they calcine it, and with *Sal Armoniack*, and a ſubliming Veſſel, draw thence the Flowers, which when diſſolved in Water, and precipitated with the Spirit of *Sal Armoniack*, or Oil of Tartar, may be uſed as the Magiſtery of *Biſmuth* that I am going to ſpeak of.

Of the Magiſtery of common Biſmuth.

The Magiſtery of *Biſmuth*, which ſome improperly call the *Spaniſh* or Pearl White, is *Tin-glaſs* diſſolved in Spirit of Nitre, and precipitated into a white Powder, with a little common Salt, and afterwards well waſhed and dried. There are Peruke-makers that uſe this *Magiſtery*, for the making red Hair look of a light Colour; but this Trick will be eaſily diſcovered, becauſe the Colour will not remain long, eſpecially if the Peruke comes into the Rain.

The Magiſtery of *Biſmuth* is ſometimes uſed for the Face, by putting it into Pomatums, or diluting it with Lilly or Bean-flower Water. It is good for the Itch, becauſe, according to Mr. *Lemery*, it deſtroys the Acids or Salts that nouriſh that Diſtemper. One muſt take care not to be over-ſtocked with this *Magiſtery*, becauſe its Colour will from white become yellowiſh as it grows old, and ſo it will become unfit for Sale.

This *Magiſtery* ſhould be bought of honeſt Perſons, for there are a great many Cheats in it, and there is no body can anſwer for it but he that made it, and therefore you muſt not ſtand upon the Price.

Biſmuth is a metallick Matter, but it is hard, brittle, ſhining within, diſpoſed into ſmooth Shoots, bright and ſhining as little Pieces of Glaſs. This Matter is drawn from the groſs and impure Tin that is found in the Mines of *England*. The Workmen mix this Tin with equal Parts of Tartar and Salt-petre. This Mixture they throw by Degrees into Crucibles made red-hot in a large Fire. Afterwards, when the Matter is melted, they pour it into Iron Mortars that are greaſed, and there let it ſtand to cool. Then they ſeparate the *Regulus* that is at the Bottom from the *Scoria*, and waſh it well. It is the *Tin-glaſs* that one may properly call the *Regulus* of *Tin*. Some People ſay, that in the Tin of which they make *Biſmuth*, there is always a little Mixture of Arſenick. We can make *Biſmuth* in *France*, with ordinary Tin, Salt-petre, and Tartar, as I have ſaid; but it will be brighter than that of *England*, becauſe the Tin we uſe is purer than that they uſe in *England*. *Lemery.*

This Operation is the ſame as that of *Regulus* of Antimony; there is the ſame Detonation and Purification of the groſs Sulphur contained in the Metal; the looſer Parts of the Sulphur are elevated with the volatile Parts of the Salt-petre, and the Oil of Tartar, by the Detonation; afterwards the fixed Salts of the Salt-petre and the Tartar, which are become Alcalies, diſſolve the other Part of

of the Sulphur, which renders the Tin hard and brittle, whereas before it was pliant and malleable; for this Sulphur made the Ductility, and the exact Ties between all the Parts of the Metal. It may likewiſe happen, that ſome ſmall Portion of the Salts of Tartar and Salt-petre may penetrate this *Regulus* of Tin, and ſo contribute to the making of it brittle.

Biſmuth is brought to us in round or orbicular Lumps, flat below, and round above, and of the ſame Figure with thoſe of *Regulus* of Antimony, which was caſt in a Mortar whilſt it was in Fuſion.

Tin-glaſs is to be made choice of in fine large Pieces, ſhining, whoſe Shoots are large, white, and ſparkling. The Pewterers mix it with their Tin, to render it more beautiful and ſounding.

It is reſolutive and drying, being beat to Powder, and made up either into an Ointment, or a Plaiſter.

Zinck, which has been mentioned above, is a ſort of Marcaſite, or a metallick Matter, reſembling Biſmuth, but leſs brittle, and in ſome Meaſure pliable to the Hammer. It grows in the Mines, and principally in thoſe of *Goſſelar* in *Saxony*. That is beſt which is hard, difficult to break, white, with Shoots that are large and ſhining. It is uſed to cleanſe and whiten the Tin, as they make uſe of Lead to purify Gold and Silver. The Workmen mix in their Caſting about ſix hundred Pounds of Tin, with one Pound of this Mineral.

Zinck is made uſe of in Solder: they likewiſe mix it with Copper to give it the Colour of Gold.

Zinck is reſolutive and drying, being applied outwardly.

[What our Authors deſcribe as *Biſmuth*, is indeed no more than a *Regulus* of Tin: but there is a true genuine mineral *Biſmuth*, which is the *Biſmuthum ſive Plumbum Cinereum*, *Worm.* 129. *Marchaſita ſive Biſmuthum*, *Schrod.* 456. *Biſmuthum*, *Wood. Att. Tom.* ii. p. 1. *Plumblum Cinereum*, *Agricol.* It is a metallick Subſtance, fuſible, but not ductile, very brittle and heavy, and diſtinguiſhable from Lead and Tin by its Colour, which is ſometimes ſhining like Silver, and ſometimes purpliſh; reſembling the *Regulus* of Antimony, but conſiſting of broader *Laminæ*, and ſtaining the Fingers. It is prepared by Artiſts, being firſt torrified, and then melted into a *Regulus*. It is often found in Silver Mines, and indeed wherever it is found, the Miners conclude they ſhall find Silver. The principal Mines of *Biſmuth* are in *Miſnia* and *Bohemia*: ſome pretend that it may be extracted from *Cobalt*, melted into a *Regulus*, but this wants Proof.

Biſmuth ſeems to have been unknown both to the *Greeks* and *Arabians*; for the *Arabian Marcaſite* was the *Pyrites*, as has been obſerved before. It is ſcarce at all uſed in Medicine, but a good deal is ſold to the Pewterers and Dealers in Hair.

Zinck is the metalline Part of *Lapis Calaminaris*.]

9. *Of* Enamels.

ENAMELS are Vitrifications made of Tin, Sand, and Pot-aſhes of *Alicant*, to which they give divers Colours, with different Metals, as ſhall be ſhewn hereafter. *Pomet.*

The *Enamels* come from *Venice* and *Holland*, and are in flat Cakes of different Sizes, and different Marks; ſome have the Name of *Jeſus*, ſome have the Figure of a Sun, and the like, from the different Workmen that made them.

The firſt is the *White Enamel*, which is the Baſis of all the others, and is made of Tin calcined, or Putty, of Sand and Pot-aſhes, which having undergone a great Fire, are reduced to a Paſte, and being cooled, become hard as a Stone. It is this white Enamel which they uſe at preſent for varniſhing their Earthen Ware, rather than Tin calcined and expoſed to the Air and Weather for a Year together, that Operation being too long. *White Enamel* is uſed by the Enamellers, Goldſmiths, and others: as for the Choice of it, there are none but they that uſe it, that can know the Beauty and Goodneſs of it; the Whiteneſs is more or leſs according to the Goodneſs of the Tin it is made of.

The ſecond *Enamel* is of a Gridelin approaching to a Slate Colour, which is white Enamel coloured with Azure.

The third is of a Sky Colour, which is a white Enamel coloured with Copper, and Cyprus Vitriol.

The fourth is of a Fleſh Colour, which is white Enamel coloured with the Perigord Stone.

The fifth is the Yellow, which is the White coloured with Ruſt of Iron.

The ſixth is Green, which is White coloured with Pin Duſt, or other Filing of Braſs.

The ſeventh is the Blue, which the Enamellers call the *Faux-lapis*, the falſe Stone; which is the ſky-coloured Enamel, made with *Lapis Lazuli*. Theſe Enamels will alſo make different Colours, that is, many Colours are made of one, by putting in more or leſs of the Metals, or Drugs, beforementioned.

Enamel is called *Encauſtum*, from a *Greek* Word ſignifying *Burning*, becauſe Enamel is made by a great Fire: but the *Encauſtum*, or *Enamel* of the Antients, was quite another Thing from that which we now uſe, and is ſuppoſed to be wholly loſt. The making *Lemery.*

making Enamels is a Work almoſt of the ſame Nature with making artificial Gems, and a Mixture of the ſame Colours, with this Difference, that in Gems the Maſs is tranſparent, according to the Nature of them, but in this it is opacous and ſolid, it being Tin, which gives it ſuch a Body and Solidity. The Ancients made their chequered or Moſaick Work of it; and Goldſmiths now uſe it in colouring and enamelling of Gold.

As for Enamelling, theſe Things muſt be generally obſerved: that the Pots in which the Enamel is made, be glazed with white Glaſs, and able to endure the Fire: that the Maſs and Colours for the Enamel, be well mixed and incorporated: that the Enamel, when well mixed, refined, and of a good Colour, be taken out of the Fire with a Pair of Goldſmith's Tongs: that Care be taken that no Dirt or Aſhes fall in or mix with it.

The Way of making Enamel, is this: powder, grind, and ſearſe well the Colours, and mix them well firſt with one another, and then with the Matter for the Enamel, then ſet them in Pots in the Furnace; when they are all melted and incorporated, caſt them into Water, and when dried, ſet them into the Furnace again to melt, which they will ſoon do, and then make Proof; and if the Colour be too high, add more of the Matter for Enamel; if too light, add more of the Colour till it is exact, then take it out of the Furnace.

The common Matter for all Enamels, is thus made: take fine Lead, thirty Pounds; fine Tin, thirty three Pounds; calcine them together in a Furnace and ſearſe them; boil this Calx a little in fair Water in an Earthen Veſſel; take it off the Fire, and decant off the Water, which will carry off with it the finer Part of the Calx; put freſh Water to the Remainder, and boil and decant it as before; repeat this as often as the Water carries off any Calx; re-calcine the groſs remaining Calx, and then draw off again the more ſubtile Parts as before: then evaporate theſe Waters which carried off the Calx at a gentle Fire, that the Calx may not be waſted, which will remain at the Bottom much finer than ordinary. Take of this fine Calx, Cryſtal Frit made of Tarſo, which is a hard and moſt white Marble, ground and ſearſed fine, of each ſix Pounds four Ounces; of pure white Salt of Tartar, one Ounce; ſearſe and mix them well: Put this Mixture into a new Earthen Pot, giving it a Fire for ten Hours; then powder it, and keep it in a clean dry Place: of this Mixture all Enamels whatſoever are made.

Although theſe Enamels are not made uſe of in Medicine, yet they have their Virtues according to the Qualities of the ſeveral Drugs they are compoſed of; but they muſt be very well ground upon a Marble, if you would have them produce any Effect.

The white, the blue, and the yellow Enamel, are purely Deſiccatives, but the others are Deterſives and Deſiccatives.

To this Account might be added the Manner of preparing the *Encauſtum cæruleum*, and *Zaffera*, both much uſed by the Potters, Glaſſmen, and Enamellers; which are Preparations of *Cobalt*, to be treated of hereafter, and many others: But as they are of no uſe in Medicine, I judge it would be improper to give a long Account of them in this Place.

10. *Of* Copper.

COPPER is a Metal compoſed of a little Salt and Mercury, and abounding in Sulphur and Vitriol: it is alſo called *Venus*, from the Influences it is ſuppoſed to receive from that Planet: it is found in ſeveral Parts of *Europe*, but principally in *Sweden* and *Denmark*, from whence we have almoſt all that we ſell. *Copper* is taken out of the Mine in Sand and Stone, almoſt like Iron; and after it is waſhed and purified from the Earth mixt with it, it is caſt into Moulds of different Figures: To render it true Roſe *Copper*, they melt it the ſecond Time, and when it is well refined, they caſt it into Moulds of Sand, where it falls into Cakes that are not ſmooth, but as we ſee them. When they would make this *Copper* malleable, they melt it a third Time, and afterwards form it into Cakes of three Inches thick, and about fifteen Inches Diameter. Of theſe Cakes, put whole or in Quarters into the Fire, they make Plates, and of theſe Plates they make Cauldrons, by the Means of Hammers that work by a Water-mill, and the Plates are formed into the Veſſels by one that turns theſe Plates, with his Legs covered with Sheeps Skins, whereby he reduces them into what Shapes he pleaſes, with very little Uſe of his Hands. *Pomet.*

Copper is a Metal very hard and dry before it is melted; and when it has been often melted, it becomes ductile, and almoſt as malleable as Gold or Silver. From *Copper* the Chymiſts draw ſeveral Things very proper for divers Uſes, as ſhall be ſhewn hereafter.

Æs, ſive Cuprum, ſive Venus, that is, *Copper*, is a beautiful Metal, ſhining, of a reddiſh Colour, eaſy to ruſt, abounding in Vitriol. It is found in ſeveral Places of *Europe*, but principally in *Sweden* and *Denmark*; it is taken from the Mine in Lumps, which are ſuperficially waſhed to cleanſe it from the Earth that is mixed with it, and afterwards melted with *Lemery.*

vehement Fires. 'Tis to be obſerved, this Metal is very difficult to be melted: they purify it from its *Scoria*, and caſt it into Moulds. When the ſame Copper has been twice or thrice melted, it becomes more pure and ductile, and you have a red Copper more beautiful than the common.

Copper is a Metal of good Uſe in Phyſick, and is ſaid to ſtrengthen the generative Parts in Men and Women; but uſed crude in the Stomach in Filings, or the like, it is little better than Poiſon, being hot to the laſt Degree, and of a cauſtick Nature, cauſing Pain in the Stomach and Belly, Vomiting, Fluxes, Ulcers, and Difficulty of Breathing; and if it be calcined, it is yet worſe. The Cure, if any one be hurt with it, is by warm Water mixed with Oil, Oil alone and Butter, Hogs Lard melted and drank; and if it be got into the Guts, by Clyſters of the like Kind, Salt and Oil of Tartar, and other Alcalies; Juice of Mints, and ſuch other Remedies as are uſed againſt Arſenick.

Thin Plates of *Copper* infuſed all Night in Lime-water only, or in Lime-water mixed with volatile Salt, or Spirit of *Sal Armoniack*, make an admirable *Collyrium* for the Eyes to waſh with againſt Miſts, Clouds, Films, Pearls, Suffuſions, *&c.*

Copper is made or generated of a purple Sulphur, a red Salt, and a Citrine Mercury.

[*Copper* is a Metal ſofter than Iron, ſonorous, ſhining when poliſhed, fuſible, and ductile to a great Degree. It is found in the Mines ſometimes pure, in form of ſmall Rods, Branches, Globules, or Maſſes of different Figures, but commonly is contained in a particular Ore. This, in ſome, is of a ſhining Gold Colour, which ariſes from its Sulphur, and does not ſhew it to be at all the richer; in others it is yellow, Violet coloured, purpliſh, bluiſh, or blackiſh, mixed with gold coloured Sparkles, and green Streaks. *Copper* is ſeldom found alone, but generally accompanied with ſome other Metal, as Silver, Iron, or Lead, and with a large Quantity of a combuſtible Sulphur, hard to be ſeparated from it. Theſe different Ores, are differently managed by the Workmen, according to the different Subſtances they contain: thoſe which contain the greateſt Quantities of Sulphur, muſt ſometimes undergo nine or ten Torrefactions before it can be exhaled; and if Silver is contained in it, they ſeparate it by means of Lead.

There are ſome Springs of *Copper* Waters, from which Vitriol may be made by Evaporation, and *Copper* may be precipitated from them by means of Iron, which has made ſome believe they turned Iron into Copper. The moſt famous of theſe Springs is that in the *Carpathian* Mountains, which will turn a Horſeſhoe of Iron into the Appearance of a Copper one in a very little Time, even corroding the Iron, and ſubſtituting, in ſome Degree, *Copper* in its Place. The ſpecifick Gravity of *Copper* is to Gold as four to nine nearly: when expoſed to Moiſture, it contracts a green Ruſt: it is ſoluble in Water, and to be corroded by all Oils and Salts, its Solution by Acid or fixed alkali Salts is green; by urinous blue: The Filings thrown into the Flame of a Candle burn and emit a greeniſh Flame, but do not ſparkle. *Copper* long calcined, turns to reddiſh Aſhes, which, placed on a Tile before a Burning-glaſs, turn to an intenſely red Glaſs almoſt opake; and this Glaſs laid on a Piece of Charcoal, before the ſame Glaſs, revives into *Copper*. Hence it is evident, that *Copper* conſiſts of a large Quantity of a combuſtible Sulphur, and a red vitrifiable Earth, which ſhewed itſelf pure in the Fire when the Sulphur was all exhaled. It is little uſed in Medicine, for its Salts are truly poiſonous.]

11. *Of* Yellow Copper, *or* Braſs.

YELLOW Copper, is old or broken *Copper* melted and made yellow by means of the true *Calaminaris* Stone. The greateſt Quantity of Braſs or yellow Copper, is made in *Germany* and *Flanders*. They beat this Braſs, and reduce it to the Thinneſs of Paper; and this is what we call Tinſel. They afterwards beat this Tinſel over again, and make it extremely thin, and afterwards put it into little Books of Paper, and call it *German* Gold. They grind this *German* Gold to Powder, to make a Bronze Powder for the Caſters of Statues in Plaiſter, *&c.* which has more or leſs Colour, according to the ſeveral Times that it has paſſed the Fire. They alſo grind this Braſs over and over again, 'till it becomes an impalpable Powder, which they ſell under the Name of *German* Gold in Powder. Others put this Powder Gold into Muſcle Shells, and call it Shell Gold. That Shell Gold is moſt eſteemed that comes from *Augſburg* in *Germany*, and has the Name of *Auguſta*. As to the Choice of the *German* Gold, either in the Leaf, the Powder, or the Shell, that which is fineſt, and higheſt in Colour, is eſteemed the beſt. The *German* Gold is uſed by Painters, eſpecially ſuch as paint in Miniature. The Painters Bronze is likewiſe uſed by them; and alſo to make Figures of Plaiſter have a Braſs or Copper Colour, and for other Uſes.

Beſides the different Preparations that are made of this yellow Copper, the *Venetians*, as I am aſſured, make of it that which the *French* call *Purpurine*,

purine, which heretofore was made uſe of upon Coaches. By means of this yellow Copper, and the Help of Fire, they make that Sort of Vitrification, which the Enamellers call *Avanturine*; and they ſay the Name was given it becauſe this Operation was found by Accident, and without being thought of, by ſome Duſt of yellow Copper which fell into a Furnace where Glaſs was melting. *Avanturine* is all embelliſhed with Spangles of gold Colour. There is alſo an *Avanturine* that is found naturally in ſeveral Places of *France*.

Aurichalcum, yellow Copper, or *Leton*, *Lemery.* is a Mixture of Copper and *Calaminaris* Stone melted together by a very vehement Fire in Furnaces made on Purpoſe. The Diſcovery was made by the Alchymiſts, who endeavouring to turn Copper into Gold, found how to give it a yellow Colour. The greateſt Part comes from *Flanders* and *Germany*. The *Calaminaris* Stone embarraſſes and extends the acrid Salts of the Metal to that Degree, that Braſs does not make the ſame Impreſſion on Liquors, as the red Copper. Beſides, as the *Calaminaris* Stone coſts but little, ſo the yellow Copper is cheaper than the natural.

That which we call Tinſel, is yellow Copper beat to a Leaf as thin as Paper, and is uſed by the Lacemen.

German Gold is Tinſel beat very thin, and kept in little Paper Books for the Uſe of Painters.

The Painters Braſs is the *German* Gold ground to Powder, which is put into little Shells, and called Shell Gold. It is uſed to colour Figures made in Plaiſter, and by them who paint in Miniature.

The common Braſs, which the Workmen call Metal, is an Allay of Copper with *Leton*, or with Tin. They make divers Sorts, which only differ according to the Quantity of Tin which is mixed with the Copper; the Mixture is from twelve Pounds to five and twenty Pounds, to the hundred Weight of Copper.

They uſe Braſs for Clocks, Mortars, and ſeveral other Works. The beſt is that which gives the cleareſt Sound when you ſtrike it.

[*Braſs* is the *Orichalcum*, *Charlt. Foſſ.* 47. *Ald. Muſ. Met.* 126. *Æs flavum*, *Worm.* 122. It is made by melting the Copper and *Lapis Calaminaris* together, which at firſt ſend forth a red Flame, afterwards a blue one, and finally a yellow, which is the Sign by which they know it is perfectly made; when it is cold, it is found to have gained about one third in Weight from the Quantity of the *Lapis Calaminaris* the Copper has taken up, and yet remains as ductile as before, for it may be drawn out into very fine Wire, or beat into very thin Leaves.]

12. *Of* Pompholyx, *or* Flowers *of* Braſs.

THE *Pompholyx*, called *White Calamine*, *Nil*, *Nihil*, *Nihili Album*, or Flowers of Braſs, and improperly, Bronze Aſhes, is that which ſticks to the Cover of the Crucible, and the Pincers of the Founders, when they melt Braſs; and it is certain that nothing but Braſs gives the true *Pompholyx*, and not the caſt Copper, nor the Metal, nor Bronze, as the greateſt Part of the Authors have written. *Pomet.*

Although this *Pompholyx* be eaſy to be come at, yet there are not many Drugs more unknown; which proceeds from the Negligence or Ignorance of the Apothecaries, becauſe they take Tutty and the *Pompholyx* to be the ſame Thing, and therefore they uſe the Tutty inſtead of it.

The beſt *Pompholyx* comes from *Holland*, not that it is in Reality better in Subſtance than any other, but better collected and preſerved. That *Pompholyx* ought to be choſen which is very white, light, friable, clean; it matters not whether *French* or *Dutch*, ſo it be very white.

They who caſt Bells may gather a little of it; but becauſe it is but in very ſmall Quantity, it is not worth while to look after it. Its principal Uſe is externally in Ointments, particularly that which bears its Name, and of which it is the Baſis.

The *Pompholyx*, called in *Latin*, *Nil*, *Nihili Album*, *Capnites*, *Bulla Cadmica*, *Calamites*, *Lemery.* is a Flower of Braſs, white and light, which is found ſticking to the Cover of the Crucible in which they melt Copper with the *Lapis Calaminaris* to make Braſs or Leton. It is found likewiſe ſticking upon the Founders Tongs: But either through Negligence in collecting this Drug, or becauſe the Workmen let it fall in the Fire when they uncover the Crucibles, we rarely find it amongſt the Druggiſts, and are therefore obliged to ſubſtitute Tutty in the Room of it.

The *Pompholyx* ſhould be light, very white, and crumbling. It is deterſive, deſiccative, proper for Wounds. It is not much uſed, but externally for Ointments. Some give from half a Scruple to two Scruples in Intermitting Fevers. It excites Vomiting very violently.

[*Pompholyx* is the *Nil Album*, *ſive Pompholyx*, *Wood. Att. Tem.* ii. p. 50. *Pompholyx*, *Worm. Muſ.* 135. *Kentm.* 72. *Charlt. Foſſ.* 55. *Ald. Muſ. Met.* 16. It is a fine white Flower, or Soot, which ſticks to the Arch of the Furnaces and Covers of the Crucibles in which Calamine and Copper

Copper are melted together for the making of Braſs; it has the ſame Virtues with Tutty, to be deſcribed hereafter, which is generally uſed in its Place. This is the Hiſtory of the *Pompholyx* we uſe; but it is to be obſerved, that this is not the *Pompholyx* of the Antients, which is now wholly unknown in the Shops, and of which *Dioſcorides* mentions two Kinds, one of a Kind of Copper Colour, and moiſt or fatty; the other very white and ſmooth: The Origin of the firſt of theſe is uncertain, but the laſt, he ſays, was made by the Copperſmiths, who, in endeavouring to meliorate that Metal, threw it into large Quantities of powdered *Cadmia*; the fine Duſt that aroſe from this Mixture, concreted into *Pompholyx*. They likewiſe made it by burning *Cadmia* alone in Furnaces for having thrown it in ſmall Pieces into the Fire, near the Nozel of the Bellows, they blew the moſt fine and ſubtile Parts againſt the Roof of the Furnace: This was the *Pompholyx*, and what was reflected back from thence, was the *Spodium* of the Antients, which was heavier, and of a blacker Colour. Both theſe Subſtances might ſtill be had, if their Virtues made them worth the Trouble of preparing: But the Tutty is generally eſteemed to have all their Qualities, and is, as before obſerved, conſtantly uſed in their Place.]

13. *Of the* Æs Uſtum.

Pomet. THE *Æs Uſtum*, or burnt Copper, is made of red Copper cut into little Plates, and put into a Crucible with Sulphur, and a little common Salt, *Stratum ſuper Stratum*, and put into a great Charcoal Fire; when the Sulphur is burnt away, and the Copper taken out, it is of an Iron Colour without, and reddiſh within, being ſhining and very brittle.

The *Æs Uſtum*, if it be in a good Condition, ſhould be moderately thick, and of the Colour beforementioned; and being rubbed one upon another ſhould make a Red like that of Cinnabar, which the *Æs Uſtum*, or burnt Copper cannot do, unleſs ſome Salt be put to it, which is the Secret of the *Hollanders*, whereby they make it better than that of *France*.

The *Æs Uſtum* is of ſome ſmall Uſe in Phyſick, becauſe it is deterſive; but they who make Uſe of it, firſt make it red-hot in the Fire nine Times, and quench it as often in Lintſeed Oil, and then reducing it to Power, uſe it for eating off dead Fleſh; and they call this Powder of the *Æs Uſtum*, ſo prepared, *Crocus*, or Saffron of Copper.

[This has formerly been much in Uſe among Chirurgeons, but the Tedioufneſs of the Preparation, as there is no making it without long and violent Calcination in a Reverberatory Furnace, has made it now little uſed, and but ſeldom ſeen in the Shops: it is drying and aſtringent, with ſome Degree of Acrimony.]

14. *Of* Verdigriſe.

THE natural *Verdigriſe* is a greeniſh Marcaſite like the Droſs of Iron; it is found in Copper Mines, but is of no Uſe that I know of.

The common *Verdigriſe*, or Ruſt of Copper, is made of Plates of red Copper, and the Skins of Grapes, after preſſing, ſoaked in good Wine, put together in a large earthen Pot, *Stratum ſuper Stratum*, that is to ſay, they put an Handful of thoſe Skins at the Bottom of the Pot, and then a Layer of Copper, then another of Skins, and on that another of Copper, and ſo on till the Pot be full; then they put it in a Cellar, and after ſome Days Time they take out theſe Copper Plates, which are covered with a green Ruſt, by the *Latins* called *Ærugo Æris*, and this Ruſt being ſcraped off, the Plates are put in again after the ſame Manner as before; and this muſt be repeated till the Copper is conſumed, or rendered ſo thin, that it may be mixed with the *Verdigriſe*, as it often happens. The moſt Part of the Authors who have treated of *Verdigriſe*, tell us, that it is made with Vinegar, which is not true, for the beſt Wine is not too good for it; and this is ſo true, that there is ſcarce any but *Languedoc* Wine that will make good *Verdigriſe*. It is in and about *Montpellier* that the greateſt Part of the *Verdigriſe* uſed in *France* and other Countries is made, and it is a Commodity very difficult to make, and to hit right, although it ſeems as if nothing were more eaſy; for if never ſo little happens to be amiſs, it grows greaſy and black, and good for nothing, and will never come to a true Conſiſtency. Had not the Receipt been ſtolen from me, I would have told you how they do it at *Montpellier*, which I hope to recover and preſent the Reader with, in the ſecond Edition.

There are ſome Authors, who ſay, that one may make *Verdigriſe* by putting Plates of Copper in a Crucible, with Salt, Sulphur, and Tartar, which being calcined and cooled, the Plates are converted into a very good *Verdigriſe*; but theſe Operations, ſuppoſing them to be true, are at preſent of no Uſe, becauſe all the *Verdigriſe* we ſell, is made in the forementioned Manner.

We have two Sorts of *Verdigriſe* from *Montpellier*, the one in Powder, the other in Cake: To be good, it muſt be dry, of a beautiful deep Green, and with the feweſt Spots poſſible. *Verdigriſe* is a Merchandize that loſes extremely in keeping,

keeping: thoſe who deal in it, mix it with ſeveral Drugs, that there is no Neceſſity of naming, and render it ſo moiſt that the Merchant loſes much by the Waſte of it, beſides what he alſo loſes by the Skin which covers it, for which he pays as much as if it were *Verdigriſe*: Therefore they who uſe it ſhould conſider its Goodneſs, and not ſtand upon the Price; for I can affirm, that there is no Cake of *Verdigriſe*, ſuch as they ſend from *Montpellier*, that weighs twenty-five Pounds, but after it is dry has loſt a third Part; ſo that the *Verdigriſe* that coſt twenty Pence when ſoft, will be worth near eight and twenty Pence when thoroughly dry.

Verdigriſe is a Drug very much demanded, and the Quantity of it that is uſed is almoſt incredible, not only in Phyſick, but by Dyers, Skinners, Hatters, Farriers, and Painters; but it is remarkable, that *Verdigriſe* alone, ground with Oil, cannot be uſed as a Green in Painting, but it is abſolutely neceſſary to add white Lead to it, for otherwiſe, inſtead of being green, it would be black. As for the Properties of *Verdigriſe*, the Principal of them is eating off dead Fleſh. The Apothecaries uſe it in ſome Ointments and Plaiſters, as the *Ægyptiac*, the *Apoſtolorum*, the Divine Plaiſter, and others. They who colour Paper green, make uſe of *Verdigriſe* and white Tartar to give it that Colour.

The Apothecaries and others, who have Occaſion for *Verdigriſe* in the aforementioned Compoſitions, and others, inſtead of the Powder, may diſſolve it in Vinegar, and ſtrain through a fine Sieve, and ſo avoid, in reducing it to Powder, the Effects of the ill Quality of the flying Duſt of *Verdigriſe*.

Lemery.

Verdigriſe, in *Latin Ærugo*, or *Viride Æris*, is a Ruſt of Copper penetrated and rarefied by the acid tartarous Salt of Wine. To make it, they ſtratify Plates of Copper with the Grape Skins when the Muſt is taken from them, and leave them in that Maceration till they are in part converted into a bluiſh green Duſt, which they ſeparate with Knives, and continue the Operation as before, till the whole be turned into *Verdigriſe*. This is commonly the Work of the Women in *Languedoc*, *Provence*, and *Italy*, where the Refuſe of the Grapes have the greater Force to penetrate the Copper, and work upon it with their Salt.

It deterges powerfully, it conſumes proud Fleſh, it attenuates and reſolves, and is uſed only in external Medicines; it is ſharp and digeſting, and cicatriſes Ulcers, being mixed with Oil and Wax, and applied. It likewiſe cleanſes them from their Filth and Putrefaction, although they were the moſt ſtubborn, and had reſiſted all other Remedies.

It is of good Uſe in the Gout, being diſſolved in fair Water, and uſed warm to the Part.

It cures Diſeaſes of the Eyes, and effectually takes off Pearls and Films. But before you uſe it for the Eyes, or for Wounds or Ulcers, you muſt purify it after this Manner: Powder it, and put upon it Spirit of Vinegar ſix or ſeven Times its Weight; digeſt till the Vinegar is tinged very green, which decant, and caſt away the Fæces; then evaporate the Vinegar in a Braſs Veſſel, and ſo you will have a glorious *Verdigriſe* at Bottom, of which one Ounce is worth ten Ounces of the former.

Take of this fine *Verdigriſe* a Drachm; Spirit of *Sal Armoniack*, half an Ounce; Spirit of Wine camphorated, two Ounces; mix them for a *Collyrium* to waſh the Eyes. Take the White of an Egg beaten well with Spring Water, four Ounces, and add to it *Saccharum Saturni*, ten Grains; white Vitriol, ſix Grains; and ſo many Drops of the *Collyrium* as may make it of an Azure Colour, with this waſh the Eyes two, three, or four Times a Day.

This fine prepared *Verdigriſe* being made into an Ointment with Honey, Juices of Wound Herbs, Vinegar, and abſterſive Sulphur of Vitriol, is applicable to weeping Wounds, Ulcers in the Joints, *&c.*

[The Manner of making *Verdigriſe* is this: The Huſks, Stones, *&c.* of Grapes being firſt dried, and after dipped in ſtrong Wine, are laid in wooden or earthen Veſſels for nine or ten Days, till they begin to ferment; then being ſqueezed together with both Hands, they are formed into Balls, which are put into proper earthen Pots, and have Wine poured over them, till about half is covered; the Veſſels have a Straw Lid thrown over them, and are ſet in a Wine Cellar, where the Balls are left in Maceration for twelve or fifteen Hours, being turned every four Hours, that the Wine may penetrate every Part of them; afterwards the Balls, being raiſed a Finger's Breadth above the Surface of the Wine, and ſet upon wooden Bars, the Veſſels are ſhut again, and left in that State for ten or twelve Days more. After which Time the Balls emit a ſtrong and penetrating Scent, and are then fit for diſſolving Copper. For this Purpoſe they are broke and bruiſed with the Hand, and the outer Part, which is drieſt, is mixed exactly with the inner, which is ſtill moiſt with Wine. Then they are ſtratified with Copper Plates in the ſame Veſſels upon wooden Bars; the Plates making always the loweſt *Stratum*, and the Balls the uppermoſt. The Plates are four Inches long,

and

and three broad; and if the Copper be new, they muſt be previouſly buried for four and twenty Hours in *Verdigriſe*, and then heated a little in the Fire. The Veſſels being filled in this Manner, and ſhut cloſe, are left without any farther Management till the *Verdigriſe* is made, which happens ſooner or later, according to the Nature of the Copper; ſome yielding its Ruſt in ſix Days, and ſome requiring fifteen or ſixteen Days. The *Verdigriſe* being compleatly extracted, the Plates covered with it, are taken out of the Veſſels, and their Edges being moiſtened with the ſtrongeſt Wine, they are wrapped up in Linen Cloths dipped in the ſame, and laid in a Wine Cellar for three Weeks, and then it is ſcraped off the Plates, and kept for Uſe.

This is the Method uſed at *Montpellier*, which I have been the more particular in relating, becauſe our Author ſays he intended to have given it, but that the Receipt was ſtolen from him.]

15. *Of* Verdigriſe *cryſtallized.*

Pomet. THE cryſtallized *Verdigriſe*, or Cryſtals of *Verdigriſe*; or, as it is called by Merchants and Painters, Calcined or Diſtilled Verdigriſe, is Verdigriſe diſſolved in diſtilled Vinegar, and afterwards filtred, evaporated, and cryſtallized in a Cellar. Theſe Cryſtals are of ſome ſmall Uſe in Phyſick, to conſume dead Fleſh. They are likewiſe uſed by Painters to make a green Colour, eſpecially for Miniature.

All the Cryſtals of Verdigriſe that we ſell in *Paris*, come from *Holland* or *Lyons*, and are not unlike Sugar-candy, except in Colour, eſpecially to that which is on Sticks: if good, theſe Cryſtals muſt be beautiful, clean, and tranſparent, very dry, and as free from Sticks as poſſible. Here it may be obſerved, that the Verdet which the Apothecaries make, is reduced to Cryſtals by the Means of a Cellar, whereas that which comes to us from the Places beforementioned, is made after the Manner of Sugar-candy, as I have been informed.

I cannot tell what has induced the Merchants to call theſe Cryſtals Diſtilled or Calcined Verdigriſe, ſeeing it is neither diſtilled nor calcined, but made after the forementioned Manner.

They likewiſe make Cryſtals of Verdigriſe by diſſolving Copper granulated in Spirit of Nitre, and afterwards evaporating to a Scum or Pellicle, and ſetting it in a Cellar to cryſtallize.

If you would reduce theſe Cryſtals to a Liquor after having dried them, you muſt carry them back to the Cellar to reſolve them into Water; and this Liquor is called by the Apothecaries or Chymiſts, the Liquor of Copper or *Venus*, and the Cryſtals the Vitriol of *Venice* or Copper.

[Theſe Cryſtals diſſolved, make an admirable Liquor to deterge and dry Ulcers, and eat away fungous and callous Fleſh; and are a good Ingredient, in ſmall Quantities, in Eye-Waters for clearing the Eyes from Specks and Films.]

16. *Of the* Mountain Verdigriſe, *and* Flowers *of* Braſs.

Pomet. THE Mountain or *Hungarian Verdigriſe*, is a Sort of greeniſh Powder in Grains, like Sand, which is found in the Mountains of *Kernauſen* in *Hungary*. It is found likewiſe in the Mountains of *Moravia*. What the Antients call Flowers of Braſs, is made by throwing Water, or rather Wine, upon Roſe Copper, whilſt red, that is to ſay, as it comes out of the Furnace; and this Flower is gathered and found ſticking to other Plates of cold Copper, which they place over them, in ſmall Grains like Sand, and this is made by Vapours which ariſe when they throw Water or Wine upon the hot Copper; and it is that which makes what we call Roſe Copper to be ſo unſmooth, and to be full of little Figures. Others have aſſured me, that the Mountain Verdigriſe was Plates of Copper diſſolved in Wine, and made almoſt after the ſame Manner as Verdigriſe; but as I know no more of it, I ſhall only ſay, that ſuch is to be made choice of as is dry, of a high Colour, well granulated, that is to ſay, like Sand, which is the Mark of natural Mountain Verdigriſe, and makes the Difference between that and the Artificial, which ſome make by pulverizing Verdigriſe, and putting a little white Lead amongſt it.

The Verdigriſe of the Mountain is of no other Uſe but in Painting, principally for making a Graſs Green.

As it is a dear Commodity, and comes from ſeveral Parts, ſo there are different Sorts of it, and different Prices; therefore they who uſe it, ſhould regard the Qualities of it, rather than the Cheapneſs.

[The firſt of theſe is the *Viride Montanum Hungaricum*, *Wood. Att.* 2. *a.* 52. It is not uſed in Medicine, but ſometimes by the Painters.

The *Flos Æris*, *Worm.* 132. *Ch. Foſſ.* 54. is a ſmall granulated reddiſh Subſtance, got by pouring cold Water on melted Braſs, and receiving its Vapour on an Iron Plate. It is commended as an Ophthalmick and Detergent, but is now never uſed nor kept by the Druggiſts.]

17. *Of*

17. *Of* Bronze *and* Bell-Metal.

THIS Bronze Metal, according to Monſieur *Furetiere*, is a Compoſition of Metals, the Principal of which is Copper melted with ſome Part of Tin, or of Braſs; ſome, for Cheapneſs, put in Lead. There is likewiſe another Compound of Copper, which is called *mixed Metal*, or *Bell-Metal*; they give one or the other of theſe Names according to the greater or leſſer Quantity of Tin that is mixed in it, which is from twelve to five and twenty in the hundred. The Dregs of mixed Metal are called *Diphryges*, and are uſed in Phyſick. The Scales of Braſs is what falls from the Braſs when they hammer it and work it.

Diphryges is of a mixed Faculty, meanly aſtringent, ſharp, and of excellent Uſe againſt ſpreading Ulcers. It cleanſes, dries, and conſumes Excreſcences, and being made into a *Collyrium*, is good for dropping Eyes, and ſuch like Diſeaſes of the ſame. The beſt is that which has the Taſte of Braſs, or the Ruſt of it, being aſtringent, and very much drying the Tongue.

As for the Metal itſelf, we uſe it for making Figures, Bells, Mortars, and other Utenſils. The beſt of it is that which is whiteſt, and ſounds like Silver. I ſhould not have been ſo long upon this Head, if it had not been for the ſake of Tutty, which is procured from it, and is deſcribed under the following Head.

[The *Diphryges*, *Charl. Foſſ.* 55. *Aldr. Muſ. Met.* 14. *Worm. Muſ.* 133. is a Recrement of Braſs, which ſubſides on wetting it while in Fuſion; it is acrid and aſtringent, and therefore excellent in ſtubborn Ulcers, but at preſent it is unknown in the Shops.

The Scales, or *Squamæ Æris* of the Shops, are little different from the *Æs Uſtum*, being only the Particles of burnt Copper, which fly off while it is hammered: mixed with Sulphur and *Florentine Orrice* they cure ſtinking Feet, being worn in the Shoes; but this may be attended with very ill Conſequences, for the ſudden Checking the Sweat, which occaſions that Stinking, may bring on Diſeaſes of a much worſe Kind.]

18. *Of* Tutty.

TUTTY of *Alexandria*, or the *Spodium* of the *Greeks*, is a metallick Subſtance in Scales or Gutters, of different Size and Thickneſs, ſmooth within, and rough without, with a Sort of Excreſcences, like Pins Heads; for which Reaſon the Antients called it *Spodium*, or *Tutty* in the Cluſter. The *Tutty* which we ſell in *France* comes from *Germany*, and other Places, where they make mixed, or Bell-Metal. It is wrong to think, what moſt Authors, both new and old, have aſſerted, that *Tutty* is got from the yellow Copper or Braſs, and that it is made at the ſame Time as the *Pompholyx*; for this is not true, ſeeing the *Tutty* is found ſticking to Rolls of Earth, which are hung up, and placed on purpoſe on the Top of the Furnaces where the Founders caſt their mixed and Bell-Metal, to retain the Fume or Vapour, which is like the Smoke in Chimneys; and by the Means of theſe Rolls, the Vapour is retained and reduced into a Shell of the ſame Figure as the Roll: And the Thing is ſo certain, that if one will but look amongſt the *Tutty*, one may frequently find the Earth ſticking to it, therefore it is not made by ſticking to the Bottom or Sides of the Furnace. And that which confirms this is, that all the *Tutty* we have is in Form of a Gutter, and roundiſh.

Tutty ought to be in bright Scales, thick, granulated, of a fine Mouſe Colour without, and a pale Yellow within, hard to break, and as little mixed with Foulneſs as poſſibly can be. *Tutty* has no other Uſe, that I know of, but in Medicine, and that not till it is well beaten. Others burn it, and after waſh it, and make it up into little Balls, which they uſe for Diſeaſes of the Eyes, mixing it with freſh Butter, or diluting it with Roſe or Plantain Water. *Tutty*, well prepared, and incorporated with freſh Butter, is an excellent and ſure Remedy for the Piles. That is moſt eſteemed which comes from *Orleance*, either becauſe it is better prepared, or becauſe it has all along carried the Vogue with it.

Tutty is brought from *Sweden*, *Cyprus*, *Greece*, *Turkey*, and *Ægypt*; but the *Cyprian* is the beſt. It was heretofore brought from *Alexandria*, and therefore Authors, in their Deſcriptions, call it *Tutty* of *Alexandria*. The Difference between the *Pompholyx* and the *Tutty*, or the grey *Spodium*, is this; the *Pompholyx* is more white and light, like volatile Meal; the latter is nearer the Colour of Braſs, heavier, thicker, and fattiſh, which with Vinegar yields a Smell like Braſs. *Tutty*, by ſome, is accounted the better Medicine, and more powerful for the Uſes intended. *Cadmia*, calcined by a violent Fire, and brought to Aſhes, is ſold for *Tutty*; but this is a Cheat: Burnt Ivory is alſo ſold in the Shops under the Name of *Spodium*. *Lemery.*

It is deterſive, deſiccative, proper for Diſeaſes of the Eyes, for drying and cicatriſing of Wounds, and for the Piles. It is only uſed externally, after being ground to a very fine Powder.

[*Tutty* is the *Lapis Tutia*, *Wood. Att.* T. ii. P. 1. p. 50. *Cadmia Botrytis*, *Ald. Muſ. Met.* 16.

Cadmia Capnitis, *Kentm.* 53. There have been a Multitude of various Opinions about this Drug; *Garzias* thought it the Aſhes of a Tree; *Bontius*, a glutinous Earth; and *Douglaſs*, a glutinous clayey Earth of the *Eaſt-Indies* dried in Furnaces. Our Author has given a much juſter Account of it than any of theſe; but it is to obſerved, that the *Cadmia* of the Antients was different from that of the Moderns. It was the Recrement of the Copper Oar, blown off by Bellows while it was melting and ſticking to the Sides of the Furnace of different Figures and Colours, and from thence diſtinguiſhed into different Species. The fineſt Kind they eſteemed that which ſtuck to the very Edges of the Furnace, and was as light as Wood-aſhes. The next was that which hung down from the Arch of the Furnace, called Βοτρυώδης, from its reſembling Cluſters of a middle Weight between the foregoing and the following, and of two Colours, whitiſh and purpliſh, the laſt of which was moſt valued: The third Kind was what being too heavy to aſcend to the Top of the Furnace ſtuck to the Sides; from this two other Kinds were obtained, a bluiſh and a red. Theſe were uſed to deſtroy Cicatrices, and the former for Diſeaſes of the Eyes. The beſt *Cadmia* was found in the Furnaces of *Cyprus*. The Silver Furnaces were alſo obſerved to afford a *Cadmia*, but it was lighter, whiter, and much inferior to the Copper kind; and according to *Galen*, there was a kind of *Cadmia* made from a Species of *Pyrites*. But all theſe Kinds are now unknown in the Shops. And even the *Arabians* were ſo little careful about them, that they gave the ſame Names to other Subſtances; whence a great deal of Confuſion has riſen ſince, eſpecially as ſome of the later *Arabians* have endeavoured to apply to theſe other Subſtances what the Antients ſaid of the different Species of their true *Cadmia*; particularly *Avicenna* ſays of Litharge of Silver, all that *Dioſcorides* has ſaid of *Cadmia*.

The preſent *Cadmia Fornacum*, or *Tutty* of the Shops, is a Recrement of *Calaminaris* melted with Copper, and not of Copper alone, as was that of the Antients: It is, properly ſpeaking, a Sublimation of *Lapis Calaminaris*, from the melting Copper to the upper Part of the Furnace, where it concretes round Iron Rods, placed there into a ſolid Cruſt, which is afterwards beat off into Pieces, like the Bark of Trees: And this was, in all Probability, alſo the *Tutty* of the *Arabians*; for *Serapion* deſcribes a Kind of *Tutty*, produced in the Furnaces where Copper was turned into a yellow Metal.

Tutty is reckoned among the principal Ophthalmick Remedies, it deterges and dries without Acrimony, and is uſed with great Succeſs in Ulcers of the *Cornea tunica adnata*, and Eye-lids; and alſo in Itchings of the Eyes and inveterate Ophthalmias.

Spodium or Putty is not this, but a different Subſtance, mentioned in the Chapter of *Pompholyx*, but very ſeldom ſeen in the Shops.]

19. *Of* Chalcitis.

CHALCITIS, or native *Colcothar*, is a natural Vitriol made red by ſubterraneous Fires in the Entrails of the Earth, which is the Reaſon why *Chalcitis* is found in a Stone of a reddiſh Colour. I ſhall not endeavour to write what the Antients have ſaid touching the different Changes that happen to the *Chalcitis*, nor to explain what is *Miſy*, what *Melanteria*, and what *Sory*, for I cannot tell what theſe three laſt are, or where they may be found. *Matthiolus* upon *Dioſcorides*, p. 729. ſays, that *Miſy* is hard, and like Gold, and gliſters like a Star, and is found in *Cyprus*. That *Melanteria* is found of two Sorts; one growing like Salt at the Entrance of Copper Mines; the other congealed at the Top of the Mines. He ſays, that the beſt *Melanteria* is that which is ſmooth, clean, firm, and of the Colour of Sulphur, and that turns black as ſoon as a Drop of Water is put upon it. As for *Sory*, he ſays it is black, full of Holes, and aſtringent to the Taſte, of a very ill Smell, and that a great deal is found in *Ægypt*, *Libya*, *Spain*, and *Cyprus*. *Pliny*, on the other hand, ſays, that *Chalcitis*, *Miſy*, *Melanteria*, and *Sory*, are the ſame Thing; that the one changes to the other in Proceſs of Time, that is to ſay, *Chalcitis* becomes *Miſy*, *Miſy* turns to *Melanteria*, and *Melanteria* to *Sory*; which I could never find, though I have had a Lump of it above eighteen Years, in which I could never ſee any Alteration, as to its Nature or Colour, though I have been careful to obſerve it. It is true, there is ſome *Chalcitis* that has different Colours in the ſame Piece; but as I have found no Alteration in it by keeping all the Time I had it, I am apt to believe it was ſo naturally.

Chalcitis is to be choſen in pretty large Pieces, of a browniſh Red, of the Taſte of Vitriol, which being put into a little Water, diſſolves eaſily, and being broke, is of a Copper Colour, but ſomething ſhining.

The *Chalcitis*, or natural *Colcothar*, is brought from different Places, as from *Sweden* and *Germany*. It is a Drug very little uſed in Medicine, becauſe very rare; and if it were not an Ingredient in *Venice-Treacle*, there would be ſcarce any Demand for it. The Dearneſs and Scarcity of this

this Stone has given Occaſion to many Counterfeits, and to ſeek for *Succedaneums*, as the *Colcothar*, or Vitriol made red, the white Vitriol calcined, the *Lapis Calaminaris*, becauſe of its Colour, and ſeveral other Things; ſo that Perſons who want the true *Chalcitis*, muſt apply to honeſt People, and not ſtick at a Price.

The *Chalcitis* of *St. Chriſtophers* is very different from this, it is greeniſh, like Vitriol half calcined, but it begins to be ſold for the true.

Lemery.

Chalcitis is a Vitriol naturally calcined by the ſubterranean Fires, and rendered into Pieces of Stone, pretty big, red, and ſometimes ſtreaked within with yellow Veins ſomething ſparkling. It is found in Copper Mines, and within ſide participates of that Metal. It is melted by Fire. It is brought ſometimes from *Germany* and *Sweden*, but is generally very ſcarce in *France*.

That is moſt preferable, that is in pretty large Pieces, of a browniſh red without, which being broke, is of a Copper Colour, ſomething ſhining, of the Taſte of Vitriol, and eaſily diſſolved in Water.

The *Chalcitis* is hot, dry, deterſive, and very aſtringent. It ſtops Bleeding at the Noſe. It is uſed internally and externally; and in the Compoſition of *Venice-Treacle*; but not being eaſily got, they commonly ſubſtitute an artificial *Colcothar*, which is a green Vitriol calcined to a Redneſs, in the Room of it. It is of thinner Parts than *Sory*, but thicker than *Miſy*. In a *Collyrium* it cleanſes, dries, and heals the Eyes. The ſame *Collyrium*, if weakened with Roſe-water, prevails againſt *St. Anthony's Fire*, and all Sorts of creeping Sores, whether of Skin or Fleſh. With Juice of Leeks it is ſaid to ſtop a Flux of Blood at the Noſtrils, as alſo in Wounds, and of the hemorrhoidal Veins. It is good againſt Vices in the Gums, and eating Ulcers of the Tonſils, the Powder of it being laid upon the Part affected. Burnt, and mixed with Honey, it helps callous and rough Eyebrows, Fiſtulas, Leproſy, and other cutaneous Diſeaſes.

They who diſtinguiſh *Miſy* from *Chalcitis*, ſay, it is a natural mineral Excrement almoſt like Gold, which gliſters when it is broken. It is commonly bred upon the *Chalcitis*, and is only the Recrement of that Mineral, being bred thereon, as Verdigriſe is upon Braſs. It is very aſtringent, burning, and of much thinner Parts than *Chalcitis*, but is of the ſame Virtue with it, as being bred from it, but in a different Degree. That which comes from *Ægypt* is accounted the beſt, and is more corroſive than *Chalcitis* or *Sory*; being calcined and burnt, or waſhed, it is good againſt malignant Ulcers or Fiſtulas. With Lime-water, in which a little *Sal Armoniack* is diſſolved, a *Collyrium* may be made by infuſing the Powder. That Water is likewiſe good to waſh malignant Sores, and running Ulcers.

The *Melanteria* of *Dioſcorides*, according to *Matthiolus*, is a mineral vitriolick Matter, of which there are two Kinds. One is found like a Salt upon the Entrance of Copper Mines, from whence they gather it. The ſecond is found at the Top of the ſame Mine, in a firm, ſmooth, clean Stone, of the Colour of Sulphur. *Dioſcorides* prefers this latter Sort to the firſt, and chiefly when it grows black upon being melted with a little Water. He ſays the *Melanteria* is found in *Cilicia*, and ſeveral other Countries: He attributes a cauſtick Virtue to it. This Drug is unknown to us; and many believe, with *Pliny*, that it is nothing elſe but the *Chalcitis*, which has taken ſeveral Shapes and Colours in the Mine. However it is, we ſubſtitute the natural *Chalcitis* in the ſtead of it.

Sory is a ſtony Mineral, vitriolick, groſs, impure, porous, or naturally pierced with many Holes, fattiſh, black, of an ill Smell, and a ſtyptick Taſte. It is found in the Mines of *Cyprus*, *Spain*, *Libya*, and *Ægypt*; and, as *Matthiolus* ſays, it is found in the Dukedom of *Brunſwick*. Many have thought it to have been a *Chalcitis* grown old, and that has lain long in the Mine; but there is more Probability that it was a Mixture of Vitriol and Bitumen calcined by ſubterranean Fires. There has been none of it found for many Ages, at leaſt it has been neglected, and we ſubſtitute the *Chalcitis*, or natural red Vitriol in the Room of it. It was drying, burning, and aſtringent, not much differing from *Miſy*, but of thicker and groſſer Parts, and therefore leſs piercing.

[The natural *Chalcitis* is the *Chalcitis*, *Worm.* 26. *Aldr. Muſ. Met.* 240. *Kentm.* 15. *Chalt. Foſſ.* 11. is a Foſſil Subſtance reſembling Copper, brittle, but not ſtony, and variegated with a Mixture of ſhining Veins, and in the Fire turns to a Red Lead or Blood Colour: it is acrid and aſtringent, is uſed in Hemorrhages, and is an Ingredient in the *Theriaca*: but as it is very ſcarce, the common *Colcothar* of Vitriol, or Vitriol calcined to a Redneſs, are uſed in the Place of it.

The *Miſy*, *Sory*, and *Melanteria* are Foſſil Subſtances, much reſembling *Chalcitis*, and each other, and are found chiefly in the Mines of *Cyprus*. *Galen* ſays, he found the *Chalcitis*, *Miſy*, and *Sory* in the Mines, lying in long *Strata* upon each other; the *Sory* at the Bottom, *Chalcitis* in the Middle, and *Miſy* at the Top. He alſo affirms, that *Chalcitis* certainly, in length of Time, changes

into *Miſy*; for that having kept a Piece of *Chalcitis*, which himſelf took out of the Mine, thirty Years, he found the outer Surface of it changed into *Miſy*, the Middle remaining unaltered; he alſo obſerved ſome ſmall Alteration in *Sory*, which made him conclude, that it is in like Manner changeable into *Chalcitis*. The firſt of theſe is the *Miſy*, *Worm.* 26. *Aldr. Muſ. Met.* 341. *Charlt. Foſſ.* 11. *Kentm.* 15. I tis a Foſſil yellow Subſtance, ſhining like Gold, and ſparkling when broken, growing from *Chalcitis* as Verdigriſe does from Copper, and ſeeming to be nothing more than an Efflorescence from it. It is eſcharotic and aſtringent.

The *Sory* is the *Sory*, *Worm.* 26. *Ald. Muſ. Met.* 341. *Charlt. Foſſ.* 11. *Kentm.* 15. It is a Foſſil Subſtance, firmer, harder, and more compact than *Chalcitis*, which emits Sparkles by Attrition: it is ſpungy, full of Holes, of a viſcid Texture, black Colour, aſtringent nauſeous Taſte, and of a very ſtrong Smell. The *Ruſma*, uſed by the *Turkiſh* Ladies as a Depilatory, ſeems to be this very Subſtance from *Bellonius's* Deſcription: It is a violent Emetick.

The *Melanteria*, is the *Melanteria*, *Worm.* 26. *Ald. Muſ. Met.* 341. *Charlt. Foſſ.* 11. *Atramentum nigrum ſeu Sutorium Græcis Melanteria*, *Kentm.* 14. It is of two Kinds; the firſt found like concreted Salt, in the Paſſages to Copper Mines; the other hanging down from the Top of the Mines. The beſt is reckoned that which is of a pure Sulphur Colour, ſmooth, clean, and even; and which turns black as ſoon as it touches Water. It has the ſame Virtues with the former, but is, like them, ſcarce ever to be ſeen in the Shops.]

20. *Of* Roman Vitriol.

Pomet. ROMAN *Vitriol* is a Salt partaking of a mineral Quality, and compoſed of a ſulphureous Earth: its Origin may be aſcribed to a Sort of Marcaſite, found in Iron and Copper Mines, to which the Antients have given the Name of *Pyrites:* It is drawn from this by the Means of Water. This Stone is found under our Clay-pits at *Paſſy*, within a League of *Paris*, and ſeveral Operations have been performed upon it; and, as I have been aſſured, it was with this that a certain Abbot made his univerſal Medicine. The *Pyrites*, from whence they extract the *Roman Vitriol*, is found in ſeveral Parts of *Italy*. To reduce this Marcaſite to Vitriol, they expoſe it for ſome Time to the Weather, that ſo the Air may penetrate into it, and that it may calcine and turn into a Calx of a greeniſh Colour. When the *Pyrites* is fit for working, they throw it into Water, and afterwards, by the Help of Fire and wooden Tubs, reduce it to Cryſtals, ſuch as we receive from *Italy*. In a word, all the Vitriols are made as they make Allum in *England*, or Salt-petre with us. All the Difference that there is between the ſeveral Vitriols proceeds from the different Places where the Mineral is found; and as it participates of the Copper or the Iron: The Vitriols which have moſt of the Copper are thoſe of *Cyprus* or *Germany:* They which have moſt Iron are the *Roman Vitriol*, and that from *Piſa* and *England*. When the firſt are rubbed upon the Blade of a Knife, wet with Spittle, they make it look red; on the contrary, the *Roman Vitriol*, and that of *Piſa* and *England*, do not change the Colour of the Knife-blade: And this has given ſome People an Opportunity of counterfeiting *Roman Vitriol* by *Engliſh*, which they do by waſhing it a little, and expoſing it to the Air for ſome Days, till from a green it turns to a greyiſh Colour; but this is eaſy to be found out, becauſe the true *Roman Vitriol* is in thick long Pieces, of a Graſs Green, very difficult to melt, and being broke, is tranſparent as Glaſs; from whence (the *Latin* Word for Glaſs being *Vitrum*) ſome pretend that it takes its Name: Others will have it, that the Name of *Vitriol* is myſterious, and that every Letter of it is the initial Letter of a Word; ſo that it is as much as to ſay, *Viſitando Interiora Terræ, Rectificando Invenies Occultum Lapidem, Veram Medicinam.*

The true *Roman Vitriol* is much ſought for at preſent, both becauſe of its Scarcity, as well as becauſe it is the moſt proper for the making a white Powder, which they call the *Sympathetick Powder*, which is only *Roman Vitriol* expoſed to the Air and the great Heat during the Dog-days for a conſiderable Time. When it becomes extremely white by the Calcination which the Sun has given it, it is made uſe of for Wounds, and to ſtop Blood. Some mix Gum *Tragacanth* with it. They bring us likewiſe from *Italy* another *Vitriol*, which comes near the Colour of the *Roman*, only it is greener, and in leſſer Pieces, and is what we call *Vitriol*, or *Copperas* of *Piſa*, and is made uſe of by the Dyers.

The third *Vitriol* is of a martial Nature, and as it is more common, is alſo cheaper; this is the *Engliſh Vitriol*, or common Copperas: It is much uſed by Dyers, Hatters, and others, who have occaſion for a black Colour; and they ſay that that which makes the Copperas dye black, is becauſe the Stone it is prepared from participates of the Iron; others will have it, that it is becauſe they who make it throw old Iron into the Liquor.

The neceſſary Qualities in right *Engliſh* Copperas is, that it be dry, of a clear tranſparent Green, with as few ſmall and whitiſh Pieces as poſſible.

Of

Of the Cyprian *or* Hungarian Vitriol.

This *Vitriol* has its Name from the Places from whence it is brought; it is of a Sky-blue, and in large Cryſtals. Notwithſtanding all the Pains I have taken to diſcover what the *Vitriol* of *Cyprus*, which we ſell, might be, I have not been able to learn it. The Sentiments of Authors differ exceedingly about it, ſome ſay it is a Cryſtallization made of a blue Water which is found in Copper Mines. A Perſon of Worth and Honeſty has affirmed to me, that the *Vitriol* of *Cyprus* was made of Roſe Copper diſſolved in the Spirit of *Vitriol*, and afterwards cryſtallized. Another has told me, that it was made of *German* Copperas; but not knowing which Part to take amongſt the three, I ſhall only ſay, that it partakes of Copper, and that two Sorts of it are brought to us from *Cyprus*; one in large Pieces, which we call the *Company's Vitriol*, becauſe the Merchants trading to the *Indies* bring it to us; the other cut into Bits on Purpoſe, with Points like Diamonds, to make it look more beautiful, and promote the Sale.

The *Vitriol* of *Cyprus* or *Hungary* is to be choſen of a fine ſky-coloured Blue, eſpecially when broken; for being a Commodity eaſily to be penetrated by the Air, it will come to be of a whitiſh grey on the Outſide, which does not at all diminiſh its Goodneſs, but renders it not ſo ſaleable to the Eye; and a Sign that it is the Superficies only that is damaged, is this, that by putting it to the Tongue, upon the Approach of the leaſt Moiſture, it will come to its Colour. Some Perſons have aſſured me, that ſo piercing a Spirit is drawn from the *Vitriol* of *Cyprus*, that it will break any Glaſs Veſſel of whatſoever Thickneſs; and yet though ſo piercing, being mixed with an equal Quantity of Water, it is a ſovereign Remedy for conſolidating all green Wounds, and ſtopping of Blood; which is probable enough, becauſe we have no Drug more aſtringent, or that ſtops Blood better than the *Vitriol* of *Cyprus*. This *Vitriol* is much uſed by ſeveral Artiſts. Some Perſons carry it about them for Blotches in their Face.

This, as well as the *Roman*, is uſed for the ſympathetick Powder.

Of German Vitriol, *or* Copperas.

The *German Copperas* is a *Vitriol* of a bluiſh Green, clear and tranſparent, which is made and cryſtallized at *Goſſelar* in *Saxony*, whence it is that this *Vitriol* is called *Goſſelar*, or *Saxon Vitriol*. The largeſt Pieces, cleareſt, and moſt tranſparent, are to be choſen, and the drieſt that can be.

The *German Vitriol* is of much uſe in Medicine, as being that from whence the Chymiſts draw moſt of their Preparations, as ſhall be ſhewn hereafter. It is alſo this Kind which is uſed in making *Aqua fortis*. It is likewiſe uſed by the Dyers. This may be uſed for ſtopping Blood in Caſe of Neceſſity, inſtead of the *Vitriol* of *Cyprus*, but it has not ſo much Efficacy.

Of White Vitriol.

The *White Vitriol* which we fetch from *Germany*, is the Copperas of *Goſſelar*, beforementioned, calcined to Whiteneſs, and afterwards put into Water and filtred, and reduced to Salt; and when it begins to coaggulate, the *Germans* make it into Lumps of forty or fifty Pound Weight, of the Shape we ſee them in. It is therefore an Abuſe put upon us by a modern Author, who would make us believe that the white Copperas is found near Fountains, and is the moſt purified of all from any metallick Subſtance. This Copperas ought to be pretty hard, white, and of the neareſt Reſemblance to fine white Sugar that can be. Care muſt be taken to keep it from the Air, for when that gets to it, it becomes yellow and unſaleable.

This Copperas is of ſome Uſe in Phyſick: People put it into Roſe or Plantain Water, with Orice and Succotrine Aloes, to cure Diſeaſes of the Eyes. Painters uſe it, when calcined, to put in their Colours that they may dry; but Farriers uſe the greateſt Quantities of it.

By Help of the Spirit of Vitriol they draw Cryſtals from this white Copperas, which are what we call *Gilla Vitrioli*, or emetick Vitriol, becauſe being taken from twelve Grains to a Drachm in Broth, or other Liquor, it gives an eaſy Vomit. An aperitive Mineral Water may be made by diſſolving ten Grains of this *Gilla Vitrioli* in ten Pints of River Water.

Of the Spirit, Salt, *and* Oil *of* Vitriol.

They draw from the *German* or *Engliſh* Vitriol, calcined to a Whiteneſs, by means of Fire and a Retort, a Phlegm, a Spirit, and an Oil; but becauſe the Operation is long and troubleſome, I ſhould not adviſe any one to concern themſelves with it: Beſides, the Spirit and Oil of Vitriol, which we Apothecaries and Chymiſts in *France* make, is not near ſo good, nor can be afforded ſo cheap as thoſe brought from *England* and *Holland*. This muſt be taken Notice of, that what we call Oil of Vitriol, is only a Spirit well rectified from its Phlegm, and not an Oil; for Oils are fat Subſtances, and will ſwim on Water, but the Oil of Vitriol is not ſuch, but eaſily intermixes with watry Liquors.

That which is called *Spirit* of *Vitriol* is the Liquor which comes immediately after the Phlegm, which

which, if right, ought to be as clear as Water, of a Taſte ſomething ſharp, and being put upon white Paper, and held to the Fire, become black. They uſe this Spirit of Vitriol very commonly in Phyſick for Cooling, and upon other Occaſions. The Spirit of Vitriol, well cleaned of its Phlegm, is what we improperly call *Oil* of *Vitriol*; it ought to be of a dark Colour, of ſo piercing and cauſtick a Taſte, that it is impoſſible to endure it upon the Tongue. They are in the wrong who think that acid Spirits need not be ſtopt, becauſe they pretend that they do not evaporate, which is true; but this Spirit being throughly diveſted of its Phlegm, if you leave it in a Bottle unſtopped, the Air gets into it, increaſes its Bulk and Weight, and at laſt becomes as inſipid as Water.

The Oil of *Vitriol* is very corroſive, and therefore made uſe of to diſſolve Metals: It is taken inwardly for the ſame Diſtempers as the Spirit, but muſt be uſed in leſſer Quantities, becauſe it has greater Strength in it. Spirit of Vitriol ſhould be bought of ſuch Perſons as one can truſt, becauſe there are ſome who make Spirit of Vitriol, by mixing *Aqua fortis* with Water, which they are able to afford at a cheap Rate; and this Spirit of Vitriol, made with *Aqua fortis*, is called the *Philoſophick Spirit* of *Vitriol*, of which you muſt carefully beware.

As to the Water and Phlegm of Vitriol, which I mentioned before, it is of no Uſe becauſe it is inſipid, yet ſome People waſh their Eyes with it.

Monſieur *Lemery* ſays, that you muſt uſe *Engliſh* Vitriol, or Copperas, for the forementioned Operations, becauſe it is not of ſuch Acrimony as the *German:* However all they who work with Vitriol make uſe of the *German*; but I leave the Deciſion of this Point to them that have more Experience in it than I have. That which remains in the Retort, after Diſtillation, is a reddiſh Earth which the Chymiſts call the *Caput Mortuum* of Vitriol, artificial *Colcothar*, or rubified Vitriol. One may draw a Salt out of it by the Means of Water and Fire, which is what they call *Salt* of *Vitriol*, and is made uſe of as *Gilla Vitrioli*, only not to be taken in ſuch large Doſes. The *Salt* of *Vitriol* ought to be white, and faithfully prepared; it is a common Deceit to ſell the *Gilla Vitrioli*, or green Vitriol calcined to a Whiteneſs, for the *Salt* of *Vitriol*.

The *Colcothar* has ſome little Uſe in Medicine, foraſmuch as ſome People employ it inſtead of *Chalcitis*, becauſe it is cheaper, and has the ſame Qualities. Some Apothecaries put *Colcothar* into their *Diapalma*, as well to make it red, as to humour the Surgeons, who are pleaſed that the Publick do not know that it is nothing but *Diapalma*; and to diſguiſe it the better, they call the Plaiſter by the Name of *Diachalciteos*.

They make with the *Colcothar*, burnt Alum, Sugar-candy, Urine, and Roſe-water, a very aſtringent Water, and proper for ſtopping of Blood, as Monſieur *Lemery* has obſerved, to whom the Reader may have Recourſe. There is alſo another ſtyptick Water of Monſieur *Faveur*, deſcribed by Monſieur *Charas*.

It is to be obſerved, that the *Colcothar* is improperly called *Calcanthum*, becauſe the Word *Calcanthum* ſignifies nothing elſe but Vitriol.

Vitriol is a mineral Salt drawn, as Saltpetre, by Lotion, by Filtration, by Evaporation and Cryſtallization, from a Sort of Marcaſite, called *Pyrites* or Fire-Stone, of which I ſhall ſpeak in its Place. It is found in the Mines in ſeveral Parts of *Europe*, as in *Italy* and *Germany:* There are ſome Sorts alſo found about *Paris*. *Lemery.*

This Foſſil or Mineral, conſiſts of an acid Salt, Earth, Iron, and Copper. The diſtinguiſhing Mark of Vitriol conſiſts in the black Colour, which it communicates to an Infuſion of Galls. That it is an acid Salt appears plainly, not only by its being chymically analized (for a great many cavil, that an acid Spirit may be produced by the Violence and Force of the Fire) but alſo from the bright red Colour that a Solution of Vitriol imparts to blue Paper. The Earth of Vitriol precipitates or falls to the Bottom of the Crucible, when the Solution of fixed Nitre is poured upon a Solution of Vitriol. As to Iron and Copper, it is not to be doubted that they are contained in Vitriol; for by pouring the Spirit of Salt, or Vitriol, upon the Filings of Iron, an excellent Vitriol of *Mars* or Iron is made, and by placing Plates of Iron or Copper in a Crucible, with ſome common Brimſtone interſperſed, a Vitriol is produced by the Help of Fire: Wherefore it is very probable that the Vitriol of *Mars*, or Iron, and the Vitriol of *Venus*, or Copper, are bred in the Bowels of the Earth, from the acid Juices or Liquors corroding the Copper.

White Vitriol, vulgarly called *Eye Copperas*, is a Mineral Vitriolick Salt, found in the Earth near unto Fountains, and the moſt of all depurated from a metallick Mixture; or it is made by diſſolving the *Roman* or dark Green Vitriol in Water, and then boiling it till all the Water is evaporated, and the Vitriol turned into large white Lumps like Sugar, which being expoſed to the Air, turn outwardly of a reddiſh or yellowiſh Colour. It is the leaſt acrid of any of the Vitriols.

It is to be choſen in large white Lumps, pure and clean, reſembling Loaf Sugar, of a ſweet Taſte,

Taſte, aſtringent, accompanied with an Acrimony. It contains abundance of Phlegm and acid Salt, a little Sulphur like common Sulphur, and ſome Earth.

The white natural Vitriol needs no Manner of Preparation, being of great Uſe and Force in a Looſeneſs and Bloody Flux, and frequently uſed for that Purpoſe in Camps and Hoſpitals. The other White Vitriol is thus purified: Take White Vitriol, what Quantity you pleaſe, diſſove it in Phlegm of Vitriol, or in Rain Water; then filtrate, evaporate, and ſet it to cryſtallize. This is that which is called *Gilla Vitrioli*, and *Gilla Theophraſti*.

It heats, deſiccates, aſtringes, or conſtipates, yet excites Vomiting. It powerfully extricates tough Phlegm out of the Ventricle, by its emetick Force, yet may be given to Children. It kills Worms, and ſtrengthens the Stomach and Brain, and is good againſt Convulſions and Epilepſies; it cleanſes and ſtrengthens the Womb, and is uſed in Injections againſt a *Gonorrhœa*, and the Whites in Women, a Drachm thereof being mixed with a Pint of Spring Water, and ſo uſed with a Syringe. Inwardly, as a Vomit, it is an excellent Remedy againſt Fevers; Doſe from twelve Grains to a Grachm in Broth, or other Liquor. It cleanſes the Stomach from all Impurities, eaſes the Head-ach, ſtops Fluxes, and is good againſt *Quotidian* and *Tertian* Agues.

There are two Things obſervable in Regard to this *Gilla Vitrioli*, *Firſt*, That in making it all the Liquor may be evaporated away without any Cryſtallization, ſo the *Gilla* will remain at the Bottom in a white Powder. Next, that after taking this Vomit, the Sick ſometimes voids by Stool a black Matter, like Ink; becauſe it often happens that ſome Part of the *Gilla* deſcending into the Guts, meets with a ſtyptick Matter, almoſt of the ſame Nature as Galls, which cauſes that Blackneſs.

The ſympathetick Powder is white Vitriol opened and prepared; it ought to be placed upon a Stone, ſo as to receive the Beams of the Sun reflexively, from a large Burning-glaſs, by which it will be ſooner done than by any Furnace whatſoever, and the calcined Powder is to be kept in a Glaſs cloſe ſtopt for Uſe. It is uſed in the magnetick Cure of Wounds. Diſſolved in Water, and uſed outwardly, it dries, binds, and heats much, and has the Virtue of the *Gilla*.

The *Aqua Styptica Compoſita*, or the Compound Styptick Water, is made of this Vitriol, and other Ingredients in the following Manner. Take purified white Vitriol, Roch Alum, of each an Ounce; *Saccharum Saturni*, half an Ounce; Spring Water, two Quarts; mix and diſſolve over a gentle Heat, digeſt cloſe ſtopt ten Days; decant the clear, filtrate, and keep it for Uſe. This is an eaſy Preparation, and of few and ſimple Ingredients, but of no mean Uſe. It is a good Injection (Univerſals being firſt premiſed) againſt the Whites in Women, and the *Gonorrhœa* in Men, though of never ſo long ſtanding, and poſſibly may do more in two, three, or four Days Time, being injected, than all other Medicines could do in as many Years: It ſtops Bleeding in any Part, heals Ulcers, and infallibly cures all Sorts of Tetters, Ringworms, Scabs, Scurf, Morphew, and inveterate *Herpes* in any Part of the Body, if daily waſhed therewith, two or three Times a Day, for half an Hour at a Time, and as hot as can be endured; injected as a Clyſter, it kills the Worms called *Aſcarides*.

There are ſeveral Sorts of Green Vitriol, as the *German* or *Hungarian* Vitriol, the *Engliſh* Vitriol, and the *Roman* Vitriol.

As for the Green *Hungarian* Vitriol, the Native is found in Mines like Copper. The Factitious is made of the Marcaſite, called *Pyrites* or the Fire-Stone, with or without Additions of Copper, and is brought to us from *Dantzick*, out of *Germany*, *Hungary*, *&c.* The beſt is the greeniſh, and of that, that which participates more of Copper than of Iron, which rubbed on a Knife, colours it red; that which is ſubceruleous, pale, aquoſe, and moiſtens the Hands, is not ſo good.

The Factitious is that which is made either of Water coming from vitriolick Springs, evaporated and cryſtallized, or elſe made from vitriolick Marcaſites, the *Pyrites*, or Fire-Stone (with Additions of Copper) which is found in Grounds abounding with metallick Seeds, and inclined naturally to the Generation of Sulphur. It is known by burning, for it yields a ſulphureous Fume, not unlike Brimſtone. This powdered and expoſed to the Air, yields on its Superficies a little white and ſharp Salt melting in the Mouth, at firſt ſweetiſh, then ending in a vitriolick Harſhneſs. From this Powder Vitriol is thus extracted; it is diſſolved in Rain Water, by boiling in a ſlow Heat, then filtrated, evaporated, and cryſtallized; ſo you have an excellent greeniſh Vitriol.

Out of any of theſe three Kinds of greeniſh Vitriols, all the great and famed Medicines are made. It goes ſometimes by the Name of *Dantzick* Vitriol; it may be purified after the ſame Manner as the white, and the *Gilla* of it has all the Virtues as the other, but is much ſtronger, and ought to be given with Caution and Diſcretion, and only to ſtrong Perſons; and if given to the Sick, they ought to be provoked to vomit, leſt it ſhould ulcerate the Tunicles of the Stomach and Bowels.

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The ſympathetick Powder is much better to be made with this than with white Vitriol, as being much more powerful to all the ſame Intentions of curing Wounds, and the like: And as to the Compound Styptick Water of white Vitriol, the ſame may be done with the *Hungarian*, only the Proportion of it muſt be ſomething leſs. It is ſuperior in Virtue, and may do Wonders, if in a wiſe Man's Hand; but for vulgar Uſe the former is better, becauſe it may be truſted with Perſons that are leſs ſkilful, and there will be no Danger of their doing Miſchief with it.

The Styptick Water of Monſieur *Faveur* is made after this Manner: Take of Vitriol twenty-five Pounds, diſſolve it in fair Water, ſtrain it through a coarſe Cloth, boil it in a Copper Veſſel for a Quarter of an Hour; remove it from the Fire, and put to it immediately half a Pound of Spirit of Vinegar to cauſe the earthy Parts to ſettle; let it ſtand twelve or fourteen Hours, that the *Terra* may precipitate, then decant the clear Liquor. This *Terra* or Precipitate waſh well, dulcify, and dry over hot Embers; of which take eight Ounces, put it into a Glaſs Retort, upon which pour Spirit of Vitriol, well rectified from its Phlegm, eight Ounces; diſtil with a gradual Fire, ſoft at firſt, and at length very violent, continuing it ſo till nothing more will come. Take the *Caput Mortuum*, reduce it to Powder, and with Alcohol, or tartarized Spirit of Wine, enough to cover it five Inches over, in a Matraſs well luted. Set it in a ſoft Heat to digeſt for twenty-four Hours, till the Spirit of Wine becomes very red; filtre it hot, and draw off the Spirit in a Glaſs Alembick, ſo you have at the Bottom a whitiſh Powder: Take of this Powder one Ounce; Rain Water four Ounces, digeſt in the Sun for ſome Days, then filtre and keep it for Uſe: But the ſame Perſon, in making the ſame Water, did ſometimes put double the above limited Quantity of Spirit of Vitriol, and then only drying the *Caput Mortuum* in a Crucible till it became yellowiſh, he to two Ounces of it put only three Ounces of Rain Water; digeſted them together for ſome Hours, then filtrated, and kept the Liquor cloſe ſtopt for Uſe, as an extraordinary Remedy againſt all Hemorrhages, or violent Fluxes of Blood.

To conclude, the *German* or *Dantzick* Vitriol is in green Cryſtals, inclining to a blue, of an aſtringent acrid Taſte; it participates of Copper, and is that which is uſed to make *Aqua fortis*.

The *Engliſh* Copperas is in Cryſtals of a dark green Colour, of a ſweet aſtringent Taſte, coming near to that of white Vitriol: It participates of Iron, and does not make it change its Colour. It is more than half of it Phlegm, a great deal of acrid Salt, Sulphur, and Earth. One may draw from this Vitriol a very good Spirit of Vitriol by Diſtillation, as I have ſhewn in my Book of Chymiſtry.

This Vitriol is made in *England*, upon the River of *Thames*, from vaſt Quantities of the Marcaſite *Pyrites*, or Fire-Stone, with the Addition of old Iron. Of this Copperas, with Galls, or any other aſtringent Vegetables, you may make Ink, and the Black for Dyers; yet ſome think that the Vitriol of Copper is better, becauſe that Experience teaches the Refiners that *Aqua fortis* made with Copperas, or Vitriol of Iron, will carry its Foulneſs through all their mediate Solutions.

Dark Green, or *Roman* Vitriol, vulgarly called *Common Green Copperas*, is prepared about *Rome* in *Campania*, being extracted out of Clots or Lumps, of an Aſh-colour inclining to black, like Potters Clay; which being expoſed to the Air, gradually heat and ferment, and being diſſolved ſome Days after in fair Water, they yield this Sort of Vitriol, but from the freſh Clots no Vitriol can be obtained. The *Roman* Vitriol is alſo prepared in ſome Parts of the Kingdom of *Naples*; it is of a paler Green than the *German Vitriol*, but almoſt of the ſame ſtyptick Taſte.

The blue Vitriol, or celeſtial Stone, is called *Cyprian*, or *Hungarian Vitriol*, becauſe it is brought to us from thoſe Countries. It is in Cryſtals of a very fine ſky-coloured Blue. It is not certainly known after what Manner it is made; ſome think it is extracted by the Evaporation and Cryſtallization of the blue Water that is found in the Copper Mines: Others ſay it is an artificial Operation, performed by a Diſſolution of Copper, in a weak Spirit of Vitriol, evaporated and cryſtallized. However it be, it participates much of the Copper, which gives it the blue Colour. It is acrid and ſomething Cauſtick; it comes in great and leſſer Pieces; the little ones are pointed like Diamonds. It contains much acrid Salt, or a corroſive Acid of Sulphur, but leſs Phlegm and Earth than other Vitriols.

The artificial Vitriol of *Venus* is made by taking little thin Pieces of Braſs, about the Bigneſs of a Shilling; firſt put a Layer of Sulphur, then a Layer of Pieces, filling a Pot full, *Stratum ſuper Stratum*, and calcine in a Furnace for two or three Hours; or calcine firſt the Copper by itſelf, and then beating the *Calx* to Powder, calcine it again, having firſt mixed with every Pound of *Calx* ſix Ounces of Sulphur, ſtirring it continually as it burns, that it may not ſtick to the Pan, and become black. Powder the *Calx* again, and calcine and repeat it three Times, till the *Calx* becomes very red. Take of this red *Calx* in Powder

one Pound; fair Water ſix Pounds; boil them together for about four Hours; let it cool and ſettle; decant the clear ſapphirine Liquor, and filtrate it after it has ſtood about two Days. The remaining Copper calcine, as before, with Sulphur three Ounces; and with Water in like Manner draw the Tincture. This Proceſs of calcining, boiling, ſettling, and filtrating is to be done ſix or ſeven Times, till with the Water you have extracted the whole ſapphirine, azure, or blue Tincture out of the Copper. Theſe blue filtrated Liquors put together, in a large earthen Bell, in a Sand Heat, not violent; evaporate the Water till a Pellicle ariſe, which being then put into a cold and moiſt Place for a Night, will ſhoot into Cryſtals like great Gems. *Glauber* extracts the Tincture from calcined Copper, with Spirit of *Sal Armoniack*, by frequent Ignition and Extinction, and in an Hour's Space extracts a blue Colour; which being ſet to cryſtallize in a cold Place, ſhoots into moſt elegant blue Vitriol. *Beguinus* does it with Spirit of Vinegar; but then the Vitriol will be of an obſcure green Colour.

The native blue Stone is good againſt Diſeaſes of the Eyes, taking away Films, Clouds, Pearls, *&c.* Rheums, Redneſs, Inflammation, and Blood-ſhot, if you take the Stone and put it into a little Spring or Well Water for about two Minutes Time, and then take the Water with a Linen Rag to waſh the Eyes, and drop two or three Drops into them at Bed-time. It cureth any running Sore, or Ulcer, or inveterate *Fiſtula*, Tetters, Ringworms, Scurf, *&c.* but for theſe latter Diſeaſes the Stone ought to lie in Water for a Quarter of an Hour. It alſo helps the Canker in the Mouth, by rubbing the Place with the Stone, and waſhing the Mouth with the Water.

The factitious blue Stone is given from two or three Grains, to twelve or fifteen, in proper Liquors, againſt Diſeaſes of the Head, Stomach, and Parts of Generation. It is often uſed in Injections in proper Vehicles, one Drachm to one Pound of Liquor, for all Sores, Ulcers, Scabs, Itch, Tetters, or any other cutaneous Diſeaſe. Inwardly it kills the Worms. It may be given in a ſmall Doſe againſt Diſeaſes of the Stomach and Brain. It ſtrengthens the Brain againſt a growing Epilepſy. It is alſo a Specifick to cleanſe the Womb; and it is held as a great Secret, to diſſolve a little of it in Water, againſt the burning and intemperate Heat of the ſpermatick Veſſels, and ſo to uſe it for Injections: For as this Vitriol poſſeſſes a large Portion of the Sulphur of *Venus*, which is able to appeaſe the Irritation of thoſe Parts, ſo alſo it produces rare and eminent Effects, by virtue of its deterſive and refrigerative Salt,

The red Vitriol, called *Calcanthum*, is a Vitriol that has been naturally calcined in the Mines by ſubterraneous Fire, or artificially by ordinary Fire. That which is found naturally in the Mine, is called *Chalcitis*, becauſe it is taken from Copper Mines. It is a browniſh red Stone, which is brought to us from *Sweden* and *Germany*. It is rare, and we have ſcarce enough of it to uſe in our *Venice Treacle*, of which it is one of the Ingredients.

That is beſt which is of a reddiſh brown, of the Taſte of Vitriol, and eaſily diſſolved in Water.

The *Colcothar*, calcined by the common Fire, is of a pleaſant Red. The beſt is that which remains in the Retorts after the Diſtillation of the Spirit and Oil of Vitriol. Both the one and the other *Colcothar* contain a great deal of metallick Earth.

Vitriol is chymically analized after the following Manner: Fill a Glaſs Matraſs, or Cucurbit, up to the middle with Vitriol powdered; then clapping on the Head, fitting the Receiver, and luting the Joints, diſtil it with a Sand Heat, that the *Ros*, or Phlegm of the Vitriol, being of a ſtrong ſharp Taſte, may be drawn off; then take off what remains in the Matraſs, bruiſe or powder it, and throw into a Retort, increaſing the Fire gradually three or four Days, and you will obtain a Spirit and an Oil: And, laſtly, from the *Caput Mortuum* of the Vitriol diſſolved, an Earth and Salt is obtained.

The *Ros* or Phlegm of Vitriol is preſcribed by the Chymiſts from one Drachm to two, and is mightily commended by them for its Virtues, being diuretick, vulnerary, anodyne, and good to ſtrengthen the Bowels.

The Spirit of Vitriol provokes Urine, excites an Appetite, and allays the burning Heat of Fevers, being given in a Cup full of cold Water, to a grateful Sharpneſs. This Spirit may be ſweetened, digeſting it with the rectified Spirit of Wine; and then it may be uſed in Diſeaſes of the Gums, and cutaneous Diſtempers.

The Salt of Vitriol is endued with an emetick Faculty. It may be given from half a Drachm to two Drachms.

The *Colcothar*, or red Earth, out of which the Salt was extracted, is effectually uſed in a Looſeneſs, Bloody Flux, Hemorrhages, and Wounds.

The ſpiritous Parts of Vitriol may be eaſily again recovered, if you expoſe the *Caput Mortuum* for ſome Time to the open Air, keeping it from Rain; ſo that by Diſtillation you may obtain another Spirit: But this Spirit is a great deal ſweeter and weaker than the common.

Paracelſus corrects the Spirit of Vitriol by

pouring

pouring it upon the *Caput Mortuum*, and then distilling it nine Times over, every Time pouring on more fresh Spirit; and taking it out of the Alembick, he put it into a Retort, and distils it over again with as much Spirit of Wine as is sufficient to make it into a Paste. This he highly commends in an Epilepsy, or Falling Sickness.

[*Vitriols* are either natural or fictitious; the former are found in Crystals, or *Siriæ*, sticking to the Roofs and Sides of Mines; the latter are obtained by various Arts from Waters, Earths, Stones, vitriolick Veins of mineral Ores, and particularly from the *Pyrites:* the most usual Ways of obtaining them are by Fermentation, Coction, and Crystallization. In *Galen's* Time, blue *Vitriol* was made in *Cyprus* by the Sun's exhaling vitriolick Waters; and the same Kind is now made in *Hungary*, by boiling and evaporating a Water of that kind; and the green *Vitriol* of *Germany* is, at this Time, made by a Method not much different. It is also made in some Places by Ablutions of an ash-coloured Earth, spotted with Specks of a Rust of Iron Colour; and others of a Verdigrise Colour, with a strong sulphureous Smell, an unpleasant acerb Taste. This *Vitriol* is therefore composed of a Mixture of Iron and Copper, and accordingly its Colour is between blue and green. The other common *Vitriols* of the Shops are, 1. The blue *Vitriol*, the *Vitriolum Cæruleum*, *Charlt. Foss.* 11. *Vitriolum Cyprinum Cæruleum*, *Worm.* 25. *Chalcanthum Cyprinum*, *Ald. Mus. Met.* 329. This is brought to us from *Cyprus* and the *East-Indies*, and is made from Copper, or Coppery Waters, by Solution and Crystallization.

2. The green *Vitriol*, or common Copperas, is the *Vitriolum Viride*, *Charlt. Foss.* 11. *Calcanthum Viride factitium*, *Atramentum Sutorium Officinarum*, *Schw.* 273. *Atramentum Viride durum solide coctum.* 13. This is made in *England*, principally at *Rotherhithe* and *Deptford*, from a ferrugineous Kind of Pyrites, common on the Eastern Shores of *Sheppey* Island, and in other Places, with a Mixture of rusty Pieces of old Iron by Coction and Crystallization. The Copperas Stones are heavy, dense, and of a darker or paler Colour on the Outside; but their inner Surface is marked with Lines or Spangles of a Gold or Silver Colour. They are insipid to the Taste, and by lying long in the open Air, acquire an intestine Fermentation, and fall spontaneously to Pieces.

3. The *White Vitriol* of the Shops, is the *Vitriolum Candidum*, *Charlt. Foss.* 11. *Calcanthum Candidum*, *Ald. Mus. Met.* 339. *Atramentum Album durum Fossile*, *Kentm.* 13. It is an Error to think that this is a Preparation of any of the other *Vitriols*, for it is found in proper Mines like a downy Efflorescence, which is dissolved in Water, is boiled to Evaporation, and formed into Cakes. It is also sometimes found in the Mine in small transparent Pieces like Crystal. This is used as an Emetick, and in Diseases of the Eyes.]

Of the medicinal Stone of Crollius.

The Stone of *Crollius* is made of *English* Copperas, white Vitriol, Allum, white Pot-ashes, or *Natrum* of *Ægypt*, common Salt, Salt of Tartar, Salt of Wormwood, Salt of Mugwort, Salt of Succory, Salt of Plantain, Salt of Arsmart, white Lead, Bole Armoniack, Myrrh, Frankincense, and Vinegar of Roses. Of all these in proper Quantities, as they are set down in *Crollius*, *Pag.* 442. by the means of Fire, is made a red Stone, endued with very excellent Properties, which would be too long to be described in this Place: But as this Stone is of great Consequence, both because it costs a great deal of Money, and because few Persons have the true Knowledge of it, the greatest Part of the Apothecaries substitute in the Room of it the medicinal Stone described by Monsieur *Charas*, because they can afford it cheaper than they who sell the true Stone of *Crollius*; this latter being made of Drugs of a much lower Price, as shall be shewn hereafter. *Pomet.*

Of the other medicinal Stone.

Monsieur *Charas*, in the Page 1041 of his *Pharmacopœia*, describes a medicinal Stone composed of the Vitriol of *Cyprus*, Salt of Nitre, white Lead, Allum, Bole Armoniack, Sandiver, *Sal Armoniack*, and common Vinegar; so that one may see by these two Descriptions, that there is a great deal of Difference betwixt this Stone and that of *Crollius:* And that more of this is likely to be sold for its Cheapness than of the other. *Pomet.*

Of the Lapis Mirabilis.

The *Lapis Mirabilis* is so called because of its great Properties; above all for the Cure of Webs, and other Diseases that happen to the Eyes of Horses. *Pomet.*

This Stone is made by putting into an earthern Pot white Copperas, Alum, Bole-Armoniack, Litharge, and common Water, as Monsieur *Solleysel* has remarked in his Book, *Pag.* 86. to which they that have Occasion may have recourse, as well to know the Dose, as those excellent Qualities by which it obtained such a Name.

These, and many other medicinal Stones, have been

been once in great Repute, but are now never prescribed or made.

21. *Of the* Pyrites, *or* Fire Stone.

THE *Pyrites*, or *Fire-Stone*, is a Sort of Marcasite, of which they make their Copperas's or Vitriols. This Marcasite is weighty, of a Mouse Colour, full of little, yellow, shining Spots.

There is a great Quantity of this *Fire-Stone* in *France*, especially at *Passy* near *Paris*.

It is no Impropriety to call the Vitriols Copperas's, because the Word Copperas is derived from *Cuprum*, Copper.

Lemery. *Pyrites* is a Sort of Marcasite, or hard Stone, heavy, which sends forth Sparks of Fire upon striking it with Iron, of a grey Colour, interspersed with little, yellow, shining Streaks: This Kind is found in the Copper Mines in *Italy*, from whence they draw the *Roman* Vitriol.

To get the Vitriol out of this Stone, it is necessary to expose it to the Air for several Months together, that so the Acid getting insensibly into the Pores, may rarefy its Parts, and render its Salt more dissolvable. By Time it is converted in a Manner to a Calx, from whence they extract the Vitriol, by washing it several Times with Water, and making Evaporations and Crystallizations as are necessary, as they do in the making of Saltpetre.

The *Pyrites* is detersive, astringent, deficcative, digestive, resolutive, applied outwardly.

[*Pyritæ*, or Marcasites, are of various Kinds, found in almost all Mines and Pits, and partaking of various Metals, Salts, and Sulphurs; according to the Quantities of which that are contained in them they vary in Shape, Colour, Size, and Weight. It would be not only tedious, but improper to enter into a long Detail of them here, as none of them are now ever used in Medicine in their natural State.]

22. *Of* Lead Ore.

Pomet. LEAD is a livid, terrestrial, heavy Metal, charged with Sulphur, naturally soft and malleable, very like Tin, but inferior in Goodness. The Chymists call it *Saturn*, because of the Influences they suppose it receives from that Planet.

We have three Sorts of *Lead Ore* that differ one from the other, only according to the Digestion they have received in the Bowels of the Earth. The first, that is to say, that which has received the least Heat, and by Consequence is most weighty, is that which has the Name of common *Lead Ore*, and this is what is made into the Lumps called *Pigs*.

This *Lead Ore* is a weighty Mineral, easy to break to Powder, and difficult to melt: it is taken out of the Mine in Pieces of different Bigness; sometimes clean and neat; sometimes mixt with Stones, resembling a certain Sort of Marble.

This *Lead Ore* being broken, parts into shining Flakes, of a white enclining to black, very like the Shoots of Antimony.

The *English* melt this Lead, and afterwards cast it into Moulds of the Shape we see the *Pigs* in. The *Lead Ore* is of no other Use in *France* but for the Potters, who make use of it, having first reduced it to Powder, to varnish the earthen Vessels of a green Colour with it.

Although this Merchandize be of no great Consequence, yet great Care must be taken concerning it; for if there should chance to be any other Metal in it, as there is found to be too often, it will spoil all the Potters Ware, to the great Trouble of him that sold the Commodity; for this Reason you should never sell it to the Potters, without shewing it them Piece by Piece, and taking a Note under their Hand, that they are satisfied, to avoid further Trouble.

This *Lead Ore*, to have the requisite Qualities, ought to be in large Pieces, heavy, with fine shining Scales, fat, that is to say, soft in handling, in a word, the most approaching to Bismuth that it can possibly; reject that which is full of Stones and Dirt, or Gravel, as good for nothing, as well as that which is mixt with the *Lead Ore* of the second Sort that I am going to speak of.

The second Sort is a *Lead Ore* less weighty and much harder than that beforementioned, and being broken is of a Mouse Colour, of a coarser Grain, smooth without, in some Measure resembling the black Lead; which shews that it has not received Heat enough to be converted into the black *Lead Ore*. This is to be entirely rejected, as being of no Use: And some of this is often found in the first Sort, which is what causes so much Trouble to the Workmen, because they can no more melt it by the Fire than they can do Marble, and it spoils all their Work. However, I must take notice, that some Alchymists enquire after it to draw their Lead out of it; for they pretend that the Lead drawn from it is more ductile and close than common Lead is found to be. Others will have it, that there is some Silver in it, which I leave other Persons to try; but as it is seldom used, I should not advise any Person to furnish himself with any Store of it.

The third Sort of *Lead Ore* is very much used, and is that we call *Black Lead*, or *Crayon*, because

the moſt perfect. It ſerves to make Pencils to deſign withal. The Antients gave it the Name of *Plumbago*, and of Sea Lead, becauſe they thought it was taken from the Bottom of the Sea. Foreigners call it *Potelot*.

We have at *Paris* two Sorts of Black Lead, to wit, the fine and the common. The Fine, to be perfect, and in good Condition, ſhould not be heavy, of a black ſhining Silver Colour, not too hard nor too ſoft, eaſy to be cut, and, when divided, compact in the Inſide, and not gritty; of a fine cloſe Grain, in moderate Pieces, rather long, proper to cut; that which is fit to make the long Pencils is moſt eſteemed. *Lead* of theſe Qualities wants for no Price, the Merchant may have what he pleaſes, being much ſought for by Architects and other Perſons for drawing. This Sort of *Lead* comes generally from *England*; but as for the common, it is brought from *Holland*, and is of no great Uſe.

Monſieur *Morin*, Phyſician and Mineraliſt, has aſſured me that there were a great many *Lead* Mines in *France*, eſpecially in *Auvergne*, from whence we might have theſe three Sorts of *Lead*; and this may be relied upon, he being a Perſon that would not affirm an Untruth.

Of Lead *in Pigs.*

What they call *Lead* in Pigs, is the common *Lead Ore*, melted and purified from the Stone and other Impurities; which being well refined, by ſcumming, and throwing Suet or other Greaſe into it, is caſt into Moulds to make Pigs of different Sizes.

The *Lead* ſo refined, to have its due Requiſites, ſhould be ſoft, that is to ſay, eaſy to cut, pliant, and the moſt white and ſhining that can be. The different Uſes that are made of *Lead*, as well in ſeveral Trades, as in chymical Operations, is the Reaſon of ſo large a Conſumption as there is of it, as well in *Europe* as other Parts of the World.

Of Lead *in Powder.*

The firſt Preparation that is made of *Lead*, is the reducing it to Powder; not in the manner ſome Apothecaries uſe to reduce it, by raſping it, and beating it in a Mortar; nor as ſome Authors teach, by pouring it, when melted, into a round wooden Box chalked within, and ſo ſhaking it to Powder; for this is a troubleſome tedious Way, and the Quantity obtained by it is ſo little, that it is not worth while; but by melting *Lead* in an Earthen or Iron Veſſel, and when it is melted, by throwing into it the Duſt of beaten Charcoal, ſtirring it about: And in this Manner you may ſooner reduce into Powder a thouſand Weight of *Lead*, than one Ounce in a Mortar. To clean the *Lead*, that is, to ſeparate the Coal from it, you have nothing to do but to waſh it in Water, and dry it. *Lead* in Powder is very little uſed but by the Potters, who uſe it as *Lead Ore* for glazing their Earthern Ware.

Lead in Powder, eſpecially that which is in a Powder almoſt impalpable, has ſome Uſe in Medicine, becauſe it is an Ingredient in ſome Ointments, as the *Pompholyx* and others. They who refine *Lead*, and make Muſquet Bullets, or ſmall Shot, ſend us their Scum, which we ſell to the Potters, and call *Scum*, or *Lead Aſhes*.

Of Burnt Lead.

Burnt *Lead*, which the *Latins* call *Plumbum Uſtum*, is Plates of Pig Lead put into a Pot with Sulphur, and by the Fire the *Lead* is reduced to a brown Powder.

Burnt *Lead* has ſome Uſe in Medicine, becauſe it dries, and is an Ingredient in ſome Ointments and Plaiſters. As to its Choice, there is no more to be ſaid than that it be clean and well burnt. Some waſh it, to ſeparate the Impurities, or the Sulphur that remains in it.

Of Red Lead.

The *Red Lead*, which we call *Minium*, is *Lead Ore* pulverized, calcined, and reduced to ſuch a red Powder as we ſee it. It is wrong to think that the *Red Lead*, which is brought from *England*, is made of the Pig Lead; the Cheapneſs of it ſhews it to be otherwiſe, and that it is made from the *Lead Ore* as it comes from the Mine; beſides, Pig Lead will never come to that Redneſs as *Lead Ore*, whatever Fire you give to it.

Minium ought to be choſen for its high Colour, the fineſt Powder, and the cleaneſt that can be; and Care muſt be taken that it has not been waſhed, which will be known by its whitiſh Colour, and the little Lumps that are commonly in it. One may draw Mercury from *Minium* with Lime or File-Duſt, but it is in ſo ſmall Quantity, that it is ſcarce worth ſpeaking of.

The *Red Lead* is of ſome Uſe in Medicine, becauſe it is drying, and gives a Body to ſome Ointments and Plaiſters. Painters uſe it as well for painting red, as to mix with other Colours, to make them dry. Potters uſe a great deal to glaze their Ware of a reddiſh Colour, and there are ſeveral other Tradeſmen that have Occaſion for it.

Minium

Minium is the Lead Ore pulverized, and made red by a long Calcination over the Fire: this is brought from *England*, whereof that of the higheſt Colour ought to be choſen. It is aſtringent and deſiccative, being uſed in Plaiſters and Ointments. They likewiſe uſe it in Painting, and to varniſh Pots of a red Colour. It is called *Minium* from the Word *Mina*, becauſe it is made of the Lead as it comes from the Mine. *Lemery.*

Of Ceruſe.

Ceruſe, or Calx of Lead, is only Lead reduced to a Calx by means of Vinegar, the Vapour of which it is made to receive, and afterwards ground with Water, and put into Moulds, and ſo made up into little Cakes, which they dry, and put into blue Paper, as we find them. This *Ceruſe*, ſo prepared, is that which one may truly call the *Calx* of Lead, and not that which we ſell at preſent, that comes from *Holland* or *England*, it being almoſt all common Chalk, as I am going to relate. *Pomet.*

The true *Ceruſe* is that which we call the *Venetian*, becauſe the *Venetians* were the firſt that made it; but as it is extremely dear, we have little but the other Sort, which comes from *Holland*, becauſe the Painters eſteem it as much as the *Venetian*, but they are very much in the wrong; for the *Dutch Ceruſe* ground with Oil or Water, is a White of no long Duration, becauſe of the Chalk that is in it, which does not happen to the true *Venetian Ceruſe*, which is only the White Lead ground; ſo that if one had the true *Venetian Ceruſe*, there would be no need of grinding White Lead, and conſequently the Dangers would be avoided that Perſons meet with by grinding it, which often occaſions ſeveral Diſeaſes, and ſometimes Death itſelf.

If they who have Occaſion for *Ceruſe* to uſe in Medicine, or to make Salt of *Saturn*, would uſe the true *Venetian Ceruſe*, they would find their Operations more perfect: And inſtead of taking the *Ceruſe* in Cake, they might take the White Lead ground, and make it ſerve all their Purpoſes; but then it muſt be bought of honeſt Perſons, for none but they who ground it can anſwer for it: However, the true White Lead is extremely white, ſoft, and friable.

It is to be remarked, that the *Hollanders*, to make their *Ceruſe*, uſe only the Duſt that comes in bruiſing their White Lead; and as this Duſt could not ſupply ſo great a Quantity of *Ceruſe* as is uſed in *France*, and other Countries, and they could not afford it ſo cheap as it is always ſold, they mix a ſort of Marle or white Chalk with it. As for that which comes from *England*, it is ſtill worſe than that from *Holland*, becauſe they mix more of that Chalk with it, and it is not of ſo good a Colour. They who grind the White Lead to make *Ceruſe* of it, have Water-Mills, and afterwards they caſt it in little Moulds to form it into Cakes. To have its proper Qualities, it ſhould be extremely white, ſoft, friable, and dry, and the leaſt broken or mixed with little Duſt that can be, eſpecially if it be for Sale. You ſhould reject that which has not a good Body, but cracks in handling it, which proceeds from its being put up before it was well dried, or having been damaged by ſome wet coming to it.

Ceruſa, or *Ceruſe*, is a Lead that is penetrated, rarefied, and half diſſolved by the Vapour of Vinegar, and reduced into a very white Subſtance that is heavy and friable. When you would make this *Ceruſe*, the Lead is to be beat into fine thin Plates, which are ſuſpended or hung over earthen Pots, in which they have put Vinegar; and when the Pots are full of this Lead, they place it in a proper Heat, ſo that the Vinegar may, by its Fume or Vapour, have Power to penetrate and attenuate inſenſibly the Matter. After this has remained about a Month in the Heat, they open the Mouth of the Pot, and find all the Plates of Lead reduced into a white brittle Subſtance, which they call *White Lead*, and break theſe Plates into Pieces, which are uſed by the Painters. This White Lead is ground upon a Porphyry, with a little Water, and made into a Paſte or Cakes, which being dried, are fit for Tranſportation. The Workmen, in this Commodity, chuſe to put it up in blue Paper rather than any other, in order to make the Ceruſe look whiter; the beſt, the pureſt, and whiteſt, is brought from *Venice*. That which comes from *England* and *Holland*, is mixed with a kind of Chalk or Marle. *Lemery.*

Of Sandyx, *or* Red Ceruſe.

The *Sandyx* is nothing but *Ceruſe* reddened over a gentle Fire; but this *Sandyx* or *Red Ceruſe*, is little uſed, as it is only a kind of *Minium*. Some Moderns have writ that *Minium*, or Red Lead, was made of Ceruſe turned red upon the Fire: But there is nothing more falſe, and they only write by Hear-ſay, as is eaſy to prove: Foraſmuch as the Ceruſe comes from *Holland*, and the *Minium* or *Red Lead* from *England*; and beſides, the Ceruſe is always dearer than the *Minium*. *Pomet.*

Of

Of Maſticot.

Pomet. There are three Sorts of *Maſticot* that are brought from *Holland*, to wit, the White, the Yellow, and the Gold-coloured. Theſe different Colours ariſe from nothing but the different Degrees of the Fire they give the Powder of White Lead, of which they are made. Though the firſt Sort, which is that which has ſuſtained the leaſt Degree of Fire, is called White, yet it is not of a true white Colour, but of a whitiſh Yellow. The ſecond is yellow, and endures a ſtronger Degree: and the third of a Gold Colour, and has ſuſtained more Fire than the former; and they might make a fourth, by calcining it till becomes red, which makes it a true *Sandyx*. As to the Choice of them, they ought to be heavy, in an impalpable Powder, of a high Colour; they are only ſerviceable for the Painters; though *Lemery* ſays they are deſiccative and uſeful, mixed in Plaiſters or Ointments.

Of Natural *and* Artificial Litharge.

The *Natural Litharge*, which the Ancients called by the Name of *Molybdæna*, is a Kind of metallick or mineral Body, in Cruſts or Flakes, of the Thickneſs and Figure of White Lead, of a reddiſh Colour, eaſy to break, which is found in the Lead Mines. But as this *Litharge* is known to very few People, and is ſcarce to be met with, the *Artificial Litharge* only is uſed, which is improperly called Gold or Silver *Litharge*, becauſe the Ancients, and after them the Moderns, pretend that this *Litharge* was got from the Lead that had ſerved to purify or refine Gold and Silver; which is far from Truth, ſince all the *Litharge* we have now from *Poland*, *England*, or other Parts, as *Germany*, *Sweden*, and *Denmark*, is from the Lead made uſe of in refining Copper. Nevertheleſs, I do not deny but that thoſe who refine Gold and Silver make *Litharge*; but that is not what is ſold, becauſe the Refiners melt theirs into Lead again to ſerve anew, and to recover the Gold or Silver that was carried off with it. Our *Litharge*, therefore, ought not to be called *Litharge* of Gold or Silver, but plainly *Litharge*. They ought alſo to be undeceived, who believe, according to what ſome Moderns have writ, that *Litharge* is the Fume of Lead evaporated in the refining of Gold and Silver, and that it is like Soot, and ſticks to the Chimney: So alſo theſe ſhould be undeceived who believe that there is any Difference in the *Litharges* from their Colours, ſince thoſe are only occaſioned by the Force or Violence of the Fire. The *Dantzick Litharge* is to be preferred before the *Engliſh*; ſo likewiſe that which is ſmalleſt, moſt calcined, and of a lively Colour, that will eaſily diſſolve in any unctuous Liquor, in which it is uſually employed. This Commodity is much uſed in *France*, as well by Potters to glaze their Earthen Wares, Dyers, Painters, and others, as by Apothecaries, who make it the Baſis of moſt Part of their Plaiſters and Ointments.

Lithargyrus, ſive Lithargyrium, or *Litharge*, is a Lead tinged with the Impurities of Copper, and reduced into the Form of Droſs, or metallick Scum, by Calcination. This is made upon the Purification of Copper in *Poland*, *Sweden*, and *Denmark*. There are two Sorts, one called *Lythargyrium Auri, ſeu Chryſitis*, or *Litharge of Gold*; the other *Lythargyrium Argenti*, or *Litharge of Silver*. The Difference of Colours makes no Difference in the Virtue of them. There is likewiſe a *Litharge* made in Refining Gold or Silver by the Cupel, but it is but in ſmall Quantities, though like the other. All the Sorts are deſiccative, cooling, deterſive, and give a Conſiſtence to ſeveral Plaiſters, for they diſſolve in boiling with Oil and fatty Bodies. *Lemery.*

Of Salt, *or* Sugar *of* Lead.

The *Salt*, or *Sugar* of *Lead*, is made of White Lead, or the true *Venetian Ceruſe*, infuſed in diſtilled Vinegar, then filtrated, evaporated, and reduced into a light Maſs, that is white and cryſtallized, of a ſweet ſugary Taſte, yet nevertheleſs very diſagreeable. The greateſt Part of thoſe who make Salt of Lead, do it with *Dutch Ceruſe*, ſuch as we ſell, for which Reaſon they can ſell it nothing near ſo cheap as that made of *Venetian Ceruſe*; becauſe, as I ſaid before, the *Dutch* is mixed with Chalk, which will yield no Salt; ſome make it of Lead in Powder, *Minium*, or Litharge; none of which will afford ſo much Salt, and conſequently what is made that way cannot be ſold ſo cheap. Chuſe that which is of the Taſte aforeſaid, white, in little Shoots, or ſhining Cryſtals, and as light as may be, which when diſſolved in Plantain Water, will look like Whey; which Trial will anſwer two Purpoſes, the one to know the Goodneſs of the Salt of Lead, and the other that of the Plantain Water. Its Uſe is to cool, being given internally, or uſed externally. It is reckoned proper to ſtop the Flux of the Belly, and for ſore Throats, taken from three to four Grains in Plantain Water. Moſt of thoſe who make this Medicine make it heavy and greyiſh coloured, which proceeds from its not being *Pomet.*

ing well purified, or that it was not made with good Vinegar. For to make the Salt fine and light, it ought to be purified at leaſt four Times.

Of Balſam, *or* Oil *of* Lead.

Balſam, or *Oil* of *Lead*, is made of the Salt diſſolved in Oil of Turpentine; others put Salt of Lead in a Cellar to run into a Liquor. The firſt Balſam or Oil ought to be preferred to the other, in that it is proper to cleanſe and cicatrize Ulcers, and becauſe it is more capable of reſiſting Putrefaction. Others make Oil of Lead, and Burning Spirit of Lead, which they make by filling two Parts of a Retort with Salt of Lead, and by the Means of Fire, drawing thence a Spirit that burns like Brandy. But this Oil is not ſo ſtrong as that made with Oil of Turpentine, it ſerves to cleanſe the Eyes, eſpecially of Horſes and other Beaſts. Spirit of Lead is an excellent Remedy to reſiſt the Putrefaction of Humours.

Of Magiſtery *of* Lead.

Magiſtery of *Lead* is made of good Salt of Lead diſſolved in diſtilled Vinegar mixed with common Water; and by the Aſſiſtance of Oil of Tartar *per Deliquium*, precipitated into a white Powder, which after it is waſhed and dried, is very uſeful to cure Tetters and Ringworms, being mixed with Pomatum. The Vinegar and Water impregnated with the Salt before the Precipitation, if put into Water, make alſo a Sort of Virgins Milk, that is good to allay Inflammations, and cure Pimples in the Face.

Of Vinegar *of* Lead.

The *Vinegar* of *Lead* is a diſtilled Vinegar, wherein have been digeſted Ceruſe and other Preparations of Lead. It is made uſe of to cure Tetters, or being well incorporated with Oil of Roſes, to make a kind of Ointment, called *Butter of Lead*.

[*Lead* is got from different Ores, ſome mixed with a black, yellow, or aſh-coloured Earth, ſome full of Spangles, others of a red or white rocky Stone, in which the ſhining *Lead* is ſeen in ſquare Cheques, and in others of white, red, or green Spars. *Lead* Ore almoſt always contains ſome ſmall Quantity of Silver. There are *Lead* Mines in *Spain*, *Italy*, *Germany*, and *France*; but the richeſt in *Europe* are in *England*, where they ſeparate the Metal from the Ore by ſtratifying it with Charcoal, which, when lighted, melts the Metal, which immediately runs out. The ſpecifick Gravity of *Lead* is to that of Gold as three to five. Expoſed to the Focus of a Burning-glaſs, it melts, emits copious Fumes, and then turns to an aſh-coloured Calx, which ſoon turns yellow, then red, and ſoon afterwards melts into a Saffron-coloured, very fluid Liquor, which afterwards ſoon vaniſhes in Smoak; but if it be removed before it evaporates, it hardens into a red or yellowiſh Maſs like Orpiment, conſiſting of thin *Laminæ* pellucid like Talc. If this be put in the Focus again on a Piece of Charcoal, it recovers the Form of *Lead*, but if a bit of pure *Lead* be put on a Charcoal in the Focus, it melts, and is diſſipated in Smoak, no Glaſs remaining. *Lead* therefore is compoſed of a vitrifiable Earth of the talcous Kind, and a ſulphureous Principle, not much in Quantity, nor intimately mixed with it. It never contracts Ruſt, and is ſoluble in Acids or Oily Subſtances. In Calcination it gains in Weight, ſo that an hundred Pounds of *Lead* will yield an hundred and ten Pounds of *Minium*, but if that be again reduced to *Lead*, it will not weigh near an hundred.

Minium, *Maſticot*, and the Calx of *Lead*, are prepared by the ſame Operation, only differing in degree: To make them, melt *Lead* in an unglazed earthen Veſſel over a Charcoal Fire, it will after ſome time turn to a greyiſh Powder; this is the Calx of *Lead*; continue the Fire, and this Powder ſoon afterwards becomes yellow, then it is *Maſticot*; calcine this in a very ſtrong Fire, and it becomes red, and is then *Minium*, or red *Lead*. And this *Minium* is better and purer than that made at the Mines of the unpurified Ore.

The *Molybdæna*, or *Plumbago*, is a Subſtance of the Litharge Kind, ſticking to the Furnaces where Silver and Gold are purified by *Lead*; the Upper Part of it is like the common Litharge; the Lower, of an aſhy Subſtance; and the Middle, a Mixture of both the others. Its Virtues are the ſame with thoſe of the Litharge, but it is ſeldom kept in the Shops.

Black *Lead* is the *Nigrica Fabrilis*, *Charlt. Foſſ.* 2. *Maſſa Nigra ad Pnigitem referenda*, *Worm.* 5. It is rather an Earth than a Metal: It is found in Pieces of various Shape and Bigneſs. The beſt Kind of it is that found in *England*, about *Keſwick* in *Cumberland*: The *Weſt-Indian* alſo is fine. The *Spaniſh* is the next to this, but is more brittle: That of the *Eaſt-Indies* is the worſt of all. Beſide its great Uſe to Artificers, it is in Medicine drying, cooling, and repellant.

The Preparations of *Lead* are very great Medicines, but thoſe intended for internal Uſe muſt not be meddled with, but by thoſe who have Judgment.]

Of

Of Natural *or* Mineral Zinck.

It is not with *Zinck* as with Tin-glaſs; foraſmuch as it is not only probable, but certain, that there is a *Natural Zinck* which the *Germans* call *Beauter*, and the *Flemings*, *Speauter*, we *Spelter*. The *Mineral Zinck*, is found in great Quantities in the Mines of *Goſſelar* in *Saxony*; it is at preſent very ſcarce in *France*, for which Reaſon it is much enquired for by ſome People. This Metal appears to be a kind of Lead Ore, except that it is harder, whiter, and more brilliant. Some People have aſſured me, that the *Zinck* we ſell in great ſquare Cakes is *Mineral Zinck*, that after it has been fined, is thrown into Moulds of the Figure we have it; which I can eaſily believe, having found it impoſſible to make it of Lead, Arſenick, Tartar, and Salt-petre, as Mr. *Charas* has directed. *Zinck*, which ſome improperly call the Female Antimony, ought to be white, in fine Flakes, the leaſt ſharp, and the moſt difficult to break that can be: For the more it endures the Fire, and the finer and larger the Flakes are, the more it is valued by the Workmen that uſe it, eſpecially the Founders.

The *Zinck* at this Time is much in Uſe, for the Pewterers have found it more proper to cleanſe their Pewter, than Pin-Duſt and Reſin. It is wrong to believe that *Zinck* is mixt with Pewter to encreaſe its Weight; for unto a Fount of five or ſix hundred Pounds of it, they put but one Pound of *Zinck*; and which is wonderful, the *Zinck* has the Quality of purifying and whitening the Pewter, and acting upon it as Lead does upon Gold, Silver, or Copper. This *Zinck* is uſed to give Copper the Colour of Gold, eſpecially when mixed with Turmerick; and works upon Copper as Arſenick does, that turns it of a Silver Colour; or the *Lapis Calaminaris*, that makes it yellowiſh; or, laſtly, as *Hungarian* Vitriol, that turns Iron into a Copper Colour, as hath been obſerved in the *Philoſophical Tranſactions* of the Royal Society at *London*.

[*Zinck*, called *Zinchum*, *Zinethum*, and *Marcaſita Pallida*, by *Schroder*, is a metallick, ſulphureous, heavy Subſtance, reſembling Lead in Colour, fuſible and ductile to a certain Degree, very hard to break, inflammable, and volatile. It ſeems to have been quite unknown to the Antients; and even the Moderns knew very little of its Nature and Origin, till Mr. *Stahl* explained it, in his *Metallurgia*. It is extracted from the *Lapis Calaminaris*, and from the Lead Ore of the Mines of *Goſſelar*, which Ore is very hard to melt, though it appears rich and ſhining. Three Subſtances are ſeparated from it, *Lead*, *Zinck*, and a kind of *Cadmia Fornacea*, which, melted with Copper, makes a Bath Metal, or Prince's Metal, ſo called from Prince *Rupert*, who is ſaid to have invented it. But the fineſt Metal of this Kind is made of *Zinck* and Copper melted together. In the melting this *Goſſelar* Ore, the Lead remains at the Bottom of the Furnace, and the *Zinck* and *Cadmia* ſtick to the Sides. The *Cadmia* is to be long expoſed to the Air before it is fit for Uſe; and the *Zinck* is purified by careful Meltings, and caſt into Moulds.]

BOOK III.

Of *MINERALS.*

PREFACE.

By Mineral, *in its general Signification, is underſtood, whatſoever Subſtances have any Relation to Mines, or are increaſed in, or have paſſed through them. A* Mineral *is defined by ſome in a ſtricter Senſe to be, a fixed and ſolid Body, produced by Exhalations and Vapours, incloſed in the Bowels of the Earth, as Meteors are formed in the Regions of the Air; and others will have it to be a tender Subſtance, produced in the Earth by Coaggulation, and increaſed by the external Addition of ſenſible Particles, and which oftentimes is the Matter that in Proceſs of Time commences Metal; I ſhall comprehend, under the Name of* Mineral, *every Thing that is of a metallick Nature, and which differs only from Metals, in not being malleable as* Antimony, *or capable of Fuſion, as the* Loadſtone, *&c. and ſhall begin with* Antimony, *which comes neareſt the Nature of Metals, and differs from them only in not being ductile.*

1. *Of* Antimony.

MR. *Furetiere* ſays, *Antimony* is a Mineral that comes very near the Nature of Metals; and ſome are of Opinion it contains all the Principles of them, as it is found near all Sorts of metallick Mines, more eſpecially near thoſe of Silver and Lead; that it contains a double Mineral Sulphur, the one Metallick, approaching the Purity and Colour of Gold, the other earthy and combuſtible, not unlike common Sulphur; a fuliginous, ſooty, ill-digeſted Mercury, partaking of the Nature of Lead; and ſomewhat of a terrene fixt Salt. The ſame Author obſerves alſo, that the Uſe of Antimony, unleſs in the Compoſition of Paints, was wholly unknown till about the twelfth Age; but then a certain Monk, *Baſilius Valentinus* by Name, publiſhed a Book, intitled, *Currus Antimonii Triumphalis*, wherein he undertakes to affirm, that it is a Remedy againſt all Sorts of Diſeaſes. Three hundred Years after, *Paracelſus* brought it into Vogue; but then in the Year 1566 the Uſe of it was condemned by Act of Parliament; and one *Beſnier*, a Phyſician, in 1609, tranſgreſſing it, was excluded the Faculty. In the Year 1637 *Antimony* was again received by publick Authority amongſt the Number of purging Remedies; and in 1650 the Act made in 1566 was repealed. *Anno* 1637 the Faculty cauſed it to be inſerted among the purging Medicines in their *Antidotarium*, printed that Year, herein following the Opinion of *Matthiolus*; and, in ſhort, on the 29th of *March*, 1668, it had the Sanction of publick Authority, by which Graduates had a Liberty of making uſe of it, but with a Prohibition to all others, unleſs by their Advice. It acquired the Name of *Antimony*, according to the Opinion of ſome, from a *German* Monk, the aforeſaid *Valentine*, who, in his Search after the Philoſophers Stone, was wont to make much Uſe of it for the more ready fluxing his Metals; and throwing a Parcel of it to ſome Swine, he obſerved that they had eaten it, and were thereby purged very violently, but afterwards grew the fatter upon it; which made him harbour an Opinion, that the ſame ſort of Cathartick, exhibited to thoſe of his own Fraternity, might do them much Service; but his Experiment ſucceeded ſo ill, that every one who took it died. This therefore was the Reaſon of this Mineral being called *Antimony*, as being deſtructive of the Monks.

Of Natural or Mineral Antimony.

Antimony is taken from the Mine in Maſſes of different Bigneſs, reſembling Lead Ore, but with this Difference, that is both lighter and harder.

And by Reaſon of this Similitude, ſome call it Black Lead, or Marcaſite of Lead; others, the Wolf or *Saturn* of the Philoſophers, becauſe it devours and conſumes all Metals whatever, Gold only excepted. It is alſo called *Proteus*, from the Diverſity of Colours it aſſumes by means of the Fire; but its more ordinary Appellation is *Mineral Antimony*, and it is called by the more underſtanding, *Crude Antimony*, as never having ſuſtained the Fire.

Heretofore *Hungary* was the only Place for Mines of *Antimony*, but now we have none from thence ſince the Diſcovery of thoſe in *France*. The beſt and fineſt *Antimony* is that of the Mines of *Poictou* and *Bretagne*.

Mineral *Antimony* is ſometimes met with pure, and ſometimes loaded with a Sort of Stone, which the Mineraliſts call *Spar*. There is ſome full of *Striæ*, like ſo many Needles; and ſome in a Cake of a greyiſh Black. This is of very little uſe in Medicine, unleſs it be purified by melting, as will be ſeen hereafter. The Chymiſts uſe it indeed for their particular Preparations.

The pureſt Mineral *Antimony* is to be choſen, ſuch as is as free as poſſible from all Sorts of Stone or Spar. It matters not from whence it comes, provided it be good; though there are thoſe that pretend the *Antimony* of *Auvergne* to abound moſt with Sulphur.

Some Gentlemen of the Retinue of the Ambaſſadors of *Siam* have brought home conſiderable Quantities of a Mineral *Antimony*, but no Experiments have yet been made of it. This *Antimony* is white, and full of ſmall Needles; and as far as I can judge, altogether proper for the ſame Purpoſes as the Mineral *Antimony* of *France*. As for that of *Hungary*, I can ſay nothing of it, having never ſeen any of it.

Of caſt or melted Antimony.

Melted *Antimony* is what we improperly call *Crude Antimony*, becauſe it has undergone the Fire to reduce it into Cakes and Needles, after the Manner as we ſee: It is brought from the Places beforementioned. To melt Mineral *Antimony*, the Mineraliſts take two earthen Pots, one whereof they fill with the Mineral in Powder, the other they place empty in the Midſt of a ſtrong Fire, laying a Sort of an Iron Skimmer upon it, upon which they put the Pot of Powder turned upſide down; then encompaſſing both the Pots with Fire, the Antimony will melt, and paſs through the Hole of the Iron Plate, and fall into the empty Pot underneath, and form itſelf into a Cake, as it is ſent to us.

The Iron Plate with Holes, put between the two Pots, ſerves to keep back the Stone or Spar that is found commonly with the Mineral *Antimony*. When the *Antimony* is melted, they take the Pot off the Fire, and when cold, break it, and take out the *Antimony*, which then may be conveniently ſent whither they pleaſe.

Formerly there was to be met with in *France* the *Hungarian Antimony* in Cakes or Loaves of three or four Pounds Weight, interwoven with ſmall Needles running a-croſs each other, of a golden yellowiſh Colour, and at Bottom white, inclining towards that of Silver. This *Antimony* was found in the Mines of the Mountains belonging to *Preſburg*, the Capital of the *Lower Hungary*, where it was melted, and made into the Figure we had it in: But this is now ſo ſcarce, that it is next to an Impoſſibility to find any of it. Thoſe who have worked upon this Sort of *Antimony*, have aſſured me, that it was much fitter to yield whatever is to be obtained from *Antimony* than that of *France*; and withal, that from every Pound of it they could obtain two Ounces of Quickſilver, better than that of *Spain*.

In *France* we have ſeveral Sorts of *Antimony*, which differ only according as they are better or worſe purified and melted. And the next beſt to that of *Hungary* is what we have brought from *Saumur* in *Anjou*, whither it is ſent purified from *Poictou*.

The *Antimony* of *Poictou* ought be in fine beautiful Needles, long, large, white, ſparkling, light, and eaſily broken, and with as little half-melted *Antimony* as may be, which reſembles the Droſs of Iron, which is commonly found at the Top of the Cakes in *Scoria*, and is called the Top of *Antimony*. This Defect, however, is ſeldom found in the *Antimony* of *Poictou*, by Reaſon that the People there are well verſed in refining or melting it: And this is the Sort of *Antimony* that ſhould be uſed in all the following Operations, becauſe it abounds leſs with Sulphur, and affords more of the *Regulus*. We have alſo had, for ſome Time paſt, an *Antimony* from *Bretagne*, in ſmall Needles, very pure, and perfectly fit for the ſame Purpoſes as that of *Poictou*. A third Sort is that we have from *Auvergne*, which, in one word, is good for nothing, being very hard, full of Droſs, and in ſmall Needles, of a tawny Blue, which makes it evident that it is not half purified, nor diveſted of its fetid and malign Sulphur, which gives abundance of Trouble and Difficulty to thoſe who work upon it.

Beſides the great Number of chymical Medicines which are made of, or drawn from *Antimony*, abundance of Artificers uſe it to promote the melting of Metals, and to make the *Regulus*, eſpecially

eſpecially in *England*, whither we ſend a great deal to put in their Pewter, to make it the harder, whiter, and more ſounding. But I obſerve, nevertheleſs, that of late Years the *Engliſh* do not make ſo much uſe of it, becauſe inſtead of the *Regulus* of *Antimony*, they uſe *Biſmuth* now. The Letter-Founders for Printing uſe *Antimony*, to render their Lead the more durable and hard. *Antimony*, powdered, and boiled in a Ptiſan with *Sarſaparilla*, *Guaiacum*, *&c.* is a certain Cure for the ſecret Diſeaſe. And how much ſoever this Drug has been condemned and out of uſe in Times paſt, it is altogether as much in Vogue now. When you make uſe of it, break it in ſmall Pieces, or reduce it into a groſs Powder, and put it into a Linen Rag, to be boiled with other Things. Some give the Powder inſtead of the Liver of *Antimony* to their Horſes, and ſay it has the ſame Effect.

I ſhall not loſe Time here to enter into a Diſquiſition, whether there be Male and Female *Antimony*, as many Authors affirm, as alſo that the Male is the coarſer, more ſandy, ſcaely, and light, and conſequently leſs efficacious than the Female, which is more ponderous, bright-coloured, and more brittle; for I have dealt a great deal in *Antimony*, and never knew any other Difference but what aroſe from its Purification. When it is good, it may ſerve alike to all Purpoſes; ſo that I do not ſee how there can be two Sorts of it.

Lemery.

Antimonium, *ſive Stibium*, or *Antimony*, is a Mineral approaching very near to a Metal. It is heavy, ſhining, and in Cryſtals, ſhooting like Needles, of a blackiſh Colour: It is found near the Mines of Metals in ſeveral Parts of *Europe*; as *Hungary*, *Tranſylvania*, *Britany*, *Poictou*, and *Auvergne*. They get it in Pieces bigger or leſs, full of little hard Stones or Pebbles, which the Workmen call *Gangue*. They take the cleareſt, or that which has the leaſt of the *Gangue* in it when they make uſe of it; for ſeveral prefer the Mineral Antimony before that which is caſt and purified.

To purify or refine *Antimony*, they melt it over the Fire in Pots or Crucibles, in order to ſeparate the *Gangue* or Droſs; which cooling, they caſt it into Cakes, as it appears when brought to us: this we uſually, though improperly, call *Crude Antimony*, notwithſtanding it has paſt the Fire. *Hungarian Antimony* was formerly brought into *France* in little Cakes, full of ſmall Shoots like Needles, ſticking interchangeably one with the other, ſhining and inclinable to white, like Silver Ore. But ſince this Mineral has been diſcovered in *France*, we have none comes from *Hungary*, whence it is become very ſcarce. The *Antimony* we ordinarily uſe, is brought from *Poictou*, which you ought to chuſe neat, in fine, long, brilliant Shoots, eaſy to break. It is naturally compoſed of a great deal of Sulphur, like common Sulphur, and of a kind of a *Regulus* like a Metal.

Of the Regulus *of* Antimony.

The ordinary or common *Regulus* of *Antimony*, without Iron, is made of Antimony, Salt-petre, and Tartar, melted together, and caſt into a ſmall Mortar greaſed, and ſo by knocking the Sides of it with a Hammer, the *Regulus* is made to fall to the Bottom; which, if it be good, ought to be white, in beautiful Scales, and like *Biſmuth*. If the *Regulus* ſhould not prove good at the firſt Operation, it may be melted and purified again with a little Salt-petre. The oftener it is melted, the more will it decreaſe, but the better will it alſo be.

Of this *Regulus* are made the Cups and Pills, and other chymical Operations, as ſhall be ſeen hereafter. It is a ſtrong Emetick and Cathartick, taken from four Grains to ſix.

Of Regulus *of* Antimony *with* Mars *or* Iron.

The *Regulus* of *Antimony* with *Mars*, is made of *Antimony*, Salt-petre, and Points of Horſe-nails, or ſmall Nails melted together; which by means of the Fire, and proceeding after the Manner as in the preceding Operation, is reduced into a *Regulus*.

This *Regulus*, if good, is much like the other, but withal ought to have a Sort of Star upon the Top. I ſhall not think it worth my while to recount the many fabulous Stories of the Antients concerning this Star, and the Cauſe of it, but ſhall only take Notice, that it appears finer or worſe, according to the Degree of Fire the *Regulus* has undergone.

Of this *Regulus* are made the Cups, *&c.* which give a purging or emetick Quality to Wine that is let to ſtand in them ſome time; but you ought to be cautioned to throw away the three or four firſt Wines you make with the Cups, leſt they ſhould produce ſome ill Accident.

Whereas moſt People who have Occaſion for the Goblets or Cups of the *Regulus*, find difficulty to come by them, let them apply to a Founder, and they may have what Sorts and Sizes they will, at a cheap Rate, without troubling themſelves with Moulds, as ſeveral have done to their Labour and Coſt, who have at laſt been obliged to give over the Attempt, not being able to make one Cup without a Hole, or ſome other Defect. You may

alſo get theſe ſame Founders to make you the perpetual Pills, or you may eaſily make them yourſelf with a Muſket-ball Mould.

The Pills ſerve for thoſe that have the Twiſting of the Guts, or *Miſerere mei*, ſo called. When they are returned from out of the Body, it is but waſhing and cleaning them again, and they will ſerve as oft as you pleaſe; which gives them the Name of Perpetual. They may alſo be infuſed, as well as the *Regulus*, in Wine, cold, for the Space of twelve Hours; which is afterwards a good Medicine for ſtrong Conſtitutions.

Of Glaſs *of* Antimony.

The *Glaſs* of *Antimony*, is an *Antimony* ſeparated from its Sulphurs, which are a deadly Poiſon; and for that Reaſon ought the Operation to be performed in a Chimney, to avoid the Exhalations: It is afterwards to be melted in a Crucible, and caſt upon a hot Marble, to make in the Manner we ſee it, and as it comes to us from *Holland*.

It is an Operation I cannot adviſe any one to undertake, not only upon Account of the great Difficulty and Hazard attending it, but alſo becauſe we cannot make it turn to that Advantage as the *Dutch* do.

Chuſe the *Glaſs* of *Antimony* flat, of a bright Red, and tranſparent, having as few ſmall, thick, black, and grey Pieces in it as poſſible. I am told the *Hollanders* mix half broken Glaſs in melting it, to diſcharge its black Colour the better, and to make it ſo fine coloured as we ſee it; but the Truth of the Fact I know not. Inſtead of throwing it upon Marble, one may put it in a Founder's Mould, and ſo make Goblets or Cups of it; but this is a Work only for the Curious, there being no Demand for them.

This *Glaſs* of *Antimony* ſerves for a Vomit, taken from two to ſix Grains. Apothecaries make the emetick Wine with it.

Of the Liver *of* Antimony.

The *Liver* of *Antimony*, improperly called *Crocus Metallorum*, is made of *Antimony* and common Salt-petre, mixed and incorporated well together, and by means of lighted Charcoal reduced into a Stone, after the Manner as we have it.

This *Liver* of *Antimony* ought to be choſen in fine ſhining Pieces, ſmooth, brittle, and when bruiſed or pulverized, of a reddiſh Saffron Colour, which is the Reaſon of its being called the *Crocus* or Saffron of Metals; but in Pieces it ought to be Liver-coloured, from whence alſo comes the Name of *Hepar*, or *Liver* of *Antimony*.

This *Liver* is a Sort of *Catholicon* for Horſes; more eſpecially to purge and put them in Caſe, if taken from one Ounce to two in wet Bran, as Mr. *Soyleſel* directs, in the Book called *The Compleat Farrier:* It is of ſome Uſe in Medicine, but ſo little, it is hardly worth ſpeaking of; but on the contrary it is much uſed for Horſes, as well under the Names above, as under that of the Imperial Powder.

This Operation, which ſeems the eaſieſt in the World, is notwithſtanding very difficult to be performed with Succeſs, more eſpecially if one has not good *Antimony* and good Salt-petre, or if it be filled with Salt, which but too frequently happens: Thoſe that undertake this Operation, muſt dry the Salt-petre, and make choice of the *Antimony* of *Poictou*, not of that of *Auvergne*, as well becauſe it is very full of Sulphur, as becauſe it is not ſo well cleanſed as the former; and after they been expoſed ſome Time, mixed together, to the open Air, put a ſufficient Quantity into a Mortar, or Iron Pot, placed in a Chimney; and upon Application of the Fire, a great Noiſe, which the Chymiſts call a *Detonation*, will happen; and when that is over, and the Veſſel cold, the Matter muſt be ſeparated from its Droſs or Scum, which is white, and the Bottom will be a Stone, ſuch as I have deſcribed. *Note*, You had not beſt make uſe of a Bell Metal Mortar, for fear of breaking, which ſometimes happens; or be apprehenſive of Fire. For, on the contrary, this Operation is the beſt Thing imaginable for ſweeping a Chimney; but obſerve to put a Cloth before the Chimney, and to get far enough off for fear of the Vapours, and that you do not perform it in any publick Place. It is an Operation of a very capricious and uncertain Nature; for I have ſeen a great Quantity of Salt-petre and *Antimony* mixed and prepared together, that has made a very fine Compoſition: And again, when one has proceeded after the ſame Manner, in all Particulars, the Reſult has been leſs beautiful, and ſometimes it has altogether miſcarried. Thoſe therefore that have Occaſion for it in Powder, muſt take Care that it be of a fine Red, and not the Powder of ſuch as ſticks to the Tops or Sides of the Veſſel, which is in ſmall, thin, brown Scales; or ſuch as has been ſpoilt, which is often powdered notwithſtanding, and ſo ſold, and this is the Reaſon ſome ſell it ſo much cheaper than others.

I have obſerved, that the true Crude *Antimony*, or that immediately from the Mine, without having been melted, makes the *Crocus Metallorum* much better than the common Kind.

Thoſe that would have *Crocus Metallorum*, fit to be taken inwardly, muſt make it with equal

Parts

Parts of *Antimony*, and refined Salt-petre, and then reduce it to a ſubtil Powder, and waſh it many Times in warm Water, as well to free it from any remaining Salt-petre, as to make it a little more emetick. The more emetick you would have it, the more Salt-petre muſt be uſed; but it conſiderably diminiſhes the Quantity, and makes it a great deal the dearer; though this ought to be no Conſideration, ſince, in ſmall Quantities as it is uſually demanded, it is ſold at ſuch a Rate, that it amply rewards the Labour and Expence.

One may give what Colour one pleaſes to the Imperial Powder, or *Liver* of *Antimony*, according to the Preparation, or according to the Salt-petre that is made uſe of; which if it be of the ordinary Sort, will make it a little darker, or upon the Liver Colour, more than if it was of the beſt and fineſt Salt-petre; and if you add decrepitated Salt, that is, ſuch as has been dried and half calcined, till it has done Crackling, it will be a fine Red, inclining to that of Opal, and therefore it has obtained the Name of *Magneſia Opalina*, or the Ruby of *Antimony*.

Some make uſe of the white Droſs, as well alone, as to draw from it a Salt, or fixed Salt-petre with Water, which is a very good Medicine for Horſes; *Crocus Metallorum*, both waſhed and unwaſhed, is uſed in making the emetick Wine, which is done by putting the *Crocus*, or *Liver* of *Antimony*, in White Wine, and infuſing of it for twenty four Hours.

Of Diaphoretick Antimony.

Antimony Diaphoretick, or the *Calx* of *Antimony*, is the *Antimony* of *Poictou*, and fineſt Salt-petre incorporated together, made into a Powder by the Means of Fire and warm Water; which, before it is quite dry, is formed into ſmall Cakes, and ſo dried and kept for Uſe. This Medicine is ſometimes uſed in malign Fevers, wherefore ſome preſcribe it in the Plague, and other contagious Diſeaſes, it being a Sudorifick, and an Expeller of the *Virus*; though there are others very diffident of its Qualities, ſuppoſing it to have no manner of Virtue, but to be only a Sort of Chalk; which I will not pretend to judge of, but leave it to the Phyſicians to do it. One muſt be careful that other Things are not ſubſtituted for it, as *Ceruſe*, and the like, which ought to be avoided, and may make one careful to buy it only of faithful honeſt Men; for I know no certain Proof of it, unleſs it be that genuine *Diaphoretick Antimony* ought to be extremely white, ſoft, brittle, and wholly void of all Taſte or Smell, being perfectly inſipid. Some ingenious Men have aſſured me, that the Quality of this Medicine is quite altered by keeping: For whereas, when newly made, it is Diaphoretick, it becomes Emetick when old; but this is what I have not experienced; but be it how it will, the new ought always to be preferred.

Two Sorts of Salt may be drawn from Lotions made of it; but conſidering the ſmall Quantity that is to be obtained, I cannot adviſe any one to trouble himſelf about it.

Of the Flowers *of* Antimony.

The *Flowers* of *Antimony* are made in Pots put upon one another, called *Aludels*, being a Vapour raiſed from *Antimony* by the Force of Fire, and found in the Pots in white Powder, which may be gathered with a Feather. *Note*, If you make uſe of an earthen Retort inſtead of Aludels, you will have the Flowers red.

The *Flowers* of *Antimony* are a powerful Vomit, good againſt the Epilepſy and intermitting Fevers, the Doſe is from two to ſix Grains; and of the red, being more emetick, from two to four, taken with any Sort of Conſerve, or in Broth. And I cannot but obſerve, by the bye, that a Man ought not to deal in chymical Medicines, without Advice of a faithful and experienced Phyſician; Empiricks killing with them more than the Sword. How effectual ſoever a chymical Preparation may be, aptly and duly taken, it may be altogether as pernicious unſeaſonably preſcribed.

Of the Butter *and* Cinnabar *of* Antimony.

The *Butter* and *Cinnabar* of *Antimony* ariſe from the ſame Matter, the Degrees of Fire only making the Difference: The Matter is a Mixture of *Antimony* and corroſive Sublimate put into a Retort. That which comes over firſt is a tranſparent Oil, next an Oil as thick as Wax, which being well wrought, is like white Sugar-candy; and the third Matter produced by the Violence and Force of the Fire, is a reddiſh Subſtance in ſmall Needles, pretty much reſembling native *Cinnabar*, from whence it has its Name.

This *Butter* of *Antimony* is a ſtrong Cauſtick, but its principal Uſe is to make the Angelick Powder, as will be ſeen hereafter; the *Cinnabar* is ſudorifick, wherefore it is made uſe of ſometimes in the Small Pox, from ſix to fifteen Grains.

The beſt *Butter* of *Antimony* is very white, and perfectly like to white Sugar-candy; it ought to be as dry as poſſible, and for that Reaſon ſhould be kept in a Bottle well ſtopped.

The *Cinnabar* ought to be choſen in little Pieces, red, and as full as poſſible of thoſe *Striæ*,

or

or little Needles; that which is blackiſh is to be rejected.

Of the Powder *of* Algarot, *or* Mercurius Vitæ.

The *Powder* of *Algarot*, or the *Emetick* or *Angelick Powder*, ſo called, is a white Powder made with Butter of Antimony diſſolved and thrown into warm Water, and ſeveral Times waſhed, and then dried, and ſo kept in a Glaſs Vial for Uſe.

This Powder is a very ſtrong Purge both upwards and downwards; the Doſe from two to eight Grains, in Broth, or any other Liquor. This Powder ought to be very white, and made with the Icy Oil or Butter of Antimony; which is made of the *Regulus*, as we ſhall ſee hereafter; for when the *Emetick Powder* is made with the Butter which was made of *Crude Antimony*, it is by no means ſo white as when with that which was made of the *Regulus*.

Of Bezoar Mineral.

Bezoar Mineral is made of Butter of Antimony, prepared with Spirit of Nitre, and reduced into a white Powder, to which are attributed the ſame Virtues as to the Diaphoretick Antimony, and which therefore is by many uſed for it; but this we ought be aware of; its Doſe is from ſix to twenty Grains.

Of the Icy Oil *of* Antimony.

The *Icy Oil* of *Antimony* is made of the *Regulus* of *Antimony*, and Sublimate corroſive; which, by means of the Fire, are reduced into an Oil, of the Conſiſtence of that we ſpoke of before. When the *Oil* is come over, if you encreaſe the Fire, and take away the Recipient, and put another in its Place with cold Water in it, you will have a very good and beautiful running Mercury.

This *Oil* is very corroſive, and ſerves to conſume fungous Fleſh; it is of this Oil you ought to make the Powder of *Algarot* and *Bezoar Mineral*.

Of the Cauſtick Oil *of* Antimony.

The *Corroſive Oil* of *Antimony* is made with Powder of Antimony, Spirit of Salt, and Corroſive Oil of Vitriol; out of all which, by the means of Fire, is drawn a whitiſh Liquor, to be kept for Occaſion; it is of uſe in carious Bones, being a ſtrong Eſcharotick; alſo for Gangrenes, and to deterge old Ulcers.

This Liquor is not, properly ſpeaking, an Oil, not being at all fat. One may alſo draw another Liquor from Antimony, with Sugar-candy.

Of the Tincture *of* Antimony.

The *Tincture* of *Antimony* is made of Salt of Tartar and Antimony, melted together; from which, with Spirit of Wine, is drawn a red *Tincture*, eſteemed a very good Antiſcorbutick; as alſo to be good againſt hyſterick Vapours in Women, the ſcorbutick Itch, and many other Diſeaſes; Doſe from four to twenty Drops.

Of the Magiſtery *and* Precipitate *of* Antimony.

This *Precipitate* is made of a very fine Powder of *Antimony* and *Aqua regia* mixed together, and afterwards thrown into an earthen Pan of Water; the Powder found at the Bottom is to be dulcified by waſhing, and is properly the Sulphur of *Antimony*, being inflammable, like common Sulphur: Its Uſe is in Apoplectick and Paralytick Caſes; Doſe from two to twelve Grains in ſome convenient Vehicle. Beſides this Sulphur of Antimony, there is moreover another called the *Golden Sulphur* of *Antimony*, which is made of the *Scoriæ*, or Droſs of the common *Regulus* of *Antimony*, without *Mars*; from which, being boiled in Water, filtrated and precipitated with Vinegar, you will have a red Powder, which, when dried, ſerves to provoke to vomiting; the Doſe whereof is from four to ſix Grains in Broth or Pills. Let it not ſeem ſtrange that I enlarge not more upon the Chymical Proceſſes, ſince they are not the Druggiſt's Buſineſs; and Meſſieurs *Charas*, *Glacer*, and *Limery*, have ſo amply treated of them already.

[*Antimony* is the στίμμι of *Dioſcorides*; the τιτραλάνον of *Hippocrates*; the *Lapis Spumæ candidæ nitentiſque non tamen tranſlucentis* of *Pliny*; and the *Ailmad* or *Alamad* of the *Arabians*. *Antimonium*, *Charlt. Foſſ.* 49. *Worm.* 125. *Stibium*, *Fabr.* 27. It is of different Kinds; ſome is dug up with the Appearance of poliſhed Iron or Lead, but brittle and mixed with white cryſtalline Stones; ſome is compoſed of fine ſhining Lines like Needles, ſometimes placed in regular Ranks, ſometimes without any Order, and this is what is called *Male Antimony*; ſome is diſpoſed in thin broad Plates, or *Laminæ*, called *Female Antimony*; ſome is a Congeries of ſmall Lead-coloured Rods; this is got from a tender white Stone, and eaſily melting in the Fire like Sulphur, which enters its Compoſition in great Quantities. *Antimony*, of this Kind, is found in ſeveral Parts of *Italy*; ſome is marked with Saffron-coloured, or reddiſh Spots, as the *Hungarian*

garian Antimony, which is mightily eſteemed by the Chymiſts. *Antimony* is thus frequently found in a particular Ore, but often alſo it is mixed with other Metals, and hence it has its Name from ἀντὶ μόνου, an Enemy to being alone. Ores of *Antimony* are found in many Countries; the Glebes are dug out of the Earth, mixed with a ſtony Matter.

Antimony, when made into a *Regulus*, and calcined in the Sun, may be ſeparated from almoſt all its Sulphur, and turn to an Aſh-coloured true vitrifiable Calx, which melted by a ſtrong Fire, becomes a Hyacinth-coloured Glaſs; and if any ſulphureous Subſtance be added to this Glaſs while in Infuſion, it preſently recovers its *Reguline* Form and Splendor. *Antimony* contains ſo much Sulphur, that an acid Liquor may be extracted from it nothing different from Spirit of Sulphur. From theſe, and many other Obſervations, it is evident, that *Antimony* conſiſts of a ſulphureous Acid, of a bituminous, inflammable Part, and of a vitrifiable, metallick Earth. The *Regulus* is diſſolved by *Aqua regia*, but is only calcined by the other Diſſolvents of Metals. *Antimony* diſſolves and deſtroys all other Metals, except Gold, when melted with them, but melted with that, it conſumes all the other Metals which were mixed with it, and the Gold comes out brighter and finer than before.

What our Author means by its being uſed as a Fucus or Coſmetick, is, that among the Antients it was uſed to dye the Eyebrows and Eyelaſhes black, as by Queen *Jezabel* in the Scriptures, and the *Hebrew* Women in general, who were reproved for it by the Prophets.

Crude Antimony may be ſafely taken inwardly in large Doſes; but its Preparations, by means of Chymiſtry, are almoſt all of them rough, and very violent. They have been much in Eſteem, but at preſent the *Cinnabar* is almoſt the only one in Uſe, except for Horſes.

If any one is in Danger from an over Doſe of any of the other Preparations, Spirit of Vitriol, or *Oleum Sulphuris per Campanam*, is a much ſafer and more expeditious Thing to check the Vomiting, &c. than *Opium*.]

2. *Of the* Load-Stone.

Pomet. THE *Load-Stone*, according to Authors, is a black Mineral Stone, and is endued with ſurpriſing Qualities; ſuch as directing its Poles towards the North and South, attracting Iron or Steel, and communicating its Virtue to them by the Touch. It is found in almoſt all Sorts of Mines, more eſpecially in thoſe of Copper and Iron, of whoſe Nature it participates. Good *Load-Stone* is very ſolid, not porous nor very heavy, and of an homogeneous Subſtance; of the Colour of Iron, or a ſhining Black, and ſometimes of a grey or obſcure Blue, inclining to Red. The Virtue which the Load-Stone communicates to Steel, is loſt when the Figure of it is altered, whether it be with a Hammer or one's Fingers, as may be ſeen with a ſtraight Needle if bent, or a crooked one if ſtraightened, after it has been touched, as Father *Grimaldi* affirms in his *Phyſicks*. The *Load-Stone* that attracts Iron very forcibly, is called a generous or noble Stone. The Way of keeping it is in a dry Place, wrapped in Scarlet Cloth, or rather to preſerve its Virtue, to arm it, and hang it up by its *Equator*, with a Cat-gut, that it may have its free Tendency. If it chance to fall, it loſes its Strength for awhile: Its Poles are found by applying to it Pieces of a common Needle; for the two Places where the Needles remain ſtrait, are the two Poles. It is ſaid this Stone, taken inwardly, intoxicates and renders ſtupid; and that its Antidote, or Counter-Poiſon, is Gold or Emerald Stone. *Matthiolus* tells us, that red Bronze Metal, melted with ſome of this Stone, becomes as white as Silver, after the ſame Manner as Copper does of a golden Colour, with *Lapis Calaminaris*. *Pliny* ſays, *Dinocrates* the *Alexandrian* had begun to vault the Temple of *Alſinoe* with Load-Stone, in order to have his own Statue, which was made all of Iron, ſuſpended in the Air. The ſame Thing has been affirmed of *Mahomet's* Temple, but theſe Accounts are altogether fabulous. It is called in *Latin*, *Magnes*, from a Shepherd named *Magnes*, that happened to diſcover it upon Mount *Ida*, by hitting upon it with the Iron of his Sheep-crook, according to *Nicander*. It is alſo called, *Lapis Lydius*, or *Heraclius*, becauſe found in *Heraclea*, a City of *Magneſia*, which belongs to *Lydia*: In *French* it has the Name of *L'Aimant*, from its Love or Attraction of Iron. It is beſides called *Lapis Herculis*, becauſe it directs to find out the Ways, over which *Hercules*, by Antiquity was ſaid to be the preſiding Divinity: And laſtly, *Sideritis*, from its Adheſion to Iron, which the *Greeks* call *Sideros*.

Beſide, the forementioned Load-Stone, the Abbot *de Vallemont*, in his Treatiſe, tells us of another Kind, which was found upon the Top of *Chartres* Steeple, in the Year 1691, and which he had experienced to attract Iron, and to direct its Poles North and South, and to have the ſame Declination as the ordinary Load-Stone. It were to be wiſhed therefore, that this Kind could be oftener met with, and it ought to be ſought after amongſt the Ruins of old Buildings, it certainly having very extraordinary Effects. Mr. *de Vallemont* has ſhewn me

me one of them of a ſurpriſing Excellency and force, in attracting Iron of a great Weight. I would willingly enlarge upon this Sort of Load-Stone, were it more common, but it is very ſcarce; and ſince the King has had one preſented to him, it is ſought after with great Diligence, to adorn the Cabinets of the *Virtuoſi*: However, I refer the Curious to Mr. *Vallemont's* aforeſaid *Treatiſe*, who has obliged the Publick with the Deſcription of this Load-Stone, and explained how it was formed by Nature in the aforeſaid Place. There is a third Sort, but very rare alſo, which is what we call *White Calamite*, or the *White Load-Stone*. There is moreover, a fourth Sort, very frequent and common amongſt us, being no better than a ſort of Droſs of Iron, but this is what is commonly ſold, becauſe the true black *Æthiopick* one, by Reaſon of its great Excellency, is ſcarce, and we cannot ſhift without it, eſpecially thoſe that go to Sea, becauſe it always tends towards the North, and ſhews the Pilots where they are. The *White Magnet* alſo, being of great Virtue, is much ſought after, but ſeldom met with; and in its Place there is commonly ſold a worthleſs Sort of Marle, or white Earth, which is found ſticking to the common Load-Stone; but this is eaſily diſtinguiſhed from the true White Load-Stone, which is of a ſort of greyiſh White, ponderous, and attracts Iron as forcibly as the black one of *Æthiopia*, which that which is ſold for it will not do; beſides this, its Cheapneſs ſufficiently argues its being ſpurious. We therefore are obliged to content ourſelves with ſuch as are brought from divers Places, particular from *Auvergne*, which we can hardly get ten Groats a Pound for; much leſs could we be able to ſell them at the Price of genuine Stones, which ſome have been glad to purchaſe for their Weight in Gold; but though we find much Fault with what we ſell, it does not follow but there are ſome good, though in Truth you will ſcarcely meet with above ten amongſt a Thouſand. However, thoſe among ours that can raiſe ſmall Needles, or make the Filing of Iron move upon a Plate, by only paſſing the Stone along underneath, without touching it, or have Force enough to make Steel-Duſt ſtick to them, when thrown upon them, may ſerve for any medicinal Uſe, and for the *Emplaſtrum Divinum*, which is their chief Uſe therein.

Lemery.

Magnes, Lapis Heraclius, Lapis Sideritis, Lapis Nauticus, or the *Load-Stone*, is a compact, hard, Mineral Stone, pretty heavy, and of a black or brown Colour, or obſcure blue, which is found in Iron or Copper Mines. The beſt is found in *India* and *Æthiopia*; but it is likewiſe brought from *Italy*, *Sweden*, and *Germany*: It has a great many excellent Properties, both for Travellers and Artiſts, which are too tedious to relate. The moſt valuable *Magnet* is that which attracts the greateſt Weight of Iron. I have ſeen a Load-Stone no bigger then a common Apple that would attract and ſuſpend a Bar of Iron that weighed twenty-two Pounds. This Stone was ſold for an hundred Piſtoles.

They make the Load-Stone one of the Ingredients in the Compoſition of Plaiſters appropriated to Wounds that are made with a Sword, where they think ſome Pieces may be left behind; for they believe that the *Load-Stone* which is in the Plaiſter, attracts and draws the Iron out of the Wound, though the Virtue in the *Load-Stone* there can never produce this Effect: For firſt of all, being powdered finely, as it ought to be, it loſes all its Force of Attraction: And, ſecondly, being mixed in the Plaiſter, though its Virtue ſhould remain, it would not have Power to act, being confined by the Viſcidity of the Gums and Reſins. There is a white Load-Stone, but it is very ſcarce; it ought to be of a greyiſh White, heavy, and attractive. All theſe Stones are aſtringent, and ſtop Blood, outwardly applied.

[The *Load-Stone* is the *Magnes*, *Aldr. Muſ. Met.* 553. *Worm.* 62. *Charlt. Foſſ.* 62. *Lapis Magnes*, *Matth.* 1384. the Ἡρακλειος λίθος and Ἡρακλειωτὶς of the *Greeks*; the *Magnetis* of *Avicenna*; and the *Calamita* of *Rhazes*. It is alſo called *Lapis Lydius*, but this Name ought to be avoided, becauſe it is common to the Load-Stone, and to what we call the Touch-Stone, by which the Truth of Gold and Silver are tried: They both received this Name from their common Country; but theſe two Significations of the *Lapis Lydius* are to be carefully diſtinguiſhed, the two Stones being very different from each other.

The *Load-Stone* is found in many Countries of *Europe*, particularly in Iron Mines; but the beſt are brought from *Æthiopia* and the *Eaſt-Indies*. It is undoubtedly a kind of Iron Ore; for in ſome Places of *Germany* they actually extract Iron from it; and when expoſed to the Focus of a great Burning-glaſs, it manifeſtly diſcovers Iron.

It is not uſed inwardly in Phyſick; though *Galen* ſays it has the ſame Virtues as the Blood-Stone, and alſo ſome purgative Quality, for which he recommends it in Dropſies; and *Dioſcorides* preſcribes it to evacuate groſs melancholick Humours. Externally it is drying, aſtringent, and conſolidating, and is an Ingredient in ſome Plaiſters.

The *White Load-Stone* is the *Magnes Albus*, *Mont. Ex.* 13. *Magnes Candidus*, *Kentm.* 14. *Aldr. Met.* 560. From both theſe we ought to diſtinguiſh the

the *Magnes* of *Theophraſtus*, which was, as he ſays, white, and ſhining like Silver, not hard, but eaſily turned into Veſſels, neither did it attract Iron. It had its Name, as the *Load-Stone*, from *Magneſia*, a Town in *Lydia*. This was, in all Probability, a kind of native Litharge, and was that kind of *Magnes* ſaid to be poiſonous; whence from confounding this with the true *Load-Stone*, that was alſo, in after Times, accounted a Poiſon.]

3. *Of* Natural Cadmia, *or* Calamine-Stone.

Pomet. CADMIA, *Calamine-Stone*, or *Lapis Calaminaris*, is a Mineral, whereof there are two Sorts, the Grey and the Red.

The firſt is not unlike grey Bole, only it is harder; it is found in *Germany* and *England*, near the Lead Mines, and alſo near *Liege*.

The ſecond Sort is a Stone of a reddiſh Colour, interlaced with white, hard, heavy Veins, full of round hard Grains, of the Bigneſs of Pepper. Theſe Stones are found in great Plenty in *Berry*, near *Bourge* and *Saumur*, where there are whole Quarries of them, and one may have what Quantity one will for the Digging. They may be had alſo in many other Places; but ſince thoſe of *Berry* are as good as any, it is not worth our while to have them brought from more diſtant Places.

This Stone is of ſome Uſe in Medicine, as it is aſtringent and deſiccative; it is alſo an Ingredient in ſome Galenical Compoſitions, for all which Uſes, it ought to be prepared upon a Porphyry, and made into Cakes, with Roſe-water, and is, prepared, what the Apothecaries called *Lapis Calaminaris*.

As for the firſt Sort, how genuine ſoever, it is of very ſmall Uſe in Phyſick; its chiefeſt being to turn red Copper into yellow, which is called *Leton*, or *Braſs*.

Lemery. *Cadmia*, in *Arabick Clinia*, *vel Chilimia*, in *Engliſh Cady*, is a Mineral Subſtance, whereof there are two general Kinds, one natural, and the other artificial; the natural is metallick as *Cobalt*, or not metallick as *Lapis Calaminaris*: The artificial is a kind of *Scoria*, which is ſeparated from the Metals in the Founders Works, as are the Pompholyx, Tutty, *&c.*

[*Calaminaris-Stone* is the *Cadmia Foſſilis*, *alias Lapis Calaminaris*, *Worm.* 128. *Charlt. Foſſ.* 51. *Cadmia Foſſilis*, *Aldr. Muſ. Met.* 256. *Cadmia Lapis Calc. Muſ.* 460. The Name *Cadmia* has been applied to ſeveral Things; *Dioſcorides* underſtood by it, the Recrements of Braſs in the Furnace; *Galen* applied it to theſe, and alſo to another native Subſtance found in the Iſland of *Cyprus*, which he calls λίθωδης, or ſtony; and *Pliny*, beſides the factitious *Cadmia* of theſe Authors, mentions another by the Name of *Lapis Æroſus*, which he ſays was an Ore out of which Copper was made; which was, perhaps, the ſame with the *Cadmia Lapidoſa* of *Galen*. The Dealers in Metals, and from them others, have alſo called by the Name of *Cadmia*, the Stone, which is the Subject of this Chapter, the *Lapis Calaminaris* uſed in making Copper into Braſs; and the *Germans* have given the ſame Name to *Cobalt*: Therefore *Agricola* and the other more modern Writers diſtinguiſh three Kinds of *Cadmia*; the Metallick, the Foſſil, and that of the Furnaces.

The metallick *Cadmia* is a foſſil Subſtance, containing ſome Portion of Copper or Silver, or both, and is of two Kinds; the *Cyprian*, which is alſo found in *Aſia* and *Italy*, and is a Copper Ore; and probably is what *Galen* means, though he does not mention that Copper was obtained from it; and the *German*, or *Cobalt*, a metallick Subſtance, from which are prepared *Arſenick*, *Zaffera*, and the *Encauſtum Cæruleum*.

The foſſil *Cadmia* is the *Lapis Calaminaris*, the Subject of this Chapter. It is a foſſil Subſtance of a middle Conſiſtence between Stone and Earth, and of different Colours, as whitiſh, yellowiſh, or reddiſh. Theſe are all found in many Parts of *England*, and that of the laſt Colour is uſually full of ſmall ferrugineous Globules, and is found in great Quantities in *France*; the others are dug in *Germany*, near *Aix la Chapelle*. They ſeem to partake of Iron Ore, as moſt of them are attracted by the Load-Stone, and are the proper Ores of *Zink*. This was probably unknown to the antient *Greeks*, or at leaſt not uſed in Phyſick, ſince it is not mentioned either by *Dioſcorides* or *Galen*. It is now much uſed in drying Ointments.

The *Cadmia* of the Furnaces is the Tutty deſcribed already in its Place.]

4. *Of the* Hæmatitis, *or* Blood-Stone.

Pomet. THE *Lapis Hæmatitis*, or *Blood-Stone*, is a Mineral of a reddiſh Colour, hard, ponderous, with long pointed Needles, very dangerous to ſuch as are pricked by them.

This *Stone* is brought us from many Places, there not being any Iron Mines wherein it is not found.

Chuſe thoſe Stones that are of the higheſt Colour, with fine *Striæ*, or Needles, and as much like Cinnabar as may be.

This Mineral has ſome Uſe in Medicine; as it is aſtringent, deſiccative, and good to ſtop Bleedings, uſed externally, or given inwardly in fine Powder; the Doſe is from four Grains to a Drachm.

Drachm. Mr. *Charas* obſerves, in his *Pharmacopœia Chymia*, Page 823, that if you drive it over the *Helm*, in a Retort, with *Sal Armoniack*, you may draw Flowers of the Colour and Smell of Saffron, which are what they call the *Flores Aromatici Philoſophorum:* And moreover you may make with it a chalybeate acid Spirit; and with Spirit of Wine, a Tincture and Flowers; both which have great Virtues, according to the aforementioned Author, to whom I refer you.

It is ſaid this *Stone* has a ſovereign Virtue to ſtop Blood, from whence it derives its Name of *Lapis Hæmatitis*, or the *Blood-Stone*.

This *Stone*, being powdered, as the *Lead-Stone*, enters the Compoſition of ſome Galenick Medicines: Alſo thoſe that work in Metals, or in queſt of the *Philoſophers Stone*, make uſe of it.

Goldſmiths, and thoſe that gild, uſe it too, to poliſh their Work, whether it be upon Silver, Copper, Iron, Wood, or whatever.

There is alſo another Sort of *Blood-Stone* called the *Red Crayon*, uſed by ſuch as deſign and draw Sketches: it is like that of *Spain*, with this Difference, that it does not appear ſo ſparkling with Needles, but dull and unpoliſhed, like Earth.

This kind is brought us from *England*, and there are two different Sorts of it; the one good, which is pretty tender, ſoft, and eaſy to ſaw or cut into Crayons; but the other, not worth any Thing, hard and gravelly, and will not admit of cutting.

Emery. *Hæmatitis*, *Lapis Sanguineus*, or the *Blood-Stone*, is a hard, ſolid, heavy Stone, participating of Iron, diſpoſed like Needles, of a reddiſh brown Colour, but becoming red as Blood, as it is reduced to Powder; they take it from the Iron Mines. The beſt and moſt eſteemed is that of *Spain*, which is clear, heavy, hard, and ſolid, in fine Shoots, of a reddiſh brown Colour, with Streaks that are blackiſh without, and reſembling Cinnabar within; it is very aſtringent and drying, ſtops Blood, and is given internally, as well as uſed externally, in fine Powder; the Doſe from fifteen Grains to a Drachm. There is another Sort of Blood-Stone brought from *England*, called the *Baſtard Hæmatitis*; it differs from the former in that it neither ſhoots into Needles, nor is ſo hard: Chuſe ſuch as is of a browniſh red, weighty, ſolid, and ſmooth; it is aſtringent, and is called *Hæmatitis* from αἷμα, Blood, becauſe being powdered, it is of the Colour of Blood, and ſtops Bleeding.

[*Blood-Stone* is the *Hæmatitis*, *Charlt. Foſſ.* 27. *Worm.* 64. *Lapis Hæmatitis*, *Math.* 1381. λίθος αἱματίτης of the *Greeks*; and the *Sedenegi*, or *Sadanegi* of the *Arabians*. It is an Iron Ore; and in *Bohemia* they extract an excellent Iron from it: It is often found in Iron Mines in a diſtinct Ore, but there are always found near it, wherever it is, red Earth and red Stones; it is dug up in *Germany*, *Italy*, and *Spain*, but the laſt is the beſt. *Pliny* diſtinguiſhes five Kinds of it, according to the Countries it comes from, and its different Colour and Hardneſs; and others divide them from their outward Appearance; ſome are uneven and angular as thoſe of *Spain*; ſome cluſtered on the Surface like Bunches of Grapes, and therefore called *Botryoides*, as thoſe brought from the *Harts Foreſt* in *Germany*; and others are formed in various Convolutions, like the Inteſtines, or the outer Surface of the Brain: theſe are beautifully delineated by *Aldrovandus* and *Imperati*.

The *Green Blood-Stone*, or *Heliotrope*, is the *Heliotropius*, *Worm.* 94. *Lapis Porraceus guttatim*, *punctulatim*, *vel fibratim ſanguineus*, *Heliotropium dictus*, *Cup. Hat. Cath. Sup.* 50. It is a very beautiful green Stone, marked with red, and is ſaid to poſſeſs the ſame Virtues with the other.

What our Author, and ſome others, mention as another kind of *Blood-Stone*, uſed for Crayons, is an Earth well known in *England*, under the Name of *Red Oaker*, *Ruddle*, or *Marking-Stone*. It is the *Rubrica Fabrilis*, *Calc. Muſ.* 134. *Rubrica*, *Charlt. Foſſ.* 2. *Worm.* 4. *Rubrica Fabrilis mollis*, *Kentm.* 8. This is ſometimes brought to a paler Colour with the Addition of Chalk, then worked up into Cakes, and ſold under the Name of *Bole Armenick*; and in ſmaller round Pieces, marked with ſome Impreſſion, under that of *Terra Sigillata Rubra*. There is alſo another harder Kind of this, the *Rubrica Fabrilis Dura* of *Kentman*; *Rubrica Laminata* of *Charlton* and *Wormius*, which is uſed by the Turners, and muſt be wetted before it will mark.]

5. *Of* Spaniſh Emery, *and the other* Emeries.

EMERY of *Spain* is a Marcaſite, *Pomet.* or ſtony Mineral, with ſmall Veins of Gold running through it, which is found in the Gold Mines of *Peru*, and elſewhere: It is of much Account amongſt thoſe that ſeek the Philoſophers Stone, becauſe of the golden Veins that adorn it; and it is at this Day ſo valuable and ſcarce, that thoſe that have any of it may ſell it for its Weight in Gold; the King of *Spain* has forbidden the Exportation of it out of his Kingdom, which is the Reaſon it is ſo very ſcarce to be found. This *Emery* is of little or no Uſe in Phyſick, though Mr. *Demeuve* ſays it is of a corroſive and cauſtick Quality.

There are, beſides this, two other Sorts of *Emery*,

Emery, one whereof is reddiſh, and found in Copper Mines, as well in *Sweden* as other Places, and is what ſome ſell for *Emery* of *Spain*, but it is eaſily diſtinguiſhable from it, being more rough, ſolid, and hard, of a fine red Colour, and not veined with Gold.

The third Sort is that which is commonly uſed by Armourers, Cutlers, and, in ſhort, by all thoſe that work upon Iron or Steel, there being nothing that poliſhes like pounded *Emery*. It is alſo uſed in poliſhing Steel, Looking-glaſſes, ſeveral ſorts of Stones, and upon a great many other Occaſions in the mechanick Way.

The common *Emery* is brought to us from ſeveral Countries where there are Iron Mines, and likewiſe from *England*; and there are none but the *Engliſh* that trouble themſelves about the powdering or grinding it in Mills which ſerve only for this Purpoſe, or to grind Stones of a like Nature; for this ordinary or common *Emery* is ſo hard, that whoever would pretend to powder, or beat it in a Mortar, would be apt to make Holes in the Mortar: And as this Mineral is made much uſe of, eſpecially in Powder, that ought to be choſen which is in fine Powder, pure and clean; if in Stone, let it be as bright-coloured, and as free as you can from other Stones.

Emery cuts Glaſs as the Diamond does, but makes no Impreſſions upon Diamonds as it does upon other precious Stones. It is ſaid, if melted with Lead and Iron, it encreaſes their Weight, and hardens and makes them become red; which I have not experimented. Some alſo mix *Emery* with the ſoft pale *Madagaſcar* Gold, but it muſt be that of the ſecond Sort, which comes from the Copper Mines.

It is made uſe of alſo to cut and divide Marble. They affirm likewiſe that it becomes an impalpable Powder, if put into Brandy or Spirit of Wine, which I cannot vouch for, having never tried it; that which falls from the Lapidaries Mills, and looks no better than Mud, is by ſome made up into Balls, and ſold to ſeveral People under the Appellation of the *Putty* of *Emery*.

Lemery.

Smyris Lapis, or *Emery*, is a kind of Marcaſite, or very hard Stone, whereof there are three Sorts; the firſt and moſt eſteemed is called *Spaniſh Emery*, becauſe it is found in the Gold and Silver Mines of *Peru*, and ſeveral other Parts of *New Spain*; it is reddiſh, mixed with Streaks of Gold and Silver. This Kind of *Emery* is very ſcarce, for becauſe of the Gold contained in it, the King of *Spain* has forbid the Tranſportation of it. The Second is ſmooth, and red, but has nothing of Gold or Silver in it; it is found in the Copper Mines. The Third is common *Emery*, whoſe Colour is blackiſh; it is got in the Iron Mines; they powder or grind it in *England*, by certain Mills made for that Purpoſe, which they could not do in Mortars, becauſe of the great Hardneſs of this Stone. This powdered *Emery* is uſed to poliſh or clean Arms, Knives, Looking-glaſſes, *&c.* You muſt chuſe that which is in the fineſt Powder, pure and clean. All theſe Stones are made uſe of to cut and poliſh precious Stones, Glaſs, and Marble, and are of no Importance in Phyſick, except only that they may ſerve to clean the Teeth. What falls from the Lapidaries, in working with this, they dry and call *Putty* of *Emery*.

[*Emery* is the *Smyris* and *Smeritlus* of the Shops, *Smiris*, *Worm.* 65. *Ald. Muſ. Met.* 653. *Charlt. Foſſ.* 27. The σμίρις of the *Greeks*; the *Smergium* of *Serapion*; and the *Sumbagedi* of the *Arabians*. It is a ferrugineous, heavy, metallick Subſtance, of the Iron Ore kind. The common *Emery* is blackiſh, and found in many Parts of *Europe*; eſpecially in an Iſland on the Coaſt of *Tuſcany*, and in *Guernſey*, in the *Britiſh* Channel. It is recommended by *Dioſcorides* and *Galen* as a Dentifrice; but it corrodes the Teeth too much, and inſenſibly wears them away.

The *Spaniſh Emery* is greatly in Eſteem with the Searchers for the Philoſophers Stone: they extract a Tincture from it with Spirit of Sea Salt, with which they ſay they can fix Mercury in an Inſtant, and call this Subſtance Miraculous Precipitate, fancying they ſhall, by means of it, at length attain to the true Art of making Gold.]

5. *Of the* Magneſia.

Pomet.

MAGNALES, *Magneſia*, *Magne*, or *Manganeſe*, is a Mineral pretty near approaching to Antimony, only it is ſofter, and brittle, like Free-Stone, and made up of ſhining Sparkles inſtead of *Striæ*.

There are two Sorts of *Magneſia*, the Grey and the Black; the former is very ſcarce, and ſo not much in uſe, but the black is very much uſed, as well by Enamellers, as Potters and Glaſs-makers, who purify and whiten their Glaſs, by putting in a ſmall Quantity of it; whereas, ſhould they add too much, it would be of a blue or purple Colour.

We have it from many Places in *Piedmont*, where it is found in the Mines in Pieces of different Figure and Bigneſs; as to the Choice of it, let it be as brittle, as ſparkling, but as little loaded, or other extraneous Bodies as may be.

Monſieur *Furetiere* is very much miſtaken in affirming

affirming *Magneſia* to be the ſame Thing as *Safre* and *Perigueur*, both which I am going to treat of, and firſt of *Perigueur*.

[*Magneſia* is the *Sapo Vitri Merr. Pin.* 214. *Manganeſe*, *Schwenk. Not. in Boer. Chym.* 140. It is a foſſil, metallick Subſtance, found in *Germany*, *Italy*, *Piedmont*, and near *Mendip Hills* in *England*; and wherever the Miners find it, they conclude there is Iron Ore near; it is uſed in Glaſs-making, and to colour earthen Veſſels of a purpliſh Black, but is of no uſe in Medicine.]

7. *Of* Perigueur, *or* Perigord-Stone.

Pomet. PERIGUEUR, or *Perigueux*, is a Mineral, or black Stone, like black Coal, heavy, hard, and difficult to be reduced into Powder.

Enamellers and Potters make uſe of it. There needs no other Choice about it than to ſee that it be pure, and clean from Impurities; for if there be any other Mineral mixed among it, it would ſpoil all the Works it is employed in; therefore they that ſell it to the Workmen, muſt take the ſame Care as they do in Lead Ore.

The *Perigueur* which we ſell at *Paris* is brought us from *Dauphiny* and *England*.

Lemery. *Lapis Petracorius*, *Perigord*, or *Perigueux*, is a kind of Marcaſite or hard Stone, that is heavy and ſolid, black as Coal, difficult to reduce to Powder. It is met with in ſeveral Mines of *Dauphiny*, and in *England*, from whence it is brought us in Pieces of different Sizes; the Enamellers and Potters uſe it: You ought to chuſe it pure and neat; it is deterſive and aſtringent.

[This is the *Lapis Petracorius*, *Dal.* 34. It is a foſſil Subſtance, ſeeming to contain ſome Particles of Iron, and uſed by the Earthen Ware-workers; but never heard of in Medicine.]

8. *Of* Safre, *or* Zaffre.

Pomet. SAFRE, or *Zafre*, is a Mineral of a bluiſh or Partridge-eye Colour, which the *Engliſh*, *Dutch*, and *Hamburgers*, bring us from the *Eaſt-Indies*, and eſpecially from *Surat*.

Moſt of the *Safre* we have is in a grey Powder, like Aſhes, from which it ſo little differs in Appearance, that we are forced to conſult the Workmen, who uſe it, to know, by Trials, whether it is what it ought to be.

There are, however, two Sorts of *Safre*, the fine and the common; the former is in a bluiſh or cineritious Stone, the latter in Powder; and very often ſo bad, that it is hardly good for any thing, and being ſo very weighty muſt needs be mixed with ſome ſtony Subſtance, the other being much lighter.

Safre is much uſed by *Delft* Ware and Glaſs-makers, to give a blue Colour to both Sorts of Ware: It is alſo with *Safre* that they colour calcined Pewter, in order to make the falſe Stone, which I have noted in the Chapter of *Enamels*: And laſtly, with *Safre* it is that the azure Colour of Glaſs is produced, as is before obſerved, and of which is made the counterfeit *Sapphire*.

Lemery. *Saphre*, *Safre*, *Zafre*, or *Sapphire*, is a Mineral whereof there are two Kinds; one called *Fine Sapphire*, and the other common: The fine Sapphire is a pretty ſoft Stone, of a bluiſh Colour; the common Sapphire is a greyiſh heavy Powder; both ſorts come from *India*. The fine Sapphire is uſed to give a blue Colour to Enamel, to Earthen Ware, and Glaſs; they likewiſe colour counterfeit Sapphires with it, whence it takes its Name.

[*Zafer* is a Preparation of *Cobalt* (to be treated of hereafter) which is thoroughly calcined, then made into a fine Powder, and mixed with three Times its Quantity of powdered Flint-Stones; then put into large Tubs, and moiſtened with a little Water, where, in a ſhort Time, it becomes a ſolid firm Maſs, and is called *Zaffra*: It is uſed by the Potters, Glaſsmen, *&c.* but not in Medicine.]

9. *Of* Ruſma.

Pomet. RUSMA is a ſort of Mineral, in Colour and Figure reſembling the Droſs of Iron, found in great Plenty in *Galatia*. This Mineral is in ſuch Vogue amongſt the *Turks* to take off Hair, that the *Grand Signior* has an Income of 30,000 Ducats *per Annum* ariſing from it. This Depilatory is very little uſed in *France*, but I am ſure if it was better known, it would be preferred to Lime and Orpiment upon that Occaſion, it being ſtronger and more efficacious, and the Uſe of it attended with no ſort of Danger.

Lemery. *Ruſma* is a Mineral that is like the Droſs of Iron, both in Colour and Figure; there is abundance of it in *Galatia*: It is a Depilatory very much uſed by the *Turks*.

[The *Ruſma*, or *Reuſma* of the *Turks*, has been taken, by ſome Authors, to be *Orpiment*; but it is much more probably the *Sory*, as I have already obſerved at the End of the Chapter of *Chalcitis*.]

10. *Of* Orpiment.

Pomet. ORPINE, or *Orpiment*, is a Mineral commonly found amongſt Copper Mines; compoſed of a great Quantity of Sulphur, and

and a corroſive Salt, in Stones of a different Bigneſs, Colour, and Figure; ſome being of a golden, other of a reddiſh, and ſome of a greeniſh Yellow, and ſome almoſt quite red; which proceeds from the different Degrees of Heat in the Bowels of the Earth where it is formed. The Mines of Copper in which this *Orpiment* is found are never without ſome little Gold; and for that Reaſon thoſe that worked in them do not fail to make Separation of it after the ordinary Method.

The yellow *Orpine* is found of different Colours; wherefore it is that the *Dutch* and *Engliſh* ſend it to us in ſuch variety of Forms and Figures; but the beſt and moſt valuable is in thick Pieces, and in handſome bright Scales, gilt as it were with Gold, and which eaſily exfoliate, that is to ſay, which without much ado are ſeparated and divided into thin *Laminæ*, or Scales, gliſtering like Gold.

A ſecond kind of good yellow *Orpine*, is, that which is half yellow, half red; or elſe full of reddiſh Veins: That which is in ſmall Stones, and of a greeniſh yellow, is utterly to be rejected, being nothing but mere Earth; as alſo that which is in Powder.

Orpiment is of ſome Uſe in Medicine, being an Ingredient in ſome Ointments and Plaiſters. It is alſo made much uſe of by Perſons of ſeveral Profeſſions, eſpecially at *Roüen*, to dye their Wood yellow, of which they make Combs, and ſell them for Box. Farriers uſe it upon ſeveral Occaſions; as alſo Painters, when it is ground. It is one of the greateſt Poiſons we have, therefore we ought to take care to whom we ſell it.

It is the reddiſh natural *Orpiment*, which ought to be denominated the *Sandarach* of the *Greeks*, and not the following, as moſt Authors have written; for the red factitious *Orpine* is made of this, as I am going to make appear.

Of Red Orpine, *or* Ratſbane.

Red *Orpine*, which is ordinarily called red *Arſenick*, as Mr. *Morin*, a Phyſician of the Faculty of *Montpellier*, has aſſured me, is made of the yellow *Orpiment*, as it is drawn out of the Mines, by heating it in the Fire till it has acquired a red Colour; and afterwards putting it into a Crucible with Hemp-ſeed Oil, or Sallad Oil, or Nut Oil, evaporating the Oil; and then adding more, and proceeding after the ſame manner, till the *Orpiment* becomes vitrified, and fit to be caſt into Moulds, and ſo made of the form of a Cake, and reduced to a Stone, as we ſee it. This Proceſs ſeeming very feaſible, I was willing to attempt it, but could not ſucceed in it; for the *Orpiment*, inſtead of red, became calcined and white, altogether like Plaiſter: But though I could not do it, yet I will not ſay the Thing cannot be done; Mr. *Morin* being a Man of too much Honour to affirm a thing he did not certainly know to be true.

However this be, *Orpine*, or red *Arſenick*, ought to be choſen in thick heavy Pieces, and as high-coloured as poſſible.

Red *Orpine* is but little made uſe of, except when ground into a fillamot Colour by Painters.

[*Orpiment* is the *Auripigmentum luteum*, *Aldr. Muſ. Met.* 333. *Arſenicum croceum*, *Auripigmentum*, *Charlt. Foſſ.* 49. It is the Ἀρσενικὸν of *Galen*; Ἀρρενικὸν of *Dioſcorides*; the *Narueth* of *Serapion*; and the *Zarnich aſfar* of the *Arabians*. It is an *Arſenical* Juice, or, as ſome affirm, a kind of Gold Ore. It lies in ſquammous foliacious Glebes, like the *Lapis ſpecularis*, and is of three Kinds, yellow, reddiſh, and greeniſh; theſe are all three found in the Veins of Gold, Silver, and Copper Mines. *Orpiment* is ſoluble in Oil, and inflammable, emitting a thin Flame with a great deal of Smoak, ſmelling of Sulphur and Garlick, which, if collected, forms yellowiſh Flowers like Sulphur, and a blood-coloured Maſs remains behind, by ſome called red *Orpiment* or *Realgar*. If the *Orpiment* be kept a long time on the Fire, the whole Maſs ſublimes into a beautiful red Subſtance like a Ruby, leaving only a little Earth behind. The firſt Fumes which come from this will turn Copper white and brittle. *Orpiment*, therefore, conſiſts of the ſame Parts as common Sulphur, with ſome mineral Particles mixed among them. The common *Orpiment*, reddened by Fire, as I have already obſerved, is by ſome called red *Orpiment*; but the genuine red *Orpiment* is the *Arſenicum rubrum Sandaracha vulgo dictum*, *Charlt. Foſſ.* 13. *Sandaracha nativa*, *Kentm.* 18. *Arſenicum rubrum*, *Riſigallum*, *Sandaracha Græcorum*, *Mont. Ex.* 13. and the *Realgar*, *Leſegall*, and *Zarnich-Achmer* of the *Arabians*. It is a Foſſil of the ſame Nature with *Orpiment*, and ſeemingly only different in Colour. It is brought from *China*, caſt into Figures of Pagods: It is no leſs dangerous than *Orpiment*; and though both of them have been recommended by old Phyſicians, and are at preſent taken inwardly in the *Eaſt-Indies*, yet nobody ought to think of giving them here: For the Wine infuſed in Cups of *Realgar*, which is a common Medicine there, has been attended with very fatal Conſequences here; ſo great is the Difference in the human Body in different Climates; even the external Uſe of it here is not abſolutely ſafe, and, as Chymiſtry has furniſhed us with much better Cathereticks, ought to be wholly laid aſide.]

Of

11. *Of natural white* Arſenick.

Pomet. WHITE natural *Arſenick* is a Mineral, pretty much reſembling the common or factitious white *Arſenick*, only it is whiter and more reſplendent, and not ſo ſcaly. This Mineral, or natural white *Arſenick*, is found in Copper Mines; and when Miners meet with it, it is a certain Indication to them that Copper is near. It is found generally in the *Interſtitia* between the true Spar and Clay, and ſometimes it is met with in ſeparate Pieces amongſt the dry Clay. This *Arſenick* is very little known, and little uſed.

Of the white factitious Arſenick.

Though I have taken ſome pains to diſcover what the white *Arſenick* that we ſell is, yet it has not been in my Power to inform myſelf; ſo that I am forced to reſt myſelf contented, and to ſay, with others, that it is a Compoſition of Orpiment and common Salt ſublimed together; which does not ſtand to Reaſon, ſince, if it were ſo, I do not ſee how the *Dutch* could poſſibly ſell it at the Price they do. But not knowing what to determine in this Matter, I will only remark, that it ought to be choſen in thick Pieces, white within and without. Moſt of what we have from *Holland* is white, and rough without, and if you break it, tranſparent like unto Glaſs within, which gave occaſion to the Antients to call it Cryſtalline *Arſenick*, which is in mighty requeſt at this Day with ſome, but by others undervalued and rejected, ſome valuing the rough, and others the cryſtalline.

Arſenick is of ſome ſmall Uſe in Phyſick, to perform ſome Operations, as ſhall be ſeen hereafter; but chiefly made uſe of by Dyers, and in the Country to deſtroy the Rats and other Vermin.

Of the Regulus *of* Arſenick.

Regulus of *Arſenick* is made of *Arſenick*, Potaſhes, and Soap, put into a Crucible, and by the Flame of a Lamp melted and caſt into a great Mortar: It is much milder than the *Arſenick* itſelf. If the Droſs of this *Regulus* is boiled in Water, and the Liquor filtrated, by throwing Vinegar into it, a yellow Powder will be precipitated, which is called the Sulphur of *Arſenick*, and acts with more Violence than the very *Arſenick* itſelf.

Of cauſtick or corroſive Arſenick.

Corroſive *Arſenick* is made of *Arſenick*, Saltpetre, and Sulphur, put into a Mortar and ſet on fire, as in preparing *Crocus metallorum*. When the Noiſe, or Detonation is over, and the Whole is ſufficiently burnt and grown cold, the Maſs is to be pulveriſed, and put a-new into a Crucible to be calcined. If you would have this cauſtick *Arſenick* in Liquor, it is but placing it in a Cellar for a few Days, and it becomes an Oil *per Deliquium*.

One may draw alſo a Butter or corroſive Oil of *Arſenick* with Sublimate. This Oil, or Butter of *Arſenick*, is a very ſtrong Cauſtick, and therefore very proper for making an *Eſcar*. But as all Preparations of *Arſenick* have a pernicious Quality, they are to be uſed with great Caution, and not without the Advice of ſome ſkilful Perſon.

Calcined *Arſenick* may be ſublimed with Sea Salt decrepitated; and with this, as ſome do affirm, they counterfeit the *Venetian* Sublimate, which is what we call *Smyrna* Sublimate; but not being certain of this, I cannot avouch it for Truth, as I before hinted, when treating of Sublimate Corroſive.

Of the Arſenical Load-Stone.

The *Arſenical Magnet* is made of *Poictou* Antimony, Sulphur, and cryſtalline *Arſenick*, powdered together, and put into a proper Veſſel that will bear the Fire, and the Whole may become one tranſparent Maſs, ſuch as the arſenical Magnet ought to be.

It is ſaid this Preparation is a gentle Cauſtick, and performs its Office with great Eaſe. It is an Ingredient in the magnetick Plaiſter of *Angelus de Sala*, deſcribed in Treatiſes of *Pharmacy* by many Authors, ſuch as M. *Charas*, *&c.*

Arſenicum, *ſive Arrenicum*, or *Arſenick*, is a Mineral that is weighty, ſhining, brittle, ſulphureous, and cauſtick, of which there are three Kinds; one yellow, one red, and one white; the firſt is called in *Latin*, *Auripigmentum*, or *Orpiment*; this is a yellow ſhining Stone, taken from the Copper Mines, in Pieces of different Shapes and Sizes. There are ſeveral Sorts, that are diſtinguiſhed by their Colours; for one is of a reſplendent gold Colour, the other of a paler yellow; the beatifulleſt and moſt valued is in large Pieces, of a golden ſhining yellow. They eaſily ſeparate, by little thin Scales that glitter like Gold. The reddiſh yellow Orpiment receives its Colour from the ſubterranean Fires that calcine it: The *Orpin* and the *Realgal* both are uſed by the Painters, after being finely ground on a Porphyry. *Lemery.*

The ſecond ſort of *Arſenick* is called *Sandaracha Græcorum*, *Realgal*, *Reiſgar*, *Reſigalum*, or *Red*

Red Orpiment. Of this *Arſenick* there are two Kinds, the one natural, and the other artificial; the natural is that which is calcined in the Mine by the ſubterranean Fires; the artificial, which is more common, being calcined by the ordinary Fire. You ought to chuſe the *Realgal* that is in largeſt, heavieſt Pieces, ſhining, and of the higheſt Colour: It ſerves the Painters. This Name of *Sandaracha* is given to *red Orpine*, becauſe of the Reſemblance it has in Colour with *Minium* or *Read Lead.*

The third ſort of *Arſenick* is called white *Arſenick*, or ſimple *Arſenick*, by way of Excellence, as being the ſtrongeſt of all. This is a Mineral in large Pieces that are hard, heavy, brittle, very white, ſhining, or cryſtallized without and within. There is the natural and the artificial: The natural is found in Copper Mines, but is ſcarce; the artificial is made with equal Parts of *Orpiment*, and common Salt mixed and ſublimed together. All the Kinds of *Arſenick* are corroſive Poiſons; but the moſt active and dangerous is the white. It does not uſually work violently till half an Hour after it is taken; becauſe the Salts that make the Corroſion are locked up, and naturally fettered in the Sulphurs, which makes it ſome Time before they are at Liberty, when they produce great Pains, Inflammations in the Guts, violent Vomitings, Convulſions, Reſtleſſneſs, a general Loſs of Strength, and at laſt Death, if not prevented. The Remedies proper on this Occaſion, are, melted Fat, Oil, Butter, *&c.* in order to ſheath the Points of the cauſtick Salts; and to evacuate upward and downward; then Milk being taken in good Quantities, ſweetens and corrects the Acrimony of the Poiſon.

[*Arſenick*, properly ſo called, is a Subſtance extracted from *Cobalt*, an Ore found in *Saxony* and *Bohemia*, and other Places; to be deſcribed hereafter. There are three Kinds of *Arſenick*; the white, the yellow, and the red: To make them, the *Cobalt* is put into a calcining, reverberating Furnace; when the Flame has ſet it on Fire, it emits a blue Flame, and a copious thick Smoak with it, which is received upon the Cieling of the Furnace; and thence conveyed into a large Funnel, made of Boards of a hundred Ells in length; ſome of it goes out at the End of this Funnel; but the greater Part ſticks to the Inſide of it, in the Form of a whitiſh Soot, which is taken out about once in ſix Months, and ſerves to make all the three Kinds of *Arſenick*. The white or cryſtalline *Arſenick* is made, by ſubliming this Soot in Iron Veſſels, into an opake Subſtance, ſometimes ſhining within like the *Encauſtum Album*, and ſometimes ſtreaked with red or cryſtalline Veins.

The yellow *Arſenick* is made by ſubliming the ſame Soot with a tenth Part of common Sulphur; the ſublimed Maſs is yellow, like common Sulphur, ſolid, ſhining, not altogether opake, eaſily broken, but not apt to crumble into Powder. It is diſtinguiſhable from Orpiment, by not taking Fire when thrown upon burning Coals, as Orpiment readily does.

And red *Arſenick* is made of the ſame Soot and Sulphur, mixed with a ſmall Quantity of a metallick Subſtance, called the *Spuma* of Copper. The ſublimed Maſs is ſolid, opake, and of a cinnabarine Colour.

The firſt of theſe is the common Ratſbane, or white *Arſenick*; the *Arſenicum Album*, *Ind. Med.* 15. *Arſenicum factitium Album*, *Aldr. Muſ. Met.* 354. *Arſenicum Album ſeu Cryſtallinum*, *Schrod.* 3. 498. The ſecond, or yellow *Arſenick*, the *Arſenicum factitium flavum*, *Aldr. Muſ. Met.* 358. *Arſenicum citrinum ſeu flavum*, *Schrod.* 3. 498. And the laſt, or red *Arſenick*; the *Arſenicum rubrum factitium Officinarum*, *Wood. Att.* 2. P. 1. p. 50.

All theſe kinds of *Arſenick* are very powerful Poiſons, and ought never to be thought of as internal Medicines, though ſome have been ſo daring to preſcribe them. They conſiſt of an acrid Salt, and a kind of mercurial or metallick Subſtance, which diſcovers itſelf when they are diſtilled in a Retort with any fat Subſtance; for, with a ſtrong Fire, the *Arſenick* will be raiſed into the Neck of the Veſſel, in a metallick Form like *Antimony*.

The arſenical *Magnet* is the beſt Preparation of Ratſbane for external Uſe; it has that Name from its ſuppoſed Power of attracting poiſonous or other morbifick Matter, from the Centre of the Body to the Surface. It is a powerful Ripener, and has been ſometimes uſed with Succeſs in Venereal Buboes.]

12. *Of* Sal Gem.

Pomet. SAL *Gem* is a natural Salt, ſo called from its Clearneſs and Tranſparency, like unto a precious Stone, which the *Latins* call *Gemma*. This Salt is found naturally in the Bowels of the Earth, in ſeveral Parts of *Europe*, principally in *Poland* and *Catalonia*. And ſince I have not myſelf been upon the Spot where it is, to confirm the Truth of what I ſay, it may not be amiſs to let you ſee what Dr. *Perou*, of the Faculty of *Montpellier*, has written to me upon the Occaſion, who ſays, That he was in *Poland* in the Month of *March* 1674, with his Eminence Cardinal *Janſon*, who having the Curioſity to take a View of the Salt-pits of *Williſca*, near *Cracow*, had

had a mind to go down into them, which he did on a kind of Litter made for that Purpoſe, attended by divers of his Servants, with Flambeaux in their Hands. Being come to the Bottom, which was very deep, he was received by the ſubterranean Inhabitants, who live there with their whole Families, but look extremely pale, and was preſented by them with Beads and Crucifixes; which Dr. *Perou* afterwards examining by his Taſte, found to be made of a Salt, and to have the ſame Taſte as that which the Druggiſts call *Sal Gemmæ*. The Cardinal had further Curioſity, and was conducted to the Workmen, who with Chiſſels and Hammers get this ſame Salt out of the Rocks, as they do Stones out of a Quarry. There were two Sorts of Salt in theſe Mines, and in the ſame Veins; the one finer, being more pellucid and tranſparent, which theſe Beads, *&c.* were made of, and which they ſeparate from the other; which the *Poles*, and other Northern People, uſe in their Kitchens, and for their Tables. On ſeeing this, Dr. *Perou* was able to determine concerning the Pieces of Workmanſhip that his Eminence had preſented him, that they were made of the pureſt true *Sal Gem*, ſold by the Druggiſts, uſed by the beſt Dyers. As to the Salt of *Catalonia*, hear what Mr. *Tournefort*, who has been upon the Spot, ſays alſo in a Letter to me. "There are four Sorts of Salt in the Mountains of *Cardona*, a pretty conſiderable City in *Catalonia*. The firſt, and moſt common, is a foſſil Salt, white, and pretty much reſembling Sea Salt, only not granulated, but cut out in large Pieces, as we do rough Stones in our Quarries. The ſecond is a Salt of an Iron Grey, or Slate Colour, which differs only from the former, in that it has a little blackiſh Earth mixed with it. The third is a red Salt, nearly of the Colour of Conſerve of Roſes, and differs from the others, in having a Mixture of Bole, or a kind of Ruſt of Iron in it. The fourth is the pureſt of all, and indeed the true *Sal Gem*, as tranſparent and bright as Rock Cryſtal. Theſe ſeveral Sorts of Salts lie in *Strata*, or Beds, in this Mountain, and are very proper for any Uſes of Life, and enter or penetrate into Fleſh, better than Sea Salt, being not ſo fixed, and approaching nearer the Nature of Salt-petre. *Sal Gem* is eaſily wrought into what Figures you pleaſe; and accordingly little Boxes, Beads, and Croſſes, and other the like Things are made of it. But nothing comes up to the Beauty of a certain Cavern in this Mountain, which is adorned on all Sides with moſt admirable Congelations of this Salt.

The People hereabouts affirm, that this Salt grows in its reſpective Abodes, and the Holes that you empty fill again after ſome Time; but this wants Confirmation."

Of the ſeveral Sorts of *Sal Gem* which I have ſpoken of, we deal in none but the beſt, that is, in thick Pieces, is eaſily broken, clear, and tranſparent, and fit for the Dyers Uſe. It is very obſervable of this Salt, that it grows red-hot, like Iron, in the Fire, and crackles there but very little, though on the other Hand it eaſily diſſolves, being expoſed to the Air; yet it may be cleanſed from Dirt, by waſhing and drying it again immediately, without Injury. It is brought us from many Places, but in greateſt Quantities from *Poland*. Mr. *Furetiere* and other Authors ſay it comes from the *Eaſt-Indies*; and that there is a Kingdom called *Danzal*, which ſignifies with them a Country of Salt, which affords yearly a Loading for ſix hundred Camels, which in *Æthiopia* is as ready Money. I do not think it worth while to waſte Time in controverting what *Pliny* and others have obſerved concerning this Salt, when they tell us, that in *Charros*, a Town of *Arabia*, Houſes are built of it; and Water is uſed inſtead of Mortar to bind the Salt Stones; or that the Sea derives its Saltneſs therefrom, *&c.* But I muſt not here forbear to relate, that there are ſuch Vegetations of Salt produced in the Mine, that Mr. *Tournefort* has a Vegetation of foſſil Salt as white as Sugar, almoſt two Feet high, like a Shrub, growing out of a Root; which, without all Doubt, is one of the greateſt Curioſities in all *Europe*.

Sal Gemmeum, *Sal Foſſile*, or *Sal Gem*, is a Mineral, white and cryſtalline Salt, which grows in Form of Stone, or a Rock, in ſeveral Mountains in *Catalonia*, *Poland*, *Perſia*, and the *Indies*. This Salt being broken, is ſhining and tranſparent as Cryſtal. They ſay that certain People of the *Indies*, which inhabit the Countries where it is met with, but rarely, build tranſparent Houſes with *Sal Gem*, which they work like Stone. The Taſte of *Sal Gem* is like that of Sea Salt, but a little more penetrating; they uſe it with their Meat. Out of the Salt Waters of their Springs and Pits, in the *Franche Comté* and *Lorrain*, they make a *Sal Gem*; they evaporate theſe Waters to make the Salt which they uſe in thoſe Countries as we do Sea-ſalt. There is made by Diſtillation, of *Sal Gem* an acid Spirit, altogether like Spirit of common Salt. *Sal Gem* is inciſive, attenuating, penetrating, reſolving, aperitive, laxative, proper in the Cholick, and to open Obſtructions: They ſubſtitute in Compoſitions *Sal Gem*, for *Indian* Salt, called *Sal Indum*, which ſome believe to be a kind of Mineral Salt, and others Sugar. *Lemery.*

[*Sal*

[*Sal Gem* is the *Sal Gemmeus*, *Aldr. Muſ. Met.* 301. *Sal Foſſilis, qui et Sal Gemmæ in Officinis dicitur*, *Worm.* 20. *Sal Foſſilis pellucidus pannonicus, qui dicitur in Officinis Sal Gemmæ*, *Kentm.* 9. It is of ſeveral Colours, white, grey, yellowiſh, reddiſh, and pellucid like Cryſtal; which laſt is the moſt pure, and ought to be eſteemed the true *Sal Gem*, and only uſed in Medicine. It reſembles Cryſtal both in Colour and Brightneſs: There are huge Rocks of it in *Poland*, *Hungary*, *Lithuania*, and other Places; its Virtues are much the ſame with thoſe of Sea Salt.]

13. *Of* Sea-ſalt.

Pomet. SAL *Marine*, or *Sea-ſalt*, is a Cryſtallization made of Sea Water, performed by the Sun, and reduced into Grains of a Cubick Figure, as Monſieur *Des Cartes* has made appear. As to its Origin, ſome will have it to proceed from the abovementioned Foſſil Salt, or *Sal Gemmæ*; but ſince I cannot decide this Affair, it may not be amiſs to tranſcribe here what Monſieur *Lemery* has written concerning it, *p.* 345.

Sea-ſalt is made at *Rochelle* in the Salt Marſhes, which ought to lie a little lower than the Sea, and to be of a Clay Mould to retain the Salt Water that is drawn off into them; ſo that all Places that are contiguous to the Sea, are not fit for the Purpoſe.

When the Seaſon begins to be hot, which uſually happens in the Month of *May*, the Water that has lain in the Marſhes to preſerve them in the Winter, muſt be drained off; then the Sluices or Cams are to be opened, to let in what Quantity of Salt Water you pleaſe, which muſt be contrived to paſs through many different Channels, where it is purified and becomes hot; then it is conveyed into plain level Places, in order for the Salt to cream. This Salt does not ſhoot throughly, but during the exceſſive Heats, the Sun evaporating ſome Part of the Humidity, and the Breezes from the Sea, which happen after the Heats, by their Coolneſs condenſing and cryſtallizing the Salt.

But if it ſhould chance to rain during this Proceſs, only two Hours, there would be no making Salt again in fifteen Days Time, becauſe the Marſh muſt be made clean, and all the old Water taken out, and other let in, in its Place.

Beſides the aforeſaid *Sea-ſalt*, there is the White Salt of *Normandy*, which they make with Water out of a ſort of Mud or Sand that the Sea throws up in the Summer, and upon which the Sun has ſhone ſome Time; and when the Water is ſufficiently impregnated with the Salt, that it will diſſolve no more, which is found by the Swimming of an Egg in it (for every Body knows that Water can be charged but with a determinative Quantity of Salt or Sugar) then the Water is to be ſtrained through Straw; and when it is very clear, to be put on the Fire, and boiled till it comes to a Skin, and afterwards put into Baſkets to reduce it to what we ſee it. The more this Salt is wrought, the whiter, pleaſanter, and better Quality it is of; its conſtant Softneſs is beſides very peculiar to it, as well as its growing the more inſipid the longer it is kept. There are ſtill other ſorts of Salt in *France*, as that of *Lorrain*, which is made with ſalt Water caſt upon hot Plates of Iron; that of *Franche Compté*, and many more, which I forbear to ſpeak of, not having any Commerce in them.

Of the Purification *of* Sea-ſalt.

To purify Salt, it muſt be diſſolved in Water, and the Diſſolution filtrated through Paper; then the Humidity is to be evaporated in an Earthen Pan, and ſo there will remain a very white Salt; but it will be purer and better, if inſtead of evaporating all the Humidity, Part is left, and it be ſet to cryſtallize in a cool Place; for then at the bottom of the Veſſel will be found the fineſt Salt, which may be ſeparated from its Moiſture and dried; then ought Part of the ſalt Liquor to be evaporated again, and having put the Veſſel into a Cellar, let it cryſtallize again; thus muſt you continue to evaporate and cryſtallize, till at laſt all the Humidity be evaporated, becauſe it will not ſhoot into Cryſtals any more; the Salt that is behind being filled with an oleaginous or bituminous Matter that hinders Cryſtallization. If you would make the Salt up into Loaves, like to thoſe of Sugar, it muſt be put into Moulds when it is a little more evaporated than to a Skin, and after it has lain a little to coagulate and ſtiffen, it muſt be put into a Stove to dry it perfectly. This Salt, well purified, differs not in Appearance from double refined Loaf-ſugar.

Decrepitated Salt is a Sea-ſalt calcined by the Fire, which ſerves for many Purpoſes.

Of Spirit *of* Salt.

Spirit of *Salt* is an Amber-coloured Liquor drawn from dry Sea-ſalt, by the Aſſiſtance of dried Potters Earth, a Retort, and Fire. The beſt *Spirit* of *Salt* we have comes generally from *England*, and if it is good it muſt be void of Phlegm, and faithfully and carefully prepared, of a fine yellow Amber Colour, and of a very acid and pungent Taſte. I ſhall not ſpend Time, at preſent, to run through all the Particularities and different ſorts of

Spirit of *Salt*; Monſieur *Lemery* hath done it at large already: Only I muſt obſerve of *Spirit* of *Salt*, that that which is right and good is much in uſe in many Caſes, as in Hernia's, Apoplexies, Scurvy of the Teeth, Gums, *&c.* The way of taking it, is by a few Drops in Water, or any other Vehicle, *ad gratum acorem*; for cleanſing the Teeth, mix it with clarified Honey of Roſes. Thoſe that would have a dulcified Spirit of Salt, to be taken in a greater Quantity, may make it according to *Baſil Valentine*, by mixing Spirit of Wine and Spirit of Salt, equal parts, and digeſting them together in a Sand-heat for three Days.

Lemery.

Sal Marinum, *Sal Commune*, or *Sea Salt*, is a Salt they make from the Sea Water by Evaporation and Cryſtallization. I believe that the Origin or Riſe of that Salt comes from *Sal Gem*, and ſeveral Reaſons confirm me in this Opinion. The firſt is, that Sea-ſalt is altogether like *Sal Gem*, or that Salt made from the Springs in the *Franche Compté*, the Pits of *Lorrain*, and ſeveral ſalt Lakes in *Italy* and *Germany* whence Salt comes, as all the World knows. The ſecond is, that there is no Salt whereof there is ſuch Plenty as of the *Sal Gem*: It fills not only in *Europe* abundance of Mountains of a great and vaſt extent, but it is found in almoſt all the Mines in *Ægypt* and the *Indies*; and there is no doubt but it is at the bottom of Sea, as well as the Earth we live upon, where we meet with Mountains, Rocks, and Mines, full of *Sal Gem*. The third is, that the Naturaliſts have at all Times obſerved, that the Waters which paſs through the Mines of *Sal Gem*, and are loaded with the Salts, flow by an Infinity of Channels into the Sea. The fourth is, that the Sea-ſalt muſt neceſſarily be made in the Land; for if but a little verſed in Chymiſtry, one may know that fixed Salt compoſed of an acid Earth, as the Sea-ſalt is, could never be perfected in the Sea Water; it wants the Earth to imbody the acid Liquor, otherwiſe it would always remain a fluid Salt, and never become ſolid. If we make a chymical *Analyſis* of Sea-ſalt, one may draw from thence a great deal of acid Liquor, which being ſeparated from the Earth, can never gain again its Conſiſtence of Salt. This Argument being clear and demonſtrative, it is likewiſe plain, that the Sea-ſalt muſt receive its Elaboration in the Earth before it is conveyed into the Sea: And as we ſee no Salt ſo plentiful in the Earth as *Sal Gem*, we may well believe it is that which gives a Saltneſs to the Sea; beſides, the Salt which we now take from the Sea is entirely like it in Taſte, in Quality, and in Principles.

But I ſhall propoſe ſome Objections made againſt this: They ſay, that it is difficult to conceive that the Sea, which is ſo large, and of ſo prodigious an Extent, ſhould receive all its Saltneſs from *Sal Gem*; for though there is great Quantities of this Salt in the bowels of the Earth, there does not appear enough to ſalt ſo much Water.

To anſwer this Objection, I ſay, that the Difficulty we apprehend of the *Sal Gem's* being ſufficient to ſalt the Sea, proceeds from this, that we do not ſee the Quantity of Salt Mines, as we do the Extenſion of the Sea Water: But if we conſider that the Earth is full of *Sal Gem*, or the like, in millions of Places, and that it diſcharges itſelf into the Sea perpetually; there is no doubt but we may have room to comprehend that the Earth, in all its Parts, contains Salt enough in it to make the Sea Salt.

Another Objection they bring is, that according to my Argument the Sea ought every Day to encreaſe in Saltneſs, ſince it perpetually receives freſh Salt, which cannot be diſpoſed of otherwiſe. I anſwer, that we cannot perceive any Augmentation of the Sea's Saltneſs; for if there be a great deal of Salt that is brought into it, there is likewiſe a great Conſumption by Evaporation and the Motion of the Waves, that are driven with ſuch Rapidity and Violence, that they volatilize a great Share of Salt that is received in Vapour, as may be ſenſibly perceived by the ſalt Air we breathe in, when upon the Sea, and which contributes much, with the Agitation of the Ship, towards the Provocation to Vomiting. This Salt is driven by the Winds upon the Shore, where it is uſeful to make the Land fertile; and by a perpetual Circulation it is brought to the Sea again.

In *Normandy* they make Sea-ſalt by evaporating Sea Water over the Fire in great leaden Cauldrons to a Dryneſs; there remains a white Salt that is leſs piquant and leſs ſalt than that of *Rochelle*, becauſe of the Evaporation, and perhaps occaſioned from ſome Particles of Lead that are diſſolved in it, which have blunted its Points. This kind of Salt loſes its Strength as it encreaſes in Age.

There is a Salt prepared by Cryſtallization at *Broüage* and *Rochelle*, beſides ſeveral other Parts of the Country where there are Salt Lakes. The *Rochelle* Salt is grey, becauſe of a little Earth that it carries along with it; it is nevertheleſs more penetrating, and ſalter than the white *Normandy* Salt, which is made by Evaporation; but it is not ſo piquant as *Sal Gem*, becauſe of the violent Motion of the Sea Waves, which blunts its finer Points. It may be rendered white as Sugar, by diſſolving in Water, filtrating the Diſſolution, and evaporating to a Dryneſs: But as in this Purification we ſeparate it from a great deal of Earth, which made it weaker,

weaker, it does not by this Means encreaſe its Strength; but on the contrary it is leſs biting, becauſe that the Fire has carried off, or blunted ſeveral of its more ſubtile Points. Sea-ſalt contains a great deal of Acid, a ſmall Quantity of Sulphur and Earth. It is inciſive, penetrating, deſiccative, aperitive, reſolutive. It is uſed in Apoplexies and Convulſions; they mixed it in Baths and Suppoſitories, and being applied hot behind the Neck, it rarefies and diſſipates Catarrhs.

[Alimentary *Salt* is made by the Evaporation of the Water of the Sea, or Salt Springs, Fountains, *&c.* and is of different Colours and Degrees of Purity, according to the different Methods uſed in making ti. The acid *Spirit* drawn from it by a Retort, is, with proper Additions, the only diſſolvent of Gold, and it alſo diſſolves Tin, but will not touch Silver, or Lead. If this *Spirit*, when very pure, be ſaturated with Salt of Tartar, it concretes into a Subſtance reſembling common Sea-ſalt in Taſte, and in the cubical Figure of its Cryſtals; whence it appears that Sea-ſalt is an Acid perfectly ſaturated with an alcaline *Salt*. The *Spirit* is in great Eſteem for promoting the Secretion of Urine, preventing the Stone, curing Dropſies, allaying Thirſt in Fevers, and conquering the Malignity of the Juices in the Scurvy; its Doſe is from three to fifteen Drops.]

14. *Of* Nitre, *or* Salt-petre.

Pomet. SALT-PETRE, which the Chymiſts call the *Dragon*, *Cerberus*, or the *Infernal Salt*, is an artificial or factitious Salt, drawn from ſeveral ſorts of Materials, as from old Stones, whence it has its Name; from Earth, from Aſhes, and alſo from Pigeons Dung. I ſhall not deſcribe here the many different Ways of making Salt-petre, ſeeing they are largely deſcribed in the *Tranſactions* of the Royal Society at *London*; and alſo becauſe it is eaſy to ſee it made in very many Places in *France*, and eſpecially at the Royal Arſenal at *Paris*, where it is made in great Quantities, and where they divide it into half a Dozen Sorts, according as it is more or leſs purified; but the fineſt and beſt is what will hardly diſſolve in Water, which they ſend in Caſks to the Frontiers; and this Salt-petre may be kept almoſt in any Place without Loſs or Decay, but is not expoſed to Sale.

Beſides the Salt-petre of ſeveral ſorts made in *Europe*, we have it brought in large Quanties from the *Eaſt-Indies*, ſometimes rough and unpoliſhed, and at other Times as well purified and refined as any whatever. There are moreover other ſorts of natural Salt-petre, as that which is found ſticking to Rocks and old Walls, in ſmall white Cryſtals, and is what the Antients called *Aphronitrum*. Salt-petre is made alſo in *Ægypt*, with the *Nile* Water, after the ſame Manner as common Salt is made with us at *Brouage* or *Rochelle*; and this Salt-petre, made of the Water of the River *Nile*, is that which was ſo common in *France*, about ſixty Years ago, and which uſed to be ſold at a cheap Rate to the Whiteſters, to blanch or whiten Linen, under the Name of *White Pot-Aſhes*, *Alkali*, *Natrum*, or *Andrum*.

There is nothing that has more perplexed the Antients, as well as Moderns, than the *Natrum* of *Ægypt*, and that even whilſt it was the commoneſt Thing in the World; for at *Paris* alone, there was conſumed of it more than 2,000,000 Pounds yearly, without reckoning what the Tanners made uſe of to ſalt their Skins and Hides, which was the Reaſon it was prohibited afterwards; and ſince is become ſo ſcarce, that at preſent it is worth its Weight in Silver, and is prohibited to be ſold by Merchants under large Penalties. Some will have this *Natrum* of *Ægypt* to have been a natural *Borax*, or a Salt drawn naturally out of the Earth in grey hard Pieces; ſome, that it was the volatile Salt and Froth of Glaſs-metal taken from the Pots and Furnaces of Glaſs Founders, and that it is either grey, white, brown, or bluiſh, altogether unfit for Vitrification, and fit for nothing but to throw to Sheep or Pigeons; but nothing can be more wide of Truth than this, ſince the true Salt of Glaſs is ſtill ſo common among us, that it is ſold not above a Groat, or five Pence a Pound, and never given to any ſort of Cattle or Beaſts; but uſed chiefly by Potters, and *Dutch*-Ware-makers, to prepare the Sand wherewith they whiten and varniſh their Works. And Light and Darkneſs are not more contrary than theſe two Things; for the Salt of Glaſs is in Cakes or Stones, extremely heavy like Marble, contracting no Moiſture by the Air; whereas the *Ægyptian Natrum* is a white Salt in great cryſtal weighty Maſſes, ſalt and nauſeous to the Taſte; and beſides, eaſily diſſolving into Liquor, when expoſed to the Air, and is of ſome Uſe too in Medicine, being an Ingredient of the *Lap. Crolii*. As for theſe laſt mentioned kinds of Salt-petre, we have but very little of them, and conſequently make uſe of the artificial or factitious, which ought to be made choice of good and well-worked, according to what Degree or Quality it is of; but however, let it be always dry, and as void as poſſible of Salt. The common ſort, when good, muſt be as white, dry, and free from Salt as may be; the refined alſo, the whiter, drier, and more

beautiful, long, and large Cryſtals it is in, the better and more valuable it is.

The Uſe of Salt-petre is very conſiderable, as well upon account of the great Quantities employed in making Gun-powder, as that abundance of Artificers make uſe of it, and that divers chymical Preparations are made thereof. This great Conſumption is the Reaſon why the Sale of it is forbidden in *France* to Grocers and others; and that thoſe in and about *Paris* that uſe any of it, are forced (under pain of Confiſcation and a Fine) to buy it at the *Arſenal*; and even then are not to uſe it to the Purpoſes of ſeaſoning Meat, or the like, though it be proper enough for that End, as Mr. *Lemery* aſſures us.

Lemery.

Nitrum, *Sal Nitrum*, *Sal Petræ*, *Salt-petre* or *Nitre*, is a Mineral Salt, partly volatile, and partly fixed, which they make from Stones and Earth upon old Walls, Buildings, and the Urine of ſeveral Animals, which has lain a long time on Cellar Floors, or on the Stones; this Salt being formed by the Acid of the Air, which after it has penetrated and rarefied the Stones or Earth, is thus fixed and imbodied.

Salt-petre is ſeparated by Diſſolution, Filtration, and Coagulation; they powder groſly the Stones and Earth that have lain a long time in the Air, or which are taken from old Buildings; they ſteep this in a great deal of hot Water, in order to diſſolve the Salt; they throw this Infuſion upon Aſhes to make a *Lixivium* or Lye; they paſs and re-paſs the ſame Liquor ſeveral times upon the Aſhes; then being clear, they evaporate three or four Parts of the Humidity over a Fire; then they ſet the Liquor to cool and cryſtallize, taking the Cryſtals off to dry, and then evaporate almoſt all the Moiſture away, and cool again as before. They then take off the Salt-petre that contains a great deal of lixiviate Salt, and which is almoſt like Sea-ſalt, only that the lixiviate Salt being Alcali, it changes its Nature, becauſe the Pores are filled by the Acid of the Salt-petre. The Salt-petre made by this firſt Purification is called *Common Salt-petre*; the laſt ſort of which ought not to be mixed with the firſt, becauſe it is almoſt fixed, and conſequently not ſo good.

They purify common Salt-petre by diſſolving it in the Water, filtring the Diſſolution, and evaporating Water over the Fire, till there appear a ſmall Scum upon it; then leaving it to cool, without ſtirring, there will ſhoot fine, long, white, clear, tranſparent Cryſtals; pour off, by Inclination, the Water that ſwims upon it, and take out the Cryſtals to dry, evaporating again part of the remaining Water, and leave it to cool; new Cryſtals will be formed, which dry as before; and, in ſhort, evaporate the reſt of the Liquor, till you find nothing at the Bottom but a little Salt, like Sea-ſalt. Repeat ſeveral times the Purification of your Salt-petre after the ſame Manner, and every time ſeparate ſome of the fixed Salt. The more it is purified, the finer, larger, more ſhining, and tranſparent are the Cryſtals, freed from the fixed Salt, and difficult to melt. There is likewiſe a natural Salt-petre, ſticking againſt Walls and Rocks in little Cryſtals, which is preferable to common Salt-petre, and which the Antients called *Aphro-Nitrum*.

The ordinary Salt-petre ought to be choſen well purified, in long Cryſtals, as hath been ſaid, cooling upon the Tongue, and that caſts out a great Flame, when thrown upon hot Coals. It is aperitive, reſolutive, abates Thirſt, provokes Urine, reſiſts Putrefaction, allays the Heat of the Blood, drives forth the Stone from the Kidney or Bladder. The Doſe is from half a Scruple to a Drachm.

Of melted Salt-petre, *or* Salt *of* Nitre.

Pomet.

What is called *Sal Nitri* is a purified or refined *Salt-petre* melted by the Fire, and reduced into Cakes of three or four Fingers Thickneſs.

The *Salt* of *Nitre*, made after this manner, is very little in uſe, but inſtead of it, a Preparation called *Cryſtal Mineral*, which is made by caſting a little of the Flowers of Brimſtone upon ſome of the afore-mentioned melted *Salt-petre*, is very much in uſe.

Sal Nitri, or *Salt-petre*, is fixed with Charcoal, and ſaid, when fixed, to have the ſame Properties as Salt of Tartar, and that a red Tincture of it may be drawn with Spirit of Wine, like that of *Sal Tartari*.

Of Spirit *of* Nitre.

From any of the ſorts of Salt-petre, by means of dried Potters Clay, a Retort, and Fire, is drawn a Spirit extremely ſtrong and violent.

Spirit of *Nitre*, when good, is as clear as Rock Water, and ſends forth Fumes continually, if the Bottle is unſtopt. Some raſcally People ſell *Aqua fortis* inſtead of it, therefore Care muſt be taken about it; but it is eaſily diſtinguiſhed from *Spirit* of *Nitre* by what I have ſaid, and by the low Price they ſell it at; whereas true *Spirit* of *Nitre* cannot be afforded under eight Shillings the Pound, or upwards.

We have but little *Spirit* of *Nitre* now from *Holland*, either through the ſmall Occaſion we have

have of it, or rather through the Covetouſneſs of Workmen, that will not afford it, but chuſe to make uſe of *Aqua fortis* inſtead of it; whereby their Manufactures are neither ſo good nor ſo well wrought.

Spirit of *Nitre*, being a ſtrong Corroſive, is very ſeldom uſed internally in its natural State, but is dulcified, or ſoftened, by adding as much Spirit of Wine to it; and this is obſervable in this Mixture, that though it requires Heat, it wants no Fire to make it; for as ſoon as thoſe two Spirits come together, there ariſes as great an Ebullition and Bubbling, as if they were upon a good Fire. In performing this Operation, Care muſt be taken to avoid the Fumes and Vapours, which are very hurtful and offenſive. When this Mixture is become clear, it may be taken a few Drops of it in any proper Vehicle, and is ſaid to be very good in flatulent and nephritick Cholicks. *Sal Armoniack* diſſolved in this Spirit makes the *Aqua Regia*, or *Royal Water*, ſo called from its Capacity of diſſolving Gold, the King of Metals.

Of Aqua fortis.

Aqua fortis is a Spirit drawn from Salt-petre, and *German* or *Engliſh* Vitriol calcined to Whiteneſs, by means of ſome dried Earth or Clay, a Retort, and Fire.

Aqua fortis, ſo called from its Strength, though it be not ſo violent as Spirit of Nitre, is very much in uſe with a great many ſorts of Workmen, ſuch as Coiners, Mint-men, Goldſmiths, Engravers, Cutlers, and abundance of others, as well as by thoſe who dye in grain.

The beſt *Aqua fortis* we have comes from *Holland*; not but that it can be made as good in *France*; but that it may be ſold a little the cheaper, it is not above half deflegmated with us, and conſequently not above half ſo ſtrong as it ſhould be.

With *Aqua fortis* Water and Clippings or Filings of Copper, is made what they call the *Aqua ſecunda*: It is a Water, of a blue Colour, which Farriers make uſe of; they alſo uſe that which the Workers in Silver make; or, to have it a readier way, they buy Phlegm of Vitriol, or Spirit of Vitriol, that is made of *Aqua fortis*, and give them the Name of *Aqua ſecunda*.

There is no fear of counterfeiting *Aqua fortis*, or ſelling any other Spirit for it, there being none that can be afforded at a lower Price. So that when this Water has no Phlegm in it, to be ſure it is good and genuine.

Of Cryſtal Mineral.

Cryſtal Mineral, which ſome call *Sal Anodynum*, or *Mineralis Lapis*, and commonly *Sal Prunellæ*, is a refined Salt-petre melted in a clean Iron Pot, throwing a ſmall matter of Flowers of Sulphur into it. When it is thus in Fuſion, the Salt-petre being thoroughly melted, and the Sulphur conſumed, let it ſtand a-while, and then take off the Scum with an Iron Spoon, and pour out the Salt-petre into an Iron Skillet or Porringer, to make it thin, after the Manner as we ſee it. We ſend to *Holland* for our beſt and whiteſt *Cryſtal Mineral*; but it being in little thick Cakes, we have but ſmall Sale or Demand for it, ſince it is only fit to be ſold by Weight, and to thoſe that make uſe of it themſelves.

Cryſtal Mineral ought to be choſen very white, new made, and thin; and when it is to be retailed, let it be as dry as you can. That which is made with purified Salt-petre, is to be preferred to that which is made with the common or ordinary Salt-petre; and this is eaſily known by its Whiteneſs, and its keeping well. It is a Miſtake to believe, as an Author of late obſerves, that thoſe who hawk *Cryſtal Mineral* about the Streets, make it up with Alum; for it is impoſſible to make Alum and Salt-petre unite, the Alum becoming immediately a Scum when it is thrown into the Salt-petre, as it does with Sugar, though it is pretended to be made uſe of to whiten that: So that thoſe that make *Cryſtal Mineral* for Cheapneſs, only uſe the common Salt-petre; for it is but melting it twice, and it will be as white as the other, and the only Difference will be in keeping; but a ſhort time ſhews it, which they to their Coſt know that buy of thoſe Strollers. Care muſt be taken not to wrap it in Paper, which being porous attracts Humidity, and moiſtens the *Cryſtal Mineral*, and renders it unſaleable. By the Experience I have had, the beſt Aſſurance you can have that it is good, will be to make it yourſelf.

Cryſtal Mineral is very much in uſe in Phyſick; it has acquired the Name of *Sal Prunellæ*, it is ſaid, from its ſpecifick Quality of curing Inflammations of the Throat, and the Quinſey, which ſome call *Pruna*, or *Prunella*; and, according to others, from the eſſential Salt which is drawn from the *Prunelle*, or *Sloe*, reſembling *Cryſtal Mineral*; or becauſe it is much made uſe of in inflammatory Fevers, compared to a Fire-coal, which the *Latins* call *Pruna*; or, laſtly, and that moſt probably, becauſe the *Germans* gave it, in making, the Figure of a Plumb.

Of Sal Polychreſtum.

The *Sal Polychreſtum*, ſo called from its many and great Virtues, is made of the fineſt Salt-petre and *Holland* Sulphur powdered together, and by means

means of a gentle Fire wrought into a very white light Salt.

This way of making it is very different from that of all Authors who have treated of it, who recommend a Crucible made red-hot by keeping a Fire about it for three or four Hours. I will not ſay this Proceſs is not good; but the Impoſſibility there is of ſelling it when it is heavy, and of divers Colours, is the Reaſon why it cannot be diſpoſed of when made thus: And I believe my Method will be preferred, ſince with two or three lighted Charcoals, and in the ſpace of one Hour, a Salt may be made both white, bright, and well qualified; alſo more ſaleable, and that coſts leſs. And ſince I diſapprove the Ways of making the *Sal Polychreſtum* hitherto uſed, it will not be amiſs to declare the manner of ſucceeding beſt in it. Take therefore equal Parts of Sulphur and fine Salt-petre, and having heated a Crucible, not glazed in the Inſide, and placed it upon five or ſix lighted Charcoals, ſo that the bottom be red-hot, throw into it a Spoonful of the Mixture of Salt-petre and Sulphur; and when the Detonation is over, and the Sulphur and Salt-petre are ſufficiently burnt, another Spoonful in like manner muſt be thrown in, and ſo till all is calcined; then take the Pot off the Fire, and after it is cool break it, and therein you will find a *Sal Polychreſtum*, both white, light, and very ſaleable. And what I ſay ſtands to Reaſon, ſince this Salt cannot be made heavy, and in a Maſs, but by the great Violence and Strength of the Fire. They that would be ſtill more curious, and would have a *Sal Polychreſtum* purer and more beautiful, that is to ſay, cryſtallized, let them diſſolve it in Water; and after having filtrated, and evaporated to a Pellicle, it muſt be put in a Cellar, or ſome other cool Place, to ſhoot into Cryſtals; which, when dried, ought to be in ſmall Plates, moderately thick and brilliant, or ſhining like Diamonds, and of a clear White, and ſolid, that is, hard to break; for that which is eaſily reduced to Powder, is not well made.

This *Sal Polychreſtum* cryſtallized, is preferable to the firſt ſort, how well ſoever made, being free from that ungrateful Taſte and evil Quality which the Sulphur, that is inſeparable from the other by any other means, gives it.

In ſelling of this Salt there are great Cheats and Abuſes committed; inſtead of it, many who trade in it, expoſe to ſale only the Salt-petre itſelf melted and caſt into a Maſs: But it is eaſy to diſcover the Impoſture, for as much as the true *Sal Polycreſt* neither cracks nor flaſhes in the Fire, but will become red-hot; whereas the Counterfeit flames and crackles as Salt-petre itſelf, and is alſo to be known by its exceeding Whiteneſs, and the cheap Rate it is ſold at.

Sal Polycreſt, as it comes out of the Crucible, or cryſtallized, was ſome Years ſince much in vogue in Phyſick; but at preſent being out of faſhion (as there is a Mode in Medicine, as well as in every thing beſides) is now ſeldom made uſe of, loſing, as it were, its Virtue with the Opinion of the World. To ſay the Truth, thoſe of our Nation love nothing but what is new.

This Salt has had the Appellation of fuſible Sulphur or fixed Nitre given it, as *Penotus* deſcribes at large, and which ſhews it to be no new Compoſition, ſince it has been known a long time by the Name of Fixed Nitre. It is aperitive, provokes Urine, and is good in Obſtructions of the Liver, Spleen, and Meſentery; the Doſe is from a Drachm to two Drachms.

Of the Antifebrifick Salt.

The *Sal Antifebrilis*, or Salt againſt Fevers, is made of the fineſt Salt-petre, Flowers of Sulphur, and diſtilled Urine, all mixed together, proceeding after the Manner directed in Treatiſes of Chymiſtry, whither the Reader may have Recourſe. This *Antifebrifick Salt* is eſteemed an excellent Remedy for Fevers, taken at the Beginning of the Fit, or upon the Return of it, from eight Grains to half a Drachm in any agreeable Vehicle.

Of Nitre Vitriolated.

Vitriolated Nitre is made of Salt of Nitre diſſolved in Spirit of Vitriol; to which are attributed the ſame Qualities as to the vitriolated Tartar. It ought to be white, light, and in ſmall *Striæ* or Needles, like *Sal Saturni*.

There is alſo a ſort of Butter prepared of Nitre, by the means of Tartar; the Proceſs whereof may be ſeen in Monſieur *Charas*'s Chymiſtry, *p.* 853.

[The *Nitre* or *Natrum* of the Antients was entirely different from ours; and in all probability, our Salt-petre was wholly unknown to them, as their Nitre is at this Time almoſt unknown to us.

The *Nitre* of the Antients was an acrid alkaline Salt, found in *Egypt* and other Places, which made an Effervеſcence with Acids, was uſed in cleanſing Cloaths, and making Glaſs, as alſo in Baths and Waſhes: It is evident that this was very different from our Salt-petre, and it is now in a manner unknown among us, though the Antients uſed it very much, both in Medicine and the common Occaſions of Life; and even at this Time in the Fields of the *Leſſer Aſia*, near *Smyrna* and *Epheſus*,

Ephesus, the Earth rises of itself in the Spring and Autumn into small Hillocks like Mole-hills; from which the Inhabitants prepare a Lye for washing of Cloaths, and make a Soap from the Salt they get from it.

The *Nitre* of the Moderns, or Salt-petre, *Nitrum*, *Aldr. Mus. Met.* 321. *Worm.* 21. *Sal Nitrum*, *Sal Petræ*, *Mont. Ex.* 8. is a white crystalline Substance, of an acrid bitter Taste, with a certain Sensation of Cold, which concretes into long, small, and equally thick prismatick Crystals of six Sides, the outermost of which end in Points like Pyramids. It is easily soluble in Water, and melts by Fire without Deflagration. It is brought to us principally from the *East-Indies*, and is procured from Earth that has imbibed the Urine or Dung of Animals; and may be made artificially, by mixing Earth with Pidgeons or other Dung. It is also sometimes found naturally on old Walls, *&c.* not much exposed to Wet. All Salt-petre contains some Quantity of a kind of Sea-salt originally; and in the getting Salt-petre from the Earth that contains it, when they have boiled it in Water they let the clear Liquor stand to be quite cold before they set it to crystallize for the Salt-petre; and in the Vessels it has stood to cool in, which they call Settling Tubs, they find a Salt of the Sea-salt kind sticking to the Sides and Bottom; this they keep by itself, and call it Salt-petre-salt; and the Liquor, poured off into other Vessels called Shooting Trays, affords, by Crystallization, the Salt-petre.

15. *Of* Natural Borace.

THE *Natural Borace*, or *Tincar*, to which the Antients are supposed to have given the Name of *Chrysocella*, is a Mineral Salt of the figure of the common *Sal Gem*, found in the Bowels of the Earth in many Places of *Persia*; and at the bottom of a Torrent, among the Mountains of *Purbeth*, in the Country of *Radzioribron*, that reaches to the Confines of the *White Tartary*. When this Mineral is taken out of the Earth, it is exposed to the Air, that it may contract a sort of fat reddish Rust, which nourishes and preserves it from being calcined, as it were by the Influence of the Weather; and when it is as it ought to be, the *Persians* carry it for the most Part to a Palace called *Amadabat*, from whence the *English*, *Dutch*, and we, have it; and this is what we call *Natural Borace*, or the unpolished, rough, or fat *Borace*, which some Workmen employ for the same Uses as they do the refined.

We have another sort of *Natural Borace* brought us, which differs only from the former, in that it is a little drier, and of a grey Colour, which proceeds only from its having been longer exposed to the Air, whereby the reddish fat Substance, wherewith it is covered, becomes dry, and like *English* Copperas that has lain a great while above Ground. Those that have Occasion for one sort or the other of this *Natural Borace*, must take care that it be not mixed with Stones, or other such Refuse, as it frequently happens to be. The *Venetians* and *Dutch* make that which they send us under the Appellation of Refined *Borace*.

The Antients were not out when they said there was a greenish *Natural Borace*, no more than *Agricola*, who rightly enough observes, that he had seen a fossil Nitre, solid and hard, like a Stone, of which the *Venetian Borace* was made: But the same Author is very much mistaken, when he says, that then no *Borace* was in use but the factitious or artificial, made of the Urine of Boys that drank Wine; Brass Rust, and sometimes Nitre beaten together in a Bell-metal Mortar to the Consistence of an Ointment; which is far from Truth, since the *Borace* he means, and which we now sell, is only the fat *Borace* refined and shot into Crystals.

Borax, *Chrysocolla*, *Capistrum Auri*, *Auricolla*, or *Gold Flux Powder*, is a Mineral Salt that has the Colour and Transparency of *Sal Gem*, but a great deal more Pungency; it is found in certain Mines of *Persia*, and several other Places: When they take it from the Earth, they expose it to the Air, where it becomes greasy and reddish on its Superficies. This is that which is called *Fat Borace*. This Fat covers the Salts, that they cannot be penetrated and dissolved, or melted by the Air. There is likewise found a grey or greenish *Borace*, which Colours proceed from the various Impressions, that the Air being hotter or colder makes upon the Salt, by opening it more or less. *Lemery.*

The *Venetians* and *Dutch* purify or refine their *Borace* as they do other Salts, by dissolving in Water, filtrating the Dissolution, leaving it afterwards to evaporate, and setting it to crystallize. They bring us this *Borace* under the Name of *Borace* refined. Chuse your *Borace* in fine white Pieces, neat, crystallized, and transparent. One may, by refining, separate from *Borace* a vitriolick Matter, which gives it a great deal of Sharpness; for which Reason the refined *Borace* is much softer than the natural, and ought to be preferred in Medicine: It is incisive and penetrating, proper to open the Obstructions of the Glands of the Mesentery, and dissolve the *Schirrus* of the Liver and Spleen; the Dose is from four Grains to twenty. They also use it externally to consume the Excrescences of Flesh. They may draw a Spirit from *Borace* like that of Alum, by a very strong Fire; it is aperitive, and very like Spirit of Salt: It is called

called *Chryſocolla*, *Gluten Auri*, *Capiſtrum Auri*, and *Auri colla*, becauſe the Goldſmiths uſe it to flux and ſolder Gold with.

Of Refined Borace.

Pomet. As *Natural Borace* is found of different Colours, ſometimes greeniſh, and other whiles yellowiſh,; the *Venetians*, who were the firſt that brought Borace into Vogue, finding it could not be well made uſe of with its natural Fatneſs and Unctuoſity, conſidered of a way of purifying of it, by diſſolving it in Water; then filtrating and cryſtallizing it, in order to which they made uſe of Cotton Matches, upon which the *Borace* is cryſtallized, after the ſame Manner as Sugar-candy or Verdigriſe on Sticks or Splinters of Wood.

As for others that do not uſe Cotton, they reduce the *Borace* into little Stones of the Form and Figure of the Tag of a Lace, or Point; but as this ſort of *Borace* had a greeniſh Caſt, the *Dutch* have taken it to Taſk, and made it whiter and more vendible, and reduced it into larger Pieces, which is what we ſell at this Day.

Borace, whether it be the *Venetian*, or that of *Holland*, ought to be choſen clear and tranſparent, of Taſte almoſt inſipid, taking Care that it be not mixed with *Engliſh* Alum, which is difficult enough to diſcover, if the Alum has been ſoaked in Water, and then expoſed a few Days to the Air, to give it the natural rough Appearance of *Borace*; but this Cheat may be eaſily found out, if you will put it to the Teſt: For, firſt, it will by no means ſolder Metals; nor, being put upon lighted Charcoal, will it ſwell and heave like *Borace*.

Refined Borace is much in Uſe by a great many ſorts of Workmen, and ſerves as well to ſolder, as to melt and diſſolve Metals: Some uſe it alſo in *Fucus's*. It is of ſome Uſe too in Medicine, as it is inciſive and penetrating, proper to open Obſtructions of the Liver, Spleen, and Meſentery, and to promote the *Menſes*; the Doſe is from five Grains to twenty.

[*Borace* is the *Borax*, *Charlt. Foſſ.* 9. *Dougl. Ind.* 18. *Nitrum factitium*, *Arabice Borax*, *Worm.* 21. *Nitrum unde Borax excoquitur*, *Aldr. Muſ. Met.* 324. Both the native and refined are common in the Shops; the native is brought to us in Pieces about the Bigneſs of a Walnut, foul and earthy, and of a dark green Colour, and greaſy. It is had from *Perſia* and other Places, where, in Copper Mines, they find a greeniſh turbid Water, which they evaporate to a proper Conſiſtence, and afterwards make to a Paſte, with the Slime and Mud of the Springs it runs from, and ſome Quantity of Animal Fat. This Paſte they bury for ſome Months in the Earth, after which, opening the Pits, they find the Water concreted into knobby Subſtances, which dug out of the Pits, with the fat Earth about them, are the *Native Borax*.

The *Refined Borax*, which is what we moſt commonly ſell, is the native Kind purified by a *Lixivium* of Quick-lime. We formerly had it from *Venice*; but now the Trade of refining it is almoſt entirely in the Hands of the *Dutch*.

This is the *Borax* of the Shops at preſent; but it is evident, that it is very different from the *Chryſocolla* of *Dioſcorides* and *Galen*, which was a green metallick Subſtance, found ſometimes like a looſe Sand, and ſometimes adhering to other metalline Matters, and was a kind of native Verdigriſe, not ſoluble in Water, which, taken inwardly, always proved Emetick, and ſometimes poiſonous. They had alſo, beſide this native *Chryſocolla*, two factitious Kinds, the *Herbacea* and *Santerina*: The *Herbacea* was made of the native *Chryſocalla*, bruiſed, calcined, and macerated in Vinegar, tinged with *Luteola*, or Dyers Weed; and the *Santerina*, of *Cyprian* Verdigriſe and Urine, with the Addition of *Nitre*. Theſe, it is plain, muſt alſo be very different from our *Borax*; but whether the *Tincar* of the *Arabians* differs from it or not, is not eaſy to determine, as none of it comes to our Hands.

Our *Borax* is a fixed alcaline Salt, ſomething of the Nature of Salt of Tartar; but differing from it in this, that it unites with Acids without Tumult. It yields nothing in Diſtillation but an inſipid Phlegm: A Solution of it turns Syrup of Violets green; and a Solution of corroſive Sublimate to a Saffron Colour.]

16. *Of* Alum.

ALUM is a foſſil Salt drawn from *Pomet.* Stones of different Bigneſs and Colour, in ſeveral Parts of *Europe*, eſpecially in *Italy*, *England*, and in *France*. After Alum Stone is taken out of its Bed or Quarry, as you take other Stones, it is burnt in a Kiln made on Purpoſe as you do for Lime, or the like; and when it is calcined, its Salt, which is the Alum, is drawn out with Water, proceeding after the ſame Manner as in making Salt-petre. A certain Perſon in the World, in the Preſence of a Man of Worth, maintained, that Urine was made uſe of inſtead of Water in drawing this Salt; but ſince his Authority is not ſufficient to make him credited, I chuſe rather to reſt ſatisfied with what *Matthiolus*, upon *Dioſcorides*, has written of it, who having been an Eye-witneſs of the Fact, has given us an ample Deſcri-

Deſcription of it in his Book, *Page* 733. to which my Reader may have Recourſe.

We commonly ſell ſix ſorts of Alum, to wit, the Plumous Alum, or Earth Flax; the *Roman*, *Engliſh*, *Liege*, Burnt Alum, and the Sugar Alum. As for the Round, Liquid, and Black Alum I know nothing of them.

Of Plumous Alum.

Pomet. *Plumous Alum* is a Mineral found in the *Negropont*, which ſome will have to be the Stone which the Antients called *Lapis Amiantus*; but as I am not ſure of the Thing, I will content myſelf to ſay, that the *Plumous Alum* which we ſell, is a ſort of thready Stone, of divers Colours, but moſt commonly of a greeniſh white, in Figure pretty much reſembling *Venice Talc*, excepting only that it is not ſo green nor ſhining; and inſtead of parting into Scales, this riſes in white ſoft Threads or Filaments, like the Feathers of a Quill, from whence comes its Name; and accordingly moſt Part of the Plumous or Feather Alum one meets with, is almoſt ever in ſmall Fibres, and but little in Stone, proper to ſpin and make the perpetual Matches. This *Plumous Alum*, to which ſome have given the Name of that of *Sicily*, is of very little Uſe in Medicine, and at preſent it is almoſt of no Uſe, ſince the Secret of drawing it out into Threads, or ſpinning it, has been loſt. The Cloth made with this ſort of Alum when dirty, to be made clean, needed only to be thrown into the Fire, and it would come out thence as white as Snow. And with this ſort of Cloth did the antient *Romans* preſerve the Aſhes of their Emperors, and ſeparate them from thoſe of the aromatick Wood, wherewith their Bodies were burnt. Some People, at this Day, alſo make uſe of this *Plume Alum*, inſtead of Cotton, to make Matches; and to that End it ought to be in long Wicks, and as ſoft as poſſible. This *Alum* is a ſtrong Corroſive, or Eſcharotick; for what Part ſoever of the Body it touches, it cauſes Whelks and Bliſters, and a moſt intolerable *Pruritus* or Itch, which is to be appeaſed only, that I know of, by anointing the Part with Oil of Olives. Beſides this *Plume Alum*, we begin to ſell a certain Stone Mineral, ponderous, white, woolly, and, in a word, wholly like to *Plumous Alum*, and incombuſtible alſo, wherefore it has obtained the Name of *Aſbeſtos*, which in *Greek* ſignifies incombuſtible; and by Corruption we call it vulgarly *Albeſtes*.

This Stone is found in many Places in *France*, more eſpecially in the County of *Foyx* in *Gaſcoign*, where there are Quarries out of which Stones of a ſurprizing Magnitude are taken, and from which Cotton Threads may be drawn fit to make Cloth, and to endure whitening or cleanſing in the Fire, like that of Feather *Alum* already ſpoken of. And beſides this, there are found in *France* (particularly about the *Pyrenees* in the Valley of *Campan*, near the Stone Quarries, about three Leagues from *Grippa*) certain Plants about two Feet high, which have Stalks all as it were ſilvered over, their Leaves like thoſe of a Nettle, excepting only that they are white underneath, of a dark green at Top, and reſembling Shagreen. This white Stalk ſteeped in Water, like Hemp, may be run into a long and round ſort of Flax or Tow, of which good Cloth may be made, that will reſiſt the Fire like *Plumous Alum*, only it will not whiten ſo well. And it is to be remarked, that when this Flax is put into the Fire, it immediately grows red, but black if applied to a Candle. Perhaps what I ſay may not eaſily meet with Credit; but ſince I have ſome of it in my Poſſeſſion to ſhew to thoſe who would not believe, and the Perſon who has collected it is ſtill in Being, and a Man of Reputation and Fidelity, I thought it might not be amiſs to advertiſe the Publick, that *Plumous Alum*, and what we call the *Aſbeſtos*, are not the only Drugs in Nature capable of enduring or reſiſting the Fire.

This incombuſtible Plant might be called *Aſbeſtos*, and the Tow that comes of it *Incombuſtible Flax*, being long, large, and ſoft, like Flax.

Alumen Plumeum, ſive Alumen Sciſſile, or *Feathered Alum*, is a kind of ſtringy Talc, like the Feathers of a Quill, whence they call it *Feathered Alum*. It is very ſoft to the Touch, of a white, greeniſh, ſhining Colour, is produced in the Mines of *Negropont*. It will neither flame nor conſume in the Fire. Some Alchymiſts uſe it for Wicks in their Lamps; it is called *Sciſſile*, becauſe it is eaſy to break and divide. *Lemery.*

Of Alum *of* Rome.

Roman Alum, which we alſo call Alum of *Civita Vecchia*, becauſe great Quantities are made in the Neighbourhood of that City, is a Stone Alum of a middle Size, red without, and within, clear and tranſparent, and of a diſagreeable ſtyptick Taſte. This Alum is of a reddiſh Colour; the Mine from whence it is drawn being of the ſame. *Pomet.*

Chuſe the *Roman* Alum that is reddiſh throughout, in the Inſide as well as the Outſide, becauſe there are ſome who colour the *Engliſh* and *Liege* Alum of a dark Red, but the Cheat is eaſily diſcovered; for if you find it not as red within as without, it is a Sign it is counterfeited. It ought to be as free of ſmall or broken Pieces as poſſible;

which yet is no Diſadvantage to thoſe who uſe it, provided the Alum be pure and genuine, but only to ſuch as retail it.

Roman Alum is much in Uſe with Dyers, Tanners, and thoſe that make counterfeit Pearl, but it ought to be very good for all of them.

Of Engliſh Alum.

Engliſh Alum, to which the Antients have given the Name of Roch or Rock Alum, White and Glaſs Alum, is an Alum clear and tranſparent as Cryſtal, which is ſent us from *England* in Pieces of different Figure and Bigneſs; ſince ſometimes it is to be met with in Lumps as big as a Man's Body, ſometimes clear and white as Cryſtal, and at other Times blackiſh and moiſt: In fine, the Glaſs Alum is more or leſs beautiful, according as it has been more or leſs purified.

As this Alum is much made uſe of by ſeveral ſorts of Trades, particularly by Mint-men or Coiners, and Dyers; as alſo for many Preparations in Phyſick, Care ought to be taken in the Choice of it, that it be white, clear, and tranſparent, as dry and as free from any ſort of Filth as may be: Alſo Care muſt be had that it be not *Liege* or *Meziere* Alum, which is greaſier and fatter than that of *England*, and not ſo fit for Dyers Uſe, and which they never make uſe of but for want of the true *Engliſh*. We had not long ſince a greeniſh ſort of Alum, like Salt-petre, drawn from a Stone taken out of the Mines in the Neighbourhood of *Soiſſons* in *Picardy*; but as this Alum is of no Account, as well by reaſon of its ill Looks, as becauſe we continue ignorant of its Virtues, I ſhall ſay no more concerning it. From the *Engliſh* Alum is diſtilled a clear and acid Water, which we call Alum Water, and which is uſed as an Ophthalmick. After the Phlegm comes over an acid Spirit, uſeful in Fevers, whether continual or intermitting; and alſo good againſt ſmall Ulcers or Excoriations in the Mouth, from four to eight Drops; that which remains in the Veſſel being a light white Subſtance or Maſs, is what we call Burnt Alum: But as this Water and Spirit of Alum are in little Requeſt, thoſe that have Occaſion for Burnt Alum do not trouble themſelves about diſtilling, but only put *Engliſh* Alum into a Pot, which they place in the midſt of a good Fire; and when the Alum is become very light and white, they take it out and keep it for Uſe.

Calcined or Burnt Alum ought to be light and friable, that is, eaſily reduced to Powder; ſo that Care muſt be taken that it be not ſuch as has been paſſed through a Silk Searce or Sieve, which is put into a Bag tied cloſe, to make it into Stones or Lumps; but this Cheat is eaſily diſcovered, the counterfeit Alum being heavy, extremely white, more like Paint or Plaiſter than any thing elſe, and of a ſtyptick Taſte.

True Burnt Alum is eſteemed a very good Eſcharotick to eat away proud luxuriant Fleſh. Perſons of Diſtinction commonly wear it in little Bags under their Armpits and their Feet, to prevent ſweating, but then it ought to be extremely fine.

Of Saccharine, *or* Sugar-like Alum.

Saccharine Alum, becauſe it reſembles Sugar, is made of *Engliſh* Alum, Roſe-water, and Whites of Eggs, boiled together till it is ſtiff; and this Alum ſo boiled, and reduced into a Paſte, what Figure or Form you pleaſe may be given to it; and when it is cold, it becomes as hard as a Stone.

Some make this Sugar Alum enter into the Compoſition of their *Fucus's*.

There are, moreover, other ſorts of Alum, namely, that white tranſparent Stone, in every particular almoſt like Rock Cryſtal, to which the Name of *Scayolle Alum* is given; the *Lapis Specularis*, which is found in the Quarries of *Paſſy*, and which, after it is calcined, is of a very beautiful White. Not long ſince, great Quantities of this were found in the clayey Earth of *Paſſy*. Others make uſe of another ſort, which we call *Gip* or *Plaiſter*. Pot-aſhes alſo have obtained the Name of *Alumen catinum*, as is obſerved in its Place.

Some ſay the Name of *Alum* is derived from the *Latin Lumen*, which ſignifies Light.

Alumen, or *Alum*, is an acid mineral Salt, made from a kind of Stones of different Sizes and Colours, which are found in the Quarries of *France*, *Italy*, and *England*. They calcine this Stone, and then make Alum of it by Solutions, Filtrations, and Coagulations, as they make Salt-petre. There are ſeveral ſorts of it, as *Roman Alum*, *Roch Alum*, and *Sugar Alum*. *Lemery.*

The *Roman Alum*, or that of *Civita Vecchia*, called *Alumen Romanum*, is a Salt in Stones of a moderate ſize, that are reddiſh within, of an acid ſtyptick Taſte; they uſe it outwardly for ſtopping of Blood, and inwardly in Gargariſms for Inflammations of the Throat, and to clean the Teeth; they dry it or calcine it upon the Fire to free it from its Phlegm, then it is called *Burnt Alum*: This is an Eſcharotick, and ſerves to eat away proud Fleſh, diſſolve Excreſcences, and open Ulcers and Shankers.

Roch Alum, White or *Engliſh Alum*, called *Alumen Rupeum*, or *Rock Alum*, is a Salt in large great Lumps,

Lumps, that are clear, white, and tranſparent as Cryſtal, which is brought from *England*. This *Alum* has the Virtues of the former, but is not ſo ſtrong: The Dyers, *&c.* uſe it. The *Alum* called *Alumen Saccharinum*, or *Sugar Alum*, is a Compoſition made with Roch Alum, Whites of Eggs, and Roſe-water, boiled together to the Conſiſtence of a Paſte, and formed, while hot, into little Cakes like Sugar-cakes, whence it takes its Name. *Alumen Catinum*, or *Diſh Alum*, becauſe it is made in a Platter or Diſh, is what we call *Pot-aſhes*, or the *Aſhes* of *Kali* calcined, or ſome other Aſhes, or *Alkali Salt* made from Vegetables. They call it *Catinum*, becauſe they uſed to dry it in a Plate or Diſh.

[*Alum* is a Salt either natural or artificial; the natural *Alum* of the Antients was either liquid or ſolid. Of the liquid, there are two Kinds mentioned by the Antients, one pure, and the other impure. The firſt was very common, and was a ſmooth milky Subſtance, always moiſt; the other rough and foul. The ſolid they diſtinguiſhed according to its Figure into fiſſile and round: The fiſſile was either in Form of a compact uniform Glebe, or divided into Filaments; the round of a more looſe Texture, with the Appearance of Bubbles upon it, or full of Holes like a Spunge; or elſe conſiſting of *Strata*, looſely laid on one another.

The articificial or factitious *Alums* are diſtinguiſhed by the Countries where they are made. They were wholly unknown to the Antients, though with us they are the only kinds in Uſe.

The kinds of *Alum*, kept at preſent in the Shops, are three.

1. The Common *Alum*, *Alumen rupeum candidum et pellucidum*, *Ald. Muſ. Met.* 324. *Alumen rupeum ſive Chryſtallinum*, *Ind. Med.* 7. This is procured with us from a Species of Stone or Ore burnt, and afterwards boiled with the Addition of Urine and *Kali*, or other Sea Plants. It is got in other Places by the Evaporation of Mineral Waters; and in ſome others is found in natural Veins in the Earth.

2. The *Roch Alum*, the *Alumen Romanum ſive rubrum*, *Ind. Med.* 7. *Alumen Rupeum ſeu Rochæ*, *Charlt. Foſſ.* 9. *Alumen Rochæ*, *Worm.* 23. This is like the former, but reddiſh; and is brought to us from *Italy* and *Smyrna*. It is made as we make the common *Alum*, by burning the *Alum* Stones, and boiling them; but without the Additions of Urine, *&c.*

3. The *Plumoſe Alum*, *Alumen plumeum ſeu Trichites*, *Schrod.* 3. 477. *Alumen Plumæ quod Sciſſile Latinis*, *Aldr. Muſ. Met.* 331. This is light, and compoſed of Filaments; it is ſoluble in Water, and melts in the Fire; therefore is evidently different from the *Aſbeſtos*, with which it has for many Ages been confounded by a Number of Authors.

Alum is a powerful Aſtringent and Drier; the natural *Alums* have a weak Smell of *Aqua fortis*; the factitious have little or no Smell. A Solution of *Alum* curdles Milk, turns an Infuſion of Galls turbid and whitiſh; concretes with Salt of Tartar into a white *Coagulum*, without any ſenſible Heat or Smoke; and when the Mixture is made with *Engliſh Alum*, an urinous Smell is perceived from the Urine uſed in its Cryſtallization.

Alum, by a chymical Analyſis, yields an acid Spirit, like that of Vitriol, but not ſtrong, nor in any great Quantity; for the aſtringent Earth, that is the Baſis of *Alum*, retains the acid Salt ſo firmly, that the Fire cannot ſeparate them; and the *Reſiduum* of the Diſtillation will cryſtallize into *Alum* again, if diſſolved in Water. Hence it is evident, that *Alum* conſiſts of an acid Salt of the Vitriolick kind, and an aſtringent Earth very cloſely united together.

The *Aſbeſtus*, or *Earth Flax*, is the *Amianthus ſive Aſbeſtus*, *Ind. Med.* 8. *Lapis Amianthus*, *Matth.* 1387. *Lact.* 118. It is remarkable for bearing the Fire unhurt; but is never uſed in Medicine.

As to the vegetable *Aſbeſtus* of our Author, I judge him to be a Man of great Veracity, therefore cannot think he would propagate a Falſhood knowingly: But I ſuppoſe he was impoſed on by the Perſon who pretended to have gathered what he gave him from a Plant.]

BOOK IV.

Of *BITUMENS.*

PREFACE.

The Word Bitumen *properly ſignifies a fat, ſulphureous, inflammable Matter, which is found of different Colours and Conſiſtence, either within the Earth, or upon it, or ſwimming upon the Face of the Waters. Of theſe we have ſeveral Sorts, ſome hard, others ſoft, and ſome liquid, like Oil. The hard* Bitumens *that we ſell, are the* Yellow Amber, Black Amber, *or* Jet; Jews Pitch, natural *and* artificial; Pit Coal, Kennal Coal, *or* Black Stone, *and* Sulphur. *The ſoft Sorts are* Naphtha, *the* Bitumen *of* Colao, *of* Syrnam, *and* Copal Bitumen. *The liquid are* Naphtha *of* Italy, *and the* Petroleum, *or* Rock Oil. *Of all which hereafter in their Turns.*

1. *Of* Amber.

Pomet. AMBER, to which the Antients have given the Name of *Succinum*, or *Carabe*, is a *Bitumen* of different Colours, being either white or yellow. This *Bitumen* is liquid when it is in its natural Place of Production; but as it comes from thence, it hardens, and becomes ſuch as we ſee: And as it paſſes from its Receſſes in the Earth, in a State of Fluidity, ſwimming upon the Waters, it is apt to carry with it what is in its Way; which is the Reaſon we find many extraneous Bodies in our *Amber*; alſo not hardening all at once, but by Degrees, a great many Inſects ſtick to it, and there die. Moſt of the *Yellow Amber* we have is found upon the Banks of certain ſmall Rivers, running into the *Baltick* Sea, in the *Ducal Pruſſia*. It is alſo found upon the Sands, which have been caſt up by the Winds, and is a Commodity which brings no inconſiderable Profit to the King of *Pruſſia*, for he raiſes above 20,000 Crowns *per Annum* from thoſe Places where it is found, over and above the great Charge they are at in ſecuring and preſerving it from others; ſo that it neceſſarily follows, that this *Yellow Amber* yields a yearly Rent of more than 100,000 Livres.

What I ſay may, perhaps, ſeem ſtrange to thoſe who do not know the great Uſe there is of *Amber* in *China*, and amongſt the *Savages*, as well as in *Europe*; but the greateſt Conſumption of it is in *Auſtria*, *Germany*, in *Poland*, and in the Neighbourhood of *Venice*; and the *Venetians* were the firſt that brought it into ſuch a Vogue and Faſhion thereabout, there being few People in *Lombardy*, or all along the *Po*, but wear *Amber* Necklaces, believing they keep them from Quinſies, and other ill Effects of the Neck and Throat, to which they are very ſubject, by Reaſon of the bad Waters they are forced to drink in thoſe Parts: Hiſtory alſo informs us, that the *Romans* made ſuch Account of it, that *Nero* cauſed great Quantities of it to be imported; but no where is *Amber* more eſteemed and valued than in *Poland* and the *Lower Hungary*, a pretty handſome Piece, without Fault or Flaw, being there as valuable, and preferred even to Gold; ſuch Lovers and Admirers of this Commodity are they. As for *France*, it is by no means ſo much in Eſteem there, though it was not many Years ago that all People of Quality and Faſhion wore Necklaces of it; but at preſent it is become ſo vulgar, that none but Servants make uſe of it. Beſides the great Uſe of *Yellow Amber* for Trinkets, *&c.* it is of Uſe in Medicine, not only to powder, but to draw a Tincture, a Spirit, volatile Salt, and an Oil, from, and to make a Varniſh with Spirit of Wine.

Amber ought to be clear and tranſparent, capable of attracting Straws, whence comes its Name of *Carabe*, which in the *Perſian* Language ſignifies *draw Straw*. When it is deſigned for any Piece of Workmanſhip, or to powder, it ſhould be white;

white; but when it is to undergo the Fire, it matters not of what Colour it be, provided it is genuine *Amber*; for there are a great many that ſell the *Copal* of *America* for it, but it is eaſily diſtinguiſhed from it, the Copal being in Pieces of the Bigneſs and Figure of Gum Araback, and the true *Carabe* ordinarily in great Lumps, and alſo moſt commonly in a ſort of Film or Skin, which ſerves as a kind of *Matrix* for it; and then again *Amber* burnt at the Candle ſends forth an exceeding ſtrong Smell; and moreover, as hath been noted, will attract Straw, which Copal will not do. Some have aſſured me that *Yellow Amber* is counterfeited with Turpentine and Cotton, or with Yolks of Eggs and Gum Araback: But as this ſort of falſe Amber would be worth little or nothing, I cannot conceive how any one need fear its being adulterated with thoſe Things.

Amber is powdered upon a Porphyry, and reduced into Cakes, which are of ſome Uſe in Phyſick, particularly to reſtrain Spitting of Blood, and to ſtop Dyſenteries and other Laſks; Doſe from ten to thirty-ſix Grains in any appropriate Vehicle. Alſo from Powder of *Amber*, with Spirit of Wine, is drawn a yellow Tincture, endowed with a great many good Qualities, eſpecially in apoplectick and epileptick Fits, and paralytick Caſes, taken from ten Drops to a Drachm in any agreeable Liquor: Some diſſolve pure fine Camphire in this Tincture to make what Monſieur *Soleyſel* calls the *Flaming Balſam*, and recommends for Wounds, Bruiſes, or cold Humours in Horſe or Man, which may be ſeen deſcribed in his Book, *Page* 274.

Karabe, *Succinum*, *Electrum*, *Ambra Lemery*. *Citrina*, or *Yellow Amber*, is a hard Matter, like a Stone, yellow, citrine or white, of a fine, ſhining, tranſparent Colour, that is brought from the *Ducal Pruſſia* in Pieces of different Shapes and Sizes: This *Amber* is thrown by the Waves of the *Baltick Sea* up the Rivers of *Pruſſia*, eſpecially by certain Winds. They likewiſe find both the liquid and ſolid on the Banks of ſeveral little Rivers, and upon the Brooks that are about the ſame Sea; that which is liquid, hardens in a little Time, and becomes ſolid as the other.

Opinions are divided upon the Nature and Origin of *Amber*. The Antients believed that it was a Mixture of Gum and Reſin that flowed from Poplars, Pines, or Firs, which being confuſedly carried by the Winds into the *Baltick Sea*, incorporated with the Salt, and was elaborated or worked up, and then thrown by the Waves upon the Banks of the Rivers. This Notion is rejected by the modern Authors, who have all writ that *Succinum*, or *Amber*, is a *Bitumen* or Juice of the Earth, which the Sea has raiſed up, and the Waves thrown aſhore about the *Ducal Pruſſia*, where it is formed, and hardens after the Manner we ſee it in. I myſelf followed this laſt Opinion in my Book of Chymiſtry: But as I have been convinced ſince by ſeveral Circumſtances, I have changed my Opinion, and found that the Thoughts of the Antients, on this Subject, were preferable to thoſe of the Moderns: For firſt of all, Travellers know that about the *Baltick Sea*, on the Coaſt of *Sweden*, there grow abundance of Poplars, Pines, and Firs, from which there flows in Summer a great Quantity of Gum and Reſin, which is partly blown into the Sea by the Winds.

In the next Place, the Subſtance, the Colour, and the Tranſparency of that reſinous Gum, reſemble much thoſe of *Amber*; for we have *Gum Copal* brought us that flows from Poplars, in the *Antilles Iſles*, and has no other Elaboration than what it receives from the Torrent of the Water in the Rivers, from whence they take it, as has been ſaid in its proper Place; and it is ſo like *Karabè*, that thoſe who know it not well may eaſily be deceived; from whence it is called, *Falſe* or *Counterfeit Karabè*. *Amber* indeed is ſomething harder, of a higher Colour, more tranſparent and reſplendent than *Gum Copal*, but theſe Perfections come from the Salt that is mixed in it, a long Fermentation and Working it meets with in the Sea, beſides the Mixture of the Pine Reſin with the Reſin of Poplar, *&c.* In the third Place, the Principles that are drawn from the true *Karabè* by Chymiſtry, are likewiſe thoſe that are taken from *Gum Copal*.

Chuſe your *Amber* in fine, large, hard Pieces, clear and tranſparent, that will attract or draw to itſelf Straws, and ſeveral other little light Bodies, when the *Amber* is rubbed in your Hand, or otherwiſe, and applied near the ſame. The white *Karabè* is preferable to the yellow, but the Difference is not conſiderable: They uſe both ſorts to make Necklaces, Bracelets, and little Cabinets, with ſeveral other Nick-nacks that are carried into *Perſia*, *China*, and *Turkey*, where the Natives eſteem them as great Rarities. They likewiſe make Amber Necklaces in *Auſtria*, *Germany*, in *Venice*, and ſometimes in *France*.

In Pieces of *Amber* there are ſometimes found Spangles, Leaves of Trees, or little Inſects; as Spiders, Ants, Flies, *&c.* This Circumſtance has given Occaſion to Naturaliſts to enquire how theſe little Bodies become incloſed in the *Amber*; and it appears to me that the Difficulty is eaſy to reſolve, ſince from the Opinions given, touching the Nature of *Amber*, it has been thought neceſſary to admit that the Subſtance of it was ſome time liquid or ſoft before it hardened; that during that

Time

Time, theſe ſmall Bodies adhered to it, as to Glue, and were wrapped up in it, or rather were covered and encloſed therein by the Addition of freſh Matter of the ſame kind; ſo that when the Whole was hardened, theſe little Bodies remained wholly embalmed, as we now ſee them.

The *Karabè* contains in it a great deal of Oil and volatile acid Salt; it ſtops the Flux of the Belly, Hemorrhage, and *Gonorrhœa*, and reſiſts Poiſon: The Doſe is from ten Grains to half a Drachm; they likewiſe burn it over the Fire to receive the Fume of it, which checks the Violence of Rheum from the Head, and Catarrhs. *Karabè* is a *Perſian* Name that ſignifies *draw Straw*; and they have given this Name to *Amber*, becauſe it attracts Straws, eſpecially when it has been a little rubbed in the Hand. The Reaſon of that Effect proceeds from this, that the ſubtil and inſenſible Particles of the Matter having been put into motion with ſome kind of Heat that follows the Friction, they emit on all Sides their *Effluvia*, and ſcatter them in the Air within their Circumference; but as they loſe their Motion according to the Diſtance they are from their Center, they become ſo much weaker, and are on all Sides repelled by the Air; and in their Return they ſtick, by their Viſcoſity, to a Straw, or any other light Body they meet with in their way, and drag it along with them. The ſame Effect happens to ſeveral other Subſtances, which are rubbed after the ſame manner, as Wax, Suet, and divers Gums. This is called *Succinum*, from *Succus*, becauſe it is ſuppoſed to be the Juice of the Poplar, or of the Earth.

Of the Spirit *and* Oil *of* Amber.

Pomet. From *Amber* groſly powdered, put into a Glaſs or Earthen Retort, may be drawn a reddiſh Spirit, and greeniſh fetid Oil.

The *Spirit* of *Amber* is eſteemed an excellent Aperitive or Deobſtruent, and very good againſt the Scurvy, taken in any Liquor, from ten to twenty-four Drops.

As for the *Oil*, it is chiefly in uſe to allay and drive down Vapours, being put upon Silk or Cotton, and rubbing the Wriſts, or Pulſe, or Noſe therewith. If you would have this *Oil* of a fine clear reddiſh Colour, you have nothing to do but to mix with it a little Earth or Sand, and to diſtil it again.

Thoſe that would have a volatile Salt, or *Spirit*, or *Oil* of *Amber*, may perform all the three Operations very well with a Glaſs Retort and a Sand-heat. As for the volatile Salt, if you find it not good and fine enough, you need only put it into a ſmall Vial or Glaſs Bottle, and ſublime it upon a gentle Fire, taking care to keep it well ſtopt; for this is a tickliſh Commodity, that will evaporate and loſe itſelf in the Air, and that which you will find in the Retort, is of a fine ſhining Black, reſembling the *Bitumen* of *Judæa*, or *Jews Pitch*.

[*Amber* is the *Succinum*, *Worm.* 31. *Charlt. Foſſ.* 14. *Ald. Muſ. Met.* 403, *&c.* It were almoſt an endleſs Work to recount the various miſtaken Opinions about the Origin of *Amber*, but the true Account of it is, That it is a bituminous mineral Juice, formed in the Bowels of the Earth, liquid at firſt, but afterwards concreted into a hard ſtony Subſtance; for in ſeveral Parts of *France*, eſpecially in *Provence*, it is dug out of the Mountains, as likewiſe in *Italy* and *Sicily*; but all this is of the dark and leaſt valuable kind; the beſt is found in *Pruſſia*, where it is of two kinds, one dug out of the Earth, and the other found on the Sea-ſhores, which is of the ſame nature with the former. *Hartman*, who has wrote an accurate Hiſtory of *Amber*, is of opinion, that all *Pruſſia* and *Pomerania* ſtand upon a Bed of it, becauſe it is always met with there, in digging Pits, in great Quantities, and ſometimes very near the Surface of the Earth. The chief Amber Mines are near the Sea-coaſt of *Pruſſia*; and from the Shore where they are ſituated, a Hill riſes, made up of a cortical Subſtance like the Barks of Trees, piled one on another; under this is found a Stratum of a kind of foſſil Wood, which *Hartman* believes to be the Matrix of *Amber*, becauſe a great Quantity of it is contained in the Veins of this Wood; and wherever *Amber* is found by digging, this Subſtance is always found.

The *Amber* which is gathered on the Sea-ſhores comes from the ſucciniferous Hills, beat to pieces by the ſtormy Sea, and waſhed on the Beech.

As for the Choice of *Amber*, it ſhould be according to the Uſe it is for; if it be to make the *Oil* the Yellow is propereſt, becauſe it contains moſt; the White has leſs Oil, and therefore is to be choſen, if wanted, for the volatile Salt; the Brown is loaded with Earth, therefore not to be uſed on any Occaſion but in want of the others.]

2. *Of the* Black Amber, *or* Jet.

Pomet. JET, which, with good Reaſon, may be called *Succinum Nigrum*, or *Black Amber*, is alſo a ſort of *Bitumen*, found in the Bowels of the Earth; it is a ſulphureous Foſſil, very hard, and of a gliſtering or ſhining Black, found in ſeveral Places of *Europe*, as well in *Germany* and *Sweden*, as in *Ireland*; as alſo in *France*, between *St. Beaume* and *Toulon*; and in *Ireland* it is ſo common, that as you go along you may ſee

Veins

Veins of it running through the Stones and Rocks. Some Authors are of opinion, that *Jet* is the *Yellow Amber* diveſted of its Oil, drawn out by the ſubterranean Fires, and that from thence proceed *Naphtha* and *Petroleum*; which does not ſeem very repugnant to good Senſe.

Jet is of a like Uſe with *Yellow Amber* for Ornaments and Decoration; but in Medicine it is only made uſe of for its Oil, which ſerves for the ſame Purpoſes as that of the other.

As to the Choice of it, it is ſufficient to be of a ſhining Black, as the Proverb beſpeaks it.

Gagates, in *French*, *Geſt*, *Jays*, or *Lemery*. *Jayet*, and in *Engliſh*, *Jet*, is a bituminous Stone, that is hard, black, and ſmooth, found in ſeveral Parts of *Europe*, as *Germany*, *Sweden*, *Provence*, and *Ireland*, in the Stone Quarries amongſt the Rocks; it yields a good deal of Oil, and a little volatile penetrating Salt.

Some People are of opinion that *Jet* is an *Amber* whoſe volatile Parts have been ſeparated by the ſubterranean Fires, and become what we call *Petroleum*. Chuſe ſuch as is neat, hard, and of a fine ſhining Black; it diſcuſſes, is emollient, expels Wind, and allays Vapours. The Doſe from a Scruple to a Drachm. The Name comes from *Gaga*, a River and City of *Lycia*, from whence *Jet* is ſometimes brought.

[*Jet* is the *Lapis Gagates*, *Charlt. Foſſ.* 14. *Gagates*, *Worm.* 31. *Aldr. Muſ. Met.* 418. It is a cruſtaceous and almoſt ſtony foſſil Subſtance, much like the Cannal Coal in Appearance, but differing from it, in that it has a bituminous Smell, is harder, and burns almoſt like Pitch, ſending out a thick black Smoke. It had its Name, *Gagates*, from *Gage* or *Gagis*, a Town in *Lycia*, from which it uſed to be brought, but is now too common to need ſending ſo far for.]

Of Jews Pitch.

Pomet. THE *Jews Pitch*, or *Aſphaltum*, is a *Bitumen*, ſolid, brittle, and black, ſomething reſembling black Pitch, inflammable and ſulphureous, found ſwimming upon the Waters of the Lake where heretofore ſtood the Cities of *Sodom* and *Gomorrah*, called the *Dead Sea*, or *Lacus Aſphaltites* (from whence alſo it has its Name of *Aſphaltum*) the Word *Aſphaltites* ſignifies the Lake of Aſſurance, being ſo very ſtrong, that every thing almoſt ſwims that is thrown into it; and it is called *Mare Mortuum*, or the *Dead Sea*, becauſe no Fiſh or other Beaſt can live in it, through the extreme Saltneſs, Bitterneſs, and noyſome Smell of its Waters; but, in Recompence, there are great Quantities of this *Bitumen* found floating thereupon like Greaſe or Fat, of which the Coaſters, who are *Arabs*, make very conſiderable Advantage; it being what they uſed to lay upon and beſmear their Ships and Boats with, as the Northern Nations do with common Pitch: And one Thing is very remarkable, that when this Lake is very full of this *Bitumen*, there ariſes ſuch a Stench in the Air, that the Inhabitants thereabout are neceſſitated to gather it and put it aſhore; and ſo noyſome at that Time is the Smell, that all Birds that fly over it fall down dead; and this is the Reaſon why the People in the neighbouring Places are ſo ſhort lived.

The *Bitumen* of *Judæa*, or *Aſphaltum*, ſo much reſembles the beſt black *Stockholm Pitch*, that were it not for the ſtrong Smell of Pitch, and that it is not ſo hard as the *Aſphaltum*, no one could diſtinguiſh the one from the other.

The principal Uſe of this *Bitumen* is to make the fine ſhining Blacks of *China*: It is alſo of ſome Uſe in Medicine, for that it enters the Compoſition of the *Venice Treacle*; for which Purpoſe it needs no other Preparation than to be true or genuine, that is to ſay, of a moſt beautiful, ſhining, poliſhed Black, reflecting the Image of the Sun, and of no manner of Smell: See that it be not adulterated, or mixed with *Black Pitch*, which is what is called the *Artificial* or *Factitious Piſſaſphaltum*; it is no difficult matter to diſcover this artificial *Bitumen*, being of a very baſe Black, and a ſtrong Smell. It is a Miſtake to believe, as ſome Authors do, particularly Monſieur *Furitiere*, that we have no *Bitumen* of *Judæa* brought us now-a-days; and that the Apothecaries, inſtead of it, ſell a Compoſition which they make of *Pitch* and the *Oil* of *Petre*; a thing that does not ſtand to Reaſon, nor can I conceive Apothecaries to be ſuch Knaves and Fools to do any ſuch thing, ſince the true *Bitumen* is reaſonable enough in its Price: So that it would have been better for theſe Scriblers, and all ſuch as have undertaken to write of Drugs without underſtanding them well, to have been ſilent; for they have made, and ſtill do make, horrid Blunders about *quid pro quo*, or in ſubſtituting ſuccedaneous Drugs or Medicines; which is a Matter that much concerns the King and Commonwealth.

Bitumen Judaicum, *Bitumen Babylonicum*, *Aſphaltus*, is a ſolid, brittle, black Matter, reſembling *Black Pitch*, that is ſulphureous and inflammable, and in burning ſends forth a ſtrong diſagreeable Smell: It is found ſwimming upon the Surface of the Lake, or *Aſphaltite Sea*, otherwiſe called the *Dead Sea*, where ſtood ſome time the Cities of *Sodom* and *Gomorrah*. This *Bitumen* is caſt up from time to time, in the Nature of liquid Pitch, from the Earth *Lemery.*

that

that lies under this Sea, and being thrown upon the Water, it swims like other fatty Bodies, and is condensed by little and little through the Heat of the Sun and the Salt that is in it.

The Inhabitants of the Country are constrained to take it from thence and carry it ashore, not only because it brings them Profit, but also because the Lake being too much loaded with this *Bitumen*, yields a stinking and malignant Smell, which spoils the Air, affects their Health, and shortens their Days: The Birds that fly a-cross it fall down dead; and it is called the *Dead Sea*, because of the Stench, Bitterness, and excessive Saltness of it; so that neither Fish or any other Creature can live upon it. The *Arabs* use this *Bitumen* of *Judæa* to pitch their Ships as we do common Pitch, and there was a great deal of it employed in the Embalming of the Antients.

Chuse such as is clean, of a fine shining Black, solid, and harder than Pitch, having no Smell but when it is held to the Fire; take Care it be not mixed with Pitch, which may be known by the Smell: They use this to make your fine shining Blacks of *China*. It yields a good deal of Sulphur, partly exalted with volatile Salt and a little Earth; it fortifies, and resists Putrefaction, resolves, attenuates, and cleanses cicatrized Wounds, and is used externally and internally.

It is supposed that the Word *Bitumen* comes from the *Greek* Word πίτυς, which signifies a *Pine*, and which has been changed by Corruption, the π being altered into a β, from whence they pronounced it *Bitumen*, instead of *Pitumen:* This Etymology is taken from the Opinions of the Antients, that the *Bitumen* of *Judæa* was a Pitch that flowed from Pines, and several other Trees about the Lake of *Sodom:* So were the *Jews* of that Opinion before: The Prophet *Esdras*, speaking of *Sodom* and *Gomorrah*, says, that the Earth is founded upon Pitch and Heaps of Ashes.

[*Jews Pitch* is the *Bitumen Judaicum*, *Worm.* 31. *Charlt. Foss.* 14. *Bitumen nigrum crassum*, *Kentm.* 21. *Bitumen Judaicum asphaltum*, *Mont. Ex.* 12. It is a *Bitumen* formed in the Bowels of the Earth: It is found in many Places; but the best is that swimming on the *Dead Sea:* And there is no question of its being thrown up into it by the Earth, since all the Hills there about are full of it, and Pieces of two Feet length are dug up black as Jet, and hard enough to bear polishing like Marble. *Herman* also found of it on an Island near the *Cape of Good Hope.*

Dioscorides directs us to make Choice of that which shines like Purple, and to reject what is black, as foul, and of no value. How far his Directions agree with what we now receive of it, is not easy to say, for it is always quite black, but when broken, and held to the Light, is of a reddish or Saffron Colour. It is at present very seldom seen in the Shops, and we are obliged to use the *Pissasphaltum* in its Place; but not the artificial *Pissasphaltum*, which is made of common Pitch, *&c.* but a genuine, mineral, bituminous Substance, named by our Author in the Chapter of *Naphtha* hereafter, called *Fossil Pitch*, the *Pissasphaltos Nativum*, *Schrod.* 4. 208. *Pissasphaltum*, *Worm. Mus.* 30. *Charlt. Foss.* 141. This is found in the *Campania* of *Rome*, oozing through the Crannies of the Rocks like Tar; as also in *Auvergne* in *France*, and about *Epidaurus* in *Morea*, where it is washed from the Mountains by the Rivers, and formed into black hard Glebes. Its Virtues are the same with those of the former, and it is what is almost constantly sold in its Place.]

4. *Of* Pit Coal.

EARTH, or *Pit Coal*, is a sort of stony *Bitumen*; it is chiefly used by Farriers and other sorts of Smiths to heat their Iron. That of *England* is esteemed the best, though there are some that say ours of *Auvergne* comes very little behind it; it is made a great Traffick, being a Commodity much used in *France*; the best is pretended to be that which is most void of Sulphur, and consequently that which will keep longest in the Fire. Some will have it that this Stone Coal is the Result of *Petroleum* made in the Bowels of the Earth, which is probable enough, since out of it may be drawn an Oil altogether like the Oil of *Petre.* *Pomet.*

It is called in *Greek*, *Lithanthrax*; in *Latin*, *Carbo Petræ*, or *Carbo Fossilis*; and in *English*, *Coal*; and is distinguished into *Sea Coal*, and *Pit Coal*, only upon the Account of that which is generally carried by Sea; all Coal being, properly speaking, *Pit Coal*; it is chiefly found in *England*, *Scotland*, *Ireland*, *Germany*, *&c.* and is an impure Sulphur, mixed with many gross and earthy Parts, and a volatile Salt, being strong, friable, and black: In Distillation it yields an acid Spirit, reddish Oil, black Balsam, and volatile Salt, like Amber; as is but too well known to the Chymists of this Age, who adulterate with it most of the Preparations of their Shops, that are either chargeable or troublesome and tedious in the Operation. The Virtues of this are in a lower Degree like those of Amber, as well internally as externally applied. *Lemery.*

[*Coal* is the *Lithanthrax*, *Merf. Pin. Carbo Fossilis sive Lithanthrax*, *Worm.* 31. It is drying and detergent, and is much oftener used in Medicine

dicine than the Phyſician imagines. *Lemery* has juſtly obſerved the villainous Tricks played within in Adulterations by the Chymiſts; and thoſe of our Nation are not at all inferior to the *French* in Inventions of that kind.]

5. *Of* Terra Ampelites, *or* Kennel Coal.

Pomet. TERRA *Ampelites*, or *Kennel Coal*, is a dry *Bitumen*, impregnated with Sulphur, that eaſily ſplits into Scales, and is reduced to Powder; it is found in the Entrails of the Earth in many Places of *France*. We have two ſorts of it, the one ſoft, the other hard, which comes from near *Alenſon*, in the Province of *Maine*; the Property of the Quarry whence it is taken belongs to a Curate of a Pariſh, who makes Seven or Eight hundred Livres *per Annum* of it. The Quarry is forty or fifty Feet deep; and though this is a Merchandize of low Price, yet they make a good Trade of it; there hardly being any Artificers in Stone or Wood, but what make uſe of it more or leſs. That which is good muſt be lately taken from the Mine, for when it is ſtale and old, it reſolves into a Powder, and becomes a Saltpetre; it ought to be light, neither too ſoft nor too hard. Some have given it the Name of *Vine Earth*, becauſe it kills or drives away the Worms from the Vines. Alſo it is called *Pharmacitis*, becauſe it is uſed in Medicines.

Lemery. *Ampelitis, ſive Pharmacitis*, the Black Stone, or medicinal Earth, is a very bituminous Stone, black as Jet, ſplitting into Scales, and is eaſily reduced to Powder. They get it from a Quarry near *Alenſon* in *France*. There are two ſorts of it, one ſoft and the other hard; it affords Abundance of Sulphur and Salt; it is proper to kill Worms, applied to the Belly, and to dye the Hair black. Some uſe it to deſtroy Vermin at the Vine Roots.

[*Cannal* or *Kennel Coal*, is the *Lapis Ampelitis Galeno*, *Charlt. Foſſ.* 14. *Succinum Nigrum*, *Schwenk*, *Cut. Foſſ.* 394. *Terra Ampelitis*, *Worm.* 31. *Terra Ampelitis ſive Pharmacitis*, *qua medici utuntur*, *Kentm.* 3. It is a Detergent, and good in malignant Ulcers, but not much uſed in Medicine; near the Places where it is dug in *England*, they turn it into Toys, *&c.* which are beautiful, and bear a very fine Poliſh.]

6. *Of* Sulphur Vivum, *or* Native Sulphur.

Pomet. SULPHUR *Vive* is a bituminous Earth or Clay eaſily inflammable, that in burning emits a ſulphureous Smell; it is brought us from *Sicily*, *Italy*, and other Places. As to the Choice of Live Sulphur, ſo called becauſe it is ſold and made uſe of juſt as it comes out of the Earth, let it be tender or ſoft, friable, eaſy to be broken, ſmooth, ſhining without as well as within, and of a ſort of Mouſe Dun, or Grey, as free from Gravel and Duſt as poſſible.

This ſort of Sulphur is in Uſe for ſome particular Operations, and certain Galenical Compoſitions, and pretty much uſed by Vintners, who mix it with Sugar, *Anis*, Cinnamon, Nutmeg, Cloves, *&c.* to ſweeten and preſerve their Veſſels.

Apothecaries alſo uſe it to correct *Scammony* by the Fume of it.

7. *Of* Mineral Sulphur.

SULPHUR *Mineral* is a hard earthy *Bitumen*, of a yellow Colour, and bright enough, of a fœtid ſulphureous Smell, eaſy to be melted or burnt, and is more or leſs beautiful, as it is more or leſs mixt with Impurities it meets with in the Mine.

This Mineral Sulphur comes from Mount *Veſuvius*; as to the Choice of it, though indeed it is made but very little Uſe of, let it be in handſome Lumps, of a golden Yellow, bright and ſhining, and as little as may be mixed with Earth or other Filth.

Its Uſes and Qualities are no other than like thoſe of the common factitious Brimſtone that is made of this, which we are going to ſpeak of under the next Head.

Of Sulphur *in* Rolls, *or* Common Brimſtone.

Pomet. The common factitious *Sulphur* or *Brimſtone*, is made of yellow Mineral Sulphur melted, and by the Aſſiſtance of right Train Oil and Moulds, caſt into the Form in which we ſee it.

This Sulphur is more or leſs beautiful, and endowed with good Qualities, according the Degree of its Purification, and the Places where it is made; for that of *Holland* is much better, and more beautiful than that of *Venice*, or that of *Marſeilles*, the three Places whence it comes, and where it is made: The Gentlemen of the *Royal Arſenal*, indeed, manufacture great Quantities, but they make uſe of it all themſelves.

In your Choice of this factitious Sulphur, or Brimſtone, take ſuch as comes from *Holland*, in large thick Rolls, of a golden Yellow, light, eaſy to break, and being held cloſe, or graſped in the Hand, and applied to the Ear, crackles and makes a Noiſe, and at length breaks to Pieces, and being broken, appears as it were in Cryſtals, which are the

the true Marks of that of *Holland* and *Venice*; none of which are to be found in the *Marſeilles* Sulphur, it being little better than a grey ſort of Earth of late; however, ſince we could have none from *Holland*, they have learnt the Art of well-working it there; and I think it has been our own Fault that we have ſuffered other Nations ſo long to run away with the Profit of refining it as it ought to be. The Reaſon has been, that no Merchants have undertaken to write of it, or enquire into the Manner of doing it; only a few Phyſicians, and ſome Apothecaries and others that have travelled, but underſtood nothing of the Myſtery of Trade, have ſet Pen to Paper concerning it, who acquit themſelves but indifferently, when they tell us that ordinary Sulphur in Rolls, or common Brimſtone, is made of *Sulphur Vive*; for that would be to turn Pewter into Lead, ſince the latter, though natural, is more valuable, that is, will ſell dearer than the former, notwithſtanding it be wrought; however, I would not be thought to diſcourage Authors, few Books being ſo ill written, but may contribute, in ſome Meaſure, to the Advancement of Knowledge; only in general it may be ſaid, that the Subject one is going to treat of, ought to be underſtood before we begin to write.

There are ſeveral other artificial Sulphurs, as I have already taken Notice, proceeding only from the different Preparations of different Countries; as the ordinary Sulphur of *Marſeilles* is in ſmall Rolls, and the green Sulphur of the ſame Place, both in large and ſmall Rolls, which ſort is eſteemed the beſt for Diſtillation, as ſhall be ſhewn hereafter.

There are a great many other natural Sulphurs, beſides the two ſorts we ordinarily make uſe of, but they are not very common with us, becauſe they come from a great Way off, and we have them not in large Quantities.

The firſt and moſt deſirable is that of *Quitto*, of a golden Colour, and an Amber Figure, found in great Abundance near the Gold Mines.

A ſecond ſort is that of *Nicaragua*, which is in a yellowiſh grey Maſs, altogether like that which was found, ſome Years ſince, in that Bank of Earth which was levelled by *St. Martin's Gate* in *Paris*.

A third ſort is of *Switzerland*, reſembling that of *Quitto*; and many more there are which I ſhall forbear to mention, there being no Demand for them.

The Uſe of Sulphur in Rolls, or common Brimſtone, is well known to all, and that it is one of the chief Ingredients of Gunpowder; for which Reaſon, thoſe that ſell great Quantities of it to the *Arſenal*, for that Purpoſe, ought to diſcover it when it is faulty, that what is made of it may not fall ſhort of Expectation. This Sulphur is uſed too in whitening Gauzes, Stockings, *&c.* for nothing blanches any Thing of Woollen like the Fume or Vapours of Sulphur.

It is alſo of conſiderable Uſe in Medicine, as well in many Preſcripts, as to perform a great many Operations in Chymiſtry, as will be ſeen hereafter.

It is beſides a Specifick in the Itch; but Care ought to be uſed, for it now and then produces very ill Symptoms.

Sulphur or *Brimſtone*, is brought to us from the *Caribbee* Iſlands of the *Weſt-Indies*, and is found alſo in *Italy*, *Bohemia*, *Sicilia*, and *Melos*, being generated of the Fat and Reſin of the Earth, filled with an acid and vitriolick Spirit. It is twofold, *viz.* Natural and Artificial. The Roll Sulphur is the latter; but if you would make right Oil of Sulphur, you muſt chuſe the *Natural*, or *Sulphur Vivum*; but if that cannot be got, you muſt make uſe of the other, which yet you are to try, whether it eaſily inflames and burns conſtantly; if not, it is not good, but is impure and adulterated with Reſin, and ſuch like Matters, whereby it becomes harder to kindle, and is eaſily extinguiſhed, being *Caballine Sulphur*. *Lemery.*

It is a noble Mineral even before Preparation, and is generally appropriated to the Breaſt and Lungs, and to cure all Diſeaſes which diſturb the ſame; it kills Worms, opens, cuts, reſiſts Putrefaction and Poiſon, provokes Sweat, and is given in Coughs, Colds, Phthiſicks, Wheeſings, Shortneſs of Breath, *&c.* Outwardly applied it reſolves all hard Tumours, cures corroding Tetters, Scabs, Itch, Scurf, Morphew, *&c.* dries up old Sores and Ulcers. Though this being finely ground, is ſometimes uſed internally, yet the Flowers are more commonly uſed, as being a Sulphur opened and purified from all Filth, whereby it is fitter for all internal as well as external Uſes.

Of Flowers *of* Sulphur.

Flowers of *Sulphur* are prepared of *Sulphur* burned in Pots made for the Purpoſe, and ſo reduced into *Flowers* as we ſee. The beſt and moſt beautiful *Flower* of *Sulphur* comes from *Holland*; but of late, ſince it has been made at *Marſeilles*, *Roan*, and *Paris*, we have little thence. The true *Holland's Flowers* of *Sulphur* were wont to be brought us in Cakes that were light, ſoft, friable, and rather white than yellow; but through Avarice and the preſent Wars, there *Pomet.*

there is no ſuch now; and the beſt that we have at preſent is from *Marſeilles*, which, though very good, does not come near that I have mentioned of *Holland*; it ought to be in an extraordinary fine impalpable Powder, of a bright Yellow, and of an agreeable Taſte.

The third ſort is that of *Roan*. This uſually is of a whitiſh Yellow, made up of Sulphur raiſed by a violent Fire, and Meal or Wheat Flower, or fine powdered Starch, added to it, which is all a Cheat. In like Manner is that which is generally hawked about, made of the Powder of *Holland* Sulphur beaten, and paſſed through a very fine Taffety or Silk Searce; but the Cheat is eaſily diſcovered by the low Price this ſpurious Stuff is ſold at.

Upon the whole, *Holland's* Flowers of Sulphur are preferable to any other; next to them thoſe of *Marſeilles*; and theſe are the only two that ought to be given internally.

The true Flowers of Sulphur are natural Balſam for the Lungs, and endowed with ſo many good Qualities, that it would be endleſs to recount them all.

Flower of *Sulphur* is alſo made after another Manner, to wit, by adding to it fixed Salt-petre, or *Sal Polychreſtum*, which is the Method we uſe to make it white; but there being little Demand for this ſort, it is ſeldom made, though it be a very good Medicine, and more agreeable to take than the abovementioned.

Lemery. To make Flowers of Sulphur, take Sulphur groſly powdered, half a Pound; put it into a Glaſs Body, or Cucurbit; place it in a ſmall open Fire, and cover it with another Glaſs Body, or earthen Cucurbit; turn the bottom upwards, ſo as that the Neck of the lower may enter into the Neck of the upper; change the upper Cucurbit every half Hour, fitting another in its Place; adding likewiſe, new or freſh Sulphur; the elevated Flowers ſweep together with a Hare's Foot, and continue to do thus ſo long till you have what you deſire. Theſe Flowers are good againſt Diſeaſes of the Lungs; Doſe ten or twelve Grains in any fit Syrup, Pulp, or Electuary; outwardly you may mix them with Hog's Lard, for Scurf, Tetters, and the Itch; but be cautious of uſing it to Infants, eſpecially anoint not any where upon the Trunk of the Body, and eſpecially the Belly. If your Sulphur be ſublimed with *Sal Polychreſt*, you will have white Flowers.

Of Salt *of* Sulphur.

Pomet. The *Salt* of *Sulphur* is made ſeveral Ways, but the beſt and eaſieſt is according to Monſieur *Charas's Pharmacopœia*, p. 887. whither the Reader may have Recourſe. This Salt is compoſed of Salt-petre refined, and Spirit of Sulphur, reduced by means of a Retort with a Sand Heat, into a white Maſs, which has many good Qualities; or it may be made with the *Sal Polychreſt*, or otherwiſe, as may be ſeen in Abundance of chymical Books which treat of it.

Salt of Sulphur is much in Uſe to temper and allay the Heat of Fevers; the Doſe is not adjuſted, but it is ſufficient to give it in any common Drink to an agreeable Acidity.

What Form one pleaſes may be given to this Salt; ſome have it in a Maſs, others in Cryſtals; ſome granulated, and others in Powder, or, finally, in Rolls; which laſt is a curious Method, and known but by few.

Of Magiſtery, *or* Milk *of* Sulphur.

Pomet. The *Magiſtery*, or *Milk*, as it is called, of *Sulphur*, is made of the Flowers of *Sulphur*, and Salt of Tartar boiled in Water; adding diſtilled Vinegar to precipitate a Powder, which when dried will be white, and is eſteemed very good for the Lungs, and for Aſthmatick Perſons.

Lemery. If half a Pound of Flowers of Sulphur be mixed with a Pound and an half of Salt of Tartar, or Pot-aſhes, and be boiled in two Gallons of Water for ſix or ſeven Hours, the Sulphur will be all diſſolved, and the Liquor become red: This filtred and mixed by little and little with Spirit of Vinegar, or ſome other Acid, preſently becomes white like Milk. Let it ſtand to ſettle, and a white Powder will precipitate, which being edulcorated by five or ſix Times waſhing in hot Water, and dried, is the *Lac Sulphuris*, which is better than the Flowers for all the Diſeaſes aforenamed, given from ſix Grains to fifteen. This is powerful againſt all Manner of Catarrhs and Fluxes of Rheum from the Head that fall upon the Throats and Lungs; for it conſumes and dries up all ſerous and watry Superfluities.

Of Spirit *of* Sulphur.

Pomet. *Spirit* of *Sulphur* is a Liquor drawn from the green Sulphur, by the Aſſiſtance of Fire and certain Veſſels, as Meſſieurs *Charas*, *Lemery*, *&c.* teach us; and as it is of different Colours, according as it is more or leſs diveſted of its Phlegm, ſo it has two different Names aſſigned it: That which is juſt as it comes out of the Veſſels is called Spirit of Sulphur, which when good ought to be as clear as Rock Water, and of an agreeable Acidity, and which put upon blue Paper,

will turn it red; but the beſt and ſureſt Proof is to deal with honeſt Men for it.

The ſecond ſort, to which improperly the Appellation of Oil of Sulphur has been given, is the former ſeparated from its Phlegm or ſuperfluous Humidity, and which has a bright Yellow, or golden Colour, and is ſo very ſtrong that it cannot be endured upon the Tongue.

Some Hawkers counterfeit Spirit of Sulphur by a Mixture of Vinegar and Spirit, or rather Phlegm of Vitriol, or with Water, adding a few Drops of *Aqua fortis*, and ſell it to abundance of People, eſpecially to Vintners, who uſe a great Quantity of it upon ſome Occaſions.

Great Virtues are attributed to the Spirit and Oil of Sulphur in Fevers and pulmonary Caſes eſpecially.

Not long ſince it has been diſcovered, that Spirit, or rather the Oil of Sulphur, is the only Thing to give Luſtre to the *Peridot*, as will be ſeen where we treat of precious Stones; and alſo to fix the Colour of the Everlaſting Flowers, as we call them.

Of Balſam *of* Sulphur.

Balſam of *Sulphur* is made two Ways; *Firſt*, with the green or expreſſed Oil of Anniſeed, and the beſt Flowers of Sulphur, melted or diſſolved together; which is called *Balſam* of *Sulphur* anniſated, and has great Qualities aſcribed to it, as will be ſeen hereafter.

Monſieur *Charas* ſays, in his Book, p. 470. that ſome are of opinion this Balſam is in Quality but little behind the *Natural Balſam*, or *Balm* of *Gilead*, becauſe it heats and dries moderately, and reſiſts Corruption or Putrefaction; it therefore is a celebrated Medicine in pectoral Caſes, being very beneficial in Coughs, Aſthmas, Pleuriſies, and Ulcers of the Lungs. It is good alſo againſt Weakneſſes and Indigeſtions of the Stomach, reſtores the Appetite, expels Wind, eaſes all ſorts of Cholicks. It is ſaid to be good alſo againſt the Plague, and all epidemical Diſeaſes, venereal Effects, continual or intermitting Fevers, and the Epilepſy. It may be taken internally, and from three to ten or twelve Drops; and the Stomach or Navel may be anointed therewith in any Illneſs of the former Kinds, or in Cholicks, *&c.*

The diſtilled or chymical Oil of Anniſeed might be made uſe of for this Compoſition, were it not that in the Operation it is apt to evaporate and fly off, do what you can, more than the green or expreſſed Oil.

The ſecond Way or Method of making it, is with Oil of Walnuts cold drawn, and Flowers of Sulphur, mixed together, which, by the Aſſiſtance of the Fire, is made into a Balſam very good to digeſt, diſcuſs, or reſolve any crude Fluxion impacted in any Part of the Body, made uſe of by way of Unction: It is alſo the Baſis of *Emp. Sulphuris*.

Some uſe Oil of Sweet Almonds, white Poppy Seed, or Turpentine, inſtead of Oil of Walnuts, in the Compoſition of this Balſam, in which every one may do as ſeems beſt to him.

Some again add to this Balſam, Myrrh, Aloes, Saffron, and the like.

Beſides the Sulphurs afore-mentioned, we have a ſort of Earth or yellow Stone, which Mount *Ætna* ſends forth, called by us *Naples Yellow*, which Painters make uſe of; but this ſort of Earth is ſcarce amongſt us: The Marks of its Goodneſs are, that it be ſandy, and of as high a Colour as may be. This Earth is nothing but a Sulphur hardened by the Fire in the Bowels of the Earth, which makes it dry and brittle.

You may make a Balſam of Sulphur in a ſmall time, by taking to one Part of Flowers of Sulphur four or five times as much good Oil of Turpentine, Oil Olive, or the like, and boiling them in a Pipkin, ſo big, as it may be but half full, till the Flowers are perfectly diſſolved into a blood-red Balſam; let the Fire be pretty quick, yet not too quick, and continually ſtir it all the while it is making, till it is cold, otherwiſe the Flowers will be apt to coagulate into a Maſs, and ſo you will have no Balſam. It is good againſt Coughs, Colds, Aſthmas, Conſumptions, *&c.* outwardly applied, and is taken inwardly from four Drops to twenty. *Lemery.*

[*Sulphur* is of various Kinds; the general Diſtinction is into Native and Fictitious, of both which Kinds there are a great Number of Species, differing in Colour, Texture, and, in the latter ſort, Manner of Preparation.

The different ſorts uſually kept in the Shops are four, the *Sulphur Vive*, the *Pure Sulphur*, the *Caballine Sulphur*, and the common Roll Brimſtone.

The *native Sulphur*, or *Sulphur vive*, is the *Sulphur nativum*, *Schrod.* 501. *Sulphur nativum ſeu vivum*, *Charlt. Foſſ.* 12. *Sulphur foſſile ſeu vivum & nativum*, *Worm.* 26. This is of various Kinds, but what is commonly found in the Shops is either pellucid and yellow, brought from *Peru*, *Switzerland*, *&c.* or opake, greeniſh, yellowiſh, or greyiſh and like Clay, dug up near the burning Mountains and ſulphureous Springs in many Places. This laſt, though not ſo pure or valuable, is the common kind ſold in the Shops.

The *pure Sulphur* is the *Sulphur factitium*, *Worm.* 26. *Aldr. Muſ. Met.* 364. *Charlt. Foſſ.* 12. This alſo is of many Kinds, and prepared in many different Manners: In ſome Places it is obtained

tained by boiling ſulphureous Waters, as at *Buda* in *Hungary*; in others, by a kind of Sublimation from the ſulphureous Earth, as in *Italy* and many other Places; and in others, it is extracted from a kind of Pyrites by the Help of Fire, as about *Liege*, *&c.* it is then melted and formed into Cakes, or elſe thrown into hollow Cylinders of Iron, rubbed over with Oil on the Inſide, and ſo formed into Rolls. This is the true factitious pure Sulphur to be uſed in Medicine, and is either yellow or greeniſh; the laſt is proper for many chymical Preparations, as containing the greateſt Quantity of vitriolick Salt.

The *Caballine* or *Horſe Sulphur*, is the *Sulphur Caballinum factitium*, *Kent.* 9. *Sulphur nigrum Caballinum*, *Worm.* 28. *Charlt. Foſſ.* 12. It is the the Fœces of the other Sulphurs, mixed with Steel Duſt, or the Squammæ that fly off from Iron in the hammering, and ſometimes formed into Cakes without any Mixture at all.

The laſt ſort, or common Roll Brimſtone, is uſually a Mixture of Sulphur and common Reſin, caſt into Moulds. This is what is generally ſold by Grocers and the petty Druggiſts, but ought never to be uſed in Medicine.]

8. *Of* Naphtha, *or the* Slimy Bitumen.

Pomet. NAphtha is a *Bitumen* or Slime, found in many Places of *Europe*: The Name of *Maltha* was given firſt to a ſort of *Bitumen* found near *Comagene* in *Syria*. *Pliny* tells us, that this *Bitumen* is ſo glutinous, that it ſticks to whatever it touches, from whence comes its Name of *Maltha*; and accordingly he relates ſome ſtrange Stories of it, as that at the Siege of *Samozata*, which *Lucullus* undertook, it was of great Advantage to thoſe in the Town; for that as ſoon as it touched any of the Soldiers at whom they threw it, it ſet them on fire in ſuch ſort as could not be extinguiſhed without throwing Earth upon them, being of the Nature of other *Bitumens*, which the more you caſt Water upon them, the more they blaze. There is another ſort of *Bitumen* found near *Raguſa*, which has the Smell of, and ſerves for the ſame Purpoſes as common Pitch, and therefore has the Name of *Maltha*, or *Natural Piſſaſphaltum*, or *Earth Pitch*, beſtowed upon it: But theſe two ſorts being unknown to us, and we having none of them in *France*, I ſhall content myſelf to ſpeak of that of *Auvergne* only.

The *Bitumen* then of *Auvergne* is a ſort of Pitch, of a diſagreeable Smell, found between *Clermont*, *Ment-ferrant*, and *Rion*, in a Place called *Pege-wells*, where it is in ſuch abundance, that it makes its way out of the Earth, and cauſes a great deal of Uneaſineſs to Paſſengers, who when they tread on it can hardly draw up their Feet, it is ſo ſticking, and who, by reaſon thereof, are are often forced to leave their Shoes behind them. It is this famous Drug the Huckſters dry, and then ſell to ignorant Apothecaries, and others, inſtead of the true *Bitumen* of *Judæa*, though it be eaſily diſtinguiſhable from it by its ſtrong Smell, whereas the true *Judæa Bitumen* is almoſt without any Smell at all: It is from its fœtid Smell, ſome, as to *Aſſa Fœtida*, have given it the Name of *Stercus Diaboli*, or *Devil's-Dung*. There are alſo many other ſorts of *Bitumen*, that come from the Bowels of the Earth; but we having no Commerce in them, as having none of them, I ſhall not trouble myſelf to ſpeak any thing about them.

[What our Author has deſcribed here under the Name of *Naphtha*, are ſeveral different Kinds of the *Piſſaſphaltum*, which I have already mentioned in the Chapter of *Bitumen Judaicum*: The true *Naphtha* is a more fluid *Bitumen*, and nearer approaching the Nature of *Petroleum*, but not abſolutely the ſame with it, as ſome have judged; it is the *Naphtha Alba & Nigra*, *Kæmp. Amœn. Ex.* 274. *Napheha*, *Worm.* 30. *Aldrov. Muſ. Met.* 388. *Pharmacum Medæ quibuſdam.* It is not to be found in the Shops, but ſtands recorded for its inflammable Qualities.

The *Maltha* of the Antients was a Mixture of this, and an argillaceous Earth, which together made a kind of Cement, uſed as Mortar in Building; and, according to *Vitruvius*, this was the Mortar uſed in building the Walls of *Babylon*.]

9. *Of* Naphtha *of* Italy.

THE *Naphtha* of *Italy* is an Oil of different Colours, flowing principally from a Rock ſituate in the Valley of *Montfeſtin*, in the Dutchy of *Modena*; and this Oil has been known to us but a few Years ſince, by the means of one *Roque Foura*, a Native and an Inhabitant of the Village called *Prat*, near *Briançon*, in the *Upper Dauphiné*, of whom I bought the different ſorts of *Naphtha* that I have by me, and from whom I had the following Account.

The *Italian* or *Montfeſtin Naphtha*, comes from a Rock which is upon a Mountain, whither it is conveyed by ſubterranean Veins, and it is gathered in Oil of different Colours, by means of certain Canals and Cauldrons which ſeparate it: The Duke of *Sara* and *Darce*, and the Marquis of *Arpia* in *Modena*, to whom the aforeſaid Rock belongs, have cauſed Trenches, and Copper Canals, or Pipes, to be made, which are purpoſely placed to receive the Oil as it diſtils from the Rock, by means of which it falls into the Cauldrons, from whence

whence it is taken for Uſe. It is obſervable, that this Oil changes Colour according as it is nearer or farther off from the direct Light of the Sun; ſo that that which is of the ſunny Side is white, and clear as Water, and moſt eſteemed, that next to it clear and red like Wine, the next yellow, afterwards green; and, in ſhort, that which is at the other oppoſite Side of the Rock, quite off from the Sun, is black.

White *Naphtha*, which we commonly call Oil of *Petre*, or white Rock Oil, becauſe of its Whiteneſs, Clearneſs, and Beauty, is immiſcible with any Thing in the World beſides, being lighter than whatſoever can be put to it, and conſequently it will be uppermoſt; its ſtrong piercing Smell comes near that of Sulphur, which renders it extremely volatile. It is eaſy to catch Fire, which may ſerve as a Precaution to thoſe who ſell it, to be as careful of it as of Gun-powder.

The great Virtue of this Oil is the Reaſon why I will not ſay any Thing of it here, but rather refer my Reader to what the aforenamed *Roque Feura* has printed concerning it. As for the red, yellow, and green *Naphtha*, they are ſo little in Uſe, that we do not ſee any of them at all: And moreover, another Reaſon for it may be, that the *Italians* mix them with the black Oil before they ſend it to us; and this makes the Oil of *Petre*, which we have thence, inſtead of being black and thick, as it comes out of the Rock, to be red, tranſparent, and yellowiſh, and moderately ſulphureous in its Smell. And as this Oil is pretty dear, ſome counterfeit it, as will be ſeen in the next Chapter.

Naphtha, Piſſaſphaltum Naturale, is a kind of ſoft or liquid *Bitumen*, of different Colours, very inflammable, which is brought from ſeveral Parts; as the Place where antient *Babylon* ſtood, and about *Raguſa*; likewiſe from a certain Lake or Marſh of *Samoſata*, and divers other Parts. But we have now no other *Naphtha* brought but what comes from *France* and *Italy*; the laſt of which is a ſort of *Petroleum*, or clear Oil, that is ſometimes white, ſometimes red, ſometimes yellow, ſometimes green, and ſometimes black. It flows from a Rock ſituate on a Mountain near *Montfeſtin*, in the Dutchy of *Modena*. The white is moſt valued. The *Bitumens* called *Naphtha* are almoſt all Sulphur or Oil mixed with ſome acid and volatile Salt. They are inciſive, penetrating, deterſive, digeſtive, vulnerary, and ſtrengthening, and ſo are prevalent againſt Palſies, Weakneſs, and Relaxation of the Nerves. Outwardly applied they relieve the Tooth-ach; and diſſolved in a Turpentine, or vinous Clyſter, prevail againſt Dyſentery and *Diarrhæa*. *Petroleum* is by many uſed inſtead thereof. *Lemery.*

[The *Naphtha* of *Italy* is a kind of *Petroleum*, the *Petroleum flavum, ſive Italicum*, *Ind. Med.* 90. It is particularly plentiful about *Frumetto*, where the Inhabitants dig Wells of thirty or forty Feet Depth, till the oily Spring is found, and there it is always mixed with Water. The Wells dug at the Foot of the Hill, furniſh a large Quantity of very red Oil; thoſe near the top a white, but in much ſmaller Quantities, but which is moſt eſteemed, and is what they particularly call the *Naphtha*: There is alſo a Rock in the ſame Country, near the *Apennine* Mountains, where there is a conſiderable Spring of Water which runs perpetually; on which there ſwims a yellow Oil of of this kind in very large Quantities, inſomuch, that it is uſually gathered twice a Week by many Pounds at a Time.]

10. *Of the black Oil of* Petre, *or Oil of* Gabian.

THE *Petroleum*, or black Oil of *Gabian*, is a liquid *Bitumen*, that comes from the Bowels of the Earth, and by ſubterranean Channels is thrown upon the Waters of a ſmall River, near a Village called *Gabian*, in the Biſhoprick of *Bezier* in *Languedoc*. Formerly this Oil was ſo plentiful and common, that it was made but little Account of; for conſiderable Quantities might be gathered of it daily: But now *Mondays* are only ſet apart for that Purpoſe; and the Place where it is, is encloſed with a Wall, and guarded by a Man. And I have been told at *Gabian*, that the Biſhop makes a great Profit of it, which notwithſtanding is not ſo great as it was heretofore. *Pomet.*

This Oil ought to be of a middle Conſiſtence, of a ſtrong ſtinking Smell, and of Colour black.

In the Choice of it, one muſt ſee that it be not Oil of Turpentine, thickened and coloured with black Pitch. The beſt Way is to buy it of honeſt reputable Merchants, that would not do an ill Thing, and ſell one Thing for another, and not to expect it at an under Price.

The black Oil of *Petre* of *Italy*, or of *Gabian*, is ſomewhat in Uſe in Phyſick, but chiefly employed by Farriers, and thoſe that make artificial Fire-works.

There are moreover other ſorts of Oil of *Petre*, or *Bitumens*, found in many Parts of the World, as thoſe of *Colao*, of *Surinam*, and *Copal*; but ſince we have none of them, nor any Trade or Dealing in them, I will not pretend to ſay any Thing concerning them.

Petroleum,

Petroleum, ſive Oleum Petreæ, or *Lemery*. *Rock Oil*, is a kind of *Naphtha*, or bituminous Liquor, that flows from the Clefts of ſeveral Rocks, Stones, and Quarries, in many Parts of *Italy*, *Sicily*, and *Languedoc*. It is brought of ſeveral Colours; as black, red, white, and yellow. The black *Petroleum*, uſually brought us from a Village in *Languedoc*, called *Gabian*, and from thence Oil of *Gabian*, is of a very unpleaſant Smell. All the Kinds of *Petroleum* are inciſive, penetrating, reſolutive, attenuating, reſiſt Poiſon, deſtroy Worms, expel Wind, ſtrengthen the Nerves. Some Drops may be taken inwardly and outwardly, the Joints, Emunctories, and Navel, may be rubbed with it.

It is hot and dry, and of thin Parts, and is of admirable Uſe againſt Aches and Pains, and all cold Diſtempers of the Muſcles, Nerves, and Joints. It is prevalent againſt Gout, Palſies, Cramps, Convulſions, Apoplexy, Megrim, and other cold Diſeaſes of the Head and Brain. Anointed upon the Region of the *Abdomen*, Bladder, Reins, Spleen, or Womb, it gives Eaſe to all Pains and other Diſorders of thoſe Parts, diſcuſſes Swellings, *&c.* It is ſaid to cure ulcerated Kibes and Chilblains, to help Bruiſes, and heal old Sores; and is of ſingular Uſe againſt the Rheumatiſm, or running Gout. Some ſay that that which comes out of *India* is the beſt and pleaſanteſt, and is thought to have all the Virtues of the *Naphtha* aforegoing.

[*Oil* of *Petre* is the *Bitumen Liquidum oleo ſimile quod innatat lacubus*, *Kentm.* 20. *Petroleum*, *Worm.* 30. *Charlt. Foſſ.* 14. *Petroleum Rubrum ſive Gabianum*, *Ind. Med.* 90. It is found in many Countries, particularly in *Italy*, as alſo in great Plenty in *Britanny*, near *Beriers*, where it flows, mixed with Water, from the Cracks of the Rocks.

It eaſily takes Fire, and is in many Places burned in Lamps, inſtead of common Oil. In Medicine it is attenuant and reſolvent, good in hyſterick Caſes, given inwardly from ten to thirty Drops; and in Palſies externally uſed as a Liniment. We have little of it genuine in *England*; our Chymiſts having learnt a Way of adulterating it with the Oil of the cheapeſt of all *Bitumens*, the common Coal.]

11. *Of* China, *or* Indian Ink.

Pomet. *CHINA Ink* is a hard ſolid Paſte, which, according to ſome Authors, the *Chineſe* make of a black bituminous Earth, which they powder, and with Gum Tragacanth form into a Paſte, which they after make into little Sticks, and having marked them with ſome *Chineſe* Characters, they dry and ſell them as we have them. Others will maintain that it is made of a Black produced from the Smoak of Oil of Olives burnt; but as it is impoſſible I ſhould be able to determine of which it is compoſed, I will only remark, in the Choice of it, that the true genuine *Ink* of *China* is to be preferred to that of *Holland*, and is diſtinguiſhable from it, in that it is in ſmall ſquare Cakes of the Thickneſs and Length of one's Finger, and of a very black jet Colour, whereas the *Holland* kind is in flat Lumps, and of a greyiſh Black.

China, or *Indian Ink*, ſerves for Maps. In ſhort, it is very uſeful for all ſuch as mark or take Sketches in Black, being a portable Ink.

[*Indian Ink* is a nice Mixture of a peculiar ſort of Lamp Black, made by the burning fat Pork, and mixing its Soot into a Paſte with the Solution of Gums.]

12. *Of* Gun-powder.

Pomet. *GUN-powder* is a Compoſition of Salt-petre, Sulphur, and Coal made with Willow, or any other light Wood, which by means of Vinegar, and a Sieve, or any other Inſtrument full of Holes, is made into Corns big or little, or what Size you pleaſe: But I will not enlarge upon this, the Manner of making it being very well known; and by the bye, I would not adviſe any Merchant to deal in this Commodity, whoſe profeſſed Buſineſs it is not, it being too hazardous.

Lemery. *Sal Pyrium*, *Sal Bombardicum*, and *Pulvis Pyrius*, and *Bombardicus*, or *Gun-powder*, was a thing wholly unknown to the antient *Greeks* and *Arabians*, and therefore they have no Name for it. It is made in many Parts of the World, but moſt plentifully in *France* and *England*, and is compoſed of Salt-petre, Sulphur, and Wood-coal.

You are to chuſe good and pure Nitre, with fair and large Cryſtals or Shootings: If it be not good, you muſt purify it as we have before taught. This purified Nitre put into a Kettle, which ſet upon a Furnace with a moderate Fire, which gradually encreaſe to ſuch a Degree of Heat, till it begins to ſmoak and evaporate, loſe its Humidity, and grow very white; keep continually ſtirring it with a Wooden or Iron Ladle, whereby its Greaſineſs will be taken away; then pour ſo much Water into the Kettle as will cover the Nitre; and when it is diſſolved, and is brought to the Conſiſtence of thick Liquor, then with a wooden Stick or Ladle, keep continually ſtirring it without any Intermiſſion, till all its Humidity is again evaporated, and it be reduced to a moſt dry white Meal.

You ought alſo to chuſe the pureſt and beſt Sulphur; that which is in very great large Lumps, clear,

clear, perfectly yellow, not very hard nor compact, but porous, nor too much ſhining, is the beſt. If when it is ſet on Fire, it freely burns all away, leaving little or no reſident Matter, it is a Sign it is good. So alſo if you preſs it between two Iron Plates that are hot enough to make it run, if in running it appears yellow, and that which remains be of a reddiſh Colour, you may conclude it excellent, and fit for your Purpoſe; but if it be impure and foul, Powder-makers prepare it after this Manner. Melt your Sulphur in a large Iron Ladle or Pot, over a very gentle Fire of Coals well kindled, but not flaming, then ſcum off all that which riſeth on the Top, and ſwims upon the Sulphur; preſently after take it from the Fire, and ſtrain it through a double Linen Cloth, letting it paſs at leiſure: ſo will the ſtrained Sulphur be pure, which powder finely.

You ought alſo to chuſe Charcoal large, clear, free from Knots, well burnt, and cleaving; but if you be where it is not to be had, you muſt make it after this Manner: Cut down your Wood when it is full of Sap, and is apt to peel, *viz.* in *May* or *June*, and chiefly Hazel, or Aſh, or Juniper, *&c.* which cut into Lengths of two or three Feet long, of the Bigneſs of ordinary Billets, taking away the Rind and ſuperfluous Brances. Being very dry, make them into Bundles, and in a plain even Place, fit for that Purpoſe, ſet them upright one by another, and one upon another, cover them with Earth or Turf very cloſe, leaving only ſome few Vent-holes; then kindle the Fire, and when it is well lighted, and all in a red burning Heat, being reduced into burning Coals, ſtop up every Vent-hole for the Fire, cloſe with moiſtened Earth, ſo that there be not the leaſt Breathing-place. The Fire being thus extinguiſhed, the Coals will be pure and whole, without any Aſhes, and in twenty-four Hours after, you may take them out for Uſe. But for a preſent and ſmall Occaſion do thus: Cut the Wood into ſmall Pieces, dry them well, put them into a large earthen Pot, cover it all over the Top well with Clay, then make a good Fire round the Pot, gentle at firſt, but ſo as it may be made red-hot; covering it alſo all over with Fire, leaving it ſo for the Space of an Hour or more in that ſtrongeſt Heat; let the Pot cool of itſelf, and then take out the Coals for Uſe, which reduce into a fine Powder.

Of theſe Ingredients the Country People in the *Ukrain* in *Poland*, and the *Coſſacks*, make it with their own Hands, thus: They put their Proportions of *Nitre*, *Sulphur*, and *Charcoal* (being all in fine Powder) all together in an earthen Pot, upon which they put fair Water, then they boil it upon the Fire till all is evaporated, and the Matter becomes thick like Paſte, and taking it from the Fire they make it yet drier in the Sun, or in a Stove, or the like, till it is fit to corn; then they granulate it by paſſing it through a Hair Sieve, making the Grains of what Bigneſs they pleaſe; and this ſerves their rural Occaſions, as well as if it had been made by the moſt ſkilful Artiſt in the World.

But in order to the truly knowing and making of Gun-powder, it is fit that you ſhould firſt know the Kinds thereof, and then the different Strength of each. The Kinds are threefold; I. Cannon Powder; II. Muſquet Powder; III. Piſtol Powder; and of each of theſe there are two ſeveral Kinds, *viz. a ſtronger* and *a weaker*, all which Differences ariſe only from the various and differing *Proportions* of the above enumerated three Ingredients. The exact Limitations of which we come now immediately to declare.

	Cannon.	*Muſquet.*	*Piſtol.*	
Nitre	10.0	10.0	10.0	*Strong.*
Sulphur	2.5	1.8	1.2	
Coal	2.5	2.0	1.5	
Nitre	10.0	10.0	10.0	*Weak.*
Sulphur	2.0	1.5	1.0	
Coal	2.4	1.8	1.8	

The Preparations declared, I. *Cannon Powder*, 1. *The Stronger*. To every 100lb. of Salt-petre there is Sulphur 25lb. Charcoal 25lb. 2. *The Weaker*. To every 100lb. of Salt-petre, Sulphur 20lb. Charcoal 24lb. II. *Muſquet Powder*. 1. *Stronger*. To Salt-petre 100lb. Sulphur 18lb. Charcoal 20lb. 2. *The Weaker*. To Salt-petre 100lb. Sulphur 15lb. Charcoal 18lb. III. *Piſtol Powder*. 1. *The Stronger*. To Salt-petre 100lb. Sulphur 12lb. Charcoal 15lb. 2. *The Weaker*. To Salt-petre 100lb. Sulphur 10lb. Charcoal 18lb. as in the Table annexed, which are the Numbers, and in the ſame Proportion, but in leſſer Quantities or Decimals.

The Way of making it. All theſe Ingredients are to be finely powdered, and they are to be moiſtened with fair Water or Vinegar, or Spirit of Wine, or Water and Spirit of Wine mixt together, or Urine, which is moſt uſual; then let all be well beaten together for the Space of twenty-four Hours at leaſt, and then granulated after the following Manner:

You muſt prepare a Sieve with a bottom of thick Parchment made full of round Holes, and the

the former beaten Maſs muſt beforehand be moiſtened with the following Liquor. ℞ *Spirit of Wine* ℥xx. *Spirit of Wine Vinegar*, ℥xij. *Spirit of Nitre*, ℥iiij. *Spirit of* Sal Armoniack, ℥ij. *Camphire*, ℥j. *diſſolved in Spirit of Wine, mix together for the Purpoſe aforeſaid.* Or inſtead thereof, if all theſe Things cannot be had, with this, ℞ *Brandy*, xl. *Camphire* ℥j. *mix and diſſolve*; the Maſs being made up into Balls as large as Eggs, put them into the Sieve, and with them a wooden Ball, ſo moved up and down about the Sieve that it may break the Balls of Powder: make all paſs through the little Holes into Corns.

But in making of vaſt Quantities, to do it all by the Hand, would be a moſt tedious and ſlaviſh Work, and therefore Kings and the ſupreme Rulers of Countries have provided Mills for that Purpoſe, by Help of which they can do more in one Day than a Man can in an hundred.

You may make Powder of various Colours, if you ſo pleaſe, but then you muſt leave out the Charcoal, and put in as much for it of another Thing of the Colour you intend, which may be as apt to kindle or take Fire as Charcoal is; but for real Service, whether for War or Hunting, *&c.* the black Powder is much to be preferred; yet for Satisfaction Sake, we will give you the Directions for making *White Powder.*

White Powder. *Take Salt-petre*, 10lb. *Sulphur*, lb j. *Saw-duſt of Elder, or the like Wood, dried and powdered fine*, lb ij. *mix and make Powder by the former Directions.* Or thus: ℞ *Nitre* 10lb. *Sulphurs* lb j ℈. *dried and finely powdered, Saw-duſt* lb ij. *mix and make Powder.* Or thus: ℞ *Nitre* 10lb. *Sulphur*, lb ij. *Rotten Wood dried and powdered* lb ij. *Salt of Tartar*, ℥iij. *mix and make Powder, to be kept cloſe from the Air.*

This is alſo to be noted, that in making *Piſtol Powder*, if you would have it ſtronger or more violent, you ought to ſtir it up ſeveral Times while it is in the Mortar, and moiſten it with Water diſtilled from Orange or Lemon-peels in an Alembick, and then beat it for twenty-four Hours, as aforeſaid.

Moreover, you ought to know, that Powder, when it is corned, is of much greater Force and Power than when in Duſt or Meal; and from hence it is concluded, that the larger Grains are ſtronger than the ſmaller, and for that Reaſon Cannon Powder is granulated larger than Muſket, and Muſket than Piſtol; and therefore being put into Ordnance, Muſkets, or Piſtols, it ought not to be forced or beaten ſo home or hard into the Piece, as to bruiſe the Grains, leſt it thereby loſe much of its Strength.

To know the Goodneſs of Gun-powder. It is tried three Ways, by Sight, by Touch, and by Fire. *Firſt by Sight*; If it be too black, it is too moiſt, or has too much Charcoal in it; ſo alſo if rubbed upon white Paper, it blacks it more than good Powder does. If it be of a kind of Azure Colour, or a little obſcure, ſomething bordering upon red, it is a Sign of good Powder.

Secondly by Touching; If in cruſhing of it with your Fingers Ends the Grains eaſily break and turn to Duſt, without feeling hard, it has too much Coal in it. If in preſſing under your Fingers upon a ſmooth hard Board, ſome Grains feel harder than the reſt, or as it were dent your Finger's End, or very hardly yield to preſſing, the Sulphur is not well mixed with the Nitre, and the Powder naught.

Thirdly by Burning; Lay little Heaps of Powder, three Inches or more aſunder upon white Paper, and fire one of them; if it only fires and burns all away, and that ſuddenly, almoſt imperceptibly, without firing the others, and makes a ſmall thundering Noiſe, and a white clear Smoak riſing in the Air, almoſt like a Circle, the Powder is very good: But if it leaves black Marks behind it, it has too much Coal in it, or is not well burnt. If it leaves a Greaſineſs behind it, the Sulphur or Nitre are not well cleanſed or ordered as they ſhould be. And if two or three Corns of Powder be laid upon a Paper an Inch aſunder one from another, and you put Fire to one of them, and they all fire at once, leaving no Sign behind but a white ſmoaky Colour in the Place, and the Paper not touched, the Powder is good; ſo alſo if fired in your Hand, and it burns it not; but if black Knots, which burn downwards in the Place where Proof was made, remain after firing, it is not ſtrong enough, but wants Nitre.

BOOK V.

Of *STONES.*

PREFACE.

I mean by the Word Stone, *a ſolid and hard Body that will not melt in the Fire, or be extended under the Hammer, formed in the Earth by Courſe of Time, being a kind of* Mineral. *I ſhall divide Stones, the Subject of this Book, into two Claſſes; to wit, into Precious and Common Stones. By precious Stones I underſtand thoſe that are dear, either becauſe they are ſcarce, or that they come from far diſtant Parts, and ſuch as are very hard, ſmall, and ſparkling. And by the Common, I mean ſuch as are of little Value: I ſhall begin with the* Hyacinth, *or* Jacinth, *as being the fineſt of all thoſe we deal in, and of which we make the moſt Uſe. And by the way, the* Reader *may be pleaſed to take Notice, That I ſhall only ſpeak of ſuch as we deal in, not meddling with the fine* Stones *the* Jewellers *and* Lapidaries *trade in.*

1. *Of the* Hyacinth, *or* Jacinth.

Pomet. THE *Hyacinth* that is uſed in Medicine, is a Stone of which there are three Kinds, to wit, the *ſoft milky Hyacinth*, which is a little Stone of the Size and Figure of a moderate Grain of Salt, very tender, and of the Colour of Milk, from whence it derives its Name. The Second is a reddiſh Stone without and within, cut naturally like a Diamond Point, found very frequently in *Poland*, *Bohemia*, *Sileſia*, and *Italy:* Some of this kind is often met with white mixed with yellow, red, or other Colours; but theſe different Sorts are not uſed by any, but ſuch Apothecaries and Huckſters, as only conſider the Cheapneſs, or do not know them from others; they ought to be entirely rejected, being nothing but a ſort of Sand; as alſo another ſort of falſe *Hyacinths*, that are little Stones about the Bigneſs of a Pin's Head, of a ſhining red, that are very common in ſeveral Parts of *France*, but chiefly in *Auvergne*, which are what we call *Jargons*, or *falſe Hyacinths:* Wherefore thoſe that would have the *Jacinth* for the Confection that bears its Name, and is after deſcribed, muſt uſe no other than the *milky Hyacinth*, as being the true Oriental, and fit for medicinal Uſe: it requires no other Preparation than to be ground to an impalpable Powder.

Of the Confection *of* Hyacinth.

The *Confection* of *Hyacinth* is a liquid and cordial Electuary made of *Hyacinth*, red Coral, Bole from the *Levant*, ſealed Earth, of each four Ounces and a half; Grains of *Kermes*, Dittany of *Crete*, *Tormentil* Root, Citron Seed, Saffron, Myrrh, Provins Roſes, Sanders, the Bone of a Stag's Heart, Shavings of Harts-horn and Ivory, Sorrel, and Purſlain Seed, of each ten Drachms and two Scruples; of Sapphire, Emerald, Topaz, fine Pearl, raw Silk, Gold and Silver Leaf, of each five Drachms and a Scruple; Muſk and Ambergriſe, of each two Scruples; powder all the Drugs, and grind the Stones on a Porphyry, then make them into an Electuary with Syrup of Lemons. Thoſe who deſire to know further of it, let them conſult Monſieurs *Charas* or *Bauderon's Diſpenſatories.* The Confection of *Hyacinth* ought to be of a good Conſiſtence, freſh and faithfully prepared, of a reddiſh Colour upon the Yellow: Thoſe that prepare this Medicine ought not to put in Muſk and Ambergriſe, except by the Direction of the Phyſician; becauſe the greateſt Part is uſed by the Women, and thoſe Perfumes are very improper for that Sex, eſpecially in any hyſterical Caſe. This Confection is much preſcribed, becauſe of its good Qualities in fortifying the Heart, reſiſting of Poiſon, *&c.* and it is of the

ſame

ſame Nature with Confection of *Alkermes*, being much uſed in the *Lionnois*, *Provence*, and *Languedoc*, where you meet with few People without a Pot of this *Confection*, or of *Alkermes*, or *Treacle*, about them, of which they take a ſmall Quantity every Morning. The Dearneſs of this Medicine, and the Demand for it, is the Reaſon that you have a thouſand Sophiſticators of it, who do it ſo groſly and ſcandalouſly, that they afford you no better than Honey, Bole, Myrrh, and ſome Leaf Copper for this Confection, and ſometimes a little Baſtard Saffron; therefore the beſt Way is never to meddle with this except you have it from an honeſt and reputable Dealer.

Hyacinthus, ſive Lapis Hyacinthinus, Lemery. the *Jacinth*, is a precious Stone, of which there are a great many ſorts that differ in Size and Colour; for ſome are as ſmall as a Grain of Salt, of a white Colour, and this Kind is called the *ſoft milky Hyacinth*, which is the oriental; others are as big as Peas, very hard, of a red Colour, inclining to the yellow, bright, and reſplendent. The Oriental are to be preferred to thoſe of *Sileſia* and *Bohemia*, they are known by their Bigneſs, their Beauty, and their Hardneſs; the Oriental exceed not the Size of a Pea, and are finer and more brilliant than the *European* kind. There are others much about the ſame Size, of a yellowiſh Colour, almoſt like Amber; ſome are white, partaking of red or yellow, and ſeveral other Colours; others are as ſmall as Pins Heads, of a bright Red: This laſt kind is found in ſeveral Parts of *France*, and particularly in *Auvergne*; all the ſorts are very cordial and reſtorative; Doſe half a Scruple.

[The *Hyacinth*, or *Jacinth Stone*, is the *Hyacinthus*, *Charlt. Foſſ.* 38. *Mont. Ex.* 14. *Worm.* 104. It is of various Colours; as red, yellow, and whitiſh; the yellow are the leaſt eſteemed of all.

Many ſuperſtitious Virtues have been aſcribed to this Stone, but at preſent it is in no Eſteem.

The *Hyacinth* of the Antients, according to *Pliny's* Account, was different from this of ours, as it was of a ſhining Violet Colour, and like the Amethyſt: But all the Shades we have in the Colour of the modern *Hyacinths*, are between red, pale, yellow, and white, without the leaſt Tinge of blue.]

Of the Topaz-ſtone.

Pomet. THE *Topazes* that are uſed in Phyſick are Stones of different Magnitude, very heavy and tranſparent, altogether reſembling the *Muſcovy* Glaſs found in the Plaiſter of *Mont Martre:* This Stone is found in the *Eaſt* and *Weſt-Indies*, *Bohemia*, and *Germany*. The *Topaz* needs no other Preparation for Medicine than to be ground with Roſe-water on a Marble like *Hyacinth* and other precious Stones.

The true *Topaz* of the Antients, which was afterwards called a *Chryſolite*, is a tranſparent Gem, of a pale green Colour, that ſeems to have ſome Yellowneſs, or a Gold Colour in it, very glorious; ſome will not have this to be properly the *Topaz*, but rather the *Chryſolite*, or Mother of the *Emerald:* It is reported to be good againſt *Hæmorrhages*, and all manner of Fluxes of Blood; as likewiſe to ſtop Bleeding. This Gem is ſo hard that the File cannot touch it. It has been a Stone of great Eſteem and Value, not only for its own Glory and Brightneſs, but for its ſacred Uſe recorded in Scripture. It is ſometimes counterfeited with double Cryſtals or diaphanous Stones, with a proper green Foil interpoſed, and being thus ſet in Incloſures, with a like Foil underneath, the Cheat will be hard to diſcover.

Topazius, Chryſolithus, Chryſopatius, the *Topaz*, is a tranſparent precious Stone, of a greeniſh Caſt, mixed with a little Yellow, ſhooting forth golden Rays. There are two ſorts of it, the oriental and occidental: The firſt ſort is harder, finer, and more valued. We have them brought from *Arabia*, *Æthiopia*, and about the *Red Sea*. It is ſaid they grow among the Alabaſter, and ſome pretend them to be the Mother of the *Emerald*, becauſe theſe two Stones are ſomething like one another in their Colour. The ſecond ſort are found in *Bohemia*, and are larger than the Eaſtern kind, but not ſo beautiful. *Lemery.*

[There are two kinds of the *Topaz*, the *Topazius* and *Chryſolithos*, which are much confounded among Authors. But the true Account of them is, that the *Topazius* of the Antients is what we, at this Time, call the *Chryſolite*; and what they called *Chryſolite*, we now call the *Topaz*.

The firſt is the *Topazius veterum, quem recentiores perperam vocant Chryſolithon, De Laet.* 46. *Chryſolithos Modernorum, Worm.* 106. *Topazius Veterum, Boet.* 207. This is what we now call the *Chryſolite*; and what the Antients called the *Topaſius*, or *Chryſopaſius*. It is a Gem of a green Colour, but fainter than that of the *Emerald*, and mixed with a Yellowneſs: The blended Rays of which two Colours in ſome Lights give the whole a reddiſh Colour.

The ſecond is the *Topazius neotericorum veterum Chryſolithos, Worm.* 106. *Chryſolithos veterum, De Laet.* 49. *Mont. Exot.* 14. *Boet.* 210. This is what we now call the *Topaz*; but what the Antients called the *Chryſolite:* it is a pellucid Gem

of a ſhining yellow Colour, and is of two kinds, the oriental, which is of the Colour of the pureſt Gold, and very hard; and the *European*, which is ſoft like Cryſtal, and has often a greater or leſs Mixture of black in it.

Both theſe Gems have had great Virtues aſcribed to them, but they are now never uſed.]

3. *Of* Emeralds.

Pomet. THE *Emerald* is a greeniſh Stone that is found in different Parts of the World; as *Æthiopia*, *Egypt*, *Perſia*, and both the *Indies*. The higheſt prized, or moſt valued *Emeralds*, are thoſe called the *Prime Emeralds*, in that they are commonly pure and neat, that is to ſay, of a fine beautiful Green, inclining to the Blue. There is ſome Appearance that *Emeralds* are found in Iron Mines, becauſe I have ſeen where the Iron has ſtuck to them. It is by ſome affirmed, that the *Emerald* takes its green Colour in the Mine, according to the Degree of its Perfections, as Fruits ripen upon the Trees; which I cannot confirm, having never ſeen the Truth of it. They are ſeldom found genuine with the Druggiſt, therefore ſhould be bought of the Lapidaries.

Some Authors have made twelve Kinds of *Emeralds*, as the *Scythian*, the *Bactrian*, *Ægyptian*, *Cyprian*, *Attick*, *Æthiopick*, *Medick*, *Calcedonian*, *Samian*, *Sicilian*, *Laconic*, and *Cyprian*, or *Chalcoſmaragdus*; to which of late has been added a thirteenth, called the *Smaragdites*, or *Baſtard Emerald*. This Stone has been of great Eſteem, not only for its Glory, but the Uſe it was applied to, being ſet in the Breaſt-plate of Judgment.

The *Smaragdo-Praſinus*, *Smaragdites*, or *Baſtard Emerald*, is a tranſparent green Gem, of a mixed Beauty, between a *Praſinus* and an *Emerald*. Being compared with the *Praſinus*, it has the Greenneſs of Graſs, without Yellowneſs; but being compared with the *Emerald*, it has a yellowiſh Greenneſs, which is not in the *Emerald*. It is ſeldom perfectly tranſparent, becauſe of ſome Clouds in it, and is of two kinds; firſt, the *Bohemian*, which is almoſt tranſparent; and, ſecondly, the *American*, which is but half tranſparent. This Stone is ſaid to be diuretick, expels Gravel, hinders the breeding of the Stone, and eaſes Pains of the Kidneys, and the Gout.

Lemery. *Smaragdus*, *Praſinus*, or the *Emerald*, is a fine, green, precious Stone that is diaphanous, ſhining, reſplendent, but moderately hard. There are two kinds, one oriental, and the other occidental. The firſt ſort is harder, finer, and more eſteemed. It repreſents by its agreeable Colour and Pleaſantneſs the Verdure of the Field, and fills the Eye with a ſudden glaring Light: It is brought from the *Eaſt-Indies*. The ſecond ſort may be diſtinguiſhed into two kinds, *Peruvian* and *European*; the *Peruvian* ſhews a very fine, pleaſant, green Colour, but does not ſhoot its Rays like the oriental, and is ſometimes filled with little greeniſh Clouds. Theſe are plentiful in *Peru*, and pretty large. The *European* ſort is not ſo hard or reſplendent, and the leaſt valued of all. They are found in *Cyprus*, *Great Britain*, and ſeveral other Places. The Weſtern are generally much larger than thoſe of the Eaſt; for they are ſometimes met with as big as the Palm of a Man's Hand. Both kinds are proper to ſtop the Flux of the Belly, and Hæmorrhages, to ſweeten the too acrid Humours, being finely powdered, and taken inwardly; the Doſe from ſix Grains to half a Drachm.

[The *Emerald* to be uſed in Medicine is the *Smaragdus*, *Kentm.* 47. *De Laet.* 33. *Charlt.* 38. It is of a glorious Green, but more brittle than any of the other Gems. If thrown upon a clear Fire, it emits a fine Flame, and totally loſes its Colour; which is a Proof that its Colour depends on a Sulphur, which is ſeparable from it without deſtroying its Subſtance; for the Stone ſtill remains hard and tranſparent, though Colourleſs like Cryſtal.]

4. *Of* Saphirs.

Pomet. WE ſell two ſorts of Fragments of *Saphirs*, to wit, the red and the blackiſh. They are of the Size of a Pin's Head, extremely hard, and therefore difficult to bruiſe or pound. The red, which are uſually of the Colour of Wine, ought to be employed for phyſical Uſes; for as to the blackiſh Fragments of *Saphirs* they are rather like Ruſt of Iron than a precious Stone, and turn the Confection of Hyacinth black when put into it. Some ſubſtitute in the Room of the red Fragments of oriental *Saphirs*, thoſe little Stones, very common in *Holland*, that we call *Vermeilles*, or ſmall *Granats*, which beware of, though it is not difficult to diſtinguiſh them, becauſe the true *Saphirs* Fragments are of a very fine, clear, tranſparent Red; which are contrary to the *Granats*, that are of a very deep Red.

Lemery. *Saphirus*, *vel Sapphirus*, or the *Saphir*, is a fine, precious, brilliant, diaphanous, reſplendent Stone, of which there are two ſorts, one called the Male, the other the Female. The Males are of a pale blue, or a Water of the Diamond Luſtre. Theſe laſt are called white, or Water *Saphirs*; they are leſs enquired after than the blue. The Female *Saphirs*

phirs are of a deep blue; theſe are more valuable, and eſpecially ſuch as come from the *Eaſt-Indies*; as *Calecut*, *Pegu*, *Biſnagar*, and *Zeilan*. They are found likewiſe in ſeveral Parts of the Weſtern World, as on the Borders of *Bohemia* and *Sileſia*; but they are neither ſo perfect nor fine as the Oriental.

They uſe in Phyſick the Fragments or Pieces which the Lapidaries cut off from the *Saphirs*, which are much about the Size of large Pins Heads, reddiſh or blackiſh; but the red are preferred, becauſe the black are full of Iron Stone; we may perceive they have ſome Analogy to the Load-ſtone, for they will be attracted like Iron. There are a great many Virtues attributed to the *Saphirs* which they have not; as the fortifying the Heart and other noble Parts, purifying the Blood, reſiſting of Poiſon. Their true Properties are to ſtop Fluxes, ſweeten the Blood, and dry up Ulcers of the Eyes.

[The *Saphir* is the *Lapis Saphirus*, *Matth.* 1387. *Saphirus*, *Aldr. Muſ. Met.* 971. *Kentm.* 48. *Charlt. Foſſ.* 38. It is a very hard Gem, of a beautiful Sky-blue, which, as it is deeper or paler, makes the Diſtinction of Male and Female *Saphirs*, as they are called. The *Saphir* comes neareſt the Diamond in Splendor, Tranſparency, and Hardneſs; and there is a kind of it wholly pale, which is ſometimes made to paſs for a Diamond, but it is neither quite ſo hard nor ſo brilliant. The fineſt *Saphirs* are the Oriental, which are brought principally from the Iſland of *Ceylon*. The *European* are found in *Sileſia* and *Bohemia*. The *Saphir* loſes its Colour like the *Emerald* in the Fire, and then looks very like a Diamond.]

5. *Of the* Ruby.

Pomet. THE *Rubies* are likewiſe little reddiſh Stones that are brought us from the *Eaſt-Indies*, and are of very little Uſe in Phyſick, for which Reaſon I ſhall ſay nothing of them, nor of a great many others which we ſometimes ſell, the Names of which are ſubjoined, referring the Reader to a Book, entitled, *The Perfect or Compleat Jeweller, or, The Hiſtory of precious Stones*, compoſed by *Anſelmus Boetius de Boot*, Phyſician to the Emperor *Rodolph* the Second; or to the *Indian Mercury*, made by *Roſnel*. The precious Stones we have, beſides thoſe mentioned before, are the *Diamonds*, the *Amethyſts* of *Auvergne* and *Cartagena*, the *Agats*, the *Berils*, the *Sardius*, the *Granats*, the *Malaquits*, and ſeveral ſorts of Marble, *Florence* Stones, *&c.* And as I have ſeen the vaſt Difference betwixt the Stones that we ſell, and the fine Stones the Lapidaries uſe, I adviſe all thoſe who would make the Confection of *Hyacinth*, to take rather the Chippings of the fine Stones, than fancy he can buy better at the Druggiſts. I am, however, of the ſame Opinion with thoſe who allow no other Virtue in all the precious Stones, than to abſorb Acids.

Rubinus, *Carbunculus*, *Pyropus*, *Anthrax*, the *Ruby*, or *Carbuncle*, is a fine, diaphanous, precious Stone that is very hard, and reſiſts the File. It is reſplendent, and of a Colour as red as Blood, mixed with a little Tincture of blue. There are ſeveral kinds of it; but the fineſt, hardeſt, and moſt valuable, is that from *Zeilan* in the *Indies*. There are ſome likewiſe in *Gambaya* and *Biſnaga*; but theſe are not ſo fine. *Lemery.*

There is aſſigned to the *Ruby* the Virtue of reſiſting Poiſon, ſtrengthening the Vitals, driving away Melancholy, reſtoring of loſt Strength; but we know by Experience it has no other Quality than that of an Alcali Powder, that ſweetens the Sharpneſs of the Humours, and breaks their Points, and conſequently ſtops the Flux of the Belly; Doſe from half a Scruple to two Scruples. It is called *Rubinus* from its red Colour, and *Carbunculus* from its Reflection, looking like a red-hot Coal of Fire.

[The *Ruby* is the *Carbunculus*, *ſive Rubinus*, *Aldr. Muſ. Met.* 957. *Rubinus verus*, *Boet.* 144. *Carbunculus*, *Kentm.* 50. It is a pellucid Red Gem, extremely hard, found in greateſt Perfection in the Iſland of *Ceylon*. It is divided, on Account of its Degrees of Splendor, into four kinds, the *Pyropus*, *Balaſius*, *Rubicellus*, and *Spinaleus*. But as thoſe Diſtinctions are of no Uſe in a Work of this kind, I ſhall not enlarge on them.

This, like the reſt of the Gems, has had many great Virtues aſcribed to it; but the preſent Opinion is, that they have no other than thoſe of all alcaline Abſorbents: however perhaps, it is too raſh a Cenſure, and our Stomach may act upon them, as Fire does, ſeparating their Sulphurs, in which their Colour conſiſts; and thoſe Sulphurs may, for ought we know, be able, notwithſtanding their ſmall Quantity, to do great Things, as indeed it is a very idle Thing to judge of the Force of a Medicine by its Quantity, the moſt powerful of all generally acting in the ſmalleſt.]

6. *Of* Lapis Lazuli, *or the* Azure Stone.

Pomet. THE *Azure Stone*, which is commonly called *Lapis Lazuli*, and by ſome *Lapis Cyaneus*, and *Lapis Stellatus*, is a heavy Stone of a Sky-blue, ſometimes full of Rock Stone, and frequently ſtreaked with Veins of Copper, which the Antients, and ſome Moderns, have thought

thought to be Gold. The greateſt Part of this Stone that we have, comes from *Perſia* and the *Eaſt-Indies*; ſome affirm that it is uſually found in Gold Mines, and that it is a *Marcaſite* of that Metal: However it is certain that this Stone is got out of Quarries, as other Stones are here, which is the Reaſon we have it of all Sizes; the *Lapis Lazuli*, to be perfect and fit for making the *Ultra-marine*, which is the chief Uſe it is put to, except the fine Works made of it, ought to be heavy, of a deep Blue, like fine Indigo, with as few Copper or ſulphureous Veins as poſſible, and take Care it be not rubbed with Oil Olive, in order to make it appear of a deeper Blue; but the Cheat is not hard to diſcover, becauſe it ought to be of as fine a Blue within as without; likewiſe refuſe ſuch as is full of Stones, and the pretended Veins of Gold; for that, when it is burnt to make *Ultra-marine*, will ſtink extremely, having a ſulphureous Smell, which ſhews that its Veins proceed not from Gold.

There is an Error ſome People are guilty of, in believing, as ſome have pretended, that this Stone, when fine, will encreaſe its Weight in the Fire: This is certain, that the finer this Stone is, it will loſe the leſs in the Fire; and that there is ſome of it that loſes ſo little that it is not worth ſpeaking of; but let it be never ſo good, it will always loſe ſomething; ſo far is it from being encreaſed in Weight: You ought to put the Stone into the Fire to ſee if it be good, for if ſo, it will not change its Colour for being heated hot. The Choice of this Stone is quite other than has been deſcribed by others, who ſay, that that which is full of yelloviſh or golden Veins ought to be moſt valued; which I maintain to be falſe, ſince the more it is ſo, the leſs it is eſteemed, eſpecially by thoſe who uſe it to make *Ultra-marine*. You muſt beware that it be not a greeniſh Stone, very common in *France*, which is found about *Toulon*; or that it be not a counterfeit Stone, made up of Tin and *Zaffre*, as has been obſerved in the Chapter of *Enamels*. This Stone is of ſome Uſe in Medicine, becauſe it is put into ſeveral Galenical Compoſitions, as Confection of *Alkermes*, *&c.* There are Authors who attribute great Virtues to this Stone, and amongſt others Monſieur *Demeuve*, to whom the Reader may have recourſe; and there are ſeveral others who ſay that *Lapis Lazuli*, and the *Armenian* Stone, are almoſt alike, which will be found to be falſe, as you will ſee in the next Chapter.

Of Ultra-marine.

Pomet. *Ultra-marine* is, properly ſpeaking, a *Precipitate* made from *Lapis Lazuli*; ſome ſay it took its Name of *Ultra-marine*, from being made beyond the Seas; the firſt of the kind coming from *Cyprus*; but others will have it that the Name was given it becauſe this Blue is much more beautiful than that of the Sea. A Friend of mine aſſured me that the firſt *Ultra-marine* was made in *England* by one of the *Eaſt-India* Company there. You ought to chuſe that which is of the higheſt Colour, well ground, which is known by chewing of it betwixt the Teeth; if it is gritty, it is a Sign that it is not well ground: And to diſcover if it is genuine and not ſophiſticated, heat a little of it red-hot in a Crucible; if its Colour is not changed, it is the true; for if it is adulterated there will be black Spots in it: Its Uſe is for Painting in Oil and Miniature. The manner of preparing *Ultra-marine* is deſcribed in ſo many Books, I thought it needleſs to repeat it here; I ſhall only ſay, that thoſe who prepare it make it into four ſorts, which proceeds from nothing elſe but the different Waſhings of the Powder, whereof the firſt is abundantly more beautiful than the others.

Lemery. *Lapis Lazuli*, *Lapis Cyaneus*, *Lapis Cæruleus*, or the *Azure Stone*, is of different Sizes and Figures, being opake, heavy, and of a blue Colour, intermixed with Streaks of Gold and Copper: It is found in Quarries in the *Eaſt-Indies*, and in *Perſia*, and ſome ſay in the Gold Mines; its Uſe is chiefly to make *Ultra-marine* of, for which Purpoſe chuſe the cleaneſt, weightieſt, of the higheſt Colour, and beſt Blue; it contains a great deal of Sulphur and Salt. To make *Ultra-marine*, they calcine this Stone, and grind it fine on a Porphyry, and mix it up in a Paſte made of fat Pitch, Wax, and Oil; then they waſh this Paſte well to ſeparate the blue Part, which precipitates to the bottom in a very beautiful Powder; they pour off the Water leiſurely, and dry this Powder, which is for the Painters Uſe. *Lapis Lazuli* prepared purges melancholy Humours, fortifies the Heart, and is uſed in the Confection of *Alkermes*; the Doſe from half a Scruple to a Drachm. There is found near *Toulon* in *France*, in *Germany*, and ſeveral other Parts of *Europe*, a falſe or Baſtard *Lapis Lazuli*, that is greeniſh and thicker, which is employed for common Uſes.

[The *Azure Stone* is the *Lapis Lazuli*, *Worm.* 65. *Charlt. Foſſ.* 27. *Cæruleus Lapis*, *Matth.* 1354. *Lapis Cyaneus*, *ſive Lazuli*, *Ald. Muſ. Met.* 870. *Cæruleum Nativum*, *Wood. Att. T.* ii. P. 1. p. 42. It is an opake hard Stone, of the Colour of the *Saphir*, with gold-coloured Specks and Veins, and is harder than the *Armenian* Stone. It is found in Gold and Copper Mines, and is of two kinds, the Oriental, which is brought chiefly from *Aſia* and

and *Africa*, and ſtands the Fire without loſing its Colour. Of this the *Ultra-marine* is made; and the Occidental, found in *Germany* and *Italy*, which loſes its Colour by Fire, or by Age, or many other Accidents, and in time turns green. The blue Colour of this Stone is owing to ſome Particles of Copper it contains; and in Medicine it is accordingly emetick and purgative. The Antients alſo acknowledged a ſtyptick Virtue in it; for which Reaſon they gave it a Place in the Confection of *Alkermes*, *&c.* And certain it is, that no ill Effect ever appeared from the taking that Medicine, while it was a conſtant Ingredient in it. However, as it cannot well be ſuppoſed to add any thing to the Virtues of it, it is at preſent left out of it in the College Diſpenſatory.]

7. *Of the* Armenian Stone.

Pomet. THIS is a little Stone uſually of the Size of a Bullet, of a greeniſh Blue without and within, adorned with ſmall white gliſtering Sparks riſing beyond its Surface, like Spar, or ſmall Diamond Sparks. They attribute great Virtues to this Stone, as that it is good to cure the *Falling-Sickneſs*, *Melancholy*, and the like. This Stone is ground and waſhed to free it from the Spar and little Sparkles, which look like Gold, though they are only Sand; and afterwards dried and brought to us by the Name of *Powder Green*, or *Verditur*; which is uſed by the Painters, but more eſpecially by thoſe, who, to encreaſe their *Mountain Green*, mix equal Parts of both together to make it come cheaper, that ſo they may get more Money by it; for which Reaſon never buy any *Mountain Green* but of Perſons you can truſt, and ſuch as has the Marks I gave, when treating of it; and when put upon Paper, ſtains it not, but is like Sand, which is a Sign it is not mixed with *Verditer*. We ſell ſeveral ſorts of *Verditers*, which have no other Difference but according to the Preparation given them; the fineſt ſort ought to be very dry, fine, and of a high Colour.

Lemery. *Armenus Lapis*, *ſeu Lapis Armenis*, *ſeu Melochites*, the *Armenian Stone*, is of different Shapes and Sizes, but moſt commonly round, uneven, rough, as big as a Nut, of a Mixture of Colours, blue, green, white, *&c.* It is brought from *Armenia*, whence it derives its Name; but at preſent it is alſo found in *Germany*, as in the County of *Tyrol*; it differs from *Lapis Lazuli*, in that it is not ſo blue, but fuller of a droſſy Stone and other Impurities; and that this is taken from the Silver Mines, whereas the other is found in the Gold Mines. Chuſe that which is of the deepeſt Colour. They grind this Stone and waſh it, to ſeparate the finer Parts, or the Sand which ſhines like Spangles of Gold; and when dried, they ſell it by the Name of *Verditer*, for the Painters Uſe. This *Armenian Stone*, prepared, is deterſive and deſiccative, or drying, being outwardly applied; and inwardly purges melancholy Humours; it is good for the Epilepſy, *&c.* the Doſe from a Scruple to a Drachm.

[The *Armenian Stone* is the *Lapis Armenus*, *Worm.* 66. *Charlt. Foſſ.* 27. *Armenium*, *Aldr. Muſ. Met.* 351. Copper Ore of a Sky or pale blue Colour, *Woodward.* This is principally found in Silver Mines. It is an opake ſoft Subſtance of the *Lapis Lazuli* kind, with gold-coloured Specks and Spots of green, bluiſh, and black: It is of the ſame Virtues with the *Lapis Lazuli*, as containing the ſame Principles, but is more ſtrongly purgative. The Painters make of it a very fine Blue, with a greeniſh Caſt.]

8. *Of* Smalt, *or* Powder Blue.

Pomet. SMALT is either a Compoſition, or a Stone pulverized, which we have from *England* and *Roüen*, whither it is brought by the *Swedes*, *Hamburgers*, and *Danes*: The greateſt Part of this *Smalt* comes from *Dantzick* in *Poland*, as well as ſeveral other Colours, with Zink and Tin-glaſs; but this being a Trade known but to few People, thoſe who deal in theſe Commodities directly from *Dantzick*, are able to ſell cheaper than thoſe who trade from *Holland*, *England*, or *Roüen*. After all the diligent Enquiries I could make, I have found it impoſſible to find out what this *Smalt* is, ſome aſſuring me that it was a Compoſition made at *Roüen*; but as thoſe who made it kept it as a Secret, I never could diſcover of what it was. It ought to be very fine, of a deep Colour, and as dry and like to *Ultra-marine* as poſſible; its Uſe is for the Painters.

Lemery. *Smalt*, or *Cinis Cæruleus*, is either a powdered Stone, or elſe a Compoſition of a blue Colour; which is brought from *Poland*, and is uſed by Painters.

[*Smalt* is the *Encauſtum Cæruleum*, uſed by the Painters, *&c.* It is made of *Cobalt*, Pot-aſhes, and Flint-ſtones, or Sand, melted together into a vitreous, opake, bluiſh Maſs, and afterwards ground to Powder in Mills. The greateſt Quantity is made in *Saxony* and *Germany*: It is never uſed in Phyſick.]

9. *Of the* Jaſper.

Pomet. THERE being various ſorts of *Jaſpers*, ſuch as the Green, the Purple, *Cerulean*, *Aurora*, or Cryſtal-like, I ſhall ſpeak only of that

that which is ſold in the Shops, which is the *green Jaſper*; and if it had not been of ſome ſmall Uſe in Medicine, I ſhould not have ſpoken of it. Being a very precious Commodity, it is very liable to be counterfeited in Glaſs. Chuſe ſuch Pieces as are of a fine deep Green, ſmooth, and ſhining, full of red Spots, as if they were little Drops of Blood, and which can take no Impreſſion from the Point of a Needle drawn upon them; which is a Sign that they are truly Oriental. Some People affirm, that the green Jaſper is very proper to cure the Epilepſy, and that it is a good Cordial. It is prepared as the *Hyacinth* and other precious Stones.

Jaſpis, the *Jaſper*, is a fine, hard, ſmooth, reſplendent, precious Stone, which differs little from the *Agate*, only that it is not ſo hard and pure: There are a great many kinds of it, but the Oriental is the beſt. It ought to be very hard, of a deep Green ſpotted with red; and it is of ſome Uſe in Phyſick, ground fine upon a Porphyry. The prepared Powder is aſtringent, proper to ſtop Blood and the Scour of the Guts. Great Virtues are aſſigned it in the Epilepſy, alſo to ſtrengthen the Stomach, and bring away the Stone in the Kidneys, *&c.* *Lemery.*

[The *Jaſper* uſed in Medicine is the *Jaſpis*, *Boet.* 250. *De Laet.* 79. *Charlt. Foſſ.* 32. It is an opake Stone, of a mixed Green, with Spots of Red like Blood: It is found in the *Eaſt-Indies*, and is ſuppoſed to have the ſame Virtues with the *Cornelian*, which are, the ſtopping Hæmorrhages, and remedying the Effects of Poiſons; but theſe are both ſuppoſed imaginary, and neither of the Stones ever now uſed in Medicine.]

10. *Of the* Jade Stone.

THE *Jade* is a greeniſh Stone, inclinable to Grey, extremely hard, and very rare. This Stone is little uſed in Phyſick, but pretty much in ſeveral ſorts of Works that are very valuable, it being very difficult to cut. The *Turks* and *Poles* uſe a great deal of *Jade* to make Handles for their Knives, Sabres, Swords, and other Things, which they adorn with Gold. The Oriental is the fineſt *Jade*. *Pomet.*

Jade is a very hard Stone, of a greeniſh grey Colour. The fineſt comes from the *Eaſt-Indies*. The *Turks* and *Poles* make ſeveral Uſes of them, and it is difficult to work becauſe of its exceſſive Hardneſs. Some pretend, that applied to the Region of the Kidneys, they are proper to bring away Stone and Gravel; but I can give no Credit to ſuch Remedies. *Lemery.*

[The *Jade* is the *Lapis divinus*, *Boet.* It is a Stone very like the *Lapis Nephriticus*, but extremely hard; it is much uſed in ſome Parts of the World for Toys, but has never, I believe, been given inwardly, though in common Uſe among the ſavage *Indians* as an Amulet.]

11. *Of the* Nephritick Stone.

THE *Nephritick Stone* is a greyiſh Stone, with a little mixture of Blue in it, ſo that it is uſually of a bluiſh grey Colour, being fat and oily like *Venetian Talck*. This Stone is much valued by certain Perſons for the Cure of the Gravel, which makes it ſo ſcarce, and ſo much enquired after. It performs its Buſineſs by hanging about the Thigh of thoſe who are troubled with the Stone or Gravel in the Kidneys, from whence it is called the *Nephritick Stone*. The Dearneſs and Rarity of this Stone is the Reaſon why ſome ſubſtitute in its ſtead a kind of green Marble of *Italy*, called *Malaquitte*, and cut and carve it like a Bird's Head, becauſe the Antients believed that the true *Nephritick Stone* reſembled a Bird's Head, or the Beak of a *Perroquet*. The true Nephritick Stone comes from *New Spain*, and whoever would know further of it may read Mr. *Worms*, who has writ a large Deſcription of it, too long to be inſerted here. *Pomet.*

Lapis Nephriticus, or the *Nephritick Stone*, is of different Sizes, pretty hard, opake, of a bluiſh Grey or Aſh-colour, but ſometimes mixed with White, Yellow, or Black, and is not perfectly ſmooth, becauſe it is unctuous like *Talck*. It is found in *New Spain*, ſometimes with the *Jaſper*, and ſometimes alone. Some reckon it among the kinds of Jaſpers, making no great Difference, but only that this is the harder: For the moſt part they are found like Whet-ſtones, in the Fields in great Lumps, ſo big, that a Cup may be made of them. *Carolina* affords pretty large ones, about eight Inches long, three broad, and two thick; and of an aſh-coloured Green: They are likewiſe gathered in *Bohemia*, and ſeveral Parts of *Spain*; but theſe are not ſo much eſteemed as what come from *America*. *Lemery.*

This Stone has the Property to eaſe the Stone Cholick, to break the Stone in the Reins, and expel Gravel by Urine, being hung about the Neck, Thigh, or Arm: Some preſcribe it to be taken inwardly, from four to fifteen Grains. Of latter Years there is brought into Uſe for the ſame Diſeaſes, a brown, ſmooth, ſhining Stone, which they call, from its great Virtues, the *Divine Stone*; this breaks the Stone in the Kidneys, and forces it away by Urine; they tie it in their Clothes about the Back.

[The

[The *Nephritick Stone* is the *Lapis Indicus Nephriticus*, *Aldr. Muſ. Met.* 706. *Lapis Nephriticus*, *Mont. Ex.* 14. *Charlt. Foſſ.* 33. *Worm.* 95. It is a Stone of many Colours, as, green, blue, yellowiſh, whitiſh, and duſky brown, but always having more of the green than of any other Colour. It is found in *America* and ſome Parts of *Europe*, and is ſuppoſed to have great Virtues, but is ſcarce ever uſed at preſent.

The *Divine Stone*, mentioned here by *Lemery*, is the *Jade* mentioned in the laſt Chapter; and the *Malaquite*, often ſubſtituted for it, is the *Malachites vel Molochites*, *Worm.* 263. *De Laet.* 87. *Malachites*, *Aldr. Muſ. Met.* 900. It is of the *Jaſper* kind, and is found in *Cyprus*, *Miſnia*, and *Tirol*, but is never uſed in Medicine.]

12. *Of* Venetian Talck.

Pomet. THE *Venetian Talck* is a kind of greeniſh Stone, in Scales or Flakes, which though it ſeem fatty in the handling, is nevertheleſs very dry and heavy; the fineſt is that which is found in the Quarries ſituated near *Venice*, from whence it is called *Venetian Talck*; it is found alſo plentifully in *Germany*, and about the *Alps*. The beſt *Talck* is that which is in large, white, greeniſh, ſhining Stones, that, being broken, ſparkle like Silver Spangles, and which, being ſeparated into ſmall Leaves, is white, clear, and tranſparent; but take care that it be equally fine throughout; for that which is in great Stones is very ſubject to be bad, by reaſon of a great many yellow or reddiſh Veins that are found within, accompanied with a kind of Earth that ſpoils the Sale of it. There is ſome alſo which, inſtead of being of a greeniſh White, is of a reddiſh Yellow; ſo that we had better take that which is in moderate Pieces, which we may know at ſight.

Talck is much in regard with the Ladies of Quality, who uſe it for a Coſmetick; and as it is exceeding difficult to reduce it into Powder, or even to calcine it, the way is now to grate it with a Fiſh-ſkin, and then to ſearce it; ſo uſing it as Occaſion ſhall require. Hence it is, that almoſt none but ſuch *Talck* as is in moderate Pieces, of a Size fit to be held in the Hand, is now called for.

Venetian Talck, while it is whole, is of a greeniſh Colour; but being broken, or divided into thin Scales, is white; it is known from *Engliſh Talck* by its Friability, its green Colour, and Fixedneſs in the Fire: For ſome who have kept it forty or fifty Days in a Glaſs-houſe Fire, have taken it out at the end of the Time, and found no Alteration in it, neither in reſpect of Reſolution, Colour, or Weight, but it has come out abſolutely the ſame thing as it went in. This *Talck* therefore being of ſo fixed a Nature, our Labour now muſt be to ſhew how to open its Body, in order to make thoſe Preparations of it which we deſire, at leaſt the noble White, which Ladies, with ſo much Curioſity and Charges, ſeek after and purſue. It it true, there are a great many Men that boaſt what Preparations and Secrets they have of *Talck*; but this we certainly know, that there is no liquid Subſtance of it yet invented or known, made out of the ſimple thing itſelf; but ſuch as is compounded by the mixture of ſuch Salts as are able to penetrate the Stone; ſo invincible is the Fixedneſs of the true *Venetian Talck*: Therefore to attempt to calcine it, without the Addition of ſome piercing Salt, is Vanity; but by the help of ſome Salts, and acrid Spirits, a good Coſmetick may be made of it, to change and whiten the Skin.

The Antients, and eſpecially the *Arabians*, were ſometime of opinion, that from *Talck* might be drawn a Remedy of ſuch Efficacy, as ever to preſerve the Body in good Caſe; for which Reaſon they gave it the Name of *Talck*, as much as to ſay, an equal Diſpoſition of Body, according to which it is in perfect Health: And from hence, undoubtedly, hath proceeded the vulgar Error concerning an Oil of *Talck*, which is ſo much commended, and to which ſuch extraordinary Virtues are attributed; and ſo prevalent hath this Error been, and ſtill is at this Day, that whoever could find the Secret of getting an Oil from *Talck*, without the Addition of Salts or Acids, might be ſure to ſell it for its weight in Gold; yea, I may venture to ſay, twenty times more. But ſince, as I believe, the high Commendations and wonderful Virtues uſually aſcribed to it, proceed only from a Suppoſition that it can never be had, I ſhall ſay no more of it, but that ſome Perſons, who flatter themſelves with a Belief that they have the Secret of making it, affirm that it is incomparably good for whitening the Skin, ſmoothing the Face, and, in a word, to make old People renew their Youth.

Some ſay, if *Venice Talck* be heated red-hot, and put into an Iron Mortar almoſt as hot, it may be beaten in a ſmall time to a moſt fine impalpable Powder, which being ſearced, may be mixed with *Unguents* and *Pomatum*, and uſed as other Coſmeticks of the like kind. This *Talck*, thus pulverized, may be ſtrewed among Snail Shells, and left in a glazed Pipkin till they have ſucked it all up; then having bruiſed all together, put the Mixture into a Glaſs Cucurbit, covered with its Head, and diſtil the whole Maſs, and you will have a Coſmetick Water, good to cleanſe and beautify the Skin with.

We have another ſort of *Talck*, brought us from *Muſcovy* and *Perſia*, which they call Red or Leaf

Talck, becauſe it is of a reddiſh Colour, and eaſy to be divided into Leaves as thin as you pleaſe. This Red or Leaf Talck is only uſed, ſo far as I know, by the Monks and Nuns, who put it, inſtead of Glaſs, before their Pictures and *Agnus's*; but they do not, as ſome Authors affirm, employ to this Purpoſe the *Venetian Talck*. This then, as I have ſaid, being the only Uſe of the Leaf *Talck*, we ought not to meddle with any but what is in large Leaves, and when ſplit, or divided into very thin Pieces, is of a cryſtalline Clearneſs and Tranſparency. There is not almoſt a more curious Commodity in the World than Leaf *Talck* with the required Qualifications, foraſmuch as it is very rare to be found: It is a thing ſo very hard to underſtand, that I would not adviſe any one to buy any but what is approved by thoſe who work in it; that which, being thick, is blackiſh, and may be divided into Leaves extremely thin and tranſparent, is judged to be the beſt.

Lemery. *Talcum*, or *Talck*, is a kind of Stone, or a mineral Matter, that is fine, white, ſmooth, ſoft to the Touch, ſhining, and tranſparent, dividing into Leaves or Scales that will not burn: Some call it *Stella Terræ*, becauſe it ſhines like a Star: There are two kinds of it, one called *Venetian Talck*, and the other *Muſcovy Talck*; the *Venetian* ſort is ſoft, ſcaly, heavy, and appears greaſy to the touch, though it is dry, of a Silver Colour, tending to green, ſomething tranſparent: Chuſe the fineſt white ſhining Pieces, upon the green Caſt, that ſeparate into little nice clear Leaves, or Flakes, that ſhine like Pieces of Silver. When you would reduce this into Powder, raſp it with a Sea Dog's Skin, or rather calcine it in a Crucible about a Quarter of an Hour; then beat it in an Iron Mortar almoſt red-hot, and ſift it through a Sieve. It is uſed in Coſmetick Pomatums by the Ladies.

The *Muſcovy Talck* is hard, ſmooth, ſhining, and ſoft to the Touch, dividing or breaking into thin Leaves, that are almoſt as tranſparent as Glaſs, and ſometimes it is reddiſh: This comes from the Quarries in *Muſcovy* and *Perſia*. Chuſe the fineſt and cleareſt. It ſerves them for Lanthorns, as we uſe Horn; but the *Talck* is more commodious, for it is more tranſparent, and not ſo ſubject to burn. *Talck* is difficult to reduce to Aſhes by the Fire, becauſe the Pores of it being ſmall, the Parts of Fire ſlide through without making any Impreſſion. I attempted to calcine both ſorts by a Burning-glaſs: That of *Venice* was changed by the ſolar Fire into a groſſer, yellowiſh, opake Matter; and that of *Muſcovy* into a light farine, being very fine white Powder.

[*Talck* is the *Talcum*, *Aldr. Muſ. Met.* 685. *Talcus foſſilis*, *Calc. Muſ.* 458. *Talcum alias Stella terræ*, *Charlt. Foſſ.* 24. It is a ſhining fiſſile Stone, eaſily divided into thin Laminæ looking like Silver Spangles: There are many Kinds of it, but the Greeniſh or *Venetian*, the *Talcum Viride*, *Mont. Ex.* 14. is moſt eſteemed as a Coſmetick, which is the principal Uſe it ſtands commended for. There is a more ſilvery kind, much eſteemed by the Chymiſts, and called *Argyrolithos*; and a yellowiſh, which they call the Solar *Talck*. They think by an Oil of theſe *Talcks* to turn Quickſilver into Silver; but they do not conſider that what they call Oil of *Talck* is entirely the Product of other Subſtances mixed with it.

The beſt way to powder the *Venetian Talck* is, to heat it ſeveral times over in the Fire, and quench it in cold Water, then levigating it on a Porphyry, it becomes a fine ſhining white Powder, very ſmooth to the Touch, and fit to mix in Pomatums.

What our Authors call Leaf *Talck* is the *Lapis Specularis*, *Kentm.* 26. *Worm.* 56. *Mont. Ex.* 14. *Glacies Mariæ ſeu Lapis Specularis*, *Koning. Lapis Mariæ Neotericis*, *Charlt. Foſſ.* 23. It is brought from *Spain*, *Muſcovy*, *&c.* It is ſaid to be a good Medicine in Epilepſies, but its principal Uſe is in ſmall Works, inſtead of Glaſs or Horn, for the preſerving Microſcope Objects, *&c.*]

43. *Of* Briançon Chalk.

THE *Briançon Chalk* is a kind of Stone, or a mineral Subſtance, almoſt like *Venetian Talck*, but harder, and that does not ſo readily ſplit or ſeparate into Scales: There are two kinds of it, one white, and the other green; they are found in the Quarries or Pits near *Briançon:* They ſerve to take Greaſe Spots out of Clothes, and for Taylors to mark or ſcore with. Chuſe the neateſt, ſmootheſt, green, and ſoft.

[*French Chalk* is the *Morocthus Dioſcoridis*, *Morocles Plinii*. It is an Aſtringent, is good in Hæmorrhages, and is uſed with Succeſs in Collyriums for Ulcers of the Eyes.]

15. *Of* Spalt *or* Spaad.

SPALT or *Spaad* is a ſcaly bright Stone, very like Parget Stone, except that this is whiter. They find abundance of theſe Stones in *Germany*, eſpecially about *Augsburg*; there are ſome likewiſe in *England*, but not ſo good. We ſometimes ſee Fragments of this Stone adhering to and mixing with Frankincenſe, a Sign that it is found in the Places whence it comes. It ſhould be in long brittle Scales, that may be eaſily crumbled to Powder *Pomet.*

Powder with the Nail of one's Thumb, which cannot be done by that of *England*, being more hard. *Spalt* is uſed by ſeveral ſorts of Workmen, being ſaid to be good to aſſiſt the Founders in melting of their Metals; which I cannot affirm to be Fact, having never ſeen it tried.

Lemery. *Spalt* is a ſcaly Stone that is bright, and looks like Plaiſter-ſtone, or Cryſtal of *Montmartre*, but it is much whiter. It is met with in *England* and *Germany*. The Founders uſe it to flux their Metals with. It is deterſive and drying, outwardly applied.

13. *Of the* Lapis Judaicus, *or* Jews Stone.

Pomet. THE *Jews Stone* is of different Sizes and Figures; but the moſt common Size is that of an Olive, adorned with little Streaks or hollow Lines, running from one End to the other, and ſometimes it is altogether ſmooth. This Stone is uſually grey, and ſometimes of a reddiſh grey, and ſhines like our little Flints, of which I believe it to be a Species. Theſe Stones are brought us from different Parts of *Judæa*, from whence they take their Name; they are likewiſe called *Syrian* and *Phœnician* Stones. This Stone, though it be like a Flint, it is not ſo hard, yet not ſo eaſy to break as ſome Authors have aſſerted; but being broken, it is of a whitiſh Grey, and ſhining. Mr. *Charas*, in his Book of Chymiſtry, at the 821ſt Page, ſays, that this Stone, being calcined with Sulphur, diſtilled Vinegar, Spirit of Salt, and Spirit of Honey, there may be drawn from it a Salt that is admirable for breaking the Stone; where thoſe who are deſirous to prepare it, may be inſtructed therein.

Lemery. *Lapis Judaicus*, *Lapis Syriacus*, *Phœnicites*, *Tecolithus*, or the *Jews Stone*, is of various Forms and Bigneſs, but moſt uſually is ſhaped like a ſmall Olive, ſtreaked all over with Lines that run through the length of it, and are equally diſtant one from another: Some are found ſmooth without any, and ſome in a cylindrical Form. The Colour is grey, and ſometimes reddiſh without, and whitiſh within. It appears to be hard like a Flint, but is ſoft, and may be eaſily beat to Powder: They are diſtinguiſhed into Male and Female; the Male is that which is large, long, and of a cylindrical Figure; the Female is that which is of the Shape and Size of a ſmall Olive. They are both indifferently uſed in Phyſick, being firſt ground to a fine Powder on a Marble: This Powder is given to ſtop Fluxes of the Belly, to provoke Urine, and to break the Stone in the Kidneys and Bladder.

[This is the *Lapis Judaicus*, *Kentm.* 28. *Boet.* 408. *Charlt. Foſſ.* 29. *Radiolus Glandularius ſubcinereus major partim ſtriatus, partim tenuiſſime punctulatus. Lang de Lap.* 127. *Radiolus Glandularius ſeu Lapis Judaicus, Boetii Lhuyd. Lith. Brit.* 49. They are found of various Lengths, Colours, and Thickneſſes, and are the petrified Spines of a large Species of the *Echinus Ovarius*, or *Sea Urchin*.

They are ſaid to be diuretick and lithontriptick, but are little uſed at preſent.]

16. *Of the* Lapis Lyncis, *or* Thunder Stone.

Pomet. THE *Belemnites*, called alſo the *Lynx* Stone, is a kind of Stone made in a pyramidal Form, to which the Antients gave the Name of *Belemnites*, from its reſemblance to a Dart or Arrow; and others, of *Dactylus Ideus*, from its likeneſs to a Finger, and becauſe it is found on Mount *Ida*; others ſay it was called *Lapis Lyncis*, becauſe it was believed that it was formed from the Urine of the *Lynx*. This Stone is harder than the *Jews Stone:* They attribute the ſame Virtues to it: Mr. *Charas* has told me it might be prepared after the ſame Manner, and uſed for the ſame Purpoſes. This Stone being broken, is of the Colour of Horn in the Cavity, in which is found a ſort of grey dry Earth, of an inſipid Taſte, and like to be good for nothing. At the End of the Stone there alſo appears, as it were, the reſemblance of a Sun. Plenty of theſe Stones are found about *Paris*, in digging and labouring the Ground, eſpecially in ſandy and gravelly Soils.

Lemery. *Belemnites*, *ſive Lapis Lyncis*, *ſive Dactylus Idæus*, the *Thunder Stone*, or *Thunder-bolt*, is about the Length and Thickneſs of a Man's Finger, ſometimes more, and ſometimes leſs, round-pointed, or in a pyramidal Form, like an Arrow. They are found of different Colours, ſometimes white, ſometimes grey, and ſometimes brown; brought uſually from *Candia*; but they come likewiſe from *Germany*. They find the ſame about *Paris*, in the ſandy Grounds; and there are two ſorts of them, one, that being put upon the Fire will yield a bituminous Smell, and the other none at all: The firſt is plainly that which the Antients called *Lyncurius*, and believed falſly to be a kind of *Succinum*, or Amber, that was made from the Urine of the *Lynx* coaggulated. The Stone being broken, they find in its Concavity, that looks of a Horn-colour, a little dry grey Earth, without Smell or Taſte. This Stone is uſed to break the Stone in the Kidney, and to expel it by Urine, being taken inwardly. It is alſo uſed externally to cleanſe and dry Wounds. It is ground on a Marble to reduce it to Powder.

[The *Thunder Stone* is the *Lapis Lyncis*, *Schrod.* 353. *Belemnites Lapis, ſeu Dactylus Idæus*, *Boet.* 476. *De Laet.* 150. It is a rounded oblong Stone, ending in an obtuſe Point, of different Colours, ſometimes ſolid, and ſometimes hollow, and diſtinguiſhed by Lines drawn from the Axis to the Circumference, and with a Fiſſure or Slit runing the whole Length: They are commonly about two Inches long.

It is an Error to think this the *Lapis Lyncurius* of the Antients; for it is evident, that *Dioſcorides*, by that Word, underſtood another Stone, which ſome at that Time thought the indurated Urine of of the Lynx.

It is ſaid to be a powerful Lithontriptick, but is never uſed at preſent.]

17. *Of the* Bolognian-ſtone.

Pomet. THIS is a heavy Stone of a ſhining Silver grey, very like in Figure to the *Nephritick-ſtone*, which is found very commonly about *Bologna* in *Italy*; whence it takes its Name. This Stone is of no other Uſe, than, after Calcination, to make a kind of *Phoſphorus*, of which Mr. *Lemery* treats largely, and better than any who have gone before him, at the End of his Book of *Chymiſtry*; and likewiſe Mr. *Worms*, he having writ a long Diſcourſe of it, whither thoſe who deſire to make it, may have recourſe. The *Bolognian-ſtone* is not yet well known amongſt us, which is the Cauſe we ſell ſo little of it. Some call this Stone calcined, the *Sun* or *Moon Spunge*, the illuminated *Stone*, *Lucifer*, *Caſſiolanus* his Stone, or *Kercher's Phoſphorus*.

Lemery. *Lapis Bolonienſis*, *Chryſolapis*, or the *Bolognian-ſtone*, is a Stone whereof a *Phoſphorus* is made. It is ordinarily of the Bigneſs of a Walnut, bunched, uneven, flattiſh, and diſpoſed in ſuch a Manner, that the Side oppoſite to the Bunch or Knot, made a kind of Cavity. It is heavy, grey, ſoft, ſhining in ſeveral Parts, cryſtalline within, almoſt like *Talck* of *Montmartre*. It is found in ſeveral Parts of *Italy*, but chiefly at the bottom of Mount *Paterno*, which is a Part of the *Alps*, and diſtant from the City of *Bologna* about a League. They are eaſily diſcovered after the Floods of Waters that happen from the great Rains; for then the Earth is waſhed and cleaned that ſurrounded them, and hindered them from being ſeen. They are diſtinguiſhed from other Stones of the Mountain by little Sparks that appear on their Surface; and we may ſee, in the Cabinets of the Curious, ſome of thoſe that weigh to five Pounds. Theſe large Stones are no otherwiſe valuable than for their Scarceneſs, they being more earthy than the ſmall ones, and not ſo good to make the *Phoſphorus* of.

The beſt *Bolognian-ſtones* are thoſe which are found covered on the Outſide with a thin, white, and opake Cruſt; but theſe are very rare. And ſince we cannot often come at them, we uſe the common ſort, which ſhould be choſen with the feweſt Spots, and bright. The worſt are thoſe where there appear Veins of Vitriol or Iron: Theſe contain in them much more of Sulphur and Salt.

The *Bolognian-ſtone* is prepared and reduced into a *Phoſphorus*, by a moderate Calcination, that purifies and exalts the Sulphur more than it was. This Calcination is made in the following Manner: Take ſeven or eight of theſe Stones cleanſed on the Outſide with a Raſp, or Knife, and powdering very finely one or two of the moſt ſhining of them in a Braſs Mortar, throw the others whole, one after another, into clear Water; and having taken them out, cover them entirely over with the Powder, by rolling them in it, that they may lick up as much as they can; then put them into a little Furnace or Stove, with a Braſs Grate, upon which you muſt lay them in Order, with a Fire under them to calcine; which when done, let the Fire go out of itſelf; and when all is cold, take off your calcined Stones gently from the Grate; ſeparate the Cruſt, which comes from the Powder in which you have rolled them, and keep the Stones in a Box with Cotton; preſerve likewiſe the Cruſt, which is to be reduced into an impalpable Powder.

Theſe calcined Stones are the *Phoſphorus*, which being expoſed to the Day in an open Field or Street, are lighted as it were in an Inſtant; after which, if they are carried into a dark Place, they will appear like lighted Coals, without any ſenſible Heat, and you may extinguiſh them by little and little; but if you let in the Light, they will burn again: And thus they will laſt for two or three Years together, according as they are more or leſs frequently expoſed to the Light. And when theſe Stones have loſt their Virtue, they may be reſtored again, by obſerving the ſame Circumſtances as before, but their Brightneſs will be much leſs. The Cruſt reduced into Powder is likewiſe finer and more illuminating, when expoſed to the Air, than the Stones. They fill little Bottles of fine Cryſtal with it cloſely ſtopt, which they keep to give Light when they pleaſe; for they are not obliged to expoſe it to the Air, as they do the Stones, the Cryſtal not giving any Obſtruction to the Light from the Powder.

One muſt not imagine that any of the ſeveral Circum-

Circumſtances that I have ſhewn for the Calcination of the *Bolognian-ſtone* are uſeleſs; for they are ſo neceſſary, that if they be not all exactly obſerved, the Operation is loſt, and the Stone will give no Light. This Stone acquires, by Calcination, a ſulphureous Smell, like melted *Orpiment*; and when it is boiled with Lime and Water, it yields likewiſe a little *Arſenical Salt*.

The Reaſon why it appears light, proceeds from the Fire mixing with the Sulphur in its Motion, which raiſes to the Superficies an Infinity of Particles that are ſo ſubtil and delicate as to take Fire upon Light, or the Motion of the Air. But thoſe who deſire to be more fully informed in this Matter, may read what I have ſaid in my Treatiſe of *Chymiſtry*, where I have ſpoken not only of this kind of *Phoſphorus*, but of ſeveral others; and have likewiſe given you the Figure of a Furnace that is moſt convenient and proper for calcining this Stone, which is a *Depilatory*; and being powdered and mixed with Water to the Conſiſtence of a Paſte, may be applied to any Part of the Skin where there is Hair to be taken off. It is called *Phoſphorus*, or *Lucifer*, from bringing of Light; and *Cryſolapis*, from caſting a Light of a golden Colour,

[The *Bolognian-ſtone* is the *Lapis Bononienſis*, *De Laet.* 206. *Charlt. Foſſ.* 20. *Lapis Illuminabilis*, *Aldr. Muſ. Met.* 688. *Phoſphorus Kircheri quibuſdam Foſforo o Pietra lucida de Bologna*, *Boet. Obſ. Nat.* 224. The making the *Phoſphorus* of it is a very nice Thing, and very few have ſucceeded in attempting it. It is a violent and dangerous Emetick if taken inwardly, and externally a Cauſtick.]

18. *Of the* Pumice-ſtone.

Pomet. THE *Pumice-ſtones*, which the *Latins* call *Pumex*, are Stones of various Colours, Shapes, and Weight, being white, greyiſh, light, heavy, big, little, round, and flat. They are valued more or leſs according to the Occaſion they are wanted for; for ſome eſteem the white, others the grey, ſome the light, and ſome the heavy: Notwithſtanding which, I muſt tell you, that the largeſt and lighteſt are moſt ſet by, eſpecially for thoſe who make Parchment, and Stone-cutters, who conſume abundance; but the ſmall are ſcarce uſed, but by the Pewterers, who reduce them into Powder. As to the flat *Pumice-ſtones*, they are uſed by the Curriers: In a word, the *Pumice-ſtones* are of ſuch Uſe that we have ſcarce any Commodity whereof there is a greater Conſumption, there being ſuch abundance of Workmen that uſe them. As to Phyſick, the little Uſe made of them in it is not worth ſpeaking of, ſave only that after Calcination and powdering, it makes a Dentifrice for the cleaning of the Teeth.

As for the Nature and Conſtitution of this Stone, I have not yet been able to come to the Knowledge thereof; wherefore I ſhall reſt ſatisfied with what Authors ſay of it, namely, that it is a Stone thrown out of Mount *Veſuvius*, or Mount *Ætna*, and by the Violence of the Winds carried into the Sea, where it is found ſwimming on the Surface, from whence it is taken. Others ſay they are the Stones of Mountains that have been burnt by ſubterranean Fires. However, it is certain, that the *Pumice-ſtone* is a calcined Stone, becauſe it is light and porous, or full of Holes, and that it has been in the Sea, or is of a ſalt Nature, foraſmuch as all the *Pumice-ſtones* we ſell are of a ſalt and brackiſh Taſte, and full as it were of little Needles.

Pumex, or the *Pumice Stone*, is a Stone or Earth that has been calcined by ſubterranean Fires, thrown out by Eruptions of the Volcano's, and by the Force of Winds carried into the Sea, where it is found floating. There are ſeveral kinds of it, the large, ſmall, round, flat, light, heavy, grey, white, *&c.* the moſt valued are the biggeſt, lighteſt, and the cleaneſt; they ought to be porous, ſpungy, of a ſalt, fenny, or marſhy Taſte, full of ſmall Needles. They are found likewiſe in *Sicily*, near Mount *Veſuvius*, from whence they come; and in *Germany*, about *Conſtans*, the *Moſelle*, and the *Rhine*; they are alkaline, deterſive, drying, uſed for old Ulcers, ſore Eyes, and to clean Teeth. *Lemery.*

[The *Pumice* is the *Lapis Pumex dictus*, *Cup. Hort. Cath.* 2. 53. *Pumex*, *Kentm.* 37. *Boet.* 400. *Scyrus Lapis*, *Aldr. Muſ. Met.* 696. It is found among the Sulphur about *Ætna*, *Veſuvius*, and other burning Mountains; as alſo in *Germany*, and other Places. It is often mixed with the *Os Sepiæ* in Tooth Powders; but has little other Uſe in Phyſick.]

19. *Of the* Aëtites, *or* Eagle-ſtone.

Pomet. WHAT we call the *Eagle-ſtones*, are certain Stones that are hollow in the middle, and contain in them a ſtony Nut or Kernel, that makes a Noiſe when we ſhake them. We commonly find four ſorts of them, that are indifferently called in *Latin*, *Lapis Ætites*, but the Kernel *Callimus*. The firſt ſort is brown, oval, uſually the Length of two or three Inches, and half a one broad, rough or knotty, and that takes a good Poliſh: The Second is ſomething leſs than the other, and ſeems to partake much of Iron, for

it

it is covered with an Ocre like the Iron Marcaſites. The third ſort is rough and uneven, as if it was compoſed of Fragments of little ſhining Flints of different Sizes, whereof ſome are brown, and others of a ruſſet Colour, and ſome as it were tranſparent; and all theſe Flints are ſtrongly knit together by a natural Cement, and moſt commonly nothing is found within it but ſome Grains of Sand. The fourth Kind is of an Aſh-colour, and contains within it white Clay or Marle. This ſort comes from *Germany*: The Firſt and Second are found in the Bogs of *Cape St. Vincent* in *Portugal*, and in the Mountains near *Trevoux*, in the Principality of *Dombes*. It is now no longer believed that they are found in the Eagle's Neſt.

It were to be wiſhed that the Virtues attributed to the *Eagle-ſtone* were as certain as they are conſiderable; Authors affirming that it facilitates the Birth, if tied to the Thigh of a Woman in Labour, and that it hinders Miſcarriages if tied to the Arm; they believe that reduced to Powder, and mixed in a *Cerate*, it leſſens the *Paroxyſms*, or Fits of the Epilepſy, if applied to the Head: It is alſo ſaid, that the Marle or Clay that is found in the Hollow is ſudorifick, and will ſtop the Flux of the Belly.

What I have ſaid in the Chapter of the *Eagle* about theſe Stones, was in Concurrence with the common Opinion; and becauſe I was not abſolutely certain of the true Hiſtory of them, but the Account here given of them is the more rational, and what is generally believed now.

Ætites Lapis, or the *Eagle-ſtone*, is a *Lemery.* Stone commonly round or oval, of the Bigneſs of a Walnut, and ſometimes of a ſmall Pullet's Egg, of a greyiſh or dark Colour, hollow in the middle, wherein is contained a ſort of ſtony Kernel, that rattles in the Stone when you ſhake it. There are four Kinds [according to *Pomet's* Deſcription] all which have great Virtues aſſigned them, which are altogether imaginary, Experience not confirming them with any Pretence of Certainty: It is aſtringent, and proper to ſtop Looſeneſſes and Hæmorrhages, taken inwardly; the Kernel, which is ſofter than the Stone, is more advantageous for all the ſame Purpoſes: They are called *Ætites*, that ſignifies *Aquiline*, or of the *Eagle*, becauſe it was believed that the *Eagles* furniſhed their Neſts with theſe Stones to preſerve their Young.

[The *Eagle-ſtone* is the *Ætites*, *ſeu Aquilinus Lapis*, *Beet.* 375. *Worm.* 77. *Charlt. Foſſ.* 31. They are of various Bigneſſes and Colours, but generally of an oval Form. They are found in different Places; but thoſe from the *Levant* are moſt eſteemed. The Virtues aſcribed to them are wholly imaginary, and the Stories about them ridiculous.]

20. *Of the* Toad-ſtone.

THE *Toad-ſtone*, called in *Latin*, *Bufonites*, and *Batrachites* in *Greek*, is *Pomet.* a Stone found in the Mountains, or the Plains. It has been believed that it was bred in the Head of an old *Toad*, whence it was voided by the Mouth of that Creature when put upon red Cloth: But *Boëtius*, and thoſe who have made exact Enquiries after it, affirm that it is a Stone formed in the Earth. There are commonly two ſorts, to wit, the round and the long: The round *Toad-ſtone* is of the Shape of a ſmall Cap, round in the Circumference, hollow below, convex above, and very ſmooth, about half an Inch broad at the bottom; ſome of them are of a deep grey inclining to blue; and there are others of a reddiſh Colour; but both ſorts are uſually of a much lighter Colour at their bottom. The long *Toad-ſtone* is moſt frequently of an Inch long, and above four or five Lines thick, hollowed like a Trough on one Side, and of a convex Figure on the other: Some of thoſe are of a deeper, and ſome of a lighter Grey, marked with ſome reddiſh Spots, and ſmooth as the round: They ſet them, eſpecially the round ſort, in Rings; but that is more for Ornament than any Virtue in them, for they are very uncertain in their Effects, eſpecially in their allaying, as is pretended, the Inflammation occaſioned by the Sting of Bees, or other Inſects. It is falſe that it changes its Colour, and ſweats when it approaches a Cup wherein there is Poiſon. Though *Boëtius* and others affirm, that the *Toad-ſtone* is found in the Ground, nevertheleſs I ſhall not conteſt or diſpute, but that it may alſo be bred in the Head of old *Toads*, though it is certain what we now ſell comes not from theſe Animals, but is found in the Earth, as has been obſerved. This Deſcription of the *Toad-ſtone*, and that of the Eagle-ſtone, were given me by Mr. *Tournefort*, who is a Perſon on whom we may depend.

Bufonites, *Chelonites*, *Batrachites*, is a kind of precious Stone, whereof there *Lemery.* are two Kinds, one round, and the other long. The firſt is round in its Circumference, hollow on one Side, and convex on the other, in Form of little Cap or Bonnet, about half an Inch broad at the Baſis, very ſmooth, ſometimes grey, brown, black, green, and of various Colours. The ſecond ſort is ſometimes more than an Inch long, and above four or five Lines thick [according to *Pomet's* Deſcription.] The Size of theſe Stones are ſufficient to undeceive thoſe who believe that they

they are taken from the Heads of Toads; they are found in the Mountains, and the Plains where they are produced.

Some pretend, that being powdered and taken inwardly, they are capable of reſiſting the Plague and other malignant Diſeaſes; that being applied to the ſtinging or bitings of venomous Beaſts, they draw out the Poiſon. Some hang them about their Neck for *Quartan Fevers*; but all theſe Virtues are imaginary, for the *Toad-ſtone* has nothing in it but an alkaline Quality proper to abſorb Acids, and to ſtop Looſeneſs, taken from a Scruple to half a Drachm; but it is not in Uſe.

[The *Toad-ſtone* is *Buſonites Lapis*, *Ind. Med.* 23. *Buſonites Majuſculus Atrorubens inſtar Capſulæ Glandis Quercinæ*, *Act. Reg. Soc.* 200. *Luyd. Lithop. Brit.* 20. *Buſonius*, *Mer. Pin.* 210. They have been variouſly gueſſed at in regard to their Origin; but are in truth the *Dentes Molares* of the Sea Wolf. *Lupus Marinus*, *Schonf. Ich.* 45. *Charlt. Piſ.* 31. *Lupus Marinus noſtras & Schonfeldii Raii Ich.* 130. The Virtues aſcribed to them ſeem altogether imaginary.]

21. *Of the* Lapis Amiantus.

Pomet. THE *Lapis Amiantus* is a Stone of a greeniſh Black without and within, pretty heavy, that being broken is almoſt like *Plumous Alum*, in that it riſes in Threads of a whitiſh Green, or rather of a Horn Colour. This Stone is incombuſtible, and the Antients were not much deceived when they ſaid the *Lapis Amiantus* and the *Plumous Alum* were the ſame Thing: There is notwithſtanding ſome Difference, in that the *Plumous Alum* ariſes in long, and this in ſhort Threads; beſides, the Extremities of the *Plumous Alum* are not of a Colour with thoſe of the *Lapis Amiantus*. This Stone is found in *Turkey*, for all that we ſell comes from *Conſtantinople*; as to the Choice of it, or its Uſe, I know nothing, ſave that an incombuſtible Cloth is made of it, which is a very great Curioſity.

Lemery. *Amiantus*, *ſive Albeſton*, *ſive Albeſtes Lapis*, is a Stone of a mineral Subſtance, or a kind of Talck that has a near Reſemblance to *Plumous Alum*, ſeveral People confound one with the other, believing them to be the ſame Thing. It is found in two different Forms; for the one is in Filaments or Strings, like thoſe of *Plumous Alum*, but much longer; the other is in a brown or blackiſh hard Stone, but that will ſpread under the Hammer. The Antients ſpun *Amiantus* and made incombuſtible Linen of it, which, amongſt other Uſes, ſerved them to wrap their dead Bodies in when they burnt them to preſerve their Aſhes: The Corps burnt while the Linen remained entire. This Stone is found in the Quarries near the *Pyrenees*. *Amiantus* is uſed in ſome Remedies; they believe it reſiſts Poiſon, cures the Itch, and is deterſive.

[This is the *Amiantus*, *Boet.* 382. *Geſn. De Lap.* f. 6. *Amianthus*, *ſive Aſboſtus*, *Ind. Med.* 8. It is of many Figures and Colours; ſome Pieces of it ſo much reſembling the *Alumen Plumoſum*, that by the Ignorance of thoſe who gathered them, they have been ſold to Druggiſts, *&c.* as ſuch; though the Taſte alone is ſufficient to ſhew the Difference.

It is found in many Places; and among others both in *Scotland* and *Wales*.

It ſtands the Fire unhurt; which the *Alumen Plumoſum* does not, and is not at all diſſoluble in Water as that is.

It is of no Uſe in Medicine; there have indeed been many Virtues attributed to it, but they ſeem altogether imaginary.]

22. *Of* Cobalt.

Pomet. *COBALTUM*, or *Kobaltum*, is a reddiſh hard Stone, that is heavy, and in Grains of the Size of our Peas, that ſtick ſeveral of them together upon a kind of Spar or Marcaſite, like Antimony. This *Cobalt* is uſually found in the Silver Mines, and is a Plague to the Workmen, being a dangerous Poiſon: For if by Chance it fall into the Water, and that the Miners be obliged to go into that Water, they are ſure of having their Legs all ulcerated. This *Cobalt* is much different from that of ſome Authors, who have thought it to be *Lapis Calaminaris*; but they are groſly miſtaken, ſince it is eaſy to ſee the Difference. As to its Uſes, they are unknown to me, and its Scarceneſs makes that there is little Demand for it.

Lemery. *Cobaltum*, *ſive Kobaltum*, is a ſort of Marcaſite, or hard, heavy, reddiſh granulated Stone; many of which are collected together upon a mineral Body like Antimony. This Stone is compoſed of a kind of natural *Cadmy* that is found in the Silver Mines. It is a ſtrong violent Poiſon, yielding a burning arſenical Salt, a Sulphur, and an Earth compoſed of ſome metallick Parts. It is cauſtick, and being applied externally, makes an Eſcar upon the Fleſh, and eats off Excreſcences.

[*Cobalt* is the *Cadmia Metallica*, *Worm.* 128. *Charlt. Foſſ.* 51. *Aldr. Muſ. Met.* 256. *Matth.* 1338. *Cadmia Metallaris aliis Cobaltum Metallicis*, *Schw.* 370. *Cadmia foſſilis ex qua preparatur Zaffera*, *Wood. Attempt.* ii. P. 1. p. 50. It is a ponderous, hard, foſſil Subſtance, not unlike *Antimony*, or ſome

ſome kinds of the *Pyrites*, emitting a ſtrong ſulphureous Smell when burnt, often containing Copper, and ſometimes Silver. It is dug out of Mines in *Saxony* and *Bohemia*, and in *England*, in *Mendip Hills*, but there not very common.

All the Kinds of Arſenick, as alſo *Zaffera*, and the *Encauſtum Cæruleum* are obtained from it, as already mentioned in their reſpective Places.]

23. *Of* Oſteocolla, *or the* Bone-Binder.

Pomet. THE *Oſteocolla*, or *Bone-Binder*, is a ſandy Stone, and porous like a Bone, whereof there are two Kinds; the one heavy, gravelly, uneven, and pretty round; the other light and leſs ragged. The *Oſteocolla* is found in ſeveral Parts of *Germany*, where they call it *Benbru*, but chiefly near *Spires*, *Heibelberg*, and *D'Armſtadt*. They pretend that this Stone has the Power and Faculty of ſetting a broken Bone when taken inwardly, as well as when applied to the Fracture.

Beſides all theſe ſorts of Stones already deſcribed, we ſell ſeveral other Kinds, ſuch as the *Aſius Lapis*, or *Sarcophagus*, the Serpentine and Blood-Stone, which is a ſort of Marble full of little red Spots, from whence it takes the Name of Blood-Stone; as alſo becauſe it is pretended that it ſtops Blood; the *Star-Stone*, *Rock-Cryſtal*, *Alabaſter*, the *Small Pox-Stone*, the *Aſtroites*, *Oſtracites*, *Croſs-Stone*, *Cornu Ammonis*, *Gloſſopetra*, and the *Rock* and *Madagaſcar Cryſtals*, and many others, whereof ſeveral Authors have treated at large.

Oſteocolla, *Oſtiocolla*, *Oſteites*, *Stelechites*, *Morochtus*, *Holoſteus*, *Oſteolithus*, *Lapis ſabuloſus*, *Lapis oſſifragus*, or the *Bone-Binding Stone*, is a ſandy hollow Stone, of an Aſh or whitiſh Colour, having the Shape of a Bone, of different Sizes. Some are met with as big as one's Arm. We have two ſorts of them; one round, uneven, or rough, ſandy, and heavy, the other ſmoother and lighter; it ſticks to the Tongue, like *Pumice-Stone*. Both kinds are found in ſeveral Parts of *Germany*, as the *Palatinate* and *Saxony*, where they grow in ſandy Places. It is uſed to agglutinate and reſtore in a little Time broken Bones, being applied upon the Part, and taken inwardly at the ſame Time; Doſe from half a Scruple to two Scruples. It is called *Oſteocolla* from *Oſteon* and *Colla*, which is as much as to ſay Bone-Glue. *Lemery.*

[This is the *Oſteocolla*, *Worm.* 53. *Charlt. Foſſ.* 32. *Oſteocollus Cruſtaceus*, *Geſn. De Rar. Foſſ.* 30. *Oſifragus Lapis*, *Boet.* 416. It is a Spar of a middle Conſiſtence, between Earth and Stone, and is found in many Places. Beſide the Virtues which its Name expreſſes, it is eſteemed a good Medicine in Fluxes of all kinds, particularly the *Fluor Albus*, but is ſeldom uſed. As to the other Stones, mentioned by our Authors, as they are never kept in the Shops, nor uſed in Medicine, I judge it will be but tedious to enter into a more particular Hiſtory of them here.]

BOOK VI.

Of *EARTHS.*

PREFACE.

In this Book are contained not only the Earths *that are of Uſe in Medicine, but likewiſe thoſe which are ſerviceable to* Painters; *in a word, all thoſe Foſſils that are ſoft and apt to crumble, and for this Reaſon have not been ranked among the* Stones. *I comprehend in this Book alſo whatever is made from* Earths, *and makes a Part of our Buſineſs. I have put into the Number of the* Earths *the* Catecu, *or* Cachou, *not becauſe of its Likeneſs to an* Earth, *but that moſt People will have it to be one, according to its Name, as will appear in the following Chapter.*

1. *Of* Cachou, Caſhew, *or* Japan Earth.

Pomet. CACHOU, according to Mr. *Caen*, Doctor of Phyſick, of the Faculty of *Paris*, ſuitably to what was communicated to him by one of his Friends, is an Earth that is found in the *Levant*, where it is called *Maſquiqui*; it is uſually met withal upon the higheſt Mountains where the Cedars grow, under the Roots of which this Earth is found, which of itſelf is very hard, and in a Lump. To loſe nothing of this Earth, the Natives, called *Algonquains*, gather it up, Sand and all together, and wet it with River Water, and make it into a Paſte, drying it in the Sun to the Hardneſs we ſee it of. The Natives always carry it about them, and uſe it for the Pain of the Stomach: They alſo apply it outwardly, like an Ointment, upon the Region of the Stomach.

Though this Deſcription of *Cachou* appears not very conformable to Truth, becauſe there is no Probability of its being an Earth; yet as the Perſon who gave this Deſcription to Mr. *Caen* aſſured him that it was ſo, and foraſmuch as it is called in *Latin*, *Terra Japonica*, I was obliged to rank it in the Claſs of Earths, and leave it to thoſe to determine what it is, who underſtood more of it than I do: All I ſhall ſay is, that you ought to chuſe *Cachou* of a tawny red without, and of a clear red within; the brighteſt and leaſt burnt that can be.

Cachou is a very bitter Drug, and of an unpleaſant Taſte when firſt taken in the Mouth: It is uſual to reduce it into a fine Powder, and to mix it with Ambergriſe; which, with the Mucilage of *Gum Tragacanth*, is made up into a Paſte, and formed into little Pellets, in Colour and Figure having the Reſemblance of Mouſe's Dung; and the ſmaller theſe Troches are made, the more valuable are they.

The Uſe of *Cachou*, whole or prepared, is to ſtrengthen the Stomach, and to make the Breath ſweet; and, in ſhort, it is one of the beſt Drugs we have, and yet at this time the leaſt uſed, ſince the great Uſe of Tea and Coffee; though *Cachou* is of much greater Virtues than either of them.

As *Cachou* is very unpleaſant to the Palate, eſpecially when firſt put into the Mouth, therefore ſome People, beſides the Ambergriſe, mix Sugar with it.

Other Accounts there are which make this Drug an inſpiſſated Juice of two vegetable Subſtances, the *Areca* Nut, and the Bark of an *Indian* Tree, called by the Natives *Catecu*, with the Addition of Liquorice Root and Lime Water; and others, the ſimple Juice of a Tree, thickened with other Vegetables in Powder; others, that *Calamus Aromaticus* and other Drugs are made Ingredients in it.

The Differences in Colour which we obſerve in this Drug may ariſe, either from its being made of different Species of the *Areca*, or from its having in it greater or leſſer Proportion in it.

It was unknown in *Europe* till *Garzies ab Orta* wrote of it; and, in all probability, when it gets more into Uſe will prove a very fine Medicine.]

Lemery.

Catechu, ſive Terra Japonica, is a ſort of dryed Paſte, hard, a little gummy, reddiſh, having the Form and almoſt the Hardneſs of a Stone; of a bitter and auſtere Taſte at the beginning, but leaving afterwards a ſoft and agreeable Impreſſion in the Mouth. There are two ſorts of it; the firſt and moſt common is compact, heavy, of a reddiſh brown Colour, ſtreaked with little whitiſh Rays; the ſecond is more porous, leſs weighty, and paler than the firſt. We are not ſufficiently informed concerning the Nature of *Cachou*, ſome ſaying it is a Paſte prepared by the Japanners with the Extract of *Areca*, *Calamus Aromaticus*, *Liquorice*, *&c.* mixed and hardened together over the Fire: Others pretend, that it is made with the Juices of *Areca*, and the green Bark of a thorny Tree of *Japan*, called *Catechu*, and thickened together by Heat: Others, as ſome Moderns maintain, that it is an Earth from the *Levant*, called *Maſquiqui*, [as deſcribed by *Pomet:*] But, after all, *Cachou* does not appear to the Taſte to be any thing of an Earth, but rather a thick Juice; beſides, there is drawn from it, by chymical *Analyſis*, a great deal of Oil and eſſential Salt, like what is drawn from Plants. It is good to ſtrengthen the Brain, Lungs, Stomach; againſt Catarrhs, and to correct a ſtinking Breath.

[The *Japan Earth*, as it is called, is nothing more than the inſpiſſated Juice of the *Areca* Nut, deſcribed in its proper Place, either ſimple, or mixed with other vegetable Juices or Decoctions; for we have two kinds of it common in the Shops.

The ſimple Juice we have from *Pegu*; it is cleaner than the other, of a more aſtringent Taſte, and melts upon the Tongue; it is commonly in ſmaller Lumps, and compoſed of a great number of thin Strata lying one cloſe on another, blackiſh on the outſide, and of a paler mixed Colour within.

The Mixed is in large Lumps like Clods of Earth, it is brought from many different Parts of the *Eaſt-Indies*; and it is evident to the Taſte, that the ſeveral Parcels of it from different Places, contain different Juices or Decoctions mixed with the *Areca* Juice in a greater or leſſer Proportion.

The greateſt Quantity we have of this is from *Malabar*, in which it is eaſy to diſcover two or three different Taſtes; and a careful Diſſolver may often diſcover two or three different Subſtances in it, for the *Fæcula* it depoſits are not wholly of the vegetable kind. I have often found, in the Paper I have filtred, a Solution of this kind of *Terra Japonica* through a Matter reſembling burnt Hartſhorn, which was probably the Calx of calcined Shells, which in ſome Places is uſed in making it. The different Taſtes in the ſeveral Kinds of the mixed *Terra Japonica*, have led People of fertile Imaginations to gueſs different vegetable Subſtances as the Ingredients; among others, *Calamus Aromaticus*, *Liquorice*, and the reſt named by our Authors; but, the Truth is, we are wholly ignorant what the Mixture conſiſts of; and, in all probability, it may be of Drugs, of which not even the Names are known with us: It were, however, to be wiſhed Apothecaries would only uſe the Simple, as I can, upon long Experience, affirm it to be more certain in its Effects; and, as in the other, we never are ſure what we give, different Parcels of it containing different Ingredients.]

2. *Of* Sealed Earth.

Pomet.

Terra Sigillata, or *Sealed Earth*, is a kind of white *Bole*, ſometimes a little reddiſh, that is moiſtened with Water, and afterwards formed into little Cakes, roundiſh, of the bigneſs of one's Thumb, upon which are ſtamped ſeveral Characters. The Variety of Figures, Colours, and different Seals that are found upon the *Terra Sigillata*, makes me think that every one makes it up according to his Fancy; and that it is nothing but a fat aſtringent Earth, more or leſs coloured, reduced into ſuch Cakes as are brought us. I ſhall not ſtop here to relate all the fabulous or true Stories which the Antients have told concerning the Place whence this Earth comes, and the Ceremonies uſed when it is gathered, nor how the *Grand Signior* ſigns it with his own Seal, *&c.* but I ſhall tell you, that the Earth that is moſt uſed and eſteemed, is that which is in little reddiſh Cakes, the leaſt ſandy or gravelly, and the moſt aſtringent that you can get.

It is much uſed in Medicine, becauſe of its aſtringent Quality: It is alſo an Ingredient in the *Venice Treacle*, and needs no other Preparation than to be clean and have the above deſcribed Qualifications.

As to the Earth of *Lennos*, it is the ſame with the Sealed Earth, but in its natural State, without any Impreſſion upon it.

Lemery.

Terra Sigillata, Terra Lemnia, Sealed, or *Lemnian Earth*, is a kind of Bole, or fatty, clayey Earth, that is dry, ſoft, and fryable; ſometimes yellowiſh, whitiſh, or reddiſh; inſipid and aſtringent to the Taſte. They bring it ſometimes into the Iſle of *Lemnos*, but it comes at preſent from *Conſtantinople*, *Germany*, *Blois*, and ſeveral other Parts. It comes ordinary formed into little round Cakes about the thickneſs of one's Thumb,

Thumb, roundiſh on one Side, and flat on the other, by a Signet engraved with ſome Arms or certain Devices that the Prince of the Country cauſes to be put upon it; and this is the Reaſon why it is called *Sealed Earth*. That of the Ancients was yellow, and made into Cakes much ſmaller than theſe at preſent are; and had engraved upon them the Repreſentation of a Goat.

Chuſe your ſealed Earth that is ſoft to the Touch, clayey, apt to crumble, and of a whitiſh red Colour, that will cleave to the Tongue. They tinge or colour it ſometime with Turmerick, or ſome other Drug, to make it come up to the Colour of the Ancients, which was the true *Lemnian* Earth, and was taken from a Hill where no Plant grew. The *Turks*, who are the preſent Maſters of it, mix this with other Earths of the ſame Nature; and having kneaded them together with Water, make them up into little round Cakes, which they ſeal with the *Grand Signior's* Signet to make it pay Duty. This Earth is a good Antidote againſt Poiſon, proper for Fluxes, Hemorrhages, Gonorrhœa, Whites, and Vomiting. Doſe from half a Scruple to two Scruples. It is outwardly uſed to ſtop Blood, dry up Wounds, and ſtrengthen the Joints.

[The true *Lemnian* Earth is yellowiſh with Specks of brown, this is ſometimes to be met with unſealed, and in its natural State; the ſealed uſed in the Shops is of two kinds, the white and the red, the red is moſt eſteemed, and is the *Terra Lemnia rubra Worm.* 10. *Charlt. Foſſ.* 5. *Terra ſigillata Turcica rubra. Mont. Ex.* 14. It is a fat viſcid ſlippery Clay of a pale red Colour, it is brought to us in Cakes of about three Drachms weight, ſealed, and is dug in the Iſland of *Lemnos*, and many Places in the *Turkiſh* Dominions.

The white is the *Terra Lemnia ſigillita Alba Worm.* 9. *Charlt. Foſſ.* 5. *Terra ſigillata Turcica Alba. Mont. Exot.* 14. It is leſs fat and of a more aſtringent Taſte than the other, and is dug only in the Iſland of *Lemnos*; but both this and the other are often counterfeited. Beſide theſe there is alſo another kind.

Great Virtues were always aſcribed to theſe Earths, and a Number of idle Ceremonies uſed in the digging them. At preſent it is a matter of ſome Ceremony; for there is but one Day in the Year in which the Pits are opened for the digging them, and the *Greek* Prieſts aſſiſt at the Ceremony, and rehearſe certain Forms of Prayer.

They are good Medicines in Dyſenteries, Hæmorrhages, &c. if genuine, but are ſo ſeldom found ſo, that they are grown almoſt entirely out of Uſe. There are beſide theſe a Multitude of other *Sealed Earths* common in the Shops, but they are moſt of them Counterfeits, made up of different Mixtures of Tobacco-Pipe Clay, and red or in yellow Oker.]

3. *Of* Fine Bole, *or* Bole Armoniack.

IF we have ſeveral Sorts of ſealed Earths, *Pomet.* we have not leſs of *Boles*, whereof the moſt eſteemed is that which has its Name from the *Levant*, or *Armenia*, either becauſe it formerly was brought from thoſe Parts, or that thoſe who deal in it may make it ſell the better; but as I have never ſeen any of that, and what we now ſell is found in ſeveral Parts of *France*, I muſt inform you the beſt is that we have from about *Blois* and *Saumur*, or from *Bourgogne*, and which is of various Colours, as grey, red, and yellow. The yellow is the moſt valued, becauſe it paſſes the readieſt for the true *Bole* of the *Levant*, and becauſe it fits the Gilders beſt.

As theſe *Boles* are the deareſt, becauſe of the Charge of tranſporting them to *Paris* from *Blois* and *Saumur*, we prefer that of *Baville* and other Places about *Paris*, becauſe the Peaſants bring it us at a cheaper Rate than we can buy the other. All theſe kinds of *Bole* to be good muſt be tender, friable, ſoft in handling, not ſandy, ſhining, and aſtringent to the Taſte, that is to ſay, ſuch as, when you put them to the Tongue or Lips, you cannot eaſily get them off. They are very drying and aſtringent, good againſt Fluxes and Gleets, thicken thin Humours, reſiſt Putrefaction, and expel poiſonous Bodies. They are likewiſe uſed in ſpitting of Blood, bleeding Wounds; and alſo to conſolidate broken Bones, and ſtrengthen weak Limbs.

Bolus, or *Bole*, is a ſoft, brittle, reddiſh, or yellow Earth, which is brought *Lemery.* us in Pieces of different Shapes and Sizes. The fineſt comes from the *Levant* and *Armenia*, called *Bolus Orientalis, ſeu Bolus Armena*; but all the *Bole* we have, which is in uſe amongſt us at preſent, is brought from ſeveral Parts of *France*, and the beſt is about *Blois* or *Saumur*. As there is found in the Quarries or Pits a great deal of coarſe or gravelly *Bole*, they waſh it to free it from the Gravel, then make it into a hard Paſte, which they form into ſquare Sticks about a Finger long, which is called *Bole in the Stick*, and which is uſed externally. *Bole* is aſtringent and deſiccative, proper to ſtop Looſeneſs, Dyſentery, Spitting of Blood, to ſweeten the Acids, being taken inwardly. There is alſo a great deal uſed externally to ſtop Blood, prevent Fluxion, and ſtrengthen and conſolidate.

ſolidate. That which is called white *Bole* is an aſtringent Marle, but not ſo efficacious as the red *Bole*.

[There are many different kinds of *Bole* mentioned by different Authors, but the two in principal uſe at preſent are, the *Bole Armenick*, and *Bole* of *Blois*. The firſt is the *Bolus Armena orientalis Mont. Ex.* 13. *Bolus Orientalis Charlt. Foſſ.* 5. *Bolus ſeu terra Armenia Aldr. Muſ. Met.* 269. *Bolus Armenius verus Kentm.* 7. It is to be obſerved that the true *Bole Armenick* is almoſt wholly unknown in the Shops. It is brought from *Turky*, and is of a Saffron Colour. What we ſell under the Name of *Bole Armoniack*, is a kind of pale red Oker from *Spain* and *Normandy*, and what is much more common than that in the Shops of our petty Druggiſts is a Mixture of *Engliſh* red Oker and Pipe-makers Clay, formed into Cakes and dried.

The *Bole* of *Blois* is the *Bolus Bleſenſis Ind. Med.* 21. It is a fine Earth of a yellowiſh red Colour in thin beautiful Strata, but is very ſeldom found genuine in the Shops, what is commonly ſold by our Druggiſts for it being only a red Oker and Pipe-makers Clay, like the common *Bole Armenick*, only with leſs Proportion of the Oker. The *Bole* mentioned by *Galen* was the ſame with that of the later *Greek* and *Arabian* Authors, his being deſcribed to be pale, and their's of a Saffron Colour.

The other *Boles* mentioned by Authors are 1. the *Bolus Bohemica, the German Bole.* 2. *Bolus Gallica vulgaris, red French Bole.* 3. *Bolus Toccavienſis*, the *Tranſylvania Bole.* 4. *Rubrica Synopica, Earth of Sinope. Bolus Armena lutea, yellow Armenian Bole.* 6. *Bolus candidus, white Bole.* And 7. *Bolus Armena Alba, white Armenian Earth.* But none of theſe are now ever preſcribed, or kept in the Shops.]

Of Oker.

Pomet. THE yellow and red *Oker* is one and the ſame Thing, for the natural Colour is yellow, and it is turned red by Means of a reverberating Furnace, in which they put it, to make it red by the Force of the Fire: The beſt Mines of *Oker* in *France*, are in *Berry*; and among the reſt, one is at a Place called *St. George*, upon the Side of the River *D'Ucher*, two Leagues from the City *Vierzon* in *Berry*, where they dig it out of the Earth, as they do Pit-Coal. This *Oker* is found 150, or 200 Feet deep in the Earth, from four to eight Inches thick; they find under this *Oker* a white Sand, like that of *Calais*, and above the *Oker* a yellow Clay good for nothing.

There comes likewiſe a yellow *Oker* from *England*, which is browner than that of *France*, but not ſo good, becauſe it is naturally drier; it comes from a ſtony Earth which they are forced to grind in a Mill; whereas that of *Berry* is natural, fatter, and works better in Oil; ſo that the *Dutch* cannot uſe the *Engliſh Oker*, but when they mix it with an equal Share of that which comes from *Berry*.

Both Sorts are uſed by the Painters; but that which is moſt ſet by, is that which is dry, ſoft, friable, of the higheſt Colour, and leaſt gravelly.

There comes beſide a *Red Oker* from *England*, which we commonly call *Brown Red*; this is uſed by the Painters; but that which is of a much deeper Colour is called *Putty*, and they employ it in poliſhing of Glaſs.

Ochra, in *Engliſh Oker*, is a Maſs of Earth that is dry, fat, will crumble, and is ſoft to the Touch, of a yellow or Gold Colour, that is taken from ſome deep Pits in *Berry*. They calcine it in the Fire, 'till it gains a red Colour, and then it is called *Red Oker*; both ſorts are uſed by the Painters; they are reſolutive, drying, aſtringent, being externally applied. *Lemery.*

[*Oker* is a kind of Earth found in *England*, and many other Places. It is of two principal kinds, the yellow and the red, and both natural, and dug out of the Earth in great Plenty. Tho' it is alſo true, as common Experience ſhews, that the yellow will become red in burning. The natural *Red Oker*, Ruddle, or Marking-ſtone, is the *Rubrica fabrilis Merr. Rin.* 218. *Rubrica Charlt. Foſſ.* 2. *Worm.*4. It is weighty, of a deep red, and of an aſtringent Taſte, and is dug in *Herefordſhire*, *Hampſhire*, and *Lancaſhire*. It is drying and aſtringent, but is ſeldom preſcribed, tho' very frequently uſed as a part of the common *Bole* as mentioned in the laſt Chapter.

[The yellow is the *Ochra Aldr. Muſ. Met.* 255. *Ochra Foſſilis ſeu nativa crocei coloris Dougl. Ind.*64. *Ochra nativa ſeu ſil. Goſlarienſibus Kentm.* 8. It is of a ſtrong yellow Colour, and aſtringent Taſte, but is never uſed in Medicine.]

5. *Of* Terre Verte.

WE ſell two ſorts of *Green Earth*, to wit, that of *Verona*, which is brought from about *Verona* in *Italy*, whence it takes its Name, and the common Green. *Pomet.*

The Earth of *Verona* ought to be ſtony, and as green as may be, and take care that it be not inlaid with Veins of Earth.

The

The common Green ought alſo to be of the greeneſt, and as near reſembling that of *Verona* as you can get.

Terra Viridis, in *French*, *Terre Verte*, *Lemery*. is a dry Earth, of a green Colour, which is brought from *Verona* in *Italy*, and is for the Painters Uſe.

[This is an Earthy Subſtance, impregnated with Copper, to which it owes its Colour. It is found in many Countries, particularly in *England*, about *Godſcalp* in *Cumberland*, adhering to the Sides of the great Copper Vein there, being brought by the Water which is perpetually trickling down the Sides.

It is uſed by the Painters, but not in Medicine. The Sort commonly uſed by them is brought from the Pope's Dominions, and is found in Mountains not far from *Rome*; it is ſomewhat unctuous, and adheres ſlightly to the Tongue. It needs no farther Preparation for their Uſe than being powdered and ground with Oil, and makes the moſt true and laſting Green of any ſimple Body they uſe.]

6. *Of* Cologn Earth.

Pomet. *Cologn Earth* is an Earth altogether like that of *Umber*, excepting only that it is browner: This is of ſome Uſe to the Painters. You muſt chuſe ſuch as is tender, eaſy to crumble, the cleaneſt, with as little Mixture of Dirt as poſſible.

7. *Of* Umber.

UMBER, ſo called becauſe of its being uſed in drawing Shades, is brought to us from *Ægypt*, and other Places of the *Levant*, in Lumps of different Bigneſs.

In the Choice of this Earth, you ought to take that which is ſoft, in large Pieces of a brown Colour inclining to the red, for this is better than the grey.

Its Uſe is for the Painters, and before it is ground it is uſual to burn it, as well for Painting in Oil as for the Glovers, which makes it become more reddiſh; the Fume of it ought to be avoided, as being ſtinking and offenſive.

8. *Of* Tripoly.

Pomet. THE *Tripoly* is of two kinds in *France*; the one they bring from *Poligny* near *Renne*, in the lower *Bretagne*; the other from a Place called *Menna* near *Rion* in *Auvergne*. That of *Bretagne* is moſt eſteemed, and the beſt, being more proper for *Lapidaries*, *Goldſmiths*, *Braziers*, and all other Workmen: It is taken from a Mountain at twenty or thirty Feet of Depth, and is found in Veins or Beds of about a Foot Thickneſs: They carry it to *Redon*, where it is ſhipped and tranſported to *Nants*.

That of *Auvergne* is not ſo valuable, being not at all fit for the Uſe of Jewellers, Goldſmiths, or Braziers, becauſe it has not Subſtance; it riſes into thin Leaves like Paper, when it is dry. It is only uſed for ſcouring Houſhold Stuff, and is found almoſt in the very outer Surface of the Earth.

'Tis ſaid that *Tripoly* is a Stone that becomes light by Means of certain Veins of ſulphurous Earth that have burnt under the *Tripoly*, and which gives it the Quality of whitening, poliſhing, and brightening the Copper.

There are alſo Mines of *Tripoly* in *Italy*, and other Places; but as this Commodity is of little Value and Conſumption, it is not much ſought after; beſides which we have it in *France*, and there is no Occaſion to bring it from other Parts.

Alana, in *French Tripoly*, is a light white Stone, tending a little to the red, which they take from ſeveral Mines of *Bretagne*, *Auvergne*, and *Italy*. 'Tis believed that the Lightneſs of this Stone proceeds from its being calcined by the ſubterranean Fires. We have two ſorts in *France*; the firſt, and the beſt is that from a Mountain near *Renne* in *Bretagne*. It is found laid in Beds of about a Foot thick, and is uſed by the Lapidaries, *&c.* to whiten and poliſh their Works. The ſecond Sort is brought from *Auvergne*; this divides itſelf into Flakes or Leaves, and is of no Uſe to the Lapidaries or Braziers, but ſerves to ſcour Pots and Kettles, and other Utenſils belonging to the Kitchin: It is deterſive and drying applied outwardly, but is not uſed in Medicine. *Lemery.*

[The Officinal *Tripoli* is the *Tripolis*, *Schrod.* 320. *Terra ſeu Gleba Alana. Call. Muſ.* 131. It is an earthy Subſtance of an aſtringent Taſte. It is of many Uſes among Workmen in different Trades, but is never heard of in Medicine, tho' ſome have commended it as an Aſtringent.]

9. *Of* Indian Red.

THE *Indian Red*, or *Perſian Earth*, is what we improperly call *Engliſh Red*; it is a very dear Drug, eſpecially ſuch as is in little Pieces, moderately hard, and of a high Colour. This Red is uſed by none but the Shoemakers, who ſteep it in the White of an Egg to colour Shoe-Heels with. *Pomet.*

We have beſides theſe ſeveral other Sorts of Earths as they come from the Pits; as Marle, that

ſome

ſome ſell by the Name of *White Bole*, and many waſhed Earths; as *Roüen White*, that of *Seve* and *Port Neuille*, *Champagne Chalk*; there are alſo others which we know of, but ſell none, as the *Smectis*, commonly called in *England*, *Fuller's Earth*, which is a fat, ſmooth, ſticking Earth that is heavy, ſometimes blackiſh. This is much uſed by the Clothiers in *England*; and becauſe this Earth does almoſt the ſame Thing as Soap, the *Latins* call it *Terra Saponaria*, or *Soap Earth*. As alſo the *Mexican Earth*, a very white Earth, which the People of *Mexico* make uſe of to whiten with, and in Medicine like Ceruſe; likewiſe it ſerves to poliſh Silver.

The *Marga*, which is a kind of white Stone very like *Champagne Chalk*. The *Lithomarga*, or *Stenomarga*, which is what we call *Stone Pith*, or *Mineral Agarick*, or *Moon Milk*; this Stone is found in the Chinks or Apertures of the Rocks in ſeveral Parts of *Germany*; and different Names have been given to this Stone; it is very white and crumbling, and this Whiteneſs comes from its being calcined by the Vapours which ariſe from Metals.

There are, beſides, ſeveral other Sorts of Earths, as the *Eretrian Earth*, the *Samian Earth*, *Chio*, *Selinuſian* and *Cimolian Earths*, and *Tobacco-pipe Clay*; with many others, whereof ſeveral Authors make mention.

As to the Preparation of Stones or Earths, that is done ordinarily two Ways, that is to ſay, by grinding on a Porphyry or Marble, in like Manner as Pearl, Hyacinth, Topazes, Emeralds, Sapphires, Corals, Loadſtone, *Lapis Calaminaris*, Tutty, and the like, are ground. The ſecond grinding in a Mortar with Water, in order to get the fine Powder, as we do Litharge, Ceruſe, and *Minium*. The firſt, after they have been levigated, are made into Cakes with Roſe Water, and the others into Tablets with common Water.

Lemery.

Terra Perſica, or *Indian Red*, is a dry red Earth that is brought us in little Stones that are of a moderate Hardneſs. The Shoe-makers uſe them to dye Shoe-Heels red; chuſe the deepeſt coloured. *Terra Saponaria*, in *French Smectin*, or *Fuller's Earth*, is a kind of ſlippery glutinous Earth, that is heavy, of a yellow or blackiſh Colour, and does the ſame Thing as Soap, whence it was called *Soap Earth*, or the Earth the Fullers uſe to ſcour with. The *Terra Selinuſia* is a greaſy or clayey Earth, that is very like that of *Chio*; it is aſtringent and reſolutive, proper to take away Spots and Chops of the Skin, to ſoften Tumours of the Breaſt and Teſticles, and to reſolve. The *Chio* Earth is a kind of ſealed Earth, or a fatty, ſticky, aſh-coloured Earth, that is brought from *Chio*: it is aſtringent, and removes Spots, *&c.* *Terra Samia*, or *Samian Earth*, is what comes from the Iſle of *Samos*, and is of two kinds; one is ſoft, white, and crumbling, that ſticks to the Tongue when applied to it, and is very like *Sealed Earth*. Some People call it *Collyrium*, becauſe it ſerves ſometimes to relieve the Eyes; the other is cruſty and hard, tho' ſomething unctuous; they call this *Samius Aſter*, becauſe it is found in ſhining Spangles, like Stars.

Beſides theſe, there is *Marga*, *Lithomarga*, *Stenomarga*, *Medulla Saxorum*, *Agaricus Mineralis*, *Lac Lunæ*, or *Stone Pith*, *Mineral Agarick*, or *Moon Milk*, which is a kind of ſoft, friable, pithy, very white Stone, reſembling Chalk, which is found in the Clefts of Rocks in ſome Parts of *Germany*; it is deterſive, aſtringent, drying, conſolidating, diſſolves coagulated Blood, and may be uſed inwardly and outwardly.

Mr. *Pomet*, at the End of his Chapter of the Foſſil, Unicorns Horn, obſerves that there is ſome of this *Stone Pith* found on the Side of the Signiory of *Moſcau*, belonging to the Elector of *Saxony*, and near *Gironne* in *Catalonia*; where the Inhabitants chuſe from among this Earth, after the Sun is down and has warmed it, little Balls like Meal, with which they make Bread, mixing it with ſome true Flower, which has been confirmed by ſeveral other Naturaliſts.

[The *Perſian* Earth is got in great Quantities in the Iſland of *Ormuz* in the *Perſian Gulf*, and carried thence to *Surat*, *Bengal*, and other Parts of the *Eaſt Indies*, where it is uſed in painting Houſes, Ships, *&c.* It is a red Oker, and we have in *England* an Earth of a brighter Red, and much preferable to it, found in the Fiſſures among Iron Ore in the Skrees in *Cumberland* and elſewhere.]

The Earths afterwards mentioned by our Authors, and a Multitude of other Marles, Chalks, and Clays beſide, hold their Places in the Catalogues of Officinal Minerals of ſeveral Authors, but as they are ſcarce ever preſcribed, or kept in the Shops, it would be but tedious and unneceſſary to give the Hiſtory of each of them in this Place; inſtead therefore of ſwelling the Book with that, I ſhall add, in the few following Pages, a ſhort Account of ſuch Drugs as are in Uſe among us, and are not mentioned by our Author, ſome of which I ſuppoſe he omitted thro' Forgetfulneſs, and others to have been only known ſince the time he wrote.]

APPENDIX
TO
POMET's *Hiſtory of* DRUGS.

CHAP. I.
Of BITUMENS.

Of Barbadoes Tar.

BARBADOES Tar, as it is commonly, but improperly, called, is the *Piſſelæum Indicum Offic. Bitumen Barbadenſe*, Boerh. Chem. *Pix Berbados*, Boerh. Theſaur. Pharm. 108. It is of the Number of the liquid Bitumens, and is about the Conſiſtence of Tar, of a duſky reddiſh black Colour, and ſtrong bituminous, diſagreeable Smell. It is brought to us from the Iſlands of *Barbadoes*, *Nevis*, and *St. Chriſtophers*; but uſed to be moſt plentifully from the firſt, whence it had its Name. It oozes out of the Earth in ſmall Quantities in many Places, and is generally found in digging at about fifteen or twenty Feet from the Surface of the Earth, mixed with Water; but what we receive of it is in general not dug, but gathered from the Waters, on which it ſwims like the *Aſphaltum*, and ſome other Bitumens, having found its way into them by oozing from their Banks or Bottoms; this is preferred to what is dug, not only becauſe it is more eaſily come at, but becauſe it is cleaner, and of a better Smell; the firſt is owing to the waſhing it has in Storms, and the laſt to the Exhalation of ſome of its fetid Oil by the Heat of the Sun.

It is a coarſe unpleaſant Medicine, but certainly an admirable Balſamick; and the common People, by whom it is much more uſed than by the Apothecaries, find it of great Efficacy in obſtinate Coughs, and many Diſorders of the Breaſt, but they have ſometimes found Miſchief enough by it, by not knowing the general Caution, of avoiding all Things of this Claſs in Inflammatory Diſpoſitions.

Externally, which was the firſt Way it came into Uſe, it is a good Digeſtive: and is a mighty Remedy with ſome for Agues, tied about the Wriſts and Feet.

Beſide theſe Virtues, which indeed are more known and oftener experienced by the common People than by thoſe who deal in it, it ſerves our *London* Druggiſts and wholeſale Apothecaries in two different Capacities; mixed with a ſmall Quantity of Oil of Aniſeed, it makes the famous Balſam of *Chili*, ſo much talked of ſome Years ago, and of which ſome Perſons have yet a great Opinion; and a ſmall Quantity of it put into Oil of Turpentine, turns it into what they call and ſell for Oil of Spike.

As to the Choice of it; it ought to be clean, clear, and fluid, of a middle Colour between common Tar and Treacle, of a nauſeous bituminous Taſte and diſagreeable Smell.

CHAP. II.
Of Oil *of* Earth.

THE *Oil* of *Earth*, *Oleum Terræ Offic.* Lem. Ind. 388. is a thin, fluid Bitumen, very inflammable, of a nauſeous Taſte, and ſulphureous, penetrating, diſagreeable Smell; it oozes out of Rocks on the Sides of Mountains in *Aſia*, *Perſia*, and the *Eaſt-Indies*, and is of two Kinds, the red, and the black, as it is called, though that truly is of a duſky purple Colour; both kinds are found in the ſame Mountains, the dark-coloured near the Foot of the Mountain, and the red higher up. They have been brought to us from many different Parts of the *Eaſt-Indies*, but are ſeldom uſed or kept in the Shops at preſent, the *Petroleum*, of which they are alſo a kind, being generally ſold in their Places.

Authors,

Authors, however, are too haſty in affirming them to be the ſame with *Petroleum*; their having the ſame Production is but an idle Reaſon, and I have at this Time before me a ſmall Quantity of the dark-coloured Oil, given me by a Perſon of Veracity, a Surgeon of an *Eaſt-India* Ship, who catched it from a Rock himſelf in the Iſland of *Sumatra*, which is evidently different from all the Kinds of *Petroleum* I have yet ſeen, both in Taſte and Smell, in both which it evidently ſhews that it contains a Sulphur not to be found in any of the other liquid Bitumens.

Beſide this natural *Oleum Terræ* of the *Indies*, there is ſometimes brought from thence a thick browniſh Oil, of a fat inſipid Taſte, and without Smell, called alſo *Oil of Earth*; this generally comes in earthen Veſſels, and is ſeldom found in the Shops, but often carefully kept and much eſteemed by Perſons who have been in the *Eaſt-Indies*, and ſeen the Cures that have been attributed to it. It is a compound Oil, made principally by the *Chineſe*, from certain medicated Earths crumbled to a kind of Powder, and boiled in an expreſſed Oil made from the Fruit of one of the Cocoas.

The natural *Oleum Terræ* is in great Eſteem with the Natives for all cutaneous Eruptions; they take it inwardly, about half a Dram for a Doſe; and uſe it externally alſo as an Ointment to the Sores: They alſo give it to Children in Convulſions, and to their Women in Labour. With us it is ſcarce ever ſeen or uſed.

The factitious is their great Remedy againſt the the Bites of envenomed Creatures, and their moſt eſteemed and general external Application in Tumours of all kinds.

As to the Choice of theſe Oils, little need be ſaid, they are ſo ſeldom to be met with genuine now; however, the ſulphureous Smell which is peculiar to the firſt kind diſtinguiſhes it from all others. The other, if it were of common Sale, might be eaſily counterfeited, but as it is only to be found in the Hands of thoſe who have themſelves imported it, there is no great fear of its being other than genuine.

CHAP. III.

Of STONES.

Of Iriſh Slate.

IRISH Slate is the *Lapis Hibernicus Offic. Lapis fiſſilis Hibernicus Charlt. Feſſ.* 13. *Ardeſia Hibernica*, *Tegula Hibernica*, *Ind. Med.* 57. It is a heavy, fattiſh, flaky Stone, ſoft, and of a bluiſh or greyiſh Black, of an aluminous and earthy Taſte, and without Smell; it is dug in many Places in *England* and *Ireland*, and we have it brought to the Shops in Glebes of different bigneſſes.

It is by ſome ſaid to be a good Medicine in Intermittent Fevers, but its great Uſe is in Contuſions and inward Injuries, in which Caſes the common People found great Benefit by it, and long uſed it before it was known in the Preſcriptions of Phyſicians; it has, however, of late been found to exceed almoſt all Things in Hæmorrhages of all kinds.

As to its Choice little need be ſaid, as it is too cheap to be worth adulterating; the ſofteſt and ſuch as ſeparates into Flakes the eaſieſt is the beſt. One thing, indeed, I may add as a Caution, though I hope unneceſſary, which is, to ſee that there is not Cobalt accidentally mixed among it: It is a thing not likely to happen often, but as I have known two Inſtances of it, and as it is a thing of very fatal Conſequence if it does happen, I thought it well to mention it. The Deſcription given already of Cobalt in its proper Place, will ſhew how to diſtinguiſh them, which indeed is very eaſy were it only by the different Hardneſs; and the Inſtances I have known of it are; the one, the Death of a poor Woman, who periſhed within a few Hours after taking it, and had all the Symptoms of thoſe who have been poiſoned by Ratſbane; and the other, that among a Quantity I bought in the Year 1742, I found a fair Piece of Cobalt, of more than four Ounces weight, which I ſtill have by me: This convinced me, that I had before gueſſed right, in my Opinion of the Occaſion of the Woman's Death, and obliged me to throw away the Parcel of *Lapis Hibernicus* it was among, as I would adviſe every one to do wherever any of it is found, ſmall Pieces of it being not eaſily diſcoverable among the ſmall Pieces of the other, and a very little of it being ſufficient to produce fatal Conſequences, as it is the ſtrongeſt of all Poiſons.

CHAP. IV.

Of VEGETABLES.

Of Moxa, *or* China Gout-Cotton.

THE *China Gout-Cotton*, as it is called, or *Moxa* of the Shops, is a thready Subſtance, made of the fibrous Parts of the Leaves of *China Mugwort*. The *Artemiſia Chinenſis, cujus Mollugo Moxa dicitur*, *Plu. Phytogr. Tab.* 15. *Hiſt. Ox.* 3. 5. *Artemiſia Orientalis, vulgaris facie*, *Act. Philoſ. Lond.* N° 276. *Muſia Pattræ. Malab. Moxa*, *Kempf. App.* 27. It is of no other Uſe in Medicine than the laying a ſmall Heap of it upon the

the Foot, and burning it there, as a Remedy for the Gout. Its Virtues on this Account have been much celebrated, but there do not ſeem many at preſent who have any great Faith in the Accounts.

CHAP. V.

Of Couhage, *commonly called* Cow-itch.

COUHAGE, commonly called *Cow-itch*, is a downy or hairy Subſtance, growing on the out-ſide of the Pod of the *Couhage* or Stinging Kidney-bean of the *Eaſt-Indies*; the *Phaſeolus Zurattenſis ſiliqua hirſuta Couhage, dicta*, *Rai. Hiſt.* 1. 881. *Phaſeolus ſiliqua hirſuta*, *Park.* 1056. *Phaſeolus pruritum excitans hirſutie ſiliquarum*, *Ger. En.* 1215. *Phaſeolus Zurattenſis ſiliqua hirſuta pungente*, *Hiſt. Ox.* 269. The Pods of this Plant are ſmaller, ſhorter, and rounder, than thoſe of the common Kidney-bean; and the Hair that inveſts them, plentiful, ſhort, and of a ſhining Brown: They are brought to us from the *Eaſt-Indies*.

The Down or Hair is of no Uſe but to play Tricks with, cauſing a troubleſome Itching where-ever it touches the Skin: The Beans taken out of the Pod, and reduced to Powder, are a common Medicine in *Barbadoes* for the Dropſy.

CHAP. VI.

Of Caſſumunar.

CASSUMUNAR, called alſo *Caſſummuniar*, *Caſmunar*, and *Ryſagon* or *Riſagon*, is the Root of the *Zedoaria Radice lutea*, *Breyn. Prodr.* 2. 105. *Zerumbeth ſeu Zinziber rubrum ſylveſtre*, *Ternatenſe. Camel. Syll.* 65.

It is a tuberoſe Root, of the Thickneſs of one's Thumb, and covered with Protuberances like thoſe of the *Galangal*; of a duſky brown on the outſide, and a pale yellow within; of a bitteriſh aromatick Taſte, and agreeable Smell.

It is brought to us by the *Eaſt-India* Company from *Bengal* and *China*; it is a noble Medicine, and found of great Uſe in all nervous Caſes, Apoplexies, Palſies, Vertigoes, and hyſterick and hypocondriac Affections; it is alſo carminative and aſtringent.

It is to be choſen in large Pieces, ſound, firm, and hard to powder; of a bright yellow within, and of a piercing lively Smell, and aromatick Taſte.

CHAP. VII.

Of Salep.

SALEP, called alſo *Saleb*, and *Serapias* in the Shops, is the Root of the *Orchis fœmina procerior majore flore*, *Tourn. Herb. Par.* 508. which indeed ſeems to be no other than our common female Orchis. The *Orchis morio fœmina*, *Park.* 1347. *C. B. Bin.* 82. *Cynoſorchis morio fœmina*, *Ger.* 158. with the Advantages of a warmer Climate, in which it grows to a greater ſize.

It is a whitiſh oblong Root, a little flatted and wrinkled in the drying, tough and hard to be powdered, of a Taſte ſomewhat reſembling Gum Tragacanth, and without Smell.

It is brought to us from *Turky* and *Perſia*, and grows in the greateſt abundance and perfection on the Mountains of *Burſia* near *Conſtantinople*.

It is a great Reſtorative, and is good in all Decays; it is alſo eſteemed a Provocative and Remedy againſt Barrenneſs. The *Turks* have it in great eſteem; their manner of taking it is boiled with Honey, Ambergriſe, and Ginger, and drank hot in the manner of Chocolate. The general manner of uſing it here, is to put about a Tea-ſpoonfull of the Powder of it into a Baſon of warm Water, which it turns into a Jelly.

It is to be choſen firm, hard, and tough; and the great Caution is, that it be neither worm-eaten nor mouldy.

CHAP. VIII.

Of Elatherian Bark.

THE *Elatherian Bark*, called alſo the *Indian Bark*, and *Caſcarilla*, is the *Cortex Thuris nonnullis dictus vel Thymiama*, *Rai. Hiſt.* 2. 1841. *Schakarilla Chakarilla*, *Mont. Exot.* 8. *Elaterii vel Elatherii Cortex Thymiama*, *Schrod.* 4. 166. *Palo de Calenturas quibuſdam Eleaterium*, *Lem. Ind.* 203.

It is a thin firm Bark, rolled up into hollow Quills, as they are called, like the *Cortex Peruvianus*, commonly in ſmall Pieces of the thickneſs of Cinnamon, ſmooth, and of a duſky browniſh Colour; for it is generally brought to us ſtripped of its outer Rind, which is of a whitiſh Grey, and rough. It is of a ſharp aromatick bitter Taſte, and an agreeable Smell, ſomething like that of Amber.

There have been various Conjectures about the Tree which produces it, ſome believe it to be

the Νάσκαφθον or Νάρκαφθον of *Dioſcorides*, lib. i. c. 22. and *Cæſalpinus*, *Amatus*, *Parkinſon*, and *Caſpar Bauhine*, have all different Opinions about it, which of them, or whether either of them is in the right, is yet unknown.

It is ſometimes brought from the *Eaſt-Indies*; but we have it principally from *Elatheria*, one of the *Bahama* Iſlands, whence it has its Name.

It was firſt taken notice of for an agreeable Oil which it yields by Diſtillation, which was formerly much uſed to put into Snuff, to give it an agreeable Smell; but it is now come into Uſe internally, Mr. *Stahl* having ſtrongly recommended it as an excellent Medicine in Diſorders of the Lungs, and a good Stomachick. *Apenus*, a *German* Phyſician, has alſo written a Treatiſe about it, in which he praiſes it in malignant Fevers, the Plague, Dyſenteries, and Weakneſs of the Inteſtines.

It is to be choſen light, but firm, ſmooth, and of a lively agreeable Smell, and as freſh as may be, for it loſes much in keeping.

CHAP. IX.

Of Elaterium.

ELATERIUM is the inſpiſſated Fæculæ of the Juice of the Wild Cucumber, the *Cucumis Agreſtis, ſive Aſinius*, *Park.* 161. *Cucumis Elaterium*, *Rivini Rupp. flor. gen.* 41. *Cucumis Elaterium Officinarum*, *Boerh. Ind.* 77.

It is uſually met with in ſmall flat whitiſh Lumps or Cakes, dry, and eaſily breaking between the Fingers; of an acrid nauſeous bitter Taſte, and ſtrong diſagreeable Smell when freſh made; but that, as alſo indeed a great part of its Virtue, it loſes in keeping.

What we have of it is brought from *Spain* and the ſouthern Parts of *France*, where the Plant is very common.

It is a very violent Purge and Vomit, and is now very ſeldom uſed; the Doſe is from two to four Grains. The lighteſt, cleaneſt, and freſheſt is to be choſen.

CHAP. X.

Of Jamaica Pepper, *or* All-Spice.

PIMENTA, or *Jamaica Pepper*, is the dried unripe Fruit of the *Myrtus arborea foliis Laurinis aromatica*, *Act. Phil.* 192. the *Piper odoratum Jamacenſe noſtratibus*, *R. Hiſt.* 2. 1507. *Piper Caryophyllatum*, *Piper Jamaicenſe*, *Mont. Exot.* 9. *Caryophyllus aromaticus Americanus Lauri acuminato folio fructu orbiculari*, *Pluk. Alm.* 88.

It is an orbicular Fruit, with a duſkiſh, rough, hard, umbilicated Rind, containing within it two black Kernels, of an aromatick Smell and Taſte approaching to that of Cloves, and partaking in ſome degree of that of all the other Spices beſide, which occaſioned our calling it *All-Spice*.

The Tree which produces it riſes to thirty or forty Foot high; the Leaves are like thoſe of the Bay, and very aromatick; the Flowers ſtand in Bunches, and are greeniſh, and compoſed of four Leaves bent backwards; theſe are ſucceeded by the Fruit, which the Negroes gather before it is ripe and dry it in the Sun; they become wrinkled and brown in the drying, tho' they were ſmooth and green while gathered. The Tree grows in hilly Places in the north Part of *Jamaica*.

It is an admirable Aromatick, and its Oil, by Diſtillation, is a very excellent one, and ſinks in Water like Oil of Cloves.

CHAP. XI.

Of the Root Niſi, *or* Ginſeng.

GING-GING is a Plant to which the *Chineſe* have given this Name becauſe it has the Figure of a Man opening his Legs, for they call a Man *Ging*; its Root has a good deal of Reſemblance to the Mandrake Root, but that it is much ſmaller, and its Leaves ſhew very plainly that it belongs to another Claſs of Plants. Father *Martin*, indeed, who had ſeen nothing but the Root, makes it a Species of the Mandrake, in the Deſcription he has given in his Atlas of *China*; but the Reaſon of his falling into that Error, was his not having ſeen the Leaves, as he himſelf ſays. This Root becomes yellowiſh in drying; it has neither Fibres nor Filaments adhering to it, by which to draw Nouriſhment; it has a number of ſmall black Veins ſcattered all over it, and looking like ſo many Lines curiouſly drawn on it with Ink; when chewed it is diſagreeable, its Taſte being a Sweetneſs mixed with Bitter. *Pomet.*

It greatly encreaſes the vital Spirits, in a Doſe not larger than two Scruples; in a ſomething larger Doſe, it recovers Strength to People who are weak, and gives an agreeable Warmth all over the Body. They uſe it after a Preparation in *Balneo Mariæ*, which gives it an agreeable aromatick Smell: Thoſe who are of a hot and robuſt Conſtitution endanger their Lives if they take too largely of it, becauſe of the vaſt Effervescence it raiſes in the Spirits; but it does even Miracles for the Weak

Weak and Feeble, and thoſe whom long Illneſs, or any other Accidents, often exhauſt of their Strength. It reſtores in ſuch a manner Strength and Spirits to People who are dying, as to give Time for other Remedies to cure them, and in *China* is worth three times its Weight in Silver.

The *Siam Journal*, ſpeaking of the Root *Niſi* or *Ginſeng*, ſays it is a ſmall Root which grows in *China*, in the Province of *Houn-amſout-chouan*, and that of *Couli*, and is not to be found in any other Part of the World: Its great Effects are the rectifying the Maſs of Blood, and giving Strength and Spirits to thoſe who have loſt them. The manner of taking it is this, they boil ſome Water, and throw into it the Root cut into thin Slices, and then cover the Veſſel and leave the *Ginſeng* in Infuſion; when the Water is but juſt warm, they drink it alone; this they do in the Morning faſting: The *Ginſeng* they take out, and keep it to uſe again: At Night they boil more Water, but only half as much as they did before, and put the ſame *Ginſeng* in again, covering the Veſſel as before; and when it is cold they drink it. After all this, they dry the *Ginſeng* in the Sun; and if there is Occaſion it ſerves them a third Time infuſed in Wine. The Quantity of *Ginſeng* put in is according to the Age of the Perſon it is for; for Perſons from ten Years old to twenty, they uſe each Time the Quantity of half a Soang; and from thirty to ſixty, ſeventy, or upwards, the Quantity of a Mayon; and more than this they never take.

CHAP. XII.

Of Birds-Neſts.

Pomet. THESE *Neſts* are found principally in *Cochin China*; they are excellent in Sauces, and good for the Health; when they mix the *Ginſeng* with them, they take a Fowl whoſe Fleſh and Bones are black, they gut it and clean it carefully; then they take ſome of theſe *Neſts*, which they ſoften with Water, and part into ſmall Threads; they then cut ſome *Ginſeng* into ſmall Pieces; and mixing all together, put it into the Body of the Fowl; they then ſow up the Fundament, and put the Fowl, thus prepared, into a China Veſſel, cloſe covered, which is put into a Pot of Water, and ſet on the Fire to boil: They keep this Pot of Water boiling, till the Fowl in the Veſſel within is enough; and after that, leave all together on the Remainders of the Fire all Night: In the Morning they take out the Fowl and eat it, *Ginſeng*, *Neſts*, and all, without either Salt or Vinegar; and when they have eat it up, they cover themſelves warm, and commonly get into a Sweat.

Rice may be alſo eaten boiled in the ſame manner in Water with the *Birds-Neſts* and *Ginſeng*: This they eat at Day-break, and, if they can, ſleep after it.

CHAP. XIII.

Of Sowbread.

SOWBREAD, ſo called becauſe Hogs are very fond of it, is a large, thick, round Root, of a duſky Colour without, and white within; hung round with blackiſh Fibres. It contains a great Quantity of Oil and eſſential Salt. It grows in Woods and in watery Places.

Pomet.

Chuſe this Root new, and well fed: It is emetick, cathartick, and reſolvent; but is not much uſed except externally, or as an Ingredient in certain *Galenical* Compoſitions, as Ointments, Plaiſters, and others.

Sowbread, called *Cyclamen orbiculato folio interne purpuraſcente* by *Tournefort*, and *Cyclamen Autumnale vulgare folio rotundo* by *Parkinſon*, is a Plant whoſe Leaves are roundiſh, of a greeniſh Brown, ſpotted with White on the upper ſide, and purpliſh underneath, ſtanding upon Pedicles; among theſe there riſe long tender Pedicles, which carry purple Flowers of an agreeable Smell; when they are fallen, they are ſucceeded by ſpherical membranaceous Fruits, which open in ſeveral Places, and contain angular Seeds.

Lemery.

The Root of it, which is large and thick, is what is uſed in Medicine: It is inciſive, deterſive, attenuating, and aperient; proper in the Stone and Obſtructions, to bring away the Afterburthen, and to diſſolve hard Swellings. It is uſed both externally and internally.

Great Care muſt be taken in drying it, elſe it will ſhoot, and even flower, when laid up for Uſe.

[This is the Root of the *Cyclamen orbiculato folio*, *Ger.* 694. *Cyclamen vulgare folio rotundo*, *Park. Parad.* 198. It is kept in Gardens, and flowers in *September*.

It is an Errhine, and, internally, has been known to do Service in Obſtructions of the Menſes, and other Caſes of a like Nature, but at preſent is ſcarce ever uſed or kept in the Shops.]

CHAP. XIV.

Of the Roſe *of* Jericho.

Pomet. THE *Roſe* of *Jericho* is not a Flower but a very ſmall Shrub, which throws out ſeveral Branches to the height of about four Fingers; they are woody, of an aſhy Colour, and divide afterwards into a multitude of Branches entangling themſelves one within another, and throwing themſelves together toward the Top in the Form of a Globe; its Leaves are an Inch or an Inch and half long, and half an Inch wide, cut at the Edges, and covered with a hairy Down; its Flowers are ſmall and white, and ſet as it were in Cluſters; its Seeds round, reddiſh, and of an acrid Taſte; and its Root ſingle, large, and woody.

It is brought to us from *Arabia Deſart.* I ſhall not trouble the Reader with the many Things which ſome Authors have diverted themſelves with obſerving in regard to this little Plant, leaving the farther Accounts of it to the Curious, as it has no Uſe in Medicine.

Lemery. The *Roſe* of *Jericho*, called *Roſa Hierachuntia* by *Caſpar Bacchine*, and *Roſa de Hiericho*, and *Roſa Mariæ Monachis* by *Lugdunenſis*, is a little Shrub in the Figure of a Ball as brought to us; but this it acquires in drying, for, while it is growing, its Branches are ſeparate from one another, but as it dries, the Branches entangle one within another, and their Extremities bending inward meet at one common Centre, and form of the Whole as it were a little Globe or Ball. It grows in *Arabia Deſart*, in ſandy Places, and on the Banks of the *Red Sea*, from whence we have it; and though its common Name be *Roſe* of *Jericho*, it is not a Roſe, nor is it found any where near that Place. It has been believed heretofore, that it never opened itſelf but on *Chriſtmas-day*; but we now are very ſenſible, that it will open at any time if it be put into Water, and ſuffered to remain there ſome little time, the Branches expanding by little and little, and affording a very pleaſing Sight: And when it is taken out of the Water, it dries and ſhuts itſelf up again as before.

It may ſerve for an Hygrometer; for being dry, it is very ſuſceptible of the Impreſſions of the Humidity of the Air; ſo that in a dry Seaſon it will be ſhut up cloſely, but as it becomes more or leſs wet, it will extend or expand itſelf: This may be the more eaſily perceived when it is expoſed to the Air, than when kept in a Chamber.

As to its medicinal Virtues, it is eſteemed good for the Scurvy, when taken in Powder or Infuſion, but I have never known it tried.

[This little Plant is the *Thlaſpi Roſa de Hiericho dictum*, *Hiſtor.* 328. *Roſa Hierachuntea vulgo dicta*, *C. B. Pin.* *Roſa Hierachontea*, *Lobel.* It is about four Inches high, the Leaves are like thoſe of the Olive, ſtanding ſingly at every Joint; the Flowers ſtand in the ſetting on of the Leaves, and are of a greeniſh White, and conſiſt of four Leaves; each of them is ſucceeded by a ſingle Capſula, containing Seeds like thoſe of the other *Thlaſpis*. In drying the Leaves generally fall off, but the Pods are frequently ſeen very fair among the dried Stalks.

The Experiments *Pomet* mentions Peoples diverting themſelves with about it are, its expanding in warm Water, which indeed is a very agreeable Sight.

It is of no Uſe in Medicine, and ſeldom kept in the Shops, but common in the Collections of curious Perſons.]

CHAP. XV.

Of Gum Guaiacum.

Pomet. IN the Chapter of *Guaiacum* Wood we made ſome mention of this Gum, but to what was there ſaid it is neceſſary to add, that, to diſtinguiſh it from *Colophony*, it need only be put to a Candle, or into the Fire, for, on burning, it yields an agreeable aromatick Smell. This Gum is brought to us from the *Weſt-Indies*, and ought to be in handſome Pieces, of a blackiſh or greeniſh Colour, tranſparent, and of an agreeable aromatick Smell.

It is ſudorifick, vulnerary, and anodyne, taken inwardly from a Scruple to a Dram, mixed with an equal weight of Sugar-candy: It is alſo good in Difficulty of Breathing, and in Aſthmas; in which Caſes it is common to add to it an equal Quantity of waſhed Sulphur, and mix them together into a Bolus with Syrup of Coltsfoot, and give them in the Morning for eight Days ſucceſſively, or longer if neceſſary; in ſhort, according to the Obſtinacy of the Diſeaſe, or Orders of the Phyſician.

Lemery. *Gum Guaiacum* is to be choſen clean, ſhining, and tranſparent, of a reddiſh brown Colour, brittle, of an acrid Taſte, and agreeable aromatick Smell when bruiſed or put to the Fire.

It contains a great Quantity of eſſential Salt and Oil.

[This

[This is the Gum, or rather Reſin, of the *Guaiacum* Tree, deſcribed in its proper Place: It flows either naturally from the Cleſts and Cracks in the Bark, and is then in Tears or ſingle diſtinct Drops, or by Inciſion, by which means it flows in much greater abundance, and is ſuffered to run into large Cakes of an irregular Shape. It is a noble Medicine, but ſo ſubject to Adulteration, that there is ſcarce any depending on it; that in Tears, however, is almoſt always genuine.]

CHAP. XVI.

Of the precious Boar-ſtone *of the* Eaſt-Indian *Wild Boar, and the* Malacca-ſtone, *or* Porcupine-ſtone *of the* Indies.

Pomet THE *Boar* or *Hog-ſtone*, which the *Hollanders* call *Pedro de Porco*, and which the *Portugueſe*, who firſt brought it into *Europe*, call *Pedro de Vaſſo*, or *Piedra de Puerco*, is a kind of *Bezoar* found in the Gall of the Wild Boars of the *Eaſt-Indies*. This Stone is generally of the bigneſs of the Hazel-nut, or of the End of ones Finger, of different Figures and Thickneſſes; but its general Colour is that of the *Toulon* Soap, that is, of a White with ſome caſt of Greeniſh in it; and it is ſoft in handling.

Theſe Stones, however ſcarce, are yet to be found in the Collections of the Curious. The Scarcity of it is ſo great, that in the largeſt Sales of *Eaſt-India* Drugs at *Liſbon* and *Amſterdam*, there are ſeldom above three or four of theſe Stones.

The *Indians* call theſe Stones *Maſheha de Soho* in their Language, and have a great Eſteem for them on account of their Virtues againſt Poiſon; and the People of the Kingdom of *Malacca*, where they are moſtly found, prefer them to the true *Oriental Bezoar*, though among the other *Indians*, that is eſteemed the beſt Antidote in Nature.

The *Pedro de Porco* is very ſcarce among the Merchants of *Holland*, and much more ſo among ours; whether it be that it is ſcarce in the *Indies*, or whether the Natives keep it among themſelves for their own Uſe, not only as a Preſervative againſt Poiſons, but alſo as a ſovereign Remedy againſt the Diſeaſe they call *Mordoxi*, which they are ſubject to from an irritated Gall, and which is as dangerous with them as the Plague in *Europe*.

When any of theſe Stones are brought into *Holland*, they ſell there for three or four hundred Franks apiece, and ſometimes more; but the wealthy Merchants moſt frequently keep them in their own Hands, either to make Preſents to People of Quality, or to uſe themſelves. They are generally ſet in a round gold Box pierced full of Holes, with a Chain of Gold faſtened to it to hold it by upon Occaſion.

There are ſome Families of Conſequence in *Holland* who preſerve this Stone, and have it from Father to Son for many Generations; and it ſerves all their Friends and Acquaintance when they have Occaſion. The principal Uſe of it among them is to cure Children in the Small-pox.

Many other Virtues are alſo attributed to it, againſt Fevers, and moſt of the Womens Complaints. The *Indians* have that Confidence in it, that they think it is ſufficient to touch it, to have Relief in all their Illneſſes. Women with Child, however, are not to meddle with it for fear of Abortion.

When this Stone is to be uſed, it is held a little while ſuſpended in a Glaſs of Wine or Water, to which it communicates its Virtues, with ſome degree of Bitterneſs, not altogether diſagreeable; this is to be drank in the Morning faſting, but may be taken at any Time on preſſing Occaſions.

Beſide the *Pedro de Porco*, there is another Stone, generally called the *Malacca-ſtone* or *Indian Porcupine-ſtone*, becauſe it is almoſt only in this Kingdom that they are found. Moſt People confound the *Pedro de Porco* with the *Malacca-ſtone*, becauſe of the great Reſemblance they have to one another, which I am certain of by that which I have in my poſſeſſion, which only differs from the *Pedro de Porcos* in Bigneſs, and in that it is ſomething more ſcaly, like the *Bezoar* and other ſuch Stones. Theſe Stones are found, but very ſcarcely, in the Gall, Stomach, and Head, of the Porcupines of the *Eaſt-Indies*.

This, as well as the *Pedro de Porco*, is often made a Preſent to Great Perſons in the Kingdom of *Malacca*, as alſo to Foreign Princes and Ambaſſadors. *Garcias* relates, that in his Time the Viceroy of the King of *Portugal* in the *Indies* kept by him one of theſe Stones, which had been preſented him by the then King of *Malacca*: From which we may learn what Eſteem thoſe Nations had for this Stone. This is the firſt kind of the *Malacca-ſtone*.

There is alſo another, which Mr. *Tavernier* mentions, and which is found in the Head of the Porcupine: But as I have never ſeen one of theſe, I ſhall forbear ſaying any thing farther about them.

After the *Oriental* and *Occidental Bezoar*, may be reckoned a third kind, called *Bezoar Porci, ſive Lapis Porcinus*: It is taken from the Gall of the Wild Boar, in *Malacca*, *Lemery.*

Malacca, and ſome other Parts of the *Eaſt Indies*. It is commonly whitiſh or greeniſh, but ſometimes of other Colours; about the bigneſs of a Nut. The *Indians* have it in great Eſteem in the Diſeaſe they call *Mordoxi*, as alſo in the Small-pox, Malignant Fevers, Hyſterical Affections, and Suppreſſions of the Menſes.

[The *Pedro de Porco* and *Malacca-ſtone* are really but one and the ſame Thing, and that not found in the Boar but in the Porcupine. The different Size and Colour of the Stone, and the miſtaken and afterwards right Accounts of what Creature it was taken from, have occaſioned the Error of making two different Stones of it.

It is the *Bezoar Hyſtricum*, *Lapis Hyſtricis*, *Lapis Malacenſis*, *Lapis Porcinus*, *Mont. Ex.* 5. *Lapis ſeu Pila Hyſtricis*, *Ind. Med.* 45. It is found in the Gall-bladder of the Porcupine in *Malacca* and other Parts of the *Eaſt-Indies*, where that Creature grows to the bigneſs of a Pig of eight Months old, and is called by the Natives *Balatnamentinie*, *Hyſtrix. R. Syn. An.* 206. *Jonſ. de Quadrup.* 119. *Charlt. Ex.* 19. The Stone, as it is called, is rather of the *Ægagropilus* than *Bezoar* kind, being neither ſo hard, ſo firm, nor ſo heavy, as the true *Bezoars*, nor of the ſame regular laminated Structure. Its Virtues, though ſo highly extolled by the Natives and Merchants, and others who had them of them, are very much doubted by Men of Science: It is, however, of no great Conſequence, whether they are real or imaginary, as it is too ſcarce ever to come into Uſe in the Shops.]

CHAP. XVII.

Of the Serpent-ſtone.

Pomet. THE *Serpent-ſtone*, which the *Portugueſe* call *Cobra De Capello*, is found in the Head of a Serpent ſo called, becauſe he has on his Head a little Eminence in the form of a Hat. They ſay there is no Remedy ſo ſovereign as this Stone againſt the Bites of venomous Beaſts, for if put upon the Wound, it faſtens itſelf ſtrongly on, and draws out the Poiſon, of which, when it is full, it falls off again of itſelf, having no more Power to ſtay on; but if it be thrown into Milk, it diſcharges there the Poiſon it had imbibed, and recovers its former Virtues. Father *Kircher* ſays, that it was a long time before he would believe this, though he found it affirmed by Authors of Credit as a certain Truth, but that he was at length convinced of it, by an Experiment which he himſelf made of it, in the Preſence of many Perſons, on a Dog bitten by a Viper.

This Account is alſo confirmed, by a Relation ſent to the Prince *John Frederick* Duke of *Brunſwick* and *Lunenburg*, to whom all the Men of Learning in his Time ſent Accounts of what new Diſcoveries they made, not only becauſe he was curious, but becauſe he was a Maſter in moſt of the Sciences. *Tachenius*, in a Letter which he wrote from *Venice* on the 27th of *April* 1688, acquaints that Prince, that deſiring to make an Experiment in Tryal of the Virtues of one of theſe Stones which an *Armenian* had brought to *Venice*, he cauſed a Dog to be bitten in the Leg by a Viper; half an Hour afterwards, when they perceived by the Howlings of the Creature, and the ſwelling of the Limb, that the Poiſon had ſpread itſelf into the Veins, and cauſed the Creature great Pain, the Count *De Schlick*, before whom the Experiment was made, applied the *Armenian's* Stone to the Wound, and immediately it fixed itſelf ſo firmly on it, that there was no pulling it off: And upon this, the Creature ceaſed his howling. The Stone remained fixed in this manner on the Wound two Hours, at the end of which Time it fell off of itſelf, and was put into ſome Milk, which it impregnated ſo ſtrongly with the Poiſon, that a Dog that drank of it died the Night following.

It was then placed again upon the Wound; it faſtened itſelf again as before, but remained on now only half an Hour, and then fell off: Being again put into more Milk, it communicated the Poiſon to it alſo, but in a ſmaller degree; for at the Time of his writing that Letter, it was three Days ſince another Dog had drank of that ſecond Milk, and he was then living, and there appeared Hopes of his recovering entirely.

It was, after taking out of the ſecond Milk, applied a third Time to the Wound, but did not then faſten itſelf at all, there being then no Poiſon remaining in it.

Mr. *Tachenius* adds, that the Stone was round, black, of the bigneſs of a *French Sol*, but four times as thick; and that the *Armenian* ſaid, it not only cured the Bitings of mad Dogs and venomous Beaſts, but was alſo a ſovereign Remedy againſt the Plague.

There are two kinds of the *Serpent-ſtone*, the one natural, the other factitious; the natural Stone is found in the Head of a large Serpent very common in *Melinda*. As I never have been able to get one of theſe natural Stones myſelf, I ſhall here relate what Mr. *Tavernier*, the only Author I can find who has given a circumſtantial Account of theſe Stones, has ſaid of them.

" There is a kind of Stone, ſays he, which they " call the *Hat-Serpent-Stone*; this is a particular " kind

" kind of Serpent, which has in reality a kind of " Hat or Hood hanging down behind his Head; " and it is behind this Hood that theſe Stones are " found, the leaſt of which are of the bigneſs of " a Hen's Egg. Theſe Stones are found in none " of theſe Serpents that are leſs than two Foot " long; and if they encreaſe in Bulk as the Crea- " ture grows, there muſt of neceſſity be ſome of " an enormous Size; for in *Africa* and *Aſia* theſe " Serpents are ſometimes ſeen five and twenty " Feet long, as that was, the Skin of which is " preſerved at *Batavia*, which had ſwallowed a " Girl of eighteen Years of age."

The ſame Author obſerves, that this Stone is not hard, and that when ſtruck againſt another Stone, it throws off a kind of Slime, which being moiſtened with a little Water, and drank by any one who has any kind of Poiſon within him, has the Virtue of expelling it in a Moment: That theſe Stones are not to be had but by means of the *Portugueſe* Seamen or Soldiers who return from *Mozambique*. It is not of this Stone, however, that I intend to treat in the Remainder of this Chapter; but of that which makes ſo much Noiſe in the World, and of which ſo many extraordinary Virtues are boaſted, and which, though moſt People imagine to be a natural Stone, is really factitious, as will be ſeen by the Sequel of this Chapter.

Now I have ſhewn the high Eſteem in which this Stone is held, and the different Sentiments of different People about it, I ſhall add, that we are not to believe this Stone to be natural but factitious; and for the Proof of what I affirm, I ſhall add here an Account of what it is compoſed of, that thoſe who are deſirous of having it may make it themſelves, as I have done by ſeveral which I have now by me.

Take *French* Bezoar, one Ounce; Powder of Toads and of the Crayfiſh, prepared in the Month of *June*, of each half an Ounce; of Seal'd Earth, prepared in a Decoction of Scorzonera and Contrayerva Roots, one Ounce; Mineral Unicorn, one Ounce; reduce all theſe to a fine Powder, and make them up into a Paſte with the Jelly of Vipers made with a Decoction of Contrayerva, Snakewood, or *Virginian* Snakeroot, and form it into Troches of the bigneſs of a *French* Farthing, and of the ſame thickneſs; they may be made larger or ſmaller at pleaſure, but the *Indians* generally make them of about this ſize.

This then is the ſo much renowned *Serpent-ſtone*. Beſides the two Accounts already given of its Virtues, the following is what Mr. *Tavernier* has written of it.

" Finally I ſhall ſpeak of the *Serpent-ſtone*, which " is about the bigneſs of a *French* Farthing, and " ſometimes of a ſomewhat oval Shape, thick in " in the Middle, and growing thinner towards the " Edges. The *Indians* ſay they are formed on " the Heads of certain Serpents; but I am rather " of opinion, that it is the Prieſts of theſe Idola- " ters who make them believe ſo, and that the " Stone, as they call it, is really a Compoſition " which they make of ſome Drugs. But be that " as it will, the Stone has admirable Virtues in " extracting the Poiſon of venomous Bites: If the " Part where the Bite is be not much torn, an " Inciſion muſt be made in it, that it may bleed, " and afterwards, when the Stone is applied to " the Wound, it faſtens itſelf on, and never drops " off till it has imbibed all the Venom from the " neighbouring Parts. To cleanſe it afterwards, " they take Woman's Milk, or in want of that, " Cow's Milk; and after the Stone has been laid " in it ten or twelve Hours, it takes in all the " Venom the Stone had imbibed, and becomes " of the Colour or the Matter of an Impoſtume. " Having one Day dined with the Archbiſhop of " *Goa*, he took me into his Cabinet of Curioſi- " ties, where he had many curious Things; and, " among others, he ſhewed me one of theſe " Stones, and telling me its Virtues, added, that " it was but about three Days before, that he " had ſeen the Experiment made with Succeſs, " one of the People who was with him in a Jour- " ney having been bitten by a Serpent, and cured " by it. I have bought ſeveral of them, and " there are none but the Bramines who ſell them, " which makes me believe they make them. There " are two Ways of trying whether theſe Stones " are good and not adulterated; the firſt is, to " to put them in the Mouth, for if they are good, " they immediately riſe and faſten themſelves to " the Palate; the other is, to put them in a Veſ- " ſel of Water, and immediately, if they are not " adulterated, the Water begins to boil, little " Bladders ariſing from the Stone at the Bottom " to the Surface of the Water."

The *Serpent-ſtone*, *Lapis Serpentis* in *Latin*, is a flat Stone, ſometimes oval, but commonly roundiſh, thick in the Middle and thinner at the Edges, ſoft, and of a blackiſh Colour. Many Authors affirm, that it is found in the Head of a particular Species of Serpent; but the more modern Opinion is, that it is a Compoſition of ſeveral Drugs: But be that as it will, it is at preſent much eſteemed in many Places. *Lemery.*

It is a Remedy againſt the Poiſon of venomous Bites,

Bites, faſtening itſelf to the Wound by means of the Blood about it; and for that Reaſon, if there is no Blood about it from the Bite, it is neceſſary to make an Inciſion about it with a Lancet, and with the Blood that comes from that, the Stone will fix itſelf; and as it is an Alkali and Abſorbent, it naturally imbibes the Poiſon from the Wound, on which the Pain ceaſes. It falls off of itſelf when the Blood is dry, and furniſhes no more glutinous Matter to hold it on, and when it has imbibed the Acids of the Wound is encreaſed in Weight. After waſhing it in Milk, it is applied to the Wound again, where it faſtens itſelf not ſo firmly as before, becauſe there is leſs glutinous Matter to hold it, becauſe it is leſs alkaline, and becauſe there is leſs acid Matter in the Wound to hold it there. They continue waſhing and applying it again to the Wound till it will not ſtick on any longer at all; which is looked on as a Proof that all the Venom is drawn forth and the Perſon is cured.

The Virtues and ſurpriſing Effects of this Stone are atteſted by thoſe two great Naturaliſts, *Kircher* and Mr. *Boyle*, who both affirm, that they have ſeen it tried. I wonder it has not yet been tried on the Bite of a mad Dog, to ſee whether its Virtues would exert themſelves as powerfully in that as they are ſaid to do in other venomous Bites.

This Stone is alſo taken inwardly; they uſe ſuch ſmall Pieces of it thus as are not fit for the external Application. They infuſe it in Water, and take it to reſiſt Poiſon.

[There is a great Diverſity in the Opinions of the Learned about this Stone, as it is called, ſome affirming it to be natural, others factitious; ſome affirming the Certainty of its Effects, others doubting and denying them: But to ſet all right, it is to be obſerved, that there certainly is both a natural and a factitious kind of it, the natural is the *Os Capitis* of the *Cobras de Capello Luſitanis dictus*, *Garc. Serpens Indicus coronatus diademate ſeu conſpicillo inſignitus*, *R. Syn. An.* 330. *Vipera Indica vittata geſticularia. Cat. Muſ. Ind.* This is of a deep ſhining Brown, and marked at certain Diſtances with little Holes; and the factitious is made of calcined Bones and argillaceous Earth, and is firmer, heavier, and ſmoother on the Outſide; hence it is not wonderful if the Deſcriptions of Authors differ, who were perhaps deſcribing different Things; or if the Experiments of ſome ſucceeded, and thoſe of others did not; when ſome made them with the natural Bone, and others with the factitious. The factitious are of various Sizes, Shapes, and Colours, as ſome of them have been made by Perſons who never ſaw one of the natural ones; and others by thoſe who have faſhioned them exactly according to a natural one, which they have kept as a Pattern. I remember to have once ſeen two of them in the Hands of a Perſon who traded in Rhubarb and ſome other Drugs from the *Eaſt-Indies*, the one of which was as big as a Wallnut, of a duſky Colour, and ſeemed an argillaceous or cretaceous Earth; and the other black and poliſhed, which ſeemed made according to the niceſt of all the Adulterations of it, of the Bone or Horns of ſome Animal burnt to a Blackneſs. The true and natural one I never yet ſaw.]

CHAP. XVIII.

Of the Foſſil *or* Mineral Unicorn Horn.

IT is not without Reaſon that the *Indians* make this Stone an Ingredient in the *Snake-ſtone* before treated of; however, as it is a Drug ſo little known, and of which ſo few Authors have written, I ſhall add here what *Wormius* has written of it, that Phyſicians may know it, and bring it into Uſe.

The *Foſſil Horn*, called *Ceratites* by *Gerner*, *Foſſil Ivory* by *Cluſius*, *Arabian Stone* by *Ciſalpinus*, by ſome *Petrified Elephants Tooth*, and by others *White Steinmark*, has had all theſe Names given it by Authors, according to the various Forms it has in different Places appeared in.

It has great Affinity to ſome of the Kinds of *Oſteocolla*, and has therefore by ſome been placed among the ſofter Stones.

It is a ſtony Subſtance, ſometimes reſembling a Horn in its Colour, Smoothneſs, and Shape; ſometimes harder, ſometimes ſofter, covered with an outer Cruſt, which is yellowiſh, black, or aſh-coloured, and very hard, and filled within with a ſoft, white, light, friable Subſtance, compact and without Pores, aſtringent to the Taſte, and drying, ſticking firmly to the Tongue, and of an agreeable Smell: It is found in *Italy*, and many Parts of *Germany*, *Moravia*, *Sileſia*, and *Saxony*.

Boetius gives this Account of the Matter and original Formation of it. "I take, ſays he, the "productive Matter of theſe Horns to be a Marl "of ſome kind, which is diſſolved in the Bowels "of the Earth by ſubterraneous petrifying Waters, "and flows like Milk through the Cavities of the "Earth, in which, if the adventitious Water be "abſorbed by the circumjacent Earth, or find "Ways of running ſeparately off, the heavier and "firmer Parts filling up thoſe Cavities remain in "them, and coaleſce by degrees as the Humidity "gets

"gets off, and takes the Form of a Stone or "Horn, or only of a Marle, as before, according "to the greater or leſſer degree of petrifying "Power the Water it was diſſolved in, was en- "dued with. This is the Reaſon why ſome Pieces "of it are found large and thick, others ſmall and "ſlender. But if this lacteous Humour does not "fall into a Cavity of the Earth, but into ſome "Piece of Wood already deprived by Time of "its own Juices, and inſinuates itſelf into its light "and porous Subſtance, and there the more fluid "Parts run off, and the marly remain behind, it "makes an entire Change in the Wood, and aſ- "ſimulates all its Parts to its own Subſtance; yet "leaves it ſo much of itſelf, that the Species of "the Wood may ſometimes be known, and its "natural Odour yet remain in ſome degree in it. "What in this Syſtem happens to Wood, may "alſo happen to Ivory, or Stags Horns, or other "Parts of Beaſts, if they chance to lie in the way "of this Fluor, and be in a Condition to receive "it into their Pores."

This Hypotheſis ſeems entirely conformable to Truth, for the Virtues of this foſſil Horn are the ſame with thoſe of Marls, Boles, and Seal'd Earths; and what others imagine of the Horns of Unicorns diſperſed into various Places at the Time of the Deluge, and changed into their Texture by Bitumens, ſtony Subſtances, Ambers, *&c.* carries little or no Probability with it.

The *Foſſil Unicorn's Horn* is eſteemed good in all malignant Diſeaſes, the Plague, Malignant Fevers, and Poiſons, like the *Terra Lemnia*; it ſtrengthens the Heart, and preſerves it from Malignity, and expels malignant Humours by Sweat: The Doſe is a Dram, in Wine or any appropriated Liquor; or in Syncopes, Tremors, *&c.* a Scruple only, in ſome appropriated Liquor: It is alſo ſaid to be good in Epilepſies, to deſtroy Worms, ſtay Fluxes and Hæmorrhages of all kinds, and for Runnings of the Eyes, mixed with Milk, and inſtilled into them; as alſo, by its aſtrictive and drying Qualities, to bring Ulcers to cicatrize, and to cure Gallings and Burns.

It has, however, been very juſtly obſerved, that it is not to be expected that every Piece of this Foſſil ſhould poſſeſs all thoſe Virtues, as there is a vaſt Diverſity between different Pieces of it; and as they differ plainly in Form, Origin, and Subſtance; they very well may be ſuppoſed to differ alſo in their Virtues.

Such of them as are hard like a Stone, and have no internal ſofter Parts, nor any Smell, have ſcarce any other Virtues than merely thoſe of drying. Such a Piece I have in my poſſeſſion, which is hard as a Stone, ſolid, heavy, and carrying the Appearance of a piece of Aſh-wood; for the Veins, Striæ, and Laminæ it is compoſed of, are ſo marked with Knots and knotty Foramina, that it plainly has the external Appearance of a piece of Aſh; for which Reaſon I have choſen to range it among the petrified Woods, rather than the foſſil Horns. It has no Smell, nor any aſtringent Virtue.

Thoſe which have the Virtues before mentioned, are ſuch as are eaſily reduced to Powder, are ſoft, and adhere to the Tongue; and particularly, thoſe which have an agreeable Smell are commended for Cardiacs, to ſtrengthen the Heart, and defend it from Malignity. If the Subſtance of them before the Tranſmutation was a Part of the Stag or Elephant, or of the Aſh or Walnut Tree, or any other Matter good againſt Poiſons, this Foſſil then poſſeſſes the Virtues of expelling and reſiſting Poiſons; and the more ſo, if the Smell of the tranſmuted Subſtance be yet perceivable in it, as the Virtues of the original Subſtance are then judged not to have periſhed, and to be greatly exalted and improved by the adventitious Matter.

Some Fragments of this kind I have by me, one, of the thickneſs of an Arm, three Inches long, and two and a half in diameter; the external Coat of which being taken off, the internal Subſtance is very white, ſtaining the Hands white in handling it, with blue and browniſh Veins running longitudinally in it, adhering to the Tongue, and reſembling burnt Hartſhorn: This is of the weight of five Ounces, and I judge it to be of the beſt kind.

Another kind I have, which is of an Aſh-colour, more compact than the former, but ſoft, and of an agreeable Smell, looking like burnt Hartſhorn, and very aſtringent.

A third in my poſſeſſion is brown, its external Coat tending to Blackneſs, ſomething harder than the other, but yet eaſily ſcraped with a Knife, light, aſtringent, and not ſo brittle as the other: This much reſembles burnt Ivory.

Another brown one I alſo have, but marked with black, white, and yellow Veins, running longitudinally; this is of the length of a Finger, weighing five Drams; it is brittle, ſandy, like ſome kind of Wood, of an agreeable Smell, and ſtrongly aſtringent: This alſo I judge to be of the better kind. So far *Wormius*.

This Foſſil gives me Occaſion to ſpeak of a white Earth, which is found on the Side of the Seigniory of *Moſcau*, belonging to the Elector of *Saxony*, which the Inhabitants of the Place uſe to

make Bread, mixing it with Wheat or other Flour: It is alſo found at *Gironne* in *Catalonia*. It is this white Earth which is commonly called *Steinmark*, or *Medulla Saxorum*.

It is to be be obſerved, that they do not uſe all this white Earth to make their Bread with, but only certain little Protuberances, white, and like Meal, which throw themſelves out of that Earth when the Sun has heated it.

[This is the *Unicornu foſſile*, *Boc. Muſ.* 62. *Cornu foſſile*, *Charlt.* 23. *Cornu foſſile vulgo Monocerotis Cornu*, *Boet.* 425. *Ceratites*, *Ald. Muſ. Met.* 63. *Genſ. Lap.* 154. *Ebur foſſile*, *Cluſ. Exot.* 168. *Lapis Arabicus*, *Cæſalp.* 611. It is often dug up in the Form of Bones and Teeth, particularly of the *Dentes molares*, in which one may perfectly diſtinguiſh between the Root of theſe Teeth and that Part of them which was above the Gums; which makes it unqueſtionable, that they are really Petrifactions. *Wormius* has very judiciouſly diſtinguiſhed the Kinds of moſt Virtue, but at preſent none of them are uſed or kept in the Shops.

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