

6. Every body knows, that Copperas, mixed with Infusion of Galls, makes Ink; but every body perhaps does not know, that Ink reddens blue Paper: Mixed in a very little Quantity with Solution of Turnsole, it gives it a little reddish Cast; but this Colour is less sensible, than upon the blue Paper.

7. The Spirit of Vitriol muddies and whitens a little the Infusion of Galls: The Oil of Vitriol thickens it, makes it of an ash Colour, and it makes a thick Precipitation.

8. The Solution of Copperas, its Spirit and Oil, curdle Milk.

9. It does not change at all that of Sublimate corrosive.

10. It becomes a grey-brown and like Sea-green, mixed with Oil of Tartar, or with Lime-water. This Colour does not change, although it be mixed with corrosive Sublimate, Spirit of Vitriol, and Oil of Tartar, ferment with a great deal of Froth, and a considerable Heat; but all these augment, if instead of Spirit you use the Oil of Vitriol, and all their Mixtures become a white Coagulum.

11. Common Water, and Oil of Vitriol, grow also very hot, and generally make a Noise; there is no Fluid, that more easily grows hot with the Mixture of others, than the Oil of Vitriol.

It appears, by all these Experiments, that Vitriol naturally affords a great many Signs of Acidity.

IV.

A L U M.

1. Alum is a little saline, and very styptic.

2. The Solution of Alum tinges of a fiery Red the blue Paper, and Solution of Turnsole.

3. It does not alter the Colour of Syrup of Violets.

4. It curdles Milk.

5. It instantly makes a white Coagulum, with Oil of Tartar, but without Heat or Smoke.

6. It does not alter the Solution of Sublimate.

7. It makes the Infusion of Galls muddy, and whitens it considerably, throwing down a Precipitation.

8. It whitens Lime-water a little, and this Mixture does not turn yellow, when mixed with Sublimate corrosive, but it forms little white Clots like Starch; this is perhaps occasioned by the Urine, which is employed in the Crystallization of Alum; so we cannot conclude any thing from all these Experiments, except that Alum contains a good deal of Acid.

V.

S A L A M M O N I A C.

1. Sal Ammoniac is acrid and saline.

2. Its Solution tinges blue Paper of a dark Red: It does not at first change the Solution of Turnsole, but a Day after this Mixture becomes a reddish Brown.

3. It does not curdle Milk.

4. It does not alter the Solution of Sublimate corrosive.

5. Mixed with Oil of Tartar, or with Lime-water, it emits an urinous Spirit.

6. This Spirit coagulates, and whitens the Solution of Sublimate. From Sal Ammoniac one may also draw an acid Spirit, like the Spirit of Salt; thus the Sal Ammoniac appears to be a marine Salt united with an urinous one.

7. The acid Spirit of Sal Ammoniac hinders the Lime-water's changing Colour, when it is mixed with the Solution of Sublimate; but the whole Mixture becomes white as Milk, if you pour on the urinous Spirit of this same Salt, the Sal Ammoniac thus causing the same Effect upon Lime-water and Sublimate, as its urinous Spirit does. It is certain, that this is the urinous Part, and not the acid Part of this same Salt, which whitens the Lime-water, when mixed with Solution of Sublimate. Urine whitens it more faintly than the Solution of Sal Ammoniac.

8. The acid and urinous Spirit of Sal Ammoniac ferments with Heat.

9. If you pour the acid Spirit of Sal Ammoniac upon Lime-water tintured by the Sublimate corrosive, the Whole becomes transparent; and all this becomes white as Milk, if you add the urinous Spirit of Sal Ammoniac. The Spirits of Salt, of Vitriol, of Sulphur, perform the same as the acid Spirit of Sal Ammoniac.

VI.

T A R T A R.

1. Tartar, which is nothing else but the essential Salt of Wine, is sourish.

2. Its Solution reddens the blue Paper, and the Solution of Turnsole, as lively as Alum.

3. It whitens Lime-water, but it does not hinder its becoming a Red-orange, when mixed with the Solution of corrosive Sublimate.

4. It makes no Change when mixed with corrosive Sublimate, or with Infusion of Galls.

5. It does not change with Spirit of Sal Ammoniac.

6. Mixed with Oil of Tartar, it does not receive any Change.

7. The Spirit of Tartar contains a good deal of Acid; it gives a lively Red to the Solution of Turnsole, and renders the Syrup of Violets of a reddish Brown.

8. It makes a Coagulum with *Oleum Tartari per Deliquium*.

9. Mixed with Lime-water, it does not change Colour; but if you pour upon the Mixture a good deal of the Solution of Sublimate, the Whole becomes whitish. Thus it is probable, that beside the Acid, this Spirit contains an urinous Part; but it does not appear so strong as one would judge at first by its Smell.

10. Mixed with the urinous Spirit of Sal Ammoniac, it thickens, becomes whitish, and makes a thick Coagulum.

11. It renders whitish the Solution of corrosive Sublimate, and makes a Coagulum, the Grumes of which are of the same Colour.

12. It does nothing at all with the acid Spirit of Sal Ammoniac.

13. The Salt of Tartar dry, or dissolved into Liquor, which is called Oil of Tartar, is acrid, and very bitter; this Bitterness does not go away but by the Mixture of a great Quantity of acid Salt.

14. The Oil of Tartar, and Solution of corrosive Sublimate, make an orange Colour, which approaches more or less to a Yellow, according as the one or the other of the Liquors predominate; but the Whole becomes transparent by the Mixture of an acid, corrosive Spirit.

15. It does not give any considerable Change to Spirit of Vinegar; one discovers only that Kind of trembling, where some Parts are stirred like the Appearance of Dust in the Sun.

16. Oil of Tartar, and Spirit of Vinegar, mixed, don't forbear turning yellow, when mixed with Solution of Sublimate.

17. Oil of Tartar ferments with the corrosive acid Spirits.

18. Oil of Tartar, and acid corrosive Spirits, don't forbear turning yellow, when mixed with Solution of Sublimate.

19. Oil of Tartar, and the urinous Spirit of Sal Ammoniac, don't change when mixed; but the Whole becomes thick, and white as Milk, when you pour on the Solution of Sublimate.

20. Oil of Tartar turns Syrup of Violets green.

21. Oil of Tartar thickens the Infusion of Galls.

VII.

L I M E - W A T E R.

It is not necessary to repeat here what we have already said concerning Lime-water: We will only remark,

1. That it becomes very white, when mixed with Oil of Tartar; it makes a very thick Coagulum, which seems to indicate some Acid in Lime.

2. Mixed with the corrosive Acids, it becomes more clear; the same also when mixed with distilled Vinegar.

3. Mixed with the urinous Spirit of Sal Ammoniac, it turns white.

4. Mixed with a strong Infusion of Galls, it becomes thick, greyish, approaching to brown; and one may observe upon its Surface a black Spot, like a Drop of Ink: Thus Lime-water seems to have something of Vitriol.

VIII.

E A R T H.

One may see by all these Experiments, what Affinity there is between the natural Salt of the Earth, and the other Salts whereof we have been speaking; but moreover that of the Earth is wrapped up with a great deal of Sulphur.

The mineral Sulphur, Bitumens, Pit-coal, Jett, and Petroleum, prove, that the Earth is not without a natural Sulphur.

By the Chymical Analysis the pure Earth, without Dung or Rubbish, yields a fetid Oil, and an urinous Spirit; the Remainder, which you draw, participates more of Alkali than Acid.

Garden Mould, well dried and sifted, gives Spirit of Wine a lemon Colour, after five or six Days Infusion upon warm Ashes.

1. This Spirit of Wine does not presently change the Colour of Solution of Turnsole; but soon after it precipitates, and the Remainder becomes grideline. Common Spirit makes the same Precipitation, but the Liquor remains blue.

2. It becomes pretty white and thick by the Mixture of Water; but some time after it becomes grumous, and precipitates in form of a yellowish Refin; all which does not happen to the common Spirit of Wine.

3. It becomes very white with Solution of Sublimate, and grows warm; this Solution, mixed with common Spirit of Wine, grows warm also, but the Whole remains clear.

4. It whitens likewise by the Mixture of Lime-water, and precipitates a resinous Matter.

5. It

5. It mixes but very indifferently with Oil of Tartar; and after these two Liquors have been well shaken together, they become thick.

6. It occasions no Change with urinous Spirit of Sal Ammoniac, nor with the corrosive Spirits, except that it heats them a little; but that is the same with the common Spirit of Wine.

7. It grows hot with Lime-water, and hinders its turning yellow with corrosive Sublimate; these Liquors make just such a dirty White, as you may observe when you mix Urine with Lime-water, and add Sublimate to it. The common Spirit of Wine grows hot also with Lime-water; but the Whole becomes a Red-orange, when you pour on the Solution of Sublimate.

These Experiments shew, that there is a Sulphur, an alkaline Salt, and Sal Ammoniac in Earth. Sulphur also appears in the Extract that remains after Evaporation of the Infusions of Earth; for this Extract makes a kind of Soap, very thick, when mixed with Oil of Tartar.

After all these Experiments, we have made no great Difficulty, *scilicet*, to compare to Sal Ammoniac, those Salts of Plants, which, by a Mixture of Oil of Tartar, or Lime-water, emit an urinous Spirit; and which, by Chymical Analysis, produce also a volatile crystallized Salt; for it is probable, that the volatile Salt is nothing but the urinous Part of the Sal Ammoniac of the Plant, which leaves its acid Parts by Force of Fire: Thus, by the Mixture of Oil of Tartar, or Lime-water, the urinous Spirits appear to be nothing but part of the same volatile Salt dissolved in Phlegm, and the fetid Oil is as much loaded with the same Salt. We must not therefore wonder, that these Sorts of Plants are aperitive, deterrive, febrifugous, vulnerary, and the like; for Sal Ammoniac has all these Qualities.

It is proper to observe, that although Sal Ammoniac seems to be but in very small Quantity in Infusions of Earth, yet it is very considerable; for the urinous Spirit, which by the Mixture of Oil of Tartar separates itself from these Infusions, is only a Part of the Sal Ammoniac; and the white Colour which the same Infusion gave to the Lime-water and corrosive Sublimate, denotes that this Part is very considerable. On the other hand, this Salt is insensibly gathering several Days in Plants; and the Quantity of volatile Salt, which is obtained from four or five Pounds of a Plant, is commonly only from half a Dram to six Drams. Of all the Parts of Plants, the Leaves are most fit to be loaded with Sal Ammoniac; for the Roots, Flowers, and Fruit, retain more properly Acids. The Oil is commonly distributed in the Seeds, and the Phlegm diffuses itself through the whole Plant.

2. Alum seems the most proper to explain the Virtue of such Plants as are styptic, astringent, and which, by Chymical Analysis, afford a great deal of Acid, and much Earth; for these two Parts must make a Salt analogous to Alum. There are a great many of these Sorts of Plants, which also afford a little urinous Spirit; and this seems to denote, that besides the Alum, there is some Sal Ammoniac in their Composition.

3. Those which are aperitive, and from which a great deal of Acid and Earth is drawn, have perhaps a Salt not much different from that of Coral.

4. It is supposed, that the Plants which, besides the Acid and Earth, yield alkaline Liquors, or Signs of Sal Alkali, do contain a Salt like to *Tartarus Vitriolatus*, or to that Preparation of Salt of Tartar, which *Mullerus* and *Sennertus* have called *Terra foliata Tartari*, or *Tartarum foliatum*. Sometimes we have compared the Salt of these Plants to that which *Angelus Sala* has named *Oxyfal Diaphoreticum*; but all these Salts, in the same manner as *Sal Ammoniac*, are modified in Plants by different Portions of Sulphur and Phlegm. See *TARTARUS VITRIOLATUS*, *TARTARUS REGENERATUS*, and *OXYSAL DIAPHORETICUM*.

5. It is probable, that in aromatic Plants, as several skilful Persons have proposed, there is something like that Chymical Preparation, which is called the volatile, aromatic, oily Salt, or oily, volatile, aromatic Spirit; for both of them are drawn at the same time. See *AMMONIACUM*.

We commonly draw less concrete volatile Salt from these Sorts of Plants, than the others: It seems that Sal Ammoniac dissolves itself in their Texture; and then the urinous Part being separated from the Acid, and uniting itself to the essential oily Parts, that little which remains of the concrete urinous Salt insensibly evaporates. *Martyr's Tournefort*.

*ANA-MALLU*. The Name of a leguminous Shrub, which grows in the *Brazil*. The Natives make use of the Thorns of this Plant, after taking off the Bark, to bore their Ears with. They also make a Decoction of the Leaves, in Water wherein Rice has been washed, or in Whey, which they use by way of Bath, in case of an Intumescence of the Belly, either from Wind or extravasated Lymph. It is taken Notice of in the *Hortus Malabaricus*.

*ANAMIX*, ἀναμιξ, an Adverb used by *Hippocrates* to express *promiscuously*, or the mixing Ingredients together.

*ANAMNESIS*, a Recollection, or Remembrance. Hence *ANAMNESICA SIGNA*, commemorative Signs; that is, Signs by which we discover the preceding State of the Body; as demonstrative Signs are those which shew the present, and prognostic Signs those which shew the future State. It is derived from the *Greek* Preposition ἀνά, and μνήμη, to remember.

*Blancard* explains *ANAMNESICA*, Remedies which restore the Memory.

*ANANAS*, the Pine-apple.

The Characters are; It hath a Flower consisting of one Leaf, which is divided into three Parts, and is Funnel-shaped; the Embryo's are produced in the Tubercles; these afterwards become a fleshy Fruit, full of Juice; the Seeds, which are lodged in the Tubercles, are very small, and almost Kidney-shaped.

The Species are,

1. *Ananas aculeatus, fructu ovato, carne albida*, Plum. OVAL-SHAPED PINE-APPLE, WITH A WHITISH FLESH.

2. *Ananas aculeatus, fructu pyramidato, carne auria*, Plum. PYRAMIDAL PINE-APPLE, WITH A YELLOW FLESH.

3. *Ananas folio vix serrato*, Boerh. Ind. Alt. 2. 83. PINE-APPLE, WITH SMOOTH LEAVES.

4. *Ananas lucide virens, folio vix serrato*, Hort. Elth. PINE-APPLE WITH SHINING GREEN LEAVES, AND SCARCE ANY SPINES ON THEIR EDGES.

5. *Ananas aculeatus, fructu pyramidato virecente, carne aurea*. THE GREEN PINE-APPLE, WITH A PYRAMIDAL FRUIT, COMMONLY CALLED THE SUGAR-LOAF-PINE IN *BARBADOES*.

6. *Ananas fructu ovato ex luteo virecente, carne lutea*. THE OLIVE-COLOURED PINE.

The first Sort is the most common in *Europe*; but the second Sort is much preferable to it, the Fruit of this being larger, and much better flavoured; the Juice of this Sort is not so atringent as is that of the first, so that this Fruit may be eaten in great Quantity, with less Danger. This Sort generally produces six or seven Suckers, immediately under the Fruit, whereby it may be increased much faster than the common Sort; so that, in a few Years, it may be the most common Sort in *England*.

The third Sort is preferred by some curious Persons, for the sake of Variety; but the Fruit is not near so good as either of the former.

The fifth Sort is, at present, the most rare in *Europe*; there being very few of the Plants at present: This is esteemed the best Sort, yet known, by some of the most curious Persons in *America*, who have thrown out all the other Sorts from their Gardens, and cultivate only this Kind. The Plants of this Sort may be procured from *Barbadoes* and *Montserrat*, in both which Places it is cultivated. The sixth Sort was brought from *Jamaica*; this is not very common in *England* as yet; it is esteemed a very good-flavour'd Fruit, by those who have tasted it; but it being a very backward Sort, will render it less valuable in our Climate; for this Sort will require a Month longer time to ripen, from the first Appearance of the Fruit to its Maturity, than most of the other Sorts. I have also heard of another kind of Pine, whose Flesh is very green, and the Outside yellow; but having never seen the Sort, I cannot give any Account of it. There are many other Kinds to be found in the several Countries where they are cultivated, which have arisen from Seeds, which differ in their Shape, Colour, and the Flavour of their Fruit; so that as these Fruits become common in *Europe*, all the bad Sorts should be rejected, and such only as produce fine Fruit should be cultivated.

This Fruit, which is justly esteemed for the Richness of its Flavour, (as it surpasses all the known Fruits in the World) is produced from an herbaceous Plant, which hath Leaves somewhat resembling those of an Aloe, and are, for the most part, saw'd on their Edges; but are much thinner, and not so juicy as the Aloe: The Fruit resembles the Cones of the Pine-tree, from whence it is supposed to have its Name.

Where this Plant is a Native, I believe it is hard to determine; but it was brought from the Factories in the *East-Indies*, and planted in the hottest Islands of the *West-Indies*, where they are in great Plenty, and extraordinary Goodness; but it hath been very lately that it was introduced into the *European* Gardens, so as to produce Fruit: The first Person who succeeded in this Affair, was *Monfieur Le Cour*, of *Leyden* in *Holland*, who, after a great many Trials with little or no Success, did, at length, hit upon a proper Degree of Heat and Management, so as to produce Fruit equally as good (tho' not so large) as those which are produced in the *West-Indies*, as hath been often affirm'd by Persons who have lived many Years there: And 'tis to this worthy Cultivator of Gardening, who did not spare any Pains or Expence to accomplish it, that all the Lovers thereof are obliged, for introducing this King of Fruits amongst them; and it was from him that our Gardens in *England* were first supplied,