







THE

SPAGYRICAL

PHARMACOPOEA

OR

DISPENSATORY

BOOKS 3, 4 & 5.

BY

JOHN RUDOLPH

GLAUBER.

ALCHEMICAL TEXT.



**THE**  
**THIRD PART**  
**OF THE**  
**SPAGYRICAL PHARMACOPOEA**

Wherein is taught, how by Salt and Fire, the Vegetables, Animals and Minerals may by a SPAGYRICAL way and method be Mundified, and how from them, Medicaments wonderfully penetrating and most speedily operating may be prepared.

As for the manner of reducing Vegetables, Animals, and Minerals, by Distillation into good and pure Medicaments, by the help of the Spirits of Salt, thus stands the case: The manner and way of distilling Vegetables, Animals, or Minerals PER SE, after the common manner or way into Oil, Spirit, and Volatile Salt either in a B. Sand, or naked Fire, which hath been long ago, and also is at this day in much use, I cannot in all respects commend, because that such Spirits, Oils, and Volatile Salts, (whether from Animals, or Vegetables) do all of them stink, and though they be often rectified, yet do they not totally lose that innate stink gotten in their Distillation, but do always retain a kind of an ungratefull EMPIREUM, and are thereby loathsome to the Sick (and that not without cause too) whereas otherwise they have abundance of virtues; but being rectified with Spirit of Salt (as I have taught in the second Part of my Furnaces) they become pure, and losing their stinch are gratefull and acceptable, but not at all so without that rectification. Now all Men know, especially the Spagyrist, that the chief virtues of Vegetables and Animals are placed in their Oils and Volatile Salts, (for you must note that in Minerals the contrary is found, for their mercurial parts are most virtuous) but both Oil and Salt do in distilling by a Retort pass over adust or burnt, and therefore are not made use of, and (the More's the pity) are serviceable to none. For all such as distill the Oils of Vegetables, by the apposition of common water, in Copper Stills, do know how very little a Portion is obtained by such a process, and that the greatest part of them (Oils) do abide in the Still, and are of no profit, because common water can't be made hot enough, to drive out the fatness, but it gives only some little portion, the residue is made thick and tenacious by the boiling, and remaineth in

the Herbs: Hereupon some Men knowing this thing, do add to the Herbs common Salt, and Tartar of Wine, whereby the water being rendered one degree hotter, gives more OIL: This is a way that I do indeed approve of, but yet the one half part of the Oil will not ascend, and therefore distilled Oils are commonly very dear, especially if made out of dear things. Whereas if the Oils were distilled by this method of mine, they would have much more Oil, whereby the poor might also buy them. I will instance in one similitude whereby it shall appear, what great profit may be made by distilling of Oils according to my method, and what a vast difference there is betwixt my method here described, and the common usual way. Suppose therefore that I seek after an excellent Medicine for the Stone, and that I do certainly know that it lies in the Ash, (as I have clearly enough discovered in the first and second part of this SPAGYRICAL PHARMACOPAEA, certainly knowing, that the Oil distilled out of its Seed doth (by manifold experience) far exceed all other Medicaments against the Stone). This Ash indeed yields a pretty quantity of Seed, but much of that Seed yields but very little Oil, because 'tis resinous, and doth not distill over with the water, and upon that account is prepared but by a few, and such poor Men as are sick, can't partake of it because of its dearness, and this is much to be bewailed, that the Omnipotent God should set before our Eyes this Medicine in such plenty and yet no body enjoy it. Besides this is to be observed, that if some diligent Physican should distill such an Oil, and yet not know how to correct it according to my method, he may sometimes do more hurt than good, because that Oil, brings over with it a certain volatile Salt, which (infects or works on) the Copper Vessel it is distilled in, and the Copper refrigeratory which it passeth through, and is usually thereby rendered yellowish, or green, and hath been by many discreet Men made use of without any regard thereunto, and (by reason of the Copper) hath put a nauseate and debility of Stomach upon the Sick, and hath been more hurtfull than beneficial. But now if they had rectified it with Spirit of Salt once, or at least well shook it in a Glass, with the said Salt Spirit, that so the Copper might have been extracted by the Spirit of Salt, and so have administred it, they had done well, and would have gotten a most excellent Medicine, though I confess somewhat dear, (proceeding this way) because that a Sack-full of the Seed, and as much as a Porter can carry at once, will scarce give two ounces of Oil, and this is too dear for the Poor Man's Purse.

For the sake therefore of all sick People as well Poor as Rich, I

will discover my way that I use in getting the Oils, Spirits, and Volatile Salts out of all the Vegetables, and that in good quantity, and with very small Costs, that so all Men may partake of the gifts of God, and may all have occasion of giving thanks to the Creator of all good things.

Take therefore in Gods name whatsoever Vegetable you list, and fill a great Glass Retort therewithall, and by degrees distill over all that will come. Separate the Oil from the Spirit, and the Spirit by rectification from the Volatile Salt; rectifie also this Volatile Salt, and the Spirit upon its own CAPUT MORT or upon some other Salt of Ashes being first fired and calcined, and so they will become pure and lose that fetid stinch that they got in the Distillation: If one rectification is not enough, add a second or a third, always provided that it be done on the fixed Salt of that Herb out of which you drew the Spirit. Now though the Oil be also depurated by a rectification upon the CAPUT MORT, yet that depuration and rectification is not comparable to this of mine which I mention here, and therefore well do we prefer this way, and 'tis thus.

Take your black distilled Oil, put it in a Glass Retort with six or seven times as much rectified Spirit of Salt, and give first a gentle Fire, then a greater as the thing requires, so the Oil will pass over pure with the Spirit of Salt, and the stinch together with the blackness, will stay behind with a part of the Spirit of Salt. If now you will have that Oil yet purer, then rectifie it again with new Spirit of Salt until both the Odour and Colour thereof please you. As for the Oil that stayed behind and did not ascend, separate it from the Spirit of Salt, and 'twill be somewhat thickish like to a black Balsom, and hath great virtue both inwardly and outwardly, but its inward use we need not, for we have enough of the pure Oil for that purpose. But that I may be yet farther serviceable to my Neighbour, and that he may understand me more thereby, I will make use of this similitude or example. Put case, that I have some four, five, or six pounds of the Seed of the Ash, which falls from the Trees in the Month of SEPTEMBER or OCTOBER, I do fill a Retort with the same and by it distill the said Seeds, and I usually have about one or two, sometimes three, four, five, or six drains of black Oil, some ounces of Volatile Salt, and some pounds of Acid Spirit: Now forasmuch as I seek for the Oil only, I separate this from the Spirit, and rectifie it with Spirit of Salt until

it becomes pure, and this I keep for my use; and I make of the Spirit either a certain Essence, as I have taught in the first part of my PHARMACOPAEA, or sugered Tablets, (or Lozenges) or what I please: And by this way I get more Oil out of five or six pound of the Seed of the Trees, than otherwise by the VESICA or common hot Still, out of 100 pound, and that which remaineth after rectifying is profitable for external uses, if it be prepared as follows, viz. Separate this thick Oil from the Spirit of Salt and mix it with Wax, that so it may be made somewhat thicker, so as to be spread like an Emplaister, the which put upon the Reins, and use the distilled Oil inwardly, and thus this Emplaister will perform as much outwardly as the distilled Oil operates inwardly, and so the Patient is thereby doubly repaired and helped. And if you desire yet a third way of healing, then rectifie the acid Spirit well, and dissolve the Volatile Salt by subliming it with the Spirit, and use this Spirit every day, (besides the inward use of the distilled Oil) on this wise: Heat it a little, and dip in it some Linnen Cloths and therewith wash or bath the Back and Reins putting on the Emplaister afterwards, and hereby the Sick Person will in a short time (unless God doth in a singular manner put a stop thereto) certainly recover.

Note well, after this manner may you distill all other Vegetables into Oils, Spirits, and Emplaisters, and make use of them in this Disease, such as are Saxifrage, Parsly, Cumin, Carraways, and such like other Herbs and Roots: Neither is it always necessarily to have the Ash Seed, unless you please: For that this Tree is not to be had in all places, and it yields also at some Seasons but little Seed? N. B. Here some may demand and say, you have taught us the manner of preparing Oils, Spirits, and Balsoms out of the Seeds, but now if such a Medicine could be made out of the Herbs it would be something, for whence shall so much Seed be had? I Answer. If thou hast not so much Seed, thou may'st make the Medicine out of the whole Plant, as the Root, Stalk, Flowers, and Leaves: And the reason why I mentioned only Seed, was this, because the chief virtue of all the Vegetables, is occultly placed and concentrated in the Seed, else the whole Plant may (as aforesaid) be made use of, which although it yield not so much Oil as the Seed does, yet may we even this way receive a good quantity: And if we should neither take Seed, Herb, Leaves, or Stalks, yet would the Root alone afford much Oil; but in, Trees, as in Ash, Linden, Nut, Cherry, Peach, and the like, the very bare Wood it self will abundantly supply, if distilled PER DESCENSUM, or by a Fire of suppression (of which afore) so

that a little Ash if rightly handled may afford you some pounds.

Nor are you to suppose that this way of plentifully preparing the Oils of Vegetables and clarifying them by Spirit of Salt, serves only for such Vegetables as are good against the Stone, because I have only instanced them as examples; No, but even all Vegetables, serving for every Disease, may be by this aforeshown way reduced into most sweet Medicaments. Nay not only Vegetables may, but also Animals and Minerals too, but with some difference and distinction, which we shall mention in what follows.

There remains yet one thing more to be mentioned about the Oils of Vegetables, and the Distillation of them, and 'tis this. Some or other may reply and say, that haply such Oils as are prepared first by a Retort and PER DESCENSUM, and then rectified and clarified by Spirit of Salt, are not equivalent in their virtues to those which are distilled in a Copper by the help of Water. For prevention of this Quaery, and the removal of such needless cares, we do in the first place demand, in what the virtues of the Animals and Vegetables, do consist, whether or no in their connate and occult property, or in the Odour, Savour, and Taste. For answer, the greatest virtue of most Herbs, and living Creatures doth for the most and greatest part consist in their Co-nate or Co-born nature and property, and not in the Odour or Savour, as is sufficiently evident in some Plants, which have scarce any Odour or Savour, and yet are found notably efficacious in Medicine, and some there are both of a sweet Odour and Savour, which have no Medicinal use, and some that have an ungratefull Odour and Savour, and yet have no mean Medicinal Virtues. And many there be of things which both smell and taste sweet, and are also profitable in medicine, because God hath created them so or to that intent. I must needs confess, that sometimes an Odour or Savour of such an Herb as hath but little virtue is notably refreshing and comfortable to the vital Spirit, nay more, the very seeing of a fair and comely thing is capable of comforting the Heart, and an ugly thing of debilitating it; a notable example hereof we have in a friendly man, and in Gold, as being things which by the very beholding of them do refresh the Heart, whereas contrariwise, and angry man, and a venomous Creature do terrifie it, (viz. the Heart) and as 'twere make it Sick, yea, and sometimes kill outright. Besides, not Only the seeing of such and such objects do profit or hurt, but even the very voice of a man, or of a living Creature do hurt, weaken, and kill, if proceeding from a

malignity. Farther, the bare imagination can effect good or evil, heal or hurt; but this belongs not to this place, but such things are treated of in my short Treatise of things natural and supernatural. That which I have here spoken is to this end, that the unskillfull might know, that the virtues of Vegetables do consist more in their Co-born Nature than in the Savour or Odour, and that this Distillation by a Retort, and rectification by Spirit of Salt, can neither add to or diminish from their virtues, because their virtue remains always unhurt, in what manner soever the Distillation be made, provided that that which is distilled be diligently depurated, and all the ungratefullness removed therefrom which it got in the operation, that is to say, when Oils are adust (or Savour of burning) by their being distilled in a Retort, then that accident may be taken away from them by rectification with Spirit of Salt, and this now I add for the sake of the Ignorant.

Moreover as it is with Vegetables, so likewise must you order your distillation of the Oil, Salt, and Spirit of Animals: Neither need you to proceed farther or otherwise. As for the Virtues of both Animals and Vegetables, the Physican ought to know them by their Signature, and not by the books of Writers, because the Signatures doth shew us the Virtues of all things much clearer and righter than many Writers, who write many things meerly from hear say, whereas themselves do in truth know very little or nothing at all. And thus for this time I omit to say any more, for that the present occasion will not admit of a more prolix discourse hereabouts. What I have done is for the Sick that are poor, that they might know my method of purifying the Spirits of the Acid Salts from Vegetables or Animals, by Spirit of Salt, and of bringing them into wholesome Medicaments: And this cannot be accomplished so plentifully without this Medium; and now this way being shown, the Poor may also enjoy the benefit of them, and be able to pay the Apothecary, whereas before even the Rich could hardly have any of the good (in them). Note well, you are yet farther to observe, that indeed the Animals are first to be distilled by a Retort (as we spake before concerning the Vegetables) that so their Oil, Spirit, and Volatile Salt, may pass over together; and their Spirit and Volatile Salt may be rectified and purified the aforesaid way. But the Oil will not come over, by a bare Spirit of Common Salt, or of Niter, but that Spirit must be first concentrated with CALAMINARIS, and then it brings over the Oils of Animals, else not. But as touching the Concentration of the Acid Spirit for this rectification, we shall speak of it anon, and will therefore



first set down (for better instructions sake) one certain process of distillation and rectification, lest any might err, and that all might rightly apprehend my meaning; and 'tis this: Take some pounds of Turpentine, distill thence an Oil, and the Faeces of the Turpentine will stay behind. This Oil though it be rendered by Distillation purer than 'twas before, yet it hath put on another nature by means of the Fire, viz. an hotter nature, and therefore serveth not for every effect which the Turpentine before served for, because the Turpentine is not very thick nor very thin, nor too hot or too cold, nor too subtile or too thick or gross, but is of a temperate essence and property, which now by Distillation it possesseth no longer, but because of its heat and subtilty, it is unusefull. Well, what of all this? Why some or other might have objected to me that indeed things are by distillation rendered more pure and subtile, but do thereby get an hotter nature and virtue, and therefore that way of purifying doth not do well in all subjects. Well, to prevent this objection, and that the distilled Oils may after their purification be restored to the same degree of thickness, rarity or thinness, colour or frigidity, that they had before, and yet retain the purity they got by distilling; the method is easie, and is thus done. Suppose that Turpentine be (as it is Turpentine) hot and subtile in the first degree, but being distilled it arrives to the third degree, and being rectified to the fourth. I must now needs confess that the subtile Oil is to be used only in cold affects, and in no others, whereas it might before have been employed about other accidents. To this I say, and yield, that if it be proceeded with after the common and known way, 'tis so: But my way is far otherwise to be reckoned of: For though hereby the things distilled do, together with a purity, get a subtile heat, and do in some operations become too thin and hot, yet in rectifying by the Acid Spirit, such qualities are broken, divided and dissipated, so that it is in part rendered of a like thickness and tenacity as it was at first, and a part of it remains subtile. So that you may have out of one subject, both thin, hot, thick and temperate parts together, but both of those parts pure, as shall be evinced by this Example.

The Spirit of Salt, or of Niter is indeed inwardly a mere Fire, but externally a mere Cold, by which all thin things do stiffen and wax hard. Therefore as the distillation doth induce heat, expels and extenuates, so the rectification doth by the acid Spirit compel or drive the same inward, thickeneth it, and reduceth it into an equil

temperature: For the Oil in the first distillation is plainly hotter and subtiler both within and without, than 'twas before, but by rectifying it with the acid Spirit, the most subtil part comes over first, then the middle part, and the thickest resides in the bottom, which is of an equill degree of heat and thickness as the Turpentine is, and is as usefull both inwardly and outwardly as the Turpentine it self is. And I have over and above that middle Oil, and that most subtil Spirit burning and penetrative, the which I can make use of for those effects, which require such subtilty, or if I list, thicken it with what I left remaining of it self behind, which is thick, but yet purified, or else thicken it with some other convenient thing. And thus may I reduce one Subject into as many Degrees as I please, whereas the Turpentine had before but only one Degree: From hence may the friendly Reader see what BASIS this my distillation and rectification by an acid Spirit hath: Whereby not only a great deal, yea 3,4 or 5 times more Oil comes over than by the common hot still; but also the Volatile Salts and the Spirits, and sharp Vinegars may be hereby gotten out of Vegetables and Animals, and besides a pretty quantity of thick Oil to be externally used, and which otherwise in distillation by water in a VESICA or hot Still, would remain wholly behind. The benefit therefore of this distillation and rectification, doth not only consist in the getting a far greater quantity of the pure Oil, but also in getting the Volatile Salt, (which as to: its use is equilivent in virtue to the Oil) and withal, an acid Spirit which abundantly sufficeth both inwardly and outwardly according to its Office. I do therefore earnestly demand of all skillfull Spagyristes (for 'tis in vain to appeal to such as are yet ignorant what the Art of Fire is) whether or no this distillation is not to be preferred before the others, and to be made use of for the benefit of mankind. I hope that the well minded Reader will follow this rule, and will apprehend from this one process only, so much as to be afterwards easily able to reduce every distilled Oil into its former hardness, by the help of an acid Spirit. Let us consider Amber only, 'tis indeed a fine transparent kind of stone, which was before (or at first) soft and fluid as Turpentine was, an Oil of a kind of thin Bitumen, but now so hardened by the salt Water that it may be beaten to a Powder, yet may it be distilled and so separated and cleansed from its earthly Nature: And the pure Oil may be reduced into its former hardness, by the help of Spirit of Salt only: For it became at first hardened by Salt, when it flowed thin out of the Rock: But of this

enough, we shall say more of it in another place.

Now follows the Process of purifying Minerals by distillation or sublimation, and of depurating them even to the utmost, by rectifying them by an Acid Spirit. To exemplifie which, I will instance in Common Sulphur, according to which rule the other purification of Minerals may be instituted.

Take common Brimstone, sublime it the usual way into Flowers, or by it self in a Coated glass retort, or let it be mixt with decrepitated Salt, for so will it be freed from its most crude terrestreity, and be rendered fit for a farther Mundification by the Acid Spirit. Take one pound of these Flowers of Sulphur, and put it into a strong Glass Body coated, then pour in one or two pounds of the Spirit of Niter, or of common Salt, and place it in an Earthen-vessel in Sand: Put there under a Fire, encreasing it gradually until the Spirit of Salt boils in the Retort, and the Sulphur melts, and there will swim somewhat like Oil on the top of the Water: N. B. An Alembick is to be put on the Body, lest the Spirit of Salt ascending up, goes away in fume; but in the Alembick it will be refrigerated, condensed, and may be saved. This boiling is finished in some five or six hours, and so the Sulphur is mundified, and becomes as clear and transparent as Glass. For the Spirit of Salt attracteth the Metalline Parts, which are in the Sulphur, whether it be Copper, Arsenick, Auripigment, Vitriol, or such like impurities which are commonly adherent, and stickers on to the Sulphur, and would otherwise have remained in it, and done more hurt in Medicine: And this PARACELSUS knew, and adviseth to beware of; For certain it is there lye hidden in Sulphur incredible Virtues, and such as its common Flowers do not shew or discover, as being yet infected with Mineral venerate Spirits, which may be taken thencefrom by the Spirit of Salt. And if then either the Flowers be sublimed out of it, or that it be dissolved in a Balneum with Spirit of Juniper or of Turpentine, or be by any other way reduced into a Liquid form, it doth much good in Medicine, nor is there any more fear of its venomous nature, for the Spirit of Salt hath took that away. I could indeed here mention some preparations of Common Sulphur, into efficacious Medicaments, but that I have intended to proceed no farther with it here, than only as touching its purification by the Spirit of Salt: the rest we will leave to another time.

As Sulphur may be proceeded with, so likewise may you deal with the other Minerals, and first mundifie them by a Retort, and distill them

into black Oils, then may the Oils be clarified with Spirit of Salt, and be reduced into sweet Oils and Balsoms. Nor will any man easily believe what notable Virtues there are hidden in the mountainous and terrestrial Minerals, and yet not usefull at all inwardly, because of their Arsenical nature, which may with ease be taken away from them by Spirit of Salt, and be thereby more securely used as to Medicine. And had I not purposely tried it, I would not at all have written of it. For information therefore of the unexperienced, I will tell you a story, whereby it will appear, that those Minerals do usually lodge in them evil and venomous Arsenical Spirits.

In the County or Province of ERBACH, scituate between the MAENE and NEKER in FRANCONIA, is found plenty of a Sand knit as it were together by a fluid Mineral, and grown together into huge heaps like little Mountains of a duskish colour; which if you lay on burning Coals, emits a sweet odour altogether like Amber. When I saw it, I put some into a Retort, and distilled an Oil thencefrom, wholly like the Oil of Amber both in colour and smell, and had used it in its stead, had I not shortly after tried another knack: For ordering the Chambers to be fumed with the Sand, because it yielded such a fragrant odour, I very seasonably observed that that fume was unwholsome and venomous, for it caused pains of the Head, and a kind of nauseate, 'twas also offensive to the Stomach, and this made me leave off my Fumigations, and set about rectifying the Oil thence distilled, by the Spirit of Salt, and by this means I got a clear and pure Oil, and the Spirit of Salt attracted to it self the Arsenical Essence, which being purged and rectified, yielded me at the bottom real Arsenick, whence I perceived that all those Minerals are very Arsenical, and no ways fit for internal use, unless they be first mundified by the Spirit of Salt. Many such kinds of Minerals are to be found, which we neither care for, nor know: some of which are as hard as a Stone, some thin, some fluid like Oil; such an one is that Fountain about BACCHARACH that boils up in the middle of the RHINE, and fills the whole RHINE for about three miles space and an half with its fatness, and yields a most fragrant odour, is of a duskish colour. For as I was ferrying by it, I took up some of the water in my hand, and questionless the Fountain of it must needs flow very plentifully, forasmuch as the whole River RHINE is filled therewith as far as you can see, and yet scarce one Man amongst a hundred or a thousand do in their sailing by it take notice thereof. Doubtless this Fountain hath its efflux and rise out of the Mountains which border on each side the

River. Did it break out at the top of the Earth, it would be worth Gold and Cedar, but lying do deep, 'tis of no use. Were curious Men inhabitants there, they would doubtless find out this Fountain; For on this part of the RHINE, where the City BACCHARACH lies, is a high Mountain, where grows pretious Wine, and is in Foreign parts sold at a dear rate, because of its most sweet savour and odour, and by the Inhabitants is called Muscadel, and 'tis a sort of Wine produced only in this Mountain; nor can the neighbouring adjacent places make the like. Hence I presume that this Fountain at BACCHARACH ariseth from a Mineral Oil, flowing out from this Mountain into the RHINE, and that hence also ariseth the goodness of the Wine. And whereas this Mountain affords not such a quantity of Wine as the Inhabitants wish, they bethought themselves of a remedy for this scarcity, casting in Herb-scarlet into the common Wine, from which it got the same kind of taste, and became almost Muscadel. Nor let it seem strange to any one for the Wine to attract a savour from the Earth lying about it, for 'tis very certain, and I my self have tried it; And since it is so that this matter affords me opportunity of speaking of these things, I will give you my opinion more clearly in what follows.

Below FRANKFORD, some four miles from the River MANE, there lies a Village called HOBENBEIME under the MOGUATLA Elector, and there's a Mountain which yields very good Wine, though not of so delicate a savour as that of BACCHARACH, yet 'tis of a sweet smell, whereby it exceeds all the Rhenish Wine, and is therefore dear; The cause of this, I attribute to the Soil, in which the Vines grow, which Soil brings forth Stone Coals, and were heretofore digged hence, and are now again sought after, which Coals have in them a sweet Mineral Oil, as I shall shew you. Farther, there lies a high Mountain at the River MANE about the Castle KLINGENBERG, scituate between ODENWALL and SPESSART, where that Earth is found too, such as I above mentioned, which yields a sweet Oil in distillation. And this Mountain doth likewise produce sweet and good Wine, so that it yields not a whit (in its kind) to that of BACCHARACH or HOBENHEIM. But now whether or no the Mineral Oil that is not far off to be here found, be wholly the cause, I do not affirm, but I believe it, for my part, so to be, let another follow his own opinion. There is also a great Mountain at HERBIPOLAS, at the STEINE so called, that yields pretious Wine, but not of a savour like these three. Hence arose that Proverb: At BACCHARACH on the RHEINE, HERBIPOLAS on the STEINE, KLINGENBURG on the MANE, and HOCHHEIME on the REHN, are the four best



Wines.

I confess there grows good Wine every where on the River MENE, but yet these four do far exceed all the others, and that haply because of that sweet savour which they attract out of the Earth where they grow. For it is certain that the Vine doth draw an odour and savour (more than all other Plants do) out of the Earth, whence it hath its nutriment: So that it is not very difficult for a good Physican to communicate to the Vine any savour that he listeth (which will be) according to the nutriment which is put to the Root. I make no doubt but that there will be some Zoilists that will make a mock of these Reasons of mine, as concerning the ground and rise of the taste of the Wine at BACCHARACH, HERBIPOLAS, KLINGENBURG and HOCHHEIME, and will not attribute the cause to the Soil, but say that my Reasons are invalid shallow ones, the which derision I shall patiently undergo: such kind of Men will rather drink the good Wine even to excess, than produce any reasons whence the savour proceeds. But I speak experimentally, and say that the Vines do attract a savour from the Soil whence they are planted, the which I have many a time tried and found so to be. Verily the Gardeners know, that Man's dung will give a nutriment or encrease to Flowers, but yet will put an odd smell upon them: And therefore do they carefully shun the putting it to the Roots of sweet-smelling Flowers, but use it rather to such as are void of odour, as Tulips and such like, that so they may grow the sooner. 'Tis also evidently observed, that if the Root of the Vine be planted in such a place where Man's dung lieth, it acquires an unpleasant odour, and the Grapes are thereby rendered unfit to be eaten. Besides, the most curious Vine-dressers have long ago attained to this experience, that if the Scarlea or any other odoriferous Herb be applied to the Root of the Vine, it will bestow its Odour on the Grapes, (but it serves for no more years than that only) whereas if they pour upon the Root an Oil of a sweet and strong Odour, that Vine will produce Muscadel for ten years and more, the which I have handled at large in the Vegetable work, and do mention it herein briefly upon this account; Because that, a Mineral Oil lies hid in the Earth in abundance, the which being incorporated in Plants, but in Vines especially, produceth excellent Fruits, whereof but a few Men have the knowledge.

But now that I may yet demonstrate this more clearly to the unskillfufl, and consequently incredulous, viz. that there is a most great sweetness in the Minerals, which may here be extracted by

distillation and rectification with Spirit of Salt, I will instance this example: 'Tis well known to all Men that the Stone Coals which are in many places digged out of the Earth, do (being burnt) emit an ungratefull Odour, and are hence usually esteemed of as venomous; but in those places where they are plentifully digged, they are daily used in coction, nor doth any hurt arise therefrom: So that it must needs be acknowledged, that they do not stink of themselves, but that the Fire only is the cause of the stink, and that their innate fatness is of a savoury and sweet smelling nature, yea so sweet as any Vegetable, as I can easily evidence. You have an Example in Roses, or any other Vegetable, which if distilled by a Retort, loseth its sweet odour, and puts on a smell of burning too: What hinders from being so in Minerals, as in Pit Coals, and the like? I grant indeed, that if enough Oil would come over out of the Vegetables by an hot Still, there would be no need of this distilling by a Retort, and rectifying by Spirit of Salt, because it requires a great deal of labour; but forasmuch as there doth not distill enough over, 'twill behove us to acquiesce in this method. Nor fear I to affirm, that if it were possible to distill an Oil out of such Coals by a hot Still, it would give place to no Aromatical Oil whatsoever in the sweetness of the smell. From whence, I pray, should so many kinds of Herbs draw such various Odours and Savours, were there not lying hid in the Earth an Universal Sulphur or Balsam?

But to put an end to this discourse, and that I may shew that the Pit-Coals do contain in them an Oil or pretious and wholesome Balsam, no whit inferiour as to its Virtues to any of the most pretious Oils or Balsams brought us out of the INDIES observe but this process.

Fill a Retort with Coals, and distill a black Oil, the which separate from the Acid-water that came over the Helm with it, and rectifie it by Spirit of Salt, and so there will first of all come the clear and pure Oil, then a yellow Oil, not so sweet as the former, and the thick and black Oil remains behind, and serves for to be mixt with Emplaisters; for 'tis a wonderfull healer, by reason of its innate siccidity; now the yellow Oil may be yet farther rectified once more by Spirit of Salt, that it may become pure, white, and fair: But if you are yet farther minded to make a difference betwixt these pure Oils, and will again rectifie them with new Spirit, then shall you take the most pure part by it self, which as to heat, subtilty, and sweetness, is fully equal to the true Oil of Peter; and which being kept apart, and

used for cold accidents, both inwardly and outwardly, will do the same, yea and much more than is attributed to the Oil of Peter. Nor is there any fear at all of these Oils being Arsenical, for the Spirit of Salt hath took off all the Arsenick in the rectification, and if you please you may use the Oil which comes next after the most subtile Oil in mixing it with Balsams, or it may be safely used by it self, either inwardly or outwardly, and 'twill perform wonderfull things, and such as exceed belief, forasmuch as in Pit-Coals lieth a most great Balsamick virtue; If the depurated Sulphur which we spake of afore be dissolved with this Oil, and reduced into a Balsam, thou shalt have a Medicament, which may deservedly be styled an Universal Mineral Balsam, and doth both as to inward and outward uses far exceed all other Balsams: And therefore 'tis in my mind to prepare this Balsam in great quantity, for the benefit of Mankind: The most notable Virtues thereof should I describe, the very description would amount to a particular Treatise, but that belongs not to this place, but it sufficeth me to have at this time explained the manner of the preparation. I may haply (if God please) more largely teach concerning its Virtues, another time, as likewise the Virtues of the rest of my Medicines.

And thus will I put an end to the Third Part of my PHARMACOPAEA SPAGYRICA, in which I have (in my opinion) mentioned sufficient enough; and although it be but a small Book to sight, yet do great things lie hidden under it, which one amongst a thousand will scarce comprehend. But that the well-minded Reader may understand, what reality there is lies hidden in this Treatise, I will here teach by way of an Appendix one Process only, whereby it shall evidently appear how noble the Art of Purging things by distillation is. This operation is well enough known in the Vegetables and Animals, viz. that always from the thing you distill, the purer part comes over first, then the more vile part, but the unprofitable earthiness abides in the bottom with the fixed Salt. Now in Metals this Process is not so well known, nor will it be so soon made publick and common, nor indeed is it expedient, for this world is not worthy the knowledge thereof. But that I may satisfie my promise, and shew, that Metals may by distillation be made Spirits, and purged in the highest degree. I will make use of this following Example: 'Tis known to every one, that if any dry thing is to be distilled by the fire, some moisture must be mingled therewithall, which may attract to it self the gross and heavy part, as you may see in the common distillation of Herbs, to which Herbs (when dry) Water is added, with

which their savour and virtue distilleth over: And to every dry thing there is requisite its proper humidity, which must of necessity have a Communion or Affinity with the dry, if it be to bring over the dry with it self. Now common Water is able to carry over (in distilling) the odour and savour of Herbs, yea and of Salts, but not of hard Sulphureous or Mercurial Minerals, much less of the fixed Metals. But forasmuch as Metals are Homogeneal, and cannot be purged by any force of Fire, nor separated from the impure part, unless they be dissolved by agreeable and convenient MENSTRUUMS, and be rendered apt by distillation, for always that which is brought into Flores doth (if reduced) yield such a Metallick body as it at first came from. Thence arose an opinion of an impossibility of separating the pure part from the impure. Indeed to the blockish and unskillfull all things seem impossible, and therefore from them is not to be lookt for any judging of good secrets.

But to return to my purpose, and shew that a Golden Essence may be distilled and separated out of the crude Metals by Distillations, I will make use of a common Example. Dissolve in a Common AQUA FORTIS, made the usual way of Niter and Vitriol, one Ounce of pure Silver; which being wholly dissolved and reduced into pure Water, pour out the Solution gently into another Glass, that so if haply any Gold were mixt with your Silver it might stay behind, and not be dissolved, or mixed together, lest the Experiment prove fallacious. Then some common Salt is to be dissolved in common Water, the Salt to be in weight equal to your Silver; and this Water is to be added to the dissolved Silver, and to be so long poured out of one Glass into another until it be well mixt, then let it settle, and let the pure Water be poured off, and a white Powder of the Silver will remain, which is again to be macerated with pure Water several times, until the Calx of the Silver be freed from all Saltiness and Corrosivity: Then dry it, and you shall have a white and tender Powder, and very fusile, so that it will melt even with the flame of a Candle, and is not unlike to a MERCURY, but may well be called the MERCURY of LUNE, but the Chymists usually call it the horned MOON, for being molten it resembles the shape of an Horn, and with this may be wonderfull things effected both in Medicine and Alchemy; but belongs not to this place to speak of, and therefore are to be but just hinted. And like as we have spoken of LUNE, so likewise must we proceed with SATURN: and he will also yield you a white Volatile and fusile Powder, as easily melting, yea easier than the MERCURY of Silver, and is deservedly called the MERCURY of SATURN. These two are willingly associated to a third,

viz. to Common MERCURY, and do fix him, and so is that Axiome of the Philosophers fulfilled, NATURE REJOYCETH WITH NATURE, NATURE OVERCOMES NATURE, NATURE RETAINS NATURE. Farther, these MERCURIES do admit of distillation and a separation of the pure from the impure, no otherwise than as doth a Vegetable. But the way of doing this is not to be so hastily written, I spent a whole year in searching after it, till I found it, and so let another seek; and if God grants it him, he may enjoy it; And if God vouchsafeth him so much, he will also give him the knowledge how to use it: If the MERCURY, which in it self is white, volatile and fusile, is rendered more white by distillation; 'tis also a necessary consequence that it will become likewise more volatile, more fusile, and more pure: but of this enough.

But to come nearer to the matter, and to shew that Metals may be so separated by distillation as to become golden, take this Example: Take two Ounces of the aforesaid horny LUNE, and reduce it into Corporeal or pliable Silver, and separate it by a Cupel, for then thou art assured that no other thing is in it but Silver: Dissolve this Cupellated Silver again in common AQUA FORTIS, and it will leave a good part of Golden Calx. Now it may be demanded, whence comes this Golden Calx? Comes it from the Silver, or the AQUA FORTIS, or from the Salt-water, all which three were in use in the precipitation? I answer, that the Spirit of Niter brought over with it self, in the distillation, a certain Goldenishness from the Iron and Copper which were in the Vitriol, and that in the form of a Spirit, and assumed its Body from the LUNE. Now if any other Body concludes it to be otherwise, viz. that the aforesaid Gold comes from the LUNE only, and not from the AQUA FORTIS, I do but ask him this Query, Why the very same sort of Silver, being dissolved and precipitated out of the AQUA FORTIS with Salt of Tartar, or by Copper Plates, be not equally as golden as this is which is precipitated with Salt water? But some may yet urge farther, that this Gold proceeds only from the Salt with which the Silver is precipitated, and not from the AQUA FORTIS or Silver, because the Silver being dissolved in AQUA FORTIS, and precipitated with Brass Plates, or the Liquor of Salt of Tartar, yields no Gold; but that only gives Gold which is precipitated with Salt-water. To answer this Objection, and clearly to demonstrate that this Gold owes its Original to them both, viz. the Tincture to the AQUA FORTIS, but the Body to the Silver, and not to the common Salt, (for though there lies hidden in all common Salt a certain Golden power, which may thence be drawn by Art, yet that is not to be done this kind



of way, but by another, which we mention in our Book called the CONSOLATION OF SAILORS) I do certainly know, that this Gold proceeding from the precipitated Silver, doth arise from the Vitriol and Silver only, and not from the Salt: And this may be clearly observed thus; If you add to the Vitriol and Niter a Verdigrease prepared with Sulphur and Salt, the AQUA FORTIS will be twice more Golden than if 'twere made of only Vitriol; the reason is this, because the Iron and the Copper are fixed in the Vitriol, and do not easily yield Gold; but if the Copper be first reduced with Salt and Sulphur into a Volatile Calx, and be added to the Vitriol and Niter, then is this kind of Labour done to profit, else not: This which I write is only to demonstrate the possibility. And should you add to the Vitriol and Niter, or to Allum and Niter, other Species containing Volatile Gold, as CALAMINARIS, ZINK, and such like, the Water will be rendered so much the more Golden: But if you add to the Niter and Vitriol such Species as contain in them Volatile Silver, such as are COBOLT, BISMUTH, ARSENICK, then the AQUA FORTIS is rendered more Silvery, and makes part of the Copper in the, Solution purely Silvery, like as the Goldenish water when 'tis in the Solution makes part of the Silver Golden. By which it is demonstrated, that crude Metals are depurated by distillation, and may be made Volatile, and that by that means of Solution, Corporal Gold and Silver may be precipitated out of the Metals, according as the Dissolvent is prepared out of Golden or Silvery Subjects.

This Example I account sufficient to evidence, that the crude Metals may be purged by Distillation so as to become golden. If then it be so with the crude and impure Metals, what then can be done with the pure ones if they be made by Distillation, yet more pure; without all question a most excellent medicine might be from thence prepared, and far to be preferred to Gold or Silver. This discourse do I here make use of to the intent that it may be seen, that even fixt metals being after a due manner opened, and made volatile, are capable of sending out their best part, and of being separated by Distillation from the more crude part. But this Treatise appertains not to Alchemy but to Medicine, and yet I thought good to induce this argument, viz. (that out of crude Vitriol, may a volatile Gold be drawn by Distillation and be incorporated with Gold and Silver) to this end that all men might know of a certainty, how much good may be done in metals by Distillation, and what a pure substance may be thence drawn. Nor doth BASIL VALENTINE that GERMAN Philosopher, doubt expressly to write that the Philosophers Stone

is full as eagle, yea easier to be prepared out of Vitriol than Gold. If therefore the highest universal medicine both for man and metals may be prepared out of common Vitriol, why may not the same be possible to be done out of the purer metals if they were reduced into Vitriol, and so as to admit of Distillation, whereby the pure may be separated from the impure.

If now the common Vitriol of Copper and Iron, do in Distillation yield volatile Gold, why should not the Vitriol of LUNE do it much more and yield it nobler, as being indeed the true and only metallick Vitriol of the Philosophers, which BASILIUS appoints to be taken for his Work, and doth truely deserve the name of Vitriol. For if you would have your common Vitriol tinge, you must add Galls thereto, but this Vitriol doth truely blacken all things without Galls. But you must not imagine that I do here intend such a Vitriol of LUNE, as is by solution (in AQUA FORTIS reduced into a white Crystal, or such as is precipitated by the water of Salt out of the Solution (in AQUA FORTIS) no such matter? For this resembles not Vitriol, because it may be again reduced (into Silver). But the true Vitriol of the Philosophers is prepared out of LUNE without AQUA FORTIS or such like Corrosives, and is not reduceable in the strongest Fire, but remains a Vitriol, tingeth the Tongue, is astringent, and yields a golden Water, which dissolveth Gold and fixeth it therewith. Such a Vitriol will we make use of in medicine and Alchemy, and leave the common Vitriol for the Dyers. The Ancients called their Salt Vitriol, on this account, because that it did as to its external Figure resemble Vitriol, but though they so called it, yet they took not the common Vitriol, which every wise man may easily perswaded to believe. So then let the LUNE be the Earth, Gold the Seed, and MERCURY the (Water, but not the common MERCURY) with which it is to be watered, and let the rest be committed to God and Art. Thus far have I declared to you my opinion, let every man follow his own. But thus is confirmed the assertion of that excellent Philosopher BASIL VALENTINE, who affirms, that even out of common Vitriol may be extracted a certain goldenishness; how much more credible then is it, that a Vitriol prepared out of the more pure metals may yield a better goldenness. Every one may believe what I here write for I have oft times tried it, but yet I have received more Gold sometimes than at other some according as I ordered my process, and reduced my precipitated Silver; for you are to know, that such a kind of Silver as is precipitated out of AQUA FORTIS, by the Water of Salt is wholly volatile, nor melteth it like to

a Calx of LUNE, but goes away partly in fume, and part is reduced into an horny Stone, and yet by a peculiar Distillation doth all come over, but enough of this. Hereupon is Salt of Tartar to be added to this volatile Calx, lest being molten it vanisheth away in fume, for Borax doth not prevent it. But it melteth better if it be helped by that notable fluxing Powder, made of Niter, Tartar, and Sulphur, and it be kindled by a little Coal and burnt up, but then all the Silver doth not melt, but part of, it goes away in fume. N. B. If you catch this fume which is a thing easily done, it resembles the form of a red Powder, and will abundantly recompence your pains, nor may that saying of PARACELSUS be unfitly applied hereunto, viz. to corrupt is totally to perfect, because these Flores of Silver are not lost, but are of a greater price than the Silver was. He that well knows this labour (for indeed experience is the best master) will not labour in vain. And if he learns nothing from this little here-taught, neither will he find out ought from a greater. For I have in these few words revealed much, yea haply more than I ought to have done. All which we do in the first and chiefest place attribute to God, next him to Niter, which renders Metals so fluxible. From hence may the well minded Reader perceive that there is in Niter, not only a power to fix all volatile Minerals and Metals (of which I have treated in my second part of the Prosperity of GERMANY) but also of making them wholly volatile, so that they may be distilled and purged, as is sufficiently evident in the aforegoing example: Besides, there is another way of making Metals volatile, as well as by Niter, but so as that they be not wholly dissolved, but are by a moist nitrous Fire reduced so far as to retain the form which they put upon themselves in the said moist Fire, and yet they become so volatile, as to suffer themselves to be wholly distilled and sublimed, and will in the PROBA give Gold, the which the gradatory Water hath made in them. But of these things more at large in the fourth part of the Prosperity of GERMANY: Thus with what hath been said, will I finish the third part of my PHARMACOPAEA SPAGYRICA.

The End of the Third Part.