



THE COMPLETE WORKS
 OF
**RUDOLPH
 GLAUZER**
 trans: Chris. Packe



PHILOSOPHICAL
 FURNACES



The
FIRST PART
OF
PHILOSOPHICAL FURNACES.

Containing a new Art of making SPIRITS, OILS, FLOWERS, and other Medicaments, by the help of the first of those Furnaces, after a very easy and peculiar manner out of Vegetables, Animals and Minerals; With their Chymical and Medicinal use.

A Preface to the Courteous Reader.

I have hitherto reserved to my self as Secrets, some peculiar Furnaces and compendious Ways of Distilling, which with diligent study and speculation I found out some few years since, by which many excellent Works, impossible to be done by the vulgar Art, may be performed; but now at last I have, considered with my self how advantageous it may be to the World, determined to conceal this Art no longer, but for the good of my Neighbour to publish it, by giving to CHYMISTS a perfect and fundamental information of this new-invented Art, that they may no longer for the future spend their Time and Money in long and tedious Operations, but may after a more easie way, by the help of my Furnaces, be able to effect many excellent things. Now this Book shall be divided into Five Parts, the first whereof shall teach how to build a Furnace, in which incombustible things are distilled and sublimed, and indeed such things

which cannot be done by Retort or any other Vessels, and how the Spirits, flowers, and Oils of Minerals, and Metals may by the help thereof be prepared, as also what their Use and Virtues are.

In the Second Part shall be shewed another Furnace, in which combustible things, as Vegetables, Animals, and Minerals are distilled and most perfectly subtilized: by help whereof many most excellent Medicaments for the cure of most grievous and otherwise incureable diseases may be prepared.

In the Third shall be taught a certain new invention hitherto unknown, of distilling Burning Spirits, as of Wine, Corn, Fruits, Herbs and Roots; as also the Waters of Vegetables and Animals, and that in a great quantity, in a short time, and without much costs; as also of boiling Beer, Mead, Wine, and other things, which otherwise are made in Copper or Iron Vessels; and all this by the help of Wooden Vessels, and benefit of small Copper, or Iron instrument of two or three pound weight, and that after a certain easy manner without Furnaces. This newly-invented Art doth also teach divers Chymical Operations, as Putrefactions, Digestions, Circulations, Extractions, Abstractions, Cohobations, Fixations, & etc. And this invention is very necessary and profitable for young beginners in this Art, for they need not in the making of burning Spirits, Waters of Vegetables, Extracts, and other Mediciments so many Furnaces, and so many Copper, Iron, Tin, Earthen and Glass Vessels, for it is here taught how all the aforesaid Operations may be done only by the help of a certain small Copper or Iron Instrument in Wooden Vessels as well as by Alembicks and other great Copper Vessels, by which means a great deal of Costs is saved.

21.

In the Fourth Part shall be taught another certain, and hitherto unknown Furnace, in which all Chymical Operations may most easily be done: being most profitable for the trying of the Natures of Minerals and Metals; as also for the proving, examining, melting, cupelling, and separating of Metals, that nothing may be lost of them, and that after a compendious and easy way, and also to great advantage.

In the Fifth shall be taught how to make and prepare Iron, Earthen, Glass and other kinds of Instruments necessary for the aforesaid four Furnaces, as also other necessary, and most profitable Manuals.

And in the First Part, the Fabrick of the first Furnace being delineated, I shall also shew how by the help thereof may be made Spirits, Oils, flowers, and other profitable Medicamenta, also their Virtues and Use, and that as faithfully as I may, and without fraud. And truly I do not doubt but those of understanding, will approve of this Work, but ignorant ZOILUS'S will contemn it: For it is said according to the Proverb, He that builds by the highway, will hear many things from them that find fault, and especially from the vulgar, & etc. But it would be well if those THRASOES would put forth something more excellent, before they find fault with and carp at other Mens pains and labours.

Wherefore let no one rashly judge of this Work, until he be thoroughly informed concerning the same, and then I do not doubt but the Author shall be by him commended.

And if haply all things shall not presently succeed well, to his mind, with him that shall build this Furnace, and operate therewith, let him think with himself that perhaps he hath erred in some part,

22.

(for it is a new and unknown work, in which any one may easily err) and not presently therefore murmur against the Author, blaming him, because he hath not wrote clear enough, but let him ascribe it to his own ignorance, and let him study to understand the Author's meaning, and still be practising upon it, and then I do not doubt, but he will have better success, which I pray every one may have. AMEN.



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FIRST PART



T H E.
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Of the Structure of the First Furnace.

As for the first Furnace, it may be built greater or lesser as you please, a regard being had of the quantity of the Matter to be distilled, and also either round or square; either of Bricks, or by a Potter with Potters Clay. Now when the Diameter is of one span, viz. withinside, the height must be of four, viz. one from the bottom to the grate, another from the grate to the bole made for putting in of Coals, and two from thence to the top of the Pipe, which must at least go forth out of the Furnace one span, lest the receivers should by the nearness of the Furnace be heated. The Pipe also must have on the fore part a Diameter, answering the third part of the intrinsecal Diameter of the Furnace; also a little larger on the hinder part than the forepart. Let the grate be such an one, as maybe taken out at your pleasure and made clean, being etopt by the Matter that is cast in and distilled: for it is easily etopt in distilling of Salts melted with the coals, whereby the aire is kept from coming to the fire, and the distillation by consequence hindered: Or let there be put into the Furnace cross-wise two strong iron bars, upon which lay four or five lesser, distant the one from the other the breadth of a finger, going a little out of the

24.

Furnace, by which when they are stopt, you may take them out with a pair of Tongs, and cleanse them from the burnt Matter, and then again put them into their own places: wherefore also the Furnace must on the fore part be open under the grate, that you may the better order the grate.

Also the grate must have above, a covering of Iron or Stone, with a hole in the middle thereof with a certain distinction, which is to be filled with sand, that the cover may the better and more fitly shut the hole, and prevent the exhaling of the spirits which by this means will, being forced, go forth thru the Pipe into the receivers, after you have cast in the matter which is to be distilled.

Of the Receivers.

Let the Receivers be made of glass, or of strong earth, which may retain the spirits, and such is the Waldburgick, Hassiack, Frechhiemensian, Siburgic earth, & etc. They are better that are made of glass, if they are to be had, and those especially which are made of strong and firm glass, which may be smoothed about the joints with a Smiris stone, and so fitted that they may the better be Joined together, and then they shall be smoothed with the Smeris stone, and be fitted, shall be taught in the Fifth part, which treats of Manuals, because by this means they are joined so close, that no spirits can go through the joints: otherwise you must close the joints with the best Lute, such as will not let the spirits exhale, which shall be taught in the Book treating of Manuals.

The form of the recipient you may see in the delineation thereof. As for the quantity thereof, know that by how much the greater they are, so much the better they are, for then you need the fewer, but the more, by how much the lesser they are. Let the superiour orifice be larger than the inferiour, so that always another receiver may with its inferiour orifice be joined to it, and let the inferiour orifice have a diameter of three fingers breadth, or thereabouts; I mean in case the Diameter of the Furnace be of one span. For a greater Furnace requires greater holes, as also orifices of the receivers, by which means a sufficient and due proportion of air may be given to the fire; or if the Diameter of the Furnace be more than a span, it must also have two or three pipes (which being considered together, should have a wideness answering the wideness of the third part of the Furnace, for so great a wideness, and so much air is required, if the fire burn freely and do its office) to which vessels of the aforesaid proportion must be applyed, that the fire be not choaked,

Now, the Figure that is annexed will teach the conjunction of the Receivers, as also their application to the Furnace. And in the first place, the Receiver stands in a three-foot stool bored through in the middle, that the neck of the first Receiver may pass through, to which is applyed a dish with a pipe receiving the dropping spirits: To the first there is joined a second, and to that a third, and so consequently (viz, near unto a wall or ladder) so many as you please. Let the upper Receiver, and indeed all the rest, be left open: To the lower as hath been said, is Joined a dish with a pipe, by which the distilled Spirits

26.

run down into another certain glass vessel added thereunto, which being filled, is taken away, and another is set In the place of it, because that is set under it without luting, and therefore may easily be changed. And if you please to distil any thing else, you may take away that dish with a pipe, and make it clean, and then Join it close again (that no spirit may breathe forth) to the neck of the lower receiver. And if that dish cannot be so closely joined, that nothing exhale, pour in a spoonful of Water, for that doth astringe, neither doth it hurt the spirits, because in the rectifying it is separated.

Of the subliming Vessels.

These you need not make of glass, or of such earth as may retain the spirits, as hath been above mentioned; it is sufficient, if so be they be made of good common Potters earth, and be well glazed within, viz, of such a form and figure, as appears by the annexed delineation.

Yet you must chuse good earth that will endure the fire, for the lower pots are so heated by the fire, that they would be broken if they should not be made of good earth.

Now I will shew you in general the manner it self of distilling; as also, the manual necessities in every distillation.

The manner of Distilling.

In the first place, let there be some burning Coals put in, which

27.

afterwards must be covered with more until the Furnace be full almost to the pipe, which being done, let not the uppermost cover be laid over its hole (that the heat and smoak may pass that way, and not thru the pipe, and receivers, which will thereby be red hot; and this will be a hindrance to the distillation) until the fire be sufficiently kindled, and the Furnace be thoroughly hot; then cast in, with an Iron ladle, of the matter prepared for distillation as much as will cover the Coals, which being done, Stop the Furnace very close, by pressing down strongly the upper cover upon its hole or sand, which is put in the lower part of the hole, being a place made for that purpose. Now let him that casts in any thing thru the middle hole, presently stop it with a stop-ple of stone, and that very close, for by this means all those things which were cast in, will be forced, after the manner of a thick Cloud, to break forth through the pipe into the receivers, and there to condense themselves into an acid spirit or oil, and thence to distil into the dish set under, through the pipe whereof they do yet distil down further Into another glass receiver. The Coals being burnt out, and all the spirits being come forth, you must cast in more Coals, and more materials, until you have got a sufficient quantity of Spirits. In this way of distilling, you may at your pleasure cease, and begin again without any danger.

When you will make clean the Furnace, you need do nothing else, then draw out the Iron bars that lye on the cross bar, that the CAPUT MORTUUM may fall down, which afterwards may be taken away with a Fireshovel, which being done, you must put in the bars again, and lay them

on the cross-bars as before, upon which you must cast burning Coals, and upon them others, until there be enough, then on theth all, being well kindled, cast your materials.

When you go to make clean the receivers, and to begin to distil another thing, you need not remove them, but only pour pure Water into them, viz, by their upper receiver, by the descending whereof the other are purified.

And by this way, not only out of Vegetables, and volatile Minerals (incombustible) but also out of fixed Metals, and Stones, spirits, oils, and flowers, are drawn forth wonderfully, easily, and in good quantity, which otherwise could never have been done by the vulgar art of distilling.

Now, in this Furnace are distilled only such materials, which being distilled, yield an incombustible humidity, as common Salt, Vitriol, Allom, and other Minerals and Metals, each of which doth yet require their peculiar manuals, if operated upon.

Now, because this Furnace doth not serve for every matter, because the materials to be distilled are cast upon burning Coals, which are things combustible, I have determined in the second part to give another, viz, a lesser, unlike to this, yet convenient to distil all combustible things that are endued with volatile spirits, as Tartar, Harts-horn, Amber, Sal Armoniack, Urine, & etc. There are, by the help hereof, made most subtile, volatile, sulphureous spirits of Salts, and Minerals, as of common Salt, Vitriol, Allom, Nitre, Antimony, and of all other Minerals and Metals, which otherwise, without this Furnace, could not have been made, with which spirits, wonderful things are performed in

Medicine and Alchymy, as in the Second Part shall be demonstrated more largely.

Now I will shew you a way to make other Receivers belonging to the first Furnace, and indeed, such as are more fit for some Operations, as the former were more fit for others: wherefore let him that will operate, chuse these, or the other, as he pleaseth,

As therefore the former being erected upwards by a wall, or ladder, by which means the spirit might ascend from one into another so long, until being refrigerated and condensed might again drop downward into the dish that is annexed thereto: so these are a contrary way set and placed collateral in a vessel with cold Water to condense the spirits, by which means you need not so many receivers; also they must not be fashioned like the former, as to be open above, and below, but only above like pots that serve for boiling: but this you must observe, that by how much the deeper and larger they are, by so much the better they are.

Also you must join them together by the help of earthen pipes, being so distinct, that the spirits may be kept back, being yet hot (and not refrigerated) from passing out of one into the other, but being forced through the middle of the separation of the pipes, may go to the bottom of every receiver, and thence arise by another pipe into another receiver that hath a double cover like the former, where again descending to the cold bottom, remain refrigerated and condensed, Now three or four of these are enough (whereas of other, thirteen or fifteen are required) a regard being had of their Greatness.

You may see the figure of these receivers, as also their joining together by the annexed delineation, Now, for the most part, one is sufficient for him that distils a few things, especially if the matter be not pretious, and then let one crooked earthen pipe at least be joined, one arm with the pipe that goeth forth of the Furnace, the other with the Receiver, but so that it go into the receiver downwards, even to the middle thereof, and then you need not shut the orifice of the receivers, for it is no great matter if somewhat evaporate, viz, if the matter to be distilled be not pretious. And by this way may new spirits and new flowers be made every hour, with the help of one Furnace, and one recipient, but with this caution, that for every new distillation, the recipient be washed with Water before it be put to the pipe; which being put to, you may then cast your species into the Furnace; and this do till you have a sufficient quantity of spirits.

And this way of distillation serves especially for the trying of the natures and properties of many and divers Minerals, such as yield in the fire spirits and flowers. For it would be too tedious to every new distillation to apply a new and distinct receiver: as also many studious of the Chymical art would quit their study, being able to make by retort but one tryal in a day. And no wonder if expences, and loss of time should deter many,

Now here there is no need of many Retorts, nor of luting them, nor of receivers, and such like superfluous things; neither is there here required the constant presence of the operator, the observation of the regiment of fire, the neglect whereof would otherwise endanger the loss

of the retorts and receivers, and by consequence the lose of labour. These and such like tedious things are not here to be cared for, because it is sufficient only to cast the Matter upon the coals, and Cover the Furnace, and then presently go forth the spirits, and flowers of the same kind with their mineral: of which when thou hast got a sufficient quantity, thou must draw out the Iron bars, upon which the coals lye, that they may fall down, and be taken away; and whilst the Furnace is yet hot, to put in the Iron bars again, and upon them to lay fresh coals, which then will of their own accord be kindled with the heat of the Furnace, In the mean time you must take away the receiver, and make it clean and set it to again, or if you had rather put another clean one, viz, for the new distillation of another Matter.

And by this way, divers things may be in the space of one hour distilled, and sublimed, viz, in a small quantity. But he that will distil, or sublime in a greater quantity, let him take three or four pots that the spirits may pass from one into another, that nothing thereof be lost. Here needs not (as I said before) the continual presence of the operator, for he may be gone, cease, or repeat as he please, because the work is without danger of breaking the retorts, and receivers.

Re that knows the use of this Furnace, may do many things in a short time with little coat. For any one may do more by the help thereof in one hour, than in the common way in twenty four, by which way also there is a great saving of coals, because ten pound of coals will do more this way than a hundred the other, As for example, he that will try, shall make a pound of spirit of Salt in one hour with three, four, or five

32. pounds of coals; whereas after the other way are required fifty or sixty pounds, and at least twenty or thirty hours time, viz, in the common way by the help of retorts: which is indeed very tedious.

Also by this way may be made the flowers of minerals, and metals, in a great quantity, very easily, and in a short time without great cost, so as that in one hours space, with three or four pound of coals may a pound of the flowers of Antimony be made. And this is no small help to the Physican, and Chymist. Moreover this furnace being once built, endures for so many years, and being broken is easily repaired.

And by this way you shall need only materials to be distilled, no retorts and receivers are in danger, by which means much cost is saved.

Besides the aforesaid ways, I have yet another, and that more compendious, viz, of distilling, and aubliming, and more easily, by which means in a very little time, an incredible quantity of spirits of Salts, and flowers of Minerals, and metals may be made; which I shall refer till another time, because for the present I have said enough.

Now I do not doubt, but diligent Chymists will follow my steps, and find out those things which are unknown to me. For it is easier to add to things found out, than to find out things unknown.

The construction therefore of the furnace being in my opinion clearly ehewed, there now follows the manner of distilling, and subliming with it.

Although haply, and contrary to my hope any obscurity should be met withal, yet one process will explain another; and the diligent operator, and searcher of Nature shall without doubt, by his practise attain the

33.

effect after the same manner as I have prescribed: which together with the blessing of GOD, I heartily wish all pious Chymists, Amen.

How the Spirit of Salt is to be distilled.

The reason why I enter upon the spirit of salt, before I say any thing of the spirits of vegetables, is this, viz, because it is even the chiefest, which can be made in this furnace: for few exceed this in strength and virtues; wherefore I also have given it the preeminency. Neither is there any of the acid spirits, about which the Chymists hitherto have been more busied, than this, wherefore also it is of all, of greatest price, etc, for some have mixed salt with potters clay, and have made this mixture into little balls, which they have to get the spirit, forced by retort tn a very strong fire: some have mixed salt with bole, some with the powder of tyles, others with burnt Allome, etc.

Others using a more compendious way have made salt to flow in a retort, which hath a pipe both in the upper, and hinder part; by the upper pipe of which they have dropped in cold water, to elevate the ponderous spirits of the salt, but by the hinder they have blown with Bellows, to force the spirits into the retort: and this way is not altogether to be slighted, yet it bath this inconvenience, that in process of tine the retorts are broken that they can no longer retain the salt, and so the distillation is intercepted. Some have attempted it with Iron retorts, but by this means the spirits have been deaded, because they easily set upon the Iron, whence instead of spirit they have had

34.

flegme. And such, and tedious ways of distilling they have invented; and by the best of them indeed they could scarce distill one pound in **25**, or 30 hours space with 50. 60. or 100 pound of coals; this being the reason, because the salt is very little wrought upon, and therefore it is that few ever had the spirit right and good, whence also the virtues thereof have been unknown,

And this therefore I was willing to make known, that it might appear, what price, this spirit hath hitherto been of, and how easy, and abundantly, and with what little cost, it may after my new invented way be made.

It is said above, that the materials may in this way of distilling be immediately cast into the fire; yet this must be wisely understood. For although some of the species may without any preparation be immediately cast into the fire, yet it doth not follow that all and every one of them must: for in some of them we must use our discretion, as in the distilling of salt. For if the salt be immediately cast into the fire, it will not only yield no spirits, but will leap so long upon the coals, until it find a descent to the lowest part of the furnace:

Now this may be prevented divers ways; and first indeed after this manner: Dissolve salt in common water, then quench burning coals with this water, that they may be impregnated with the salt, which afterwards set on fire in the furnace: but you must first cast in other burning coals, upon which you must cast those that are impregnated with salt until the furnace be full, as is above said: and while the coals burn, the salt is resolved by the force of the fire into spirit.

35.

Now you must observe that he that distils spirit of salt after this manner, must make choice of glass receivers, because the spirit whilst it is hot, penetrates by reason of its wonderful subtilty, those that are earthen. And this spirit is of a most grateful taste. But in defect of glass receivers, I shall shew you another way wherein you may use those that be of earth.

Mix salt, and vitriol or allome together, grinding them very well in a Morter (for by how much the better they are ground, the more Spirit they yield). Then cast this mixture into the fire with an Iron Ladle, viz, so much of it as will be sufficient to cover the coals, and then with a great fire the spirits come forth into the receivers, where being coagulated, they distil down into the dish, and thence into another receiver. And if thou knowest how to work aright, the spirits will like water continually run out thru the pipe, the thickness of a straw; and thou mayst easily every hour make a pound of the spirit. Now the reason why thou shalt by this way have more spirits than by the other, is this, viz, because the vitriol and allome, which is mixed with the salt, makes it flow quickly, by which means it is prevented from falling down through the coals to the lower part of the furnace, but sticking to the coals is almost all of it turned into spirits. The CAPUT MORTUUM, which is reddish, easily falls with the ashes through the grate, and can no more be distilled, but yields by excoction a white fixed salt, which serves for the flowing of metals; and being dissolved in warm water serves also for a glyster against the Worms, which it kills, and purgeth also the Bowels,

Thou wilt object, that the spirit made after this manner, is not the true spirit of salt by reason of the mixture of vitriol and allome, but mixed, and compounded. I answer; There can by this way distil no spirit of vitriol, or allome, being that which I often tried, casting vitriol or allome into the furnace, where I received no spirit at all, the reason of this is, because these spirits are far more heavy than the spirit of salt, neither can they ascend so great a height, viz, of three spans, but are burnt, whence unless the flegme, nothing distils. Wherefore the spirit of salt that is made after this manner is not mixed, but pure and meer spirit of salt, of the same taste and virtue as that is of, thatie made by it self; because in this furnace the spirit of allome and vitriol, cannot be made unless a pipe go out of the furnace neer the grate, as you may see by the delineation of the furnace, for otherwise it cannot be made; besides, these spirits are better, and more truly taught in the second part. And if it be granted that somewhat together with the spirit of salt comes forth (which is yet impossible) what hurt I pray you comes from thence either in the solution of metals, or medicine? wherefore the spirit made after this way is not to be suspected. Yet I will satisfie the incredulous, and will shew him another way without the addition of allome or vitriol, for the distilling of that spirit, but that will be in the second part of this Book, where I will teach you the furnace, by which is made spirit of Nitre, Aquafortis, and amongst combustibles, the Oils of vegetables, and Fats of animals and other things which cannot be made by this: and by this way I will satisfie those, who are not pleased with the former.

Now for the want of glass receivers, we are forced to use earthen, but these cannot retain the spirit of salt made after the aforesaid ways; in which case I could indeed discover a certain little manual, by virtue of which the aforesaid spirit may be received even in a great quantity in earthen recipients: but for certain causes I shall here be silent, and shall refer it till the edition of the second part. Let it suffice therefore that I mentioned such a thing, wherefore omitting that, I shall proceed to shew you the virtues, and use of this spirit, as well in Alchymy, as in Medicine, and other Mechanical Arts.

Of the use of the Spirit of Salt.

It is worth while, to speak of the power, and virtues of this excellent spirit; what other Authors have clearly described, I shall here pass over, and refer the Reader to the writings of those Authors; touching only on some few of which they said nothing.

The Spirit of salt is by most accounted a most excellent medicine, and safely to be used, as well inwardly as outwardly: it extinguisheth a preternatural thirst in hot diseases, abstergeth and consumeth flegmatick humours in the Stomack, exciteth the Appetite, is good for them that are hydropical, have the Stone, and Gout, & etc. It is a menstruum dissolving metals, excelling all other therein: For it dissolveth all metals and minerals (excepting silver) and almost all stones (being rightly prepared) and reduceth them into excellent medicaments, It doth also many excellent things in mechanical arts.

Neither is it to be slighted in the kitchen, for with the help thereof are prepared divers pleasant meats for the sick as well as for those that are in health, yea and better than with Vinegar, and other acid things: and it doth more in a small quantity, than Vinegar in a great. But especially it serves for those Countries that have no Vinegar. It is used also instead of Verjuice, and the juice of Lymons. For being prepared after this way, it is bought at a cheaper rate than Vinegar or juice of Lynons. Neither is it corruptible as expressed juices are, but is bettered by age. Being mixed with Sugar it is an excellent sauce for roast meat. It preserves also divers kinds of Fruits for many years. It makes also Raisons, and dried Grapes to swell, so as to acquire their former magnitude again, which are good to refresh a weak Stomack in many diseases, and serves for the preparing of divers kinds of meats of Flesh and Fish; but you must mix some water with the spirit, or else the Raisons will contract too much acidity, This spirit doth especially serve for making meats delightfully acid; for whatsoever things are prepared with it, as Chickens, Pigeons, Veal, & etc. are of a more pleasant taste than those which are prepared with Vinegar. Beef being macerated with it, becomes in a few days so tender, as if it had been long time macerated with Vinegar, Such, and many more things can the Spirit of Salt do.

A distillation of Vegetable Oils, whereby a greater quantity is acquired, than by that common way, by a Vesica.

As many Distillers as hitherto have been, have been ignorant of a better way to distil Oils of Spices, Woods, and Seeds, than by a vesica or alembick, with a great quantity of water. And aitho' they may also be made by retort, yet there is a great deal of care required, or else they contract an EMPYREUMA, wherefore that way, by a still, is always accounted the better, which way indeed is not to be slighted, if ypu distil Vegetables of a low price, and such as be oleaginous; but not so in the distillation of Spices, and of other things that are of a greater value, as are Cinnamon, Mace, Saffron, & etc. which cannot be distilled in a gourd still without loss, because then there is required a great quantity of water, and by consequence great, and large vessels, to which something adheres, wherefore we lose almost half, which is not to be so much valued in vegetables that are oleaginous, as in Annis seed, Fennel, and Caryoway seed, & etc. But the loss made in distilling of drier and dearer vegetables, as Cinnamon, LIGNUM RHODIS, CASSIA, is evident enough, and by consequence not to be slighted. Neither can it be distilled that way, for a good quantity by coction acquireth a gummy tenaciousness, which cannot ascend with the water. But that this way for the future may be prevented, I will shew another way to distil the Oils of Spices, and other precious things, which is done with Spirit of Salt, whereby all the Oil is drawn forth without any loss, the process whereof is this, viz. Fill a gourd with Cinnamon or any other

40.

Wood, or Seed, upon pour so much of the spirit of salt, as will be sufficient to cover the wood, then place it with its Alembick in Sand, and give it fire by degrees that the spirit of salt may boil, and all the Oil will distil off with a little flegme; for the spirit of salt doth with its acrimony penetrate the wood, and freeth the Oil that it may distil off the better and easier, And by this way the Oil is not lost by the addition of that great quantity of water in those great and large vessels, but is drawn in lesser glass vessels with the addition of a little moisture, Distillation being finished the spirit is poured off by inclination from the wood, being again useful for the same work. And if it hath contracted any impurity from the wood, it may be rectified: but residue of the spirit which remains in the wood ye may recover, if that wood be cast into the aforesaid furnace upon burning coals, by which means it may come forth again pure, and clear: and by this means we lose none of the spirit of Salt, And after this way by help of the spirit of Salt, are drawn forth Oils of dearer Vegetables together with their Fruit, which cannot be done by a still.

There are made also by means thereof of Oils of Gums and Rosens, clear, and perspicuous,

The clear Oil of Mastick, and Frankincense.

Take of Frankincense or Mastick powdered small, as much as will serve to fill the third part of a Retort (which must be coated) upon which pour a sufficient quantity of spirit of Salt, taking heed that

41.

the Retort be not filled too full, or else the spirit when It boils, flows over it, then place it in sand, and give fire by degrees, and there will first come out some phiegme, after which a clear transparent oil together with the spirit of salt, which must be kept by it self, after this a certain yellow Oil which must be received by it self, and last of all there follows a red Oil, which although it is not to be cast away, yet it is very unlike to the first, serving for outward uses, and to be mixed with Ointments and E!nplasters, for it doth wonderfully consolidate, and therefore good in new and old Wounds. The first being well rectified, is in its subtilty, and penetrating faculty not unlike to spirit of wine, and may profitably be used inwardly and outwardly, viz, in cold effects, but especially in the stiffness of the Nerves, caused by cold humours, upon which followé a contraction; but then you must first rub the member contracted with a linnen cloath, that it may be well warmed, into which then the Oil must be chafed with a warm hand. For it doth do wonders in such like effects of the Nerves.

After the same manner may Oils be made out of all gums. The red, tenacious and stinking Oils of Tartar, Harts-horn, Amber, & etc. distilled after the common way by retort are also rectified with spirit of salt so as to become transparent and to lose the EMPYREUMA contracted by distillation,

Now the cause of the blackness, and fetidness of these kind of Oils, is a certain volatile salt which is to be found as well in Vegetables, as certain Animals, which is easily mixed with the Oil, and makes it of a brown colour, For every volatile salt whether it be of Urine, Tartar,

Amber, Harts-born, and of other Vegetables and Animals, is of this condition and nature, as to exalt, and alter the colours of suiphureous things, and that either for the worse or for the better: but for the most part it makes Oils thick, black and stinking, as you may see in Amber, Harts-horn, and Tartar. The cause therefore of the blackness, and fetidness of these Oils being known we may the more easily take heed thereof in distilling, and being contracted, correct them again by the help of spirit of Salt. For all volatile Salt hath contrariety to any acid spirit, and on the other side, every acid spirit hath a contrariety with all volatile salts, that have the nature of salt of Tartar, For metals that are dissolved with acid spirits are as well precipitated with spirit of Urine, or any volatile salt as with the li(uor of salt of Tartar; which shall be more at large declared in the second part.

The volatile salt therefore is by the mortifying acid spirits, as of Salt, Vitriol, Allom, Vinegar, & etc. deprived of its volatility, and is fixed, by which means being debilitated it forsakes its associate which was infected with blackness by it: it is necessary that we should proceed after the same manner with these fetid Oils, viz, as follows.

Take any fetid Oil of Tartar, Amber, & etc, with which fill the fourth part only of a glass Retort, and upon it pour by drops the spirit of salt; and it will begin to be hot, as it is used to be, when Aqua fortis is poured on salt of Tartar; wherefore the spirit is to be poured on it by little and little, and by drops for fear of breaking the glass:

Now the sign of the mortification of the volatile salt is, when it

43.

ceaseth to make a noise, and then no more is to be poured on, but set your Retort in sand, & give fire to it by degrees, as is used to be done in the rectifying things of easie elevation: and first of all will go forth a certain stinking water, after which comes a transparent clear, and odoriferous Oil, and after that a certain yellow, clear, and also well smelling Oil, but not so as the first, wherefore each must be taken apart by changing the receivers. Now these Oils become more grateful than those fetid ones of the shops, For these Oils retain their clearness, and fairness, the cause of their fetidness, and redness being taken away by the spirit of salt. In the bottom of the retort remains the black volatile salt with the spirit of salt, from whence it may be sublimed into an odoriferous salt resembling salt armoniack in taste. The spirit of salt is also deprived of its acidity, and coagulated by the volatile salt, and is like TARTARUM VITRIOLATUM, appointed also for its uses, as shall be spoken in the second part, of the spirit of Urine.

After the same manner also are rectified other Oils, which by length of time have contracted a clamminess, as are Oil of Cinnamon, Mace, Cloves, & etc. with the spirit of Salt, if they be rectified by Retort, for then they acquire again both the same clearness, and goodness, as they had when they were newly distilled.

Here I must make mention of a certain error of Physicans, not only of ignorant Galenists but Spagyrics, committed in the preparations of some Chymical medicaments. For many have perswaded themselves that Oil of Tartar, Harts-born, & etc. having lost its stink, is a Medicine radically taking away all obstructions; but this must be taken with a

grain of salt. For some have rectified these kinds of Oils by calcining Vitriol, and by that means have somewhat made them lose their EMPYREAMA, but with all their Virtues; which others observing have conceived that the fetidness thereof is not to be taken away, because the Virtue of them is thereby lost, as if the Virtue consisted in the fetidness thereof; but that is a very great error, because fetidness is an enemy to the heart and brain, and in it is no good. But this is granted, that they that take away the fetidness of those Oils mortifie the virtues of them. But thou sayest, How then must we proceed in taking away their fetidness without the loss of the virtues? Must they be rectified by the spirit of salt? as even now thou taughtest, R. No, for although I said that Oils might be clarified with spirit of salt, yet it doth not follow that my meaning was, that that clarification was the mending of them: This is only a way of clarification, whereby they become more grateful; and it is not to be slighted, a better being unknown, But how they are to be rectified from their fetidness and blackness, without the loss of their Virtues, and to be made more noble, doth not belong to this place, because it cannot be done by this Furnace: I shall refer the reader therefore to the second part, where it shall be shewed, how such spirits are to be rectified without the loss of their virtues, which being so prepared may well be accounted for the fourth Pillar of Physick. And these things I was willing at least for information sake to shew you, not to offend you, and that because I was moved with pity, and compassion towards my neighbour.

45.

The Quintessence of all Vegetables.

Pour upon Spices, Seeds, Woods, Roots, fruits, Flowers, & etc. the Spirit of Wine well rectified, place them in digestion to be extracted, until all the essence be extracted, with the Spirit of Wine; then upon this Spirit of Wine, being impregnated, pour the best Spirit of Salt; and being thus mixed together, place them in Balneo to digest, until the Oil be separated, and swim above from the Spirit of Wine, then separate it with a separating glass, or distil off the Spirit of Wine in Balneo, and a clear Oil will ascend; for if the Spirit of Wine be not abstracted, then that Oil will be as red as blood; and it is the true quintessence of that vegetable, from whence by the Spirit of Wine it was extracted.

The Quintessence of all Metals and Minerals,

Dissolve any metal (excepting Silver, which must be dissolved in Aqua fortis) in the strongest spirit of Salt, and draw off the flegme in Balneo; to that which remains pour the best rectified spirit of Wine, put it to digesting, until the Oil be elevated to the top as red as blood, which is the tincture, and quintessence of that metal, being a most Precious treasure in medicine,

46.

A sweet and red Oil, of Metals and Minerals.

Dissolve a Metal or Mineral in spirit of Salt, dissolve also an equal weight of salt of Wine essentificated; mix these dissolutions, and distil them by retort in a gradual heat, and there will come out an oil sweet, and as red as blood, together with the spirit of Salt; and sometimes the neck of the retort and receiver will be coloured like a Peacocks tail with divers colours, and sometimes with a golden colour.

And because I would without any difference comprehend all Metals and Minerals under one certain general process; let him that would make the essence of silver take :the spirit of nitte, and proceed in all things as was spoken of the other metals. Concerning the use of these essences, I need not speak much hereof; for to him that knows the preparation shall be discovered the use thereof. Concerning the corrosive oils of metals and minerals, seeing they cannot be described by any one process, it will be worth while to set down what is peculiar to each of them, as followeth.

The Oil, or Liquor of Gold.

Dissolve the calx of gold in the spirit of salt, (which must be very strong, or else it cannot dissolve it) but in defect of the strongest spirit thereof, mix a little of the purest salt-peter; but that oil is the best which is made with the spirit of salt alone. From

47.

the gold dissolved abstract half the solution, and there will remain a corrosive oil, upon which pour the expressed juice of lemons, and the dissolution will become green, and a few feces fall to the bottom, which may be reduced in melting. This being done, put this green liquor in Balneo, and draw off the flegme: that which remains take out, and put upon a marble in a cold moist place, and it will be resolved into a red oil, which may safely, and without danger be taken inwardly, curing those that are hurt with Mercury. But especially it is commended in old ulcers of the mouth, tongue, and throat, arising from the French pox, leprosy, scorbute, & etc. where :the oil of other things cannot be so safely used, There is not a better medicine in the exulceratlon, and swelling of the glandules, in the ulcers of tongue and jaws, which doth sooner mundify, and consolidate. Neither yet must we neglect necessary purgings, and sudorificks, for fear of a relapse, the cause not being taken away.

Neither will there any danger follow, whether it be given inwardly, or used outwardly, as in the accustomed use of other medicaments, and gargarisms; for it may daily, and truly without all danger be used at least three times with a wonderful admiration of a quick operation.

Oil of Mars.

Dissolve thin plates of Iron in rectified spirit of salt, take the solution, which is green, of a sweet taste, and smelling like fetid sulphur; and filter it from that filthy and feculent residence; then

48.

in a glass gourd in sand, abstract all the humidity (viz, with a gentle fire) which will be as insipid as rain-water, because the iron by reason of its dryness, bath attracted all the acidity to it self: but in the bottom will remain a mass as red as blood, burning the tongue like fire: it takes away all proud flesh of wounds, and that without danger. It is to be kept in a glass close atopt from the air, lest it be resolved into an oil, which will be of a yellow colour. But he that desires to have the oil, may set it on a marble in a moist Cellar, and within a day it will be resolved into an oil, which will be in colour betwixt yellow and red: It is a most excellent secret in all corroding ulcers, tistulas, cancer, & etc, being an incomparable consolidator, and mundifyer. And it is not without profit mixed also with common water to wash the moist, fetid ulcers of the legs; which cause tumours, by being applyed warm like a bath, for it drys, and heals suddenly, if withal Purges be administred it cures also any scab. That red mass (being yet unresolved) being put on the oil of sand, or flints (of which in the second part) makes a tree to grow in the space of one or two hours, having root, trunk, and boughs: which being taken out, and dried, in the test yields good gold, which that tree extracts from the earth, i,e. from the flints, or sand. Thou mayst if thou pleasest, more accurately exRm(ne this matter.

Oil of Venus.

Spirit of Salt doth not easily work upon Copper, unless it be first

49.

reduced into a calx, and that after this manner, Take plates of Copper made red hot in an open crucible, quench them in cold water, and they will cleave into red scales: then the remainders of the plates make red hot, and quench as before: do this so often, till thou hast got a sufficient quantity of the calx; which being dried, and powdered, extract with the rectified spirit of salt, in sand, until the spirit of salt be sufficiently coloured with a green tincture, which you must decant, and filter; and then abstract from it the superfluous moisture, that there may remain a green thick oil, which is an excellent remedy for ulcers, especially such as are Venereal, being applied outwardly.

Oil of Jupiter and Saturn.

Neither are these two metals easily dissolved in the spirit of salt, yet being filed, are dissolved in the best rectified spirit of salt. But the operation is performed better with the flowers of these metals (the preparation whereof shall be hereafter taught.) Take therefore the flowers, upon which in a gourd glass pour the spirit of salt, and presently the spirit will work upon them, especially being set in a warm place; filter the yellow solution, and abstract the humidity, until there remain a yellow heavy oil, which is proper against putrid ulcers.

Oil of Mercury.

Neither is this easily dissolved with the spirit of salt: but being

sublimed with vitriol, and salt is easily dissolved. Being dissolved, it yields an oil very corrosive, which must be used with discretion, wherefore it is not to be administered, unless it be where none of the other are to be had. For I saw a woman suddenly killed with this oil, being applyed by a certain Chyrurgeon. But this oil is not to be slighted in eating ulcers, tetter, & etc. Which are mortified by it.

Oil of Antimony.

Crude Antimony that hath never undergone the fire, is hardly dissolved in spirit of salt: as also the REGULIJS thereof; but the REGULUS being subtilly poudered, is more easily wrought upon, in case the Bpirit be sufficiently rectified.

The VITRUM is more easily, but most easily of all the flowers are dissolved, being such as are made after our prescription a little after set down, Neither is BUTYRUM ANTIMONII (being made out of sublimed Mercury, and Antimony) any thing else but the REGULUS of Antimony dissolved with spirit of salt; for sublimed Mercury being mixed with Antimony, feeling the heat of the fire, is forsaken by the corrosive spirits associating themselves with the Antimony, whence comes the thick Oil; whilest which is done the sulphur of Antimony is joined to the Quicksilver, and yields a Cinnabar, sticking to the neck of the Retort; but the residue of the Mercury remains in the bottom with the CAPUT MORTUUM, because a little part thereof doth distill off: And if thou hast skill thou mayst recover the whole weight of the Mercury again.

And these things I was willing the rather to shew thee, because many think this is the Oil of Mercury, and therefore that white powder made thence by the pouring on of abundance of water they call MERCURITJS VITA, with which there is no mixture at all of Mercury, for it is meer Regulus of Antimony dissolved with spirit of Salt, which is again separated, when the water is poured on the Antimonial butter; as is seen by experience; For that white powder being dryed, and melted in a crucible yields partly a yellow glass, and partly also a Regulus, but no Mercury at all,

Whence it doth necessarily follow that that thick oil is nothing else but Antimony dissolved in spirit of Salt. For the flowers of Antimony being mixed with spirit of Salt, make an oil in all respects like to that butter which is made of Antimony, and sublimated Mercury, which also is after the same manner by the affuslon of a good quantity of precipitated into a white powder, which is commonly called MERCURIUS VITA: It is also by the same way turned into BEZOARDICUM MINERAL, viz. by abstracting the spirit of Nitre, and it is nothing else but Diaphoretick Antimony.

For it is all one whether that Diaphoretick be made with spirit of Nitre, or with Nitre it self, viz, corporeal, for these have the same virtues, although some are of opinion that that is to be preferred before the other; but the truth is, there is no difference. But let every one be free in his own judgeaent, for those things which I have wrote, I have not Writ out of ambition, but to find out the truth.

Now again to our purpose, which is to shew an oil of Antimony made with the spirit of salt.

Take a pound of the flowers of Antimony (of which a little after) upon which pour two pound of the best rectified spirit, mix them well together in a glass, and set them in sand a day and night to dissolve, then pour out that solution together with the flowers into a retort that is coated, which set in sand, and first give a gentle fire, until the flegme be come off, then follows a weak spirit with a little stronger fire, for the stronger spirits remain in the bottom with the Antimony: then give a stronger fire, and there will come forth an oil like to the butter of Antimony made with sublimed Mercury, and is appropriated to the same uses, as follows.

The flowers of Antimony, White and Vomitive.

Take of this butter as much as you please, upon which in a glass gourd, or any other large glass pour a great quantity of water until the white flowers will precipitate no more; then decant off the water from the flowers, which edulcorate with warm water, and dry with a gentle heat, and thou shalt have a white powder.

The Dose is, that 1. 2. 3. 8. 10. grains be macerated for the space of a night in wine, which is to be drank in the morning, and it worketh upward and downward. But it is not to be given to children, those that be old, and weak, but to those that be strong, and accustomed to vomiting. When at any time this infusion is taken and doth not work, as sometimes it falls out, but makes the Patient very sick, he must provoke vomiting with his finger, or else it will not work, but make those

that have taken it to be sick, and debilitated even to death. We must also in the over much working of these flowers drink a draught of warm Beer, or rather of warm Water, decocted with Chervil, or Parsley, and they will work more mildly. But let not him that is able to bear the operation thereof any way hinder it, for there is the greater hope of recovering his health thereby, for they do excellently purge cholera, and evacuate flegme in the Stomack, being humors that will not yield to other Catharticks; they open obstructions, resist the putrifaction of the blood, the causes of many diseases, such as are Fevers, Headaches, etc. they are good for them that are Leprous, Scorbutical, Melancholical, Hypochondriacal, infected with the French Pox, and in the beginning of the Plague. In brief, they do work gallantly, and do many things.

After the taking of them, the Patient must stay in his bed or at least not go forth of his house, for to avoid the air, or otherwise they may be mistrusted.

And because of their violence they are feared, and bated, I shall in the fourth part of this Book for the sake of the sick set down such as are milder, and safer, such as shall work rather downward than upward, causing easie vomits, which also thou mayest give to children, and those that are old without danger, yet some respect being had of the disease, and age.

The flowers of Antimony diaphoretical.

The foresaid flowers if they be cast into melted Nitre, and be left a while in melting, are made fixt, so as to become Diaplioretical, and lose their Cathartical Virtue. The acid water being separated from the flowers, if it be evaporated, leaves behind the best spirit of salt, serving for the same or such like uses again.

Of the External use of the Corrosive Oil of Antimony.

This oil hath been long used by Chirurgions, for they have with a feather applyed it to wounds almost uncureable, to separate impurities, for the accelaration of the cure, that afterwards other medicaments being applyed may the better operate. But it is better if it be mixed, with spirit of Salt, for they are easily mixed and it is made more mild thereby, and the too great corrosive faculty thereof is mitigated. Neither is there any other besides the spirit of Salt, with which this oil can be mixed, unless it be the strongest spirit of Nitre, for the weak spirit of Nitre precipitates the butter of Antimony, as you may see in the preparation of BEZOARDICUM MINERALE. But the strongest spirit of nitre dissolving this butter, makes a red solution of wonderful Virtue in Chymistry, of which we are not to treat in this place; and if this be drawn off again by distillation, it leaves behind the first time a fixed Antimony, and Diaphoretical, which otherwise must be drawn off twice, or thrice, vim, if it be weak, and not able to dissolve the butter without precipitation.

55.

Now this BEZOARDICUM is the best, and safest Diaphoretick in all diseases that require sweat, as in the plague, French pox, fevers, scorbut, leprosy, & etc. if it be given from 6. 8. to twenty grains in proper vehicles; it penetrates the whole body, and evacuates all evil humours by sweat and urine.

The Oil of Arsenic and Auripigmentum.

As the spirit of salt doth not easily work upon Antimony by reason of the abundance of crude sulphur, unless it be reduced into flowers, in the preparation whereof, some part of its sulphur is burnt; so also ARSENIC and AURIPIGMENTtTM are hardly dissolved with spirit of salt, unless they be reduced into flowers, and the spirit of salt be very strong, which may be able to work upon it. These may be distilled by retort like Antimony into a thick heavy oil; which being used in cancerous eating ulcers, exceeds that of Antimony in mortifying, mundifying, and purging those evils. After the same manner may corrosive oils be made out of all the realgars being ordained for outward uses.

Oil of Lapis Calaminaria.

Take of the best yellow or red LAPIS CALAMINARIS very subtilly powdered, as much as you please, and pour upon it five or six times as much of rectified spirit of salt, mix and stir them well together, and do not leave them long unstirred, but ever and anon shake the glass

with the materials; and this do oftentimes, or else the LAPIS CALANINARIS will grow together into a very hard stone, which can be dissolved no more, and is prevented by the aforesaid often shaking: and when the spirit of salt will dissolve no more thereof in FRIGIDO, set the glass in warm sand so long, until the spirit be tinged with a most yellow colour, which then decant, and pour on fresh, and again set it in digestion to extract, and do not to forget to shake the glass often. The solution being finished filter it, and cast away the residue of the TERRA MORTUA. Afterwards set the solution in sand, and give fire, and almost three parts of the spirit of salt will go over insipid, which is nothing but the flegmie, although the spirit was never so well rectified; the reason whereof is the most dry nature of LAPIS CALAMINARIS, to which the spirit of salt is very friendly, and therefore very hard to be separated from it. For I never knew any mineral or metal (besides ZINK) which exceeds L.APIS CALAMINARIS in dryness, At last when no more flegm will go over, let all things cool; which being done, take out the glass, and thou shalt find a red thick oil, as fat as oil olive, and not very corrosive; for that spirit of salt being almost mortified with the LMIS CALANINERIS is deprived of its acidity. This oil is to be kept from the air; or else within a few days it attracts much air which it converts into water, and thereby becomes weakened.

This Oil is of wonderful Virtue, being used as well inwardly as outwardly. And I wonder that in so long a time there hath been no body, who hath operated in LAPIS CALAMINARIS and described the nature thereof, seeing it hath in it a golden sulphur (of which thing in the fourth part)

57.

for if the terrestreity thereof were separated from it artificially, pure gold would be manifested therein; now the greatest part thereof is volatile, and immature, and cannot easily be reduced into a body in melting, wherefore hitherto that stone hath not been esteemed of by Chymists, but to the wise was always precious, & etc.

The use of the Oil of LAPIS CALAMINARIS,

If it be given from 1. 2. 3. drops to ten, and indeed with suitable vehicles, it purgeth the dropey, leprosy, gout, and other noxious fixed humours not yielding to vegetable Catharticks, of which more at large in the second Part of the spirit of urine, and salt of tartar. It serves outwardly for an excellent vulnerary balsome, the like to which can scarce be shewed, not only in reducing old corrupt wounds, but also in those that are green, for it doth powerfully dry, mundify, and consolidate.

It is also used in household affairs, for birdlime being dissolved in it, yields a certain tenacious matter serving to catch birds, mice, & etc. about the house or in the field, For it is as permanent in the heat of the Sun, as in the cold of Winter, wherefore it may be used at any time of the year, all small animals stick to it if they do but touch the matter.

A ligature of string smeered therewith, and bound about any tree prevents the spiders from climbing up thereon, and other kinds of insects that are noxious to the fruit; a thing worth taking notice of.

This oil is not by the pouring on of water corrupted, neither is it precipitated, as that of Antimony: wherefore It is useful for many things. Common yellow sulphur boiled in it, viz. in a strong fire, so as to be dissolved in it, swims upon it like fat, is thereby purified and made as transparent as yellow pellucid glass, and a better medicine then those common flowers of sulphur: it serves also for other uses, all which to relate here it would be too tedious.

This oil being mixed with clean sand, and distilled by retort in a fire that is very strong (otherwise the spirit of salt will not leave the LAPIS CALAMINARIS) yeilda a most fiery spirit, the LAPIS CALAMINARIS remaining in the bottom of the retort.

This spirit is so strong, that it can scarce be kept, it dissolves all metals, and all minerals (excepting silver and sulphur) wherefore by the help thereof many excellent medicaments are made, which cannot be made with the common spirit though never so well rectified, which although it be often rectified, yet it is not without flegni, which cannot be separated from it by the power of rectification, so well as with LAPIS CALAMINARIS.

This spirit doth perform many things in medicine, & alchemy, as aalso in other arts, as you may easily conjecture; but here is not opportunity to speak more of these things, yet for the sake of the sick I shall add one thing to which few things are to be compared; the plain & short process whereof I would not have thee be offended at. And it is this, viz, mix this spirit with the best rectified spirit of wine, digest this mixture some while, and the spirit of salt will separate

the spirit of wine, and will make the oil of wine swim on the top, the volatile salt being mortified: and this oil is a most incomparable cordial, especially if with the said spirit of wine, spices have first been extracted, and with the said spirit of salt, gold bath been dissolved. For then in the digestion of this mixture, the oil of wine being separated, attracts the essence of the cordial species, and of other vegetables, being extracted before with the spirit of wine, as also the tincture of gold, and so by consequence a most efficacious incomparable and universal medicine for all diseases, fortifying the BIYMIDUM RADICALE, that it may be able to overcome Its enemies; for which let praise and glory be given to the immortal God for ever who hath revealed to us so great secrets.

Of the Extrinsecal use of the spirit of Salt in the Kitchen.

I said before that instead of Vinegar, and verjuice it may be used, as also instead of the juice of Limons, now it remains that I shew you how it is to be used, and that indeed as well for the sake of the healthy as the sick.

Let him therefore that will dress a pullet, pigeons, veal, & etc. in the first place put a sufficient quantity of spices, of water, and butter, and then as he pleaseth a greater, or lesser quantity of spirit of salt: and by this means fleahes are sooner made ready being boiled, then that common way; an old hen though the flesh thereof be old is made as tender as a chicken by the addition of this spirit: but be that

will use it instead of the juice of Lemons with rost meat, must put into it the pill of Lemons for preservation sake, because it preserves it. It is used instead of verjuice by it self alone, or mixed with a little sugar, if it be too acid.

He that will stew beef, and make it as tender as kid, must first dissolve it in tartar and a little salt before he wets the flesh therewith, arid the flesh will not only be preserved but made tender thereby: but to keep flesh a long time you must mix some water therewith, and with weights press down the flesh, that it may be covered with the pickle: for by this means flesh may be preserved a great while.

After the same manner may all kinds of garden fruits be preserved, as cucumbers, purslain, fennel, broom, German capers, & etc. and indeed better than in vinegar. Also flowers, and herbs may a long while be preserved by the help thereof, so that you may have a rose all the winter.

It preserves also wine, if a little be mixed therewith. A little thereof being mixed with milk precipitates the cheese, which if it be rightly made is never corrupted, being like to such cheese as they call PARMESAN, The whey of that milk dissolves Iron, and cures any scab being washed therewith.

With the help of spirit of salt is made with honey, and sugar a most pleasant drink, not unlike to wine. There is made also of certain fruits with the spirit of salt a very good vinegar like to the Rhenish vinegar. Such and many more things, which I will not now divulge, may be done with spirit of salt.

And thus have I in some measure taught the use of the spirit of salt,

61.

which I would not have you take as if I had revealed all things; for, brevities sake, as also some other reasons I have silently passed over many things. Neither do I know all things my self: but those things, which I do know, I have so far declared that others may from hence have hints of seeking further. He that would describe all, and every power and virtue thereof, had need to write a whole volumne, the which is not my purpose at this time to do, but may perhaps be done another time. There shall also be shewed in the second part of this book, some secrets which may be prepared by the help of this spirit: as how it may be dulcified to extract the tincture of gold, and of other metals, leaving a white body, which tincture is a medicine not to be slighted. Wherefore now seeing it is manifest how great things this Spirit can do, every one will desire a good quantity for his houshold uses, especially seeing most excellent spirits may be made after an easy and short way.

How an acid spirit, or vinegar may be distilled out of all vegetables, as herbs, woods, roots, seeds, & etc.

First put a few living coals into the furnace, then put upon them the wood that is to be distilled, that it may be burnt: out of which, whilst it is burning goes forth the acid spirit thereof into the receiver, where being condensed it falls down into another receiver, resembling almost common vinegar in its smell, wherefore also it is called the VINEGAR OF WOODS.

And after this manner you may draw forth an acid spirit out of any

wood, or vegetable, and that in a great quantity without Costs, because the wood to be distilled is put upon a very few living coals, and upon that another, for one kindles the other: and this spirit requires no more charges than of the wood to be distilled; which is a great difference betwixt this, and the common way of distilling, where besides retorts, is required another fire; and out of a great retort scarce a pound of spirit is drawn in the space of five or six hours, whereas in ours in the space of one day, and that without any cost or labour may be extracted twenty or thirty pound, because the wood Is immediately to be cast into the fire to be distilled, and that not in pieces, but whole. Now this spirit (being rectified) may commodiously be used in divers Chymical operations, for it doth easily dissolve animal stones, as the eyes of Crabs, the stones of Perches, and Carps, Corals also and Pearl, & etc. as doth vinegar of wine. By means thereof also are dissolved the glasses of metals, as of tin, lead, Antimony, and are extracted, and reduced into sweet oils.

This vinegar being taken inwardly of it self doth cause sweat wonderfully, wherefore it is good in many diseases, especially that which is made of Oak, Box, Guaiacuzn, Juniper, and other heavy woods; for by how much the heavier the woods are, by so much more acid spirit do they yield.

Being used outwardly it mundifies ulcers, wounds, consolidates, extinguisheth, and mitigates inflammations caused by tire, cures the scab, but especially the decoction being made of its own wood in the same. Being mixed with warm water for a bath for the lower part of the body,

63.

it cures occult diseases of women; as also malignant ulcers of the legs.

This spirit therefore deserves some place in the shops, i.e. it is unjustly rejected in the shops, seeing it is easily to be made. In distilling of wormwood and other vegetables, there remains in the bottom of the furnace ashes, which being extracted with warm water yields a salt by decoction, which being again dissolved in its own spirit or vinegar, doth by the evaporation of the flegm, being placed in a cold place pass into Crystalline salt, which is of a pleasant taste, not like unto a LIXIVIUM, nor unto other salts that are dissolved in the air. This salt is also more efficacious (being reduced into Crystals by its proper Spirit) than that which is made by the help of sulphur, or Aqua fortis, and oil of Vitriol, and otherways which Chymists, and Apothecaries use.

The spirit of paper and linen cloth.

Pieces of linen cloth gathered, and got from seamsters being cast into the furnace upon living coals, yield a most acid spirit, which tingeth the nails, skin, & hair with a yellow colour, restores members destroyed with cold, is good in a gangrene, and erysipelas if linen clothes wet in the same be applied thereto, etc. The same doth spirit made of paper, viz, of the pieces thereof.

64.

The spirit of Silk.

After the same manner is there a spirit made of pieces of silk, which is not so sharp as that which is made of linen and paper, neither doth it tinge the skin, but is most excellent in wounds as well old as green, and it makes the Skin beautiful.

The spirit of mans hair, and of other animals, as also of horns.

Out of horns also, and hair is made a spirit, but most fetid, wherefore it is not so useful, although otherwise it may serve for divers arts: being rectified it comes clear and to be of the odour of the spirit of urine. It dissolves common sulphur, and yields a water, that cures the scab in a very short time.

Now for this business, shreds of wollen cloth uàdyed may serve, being cast in a good quantity into the furnace, Pieces of cloth dipt in this spirit and hanged in vineyards, arid fields, keep out Deer and Swine from coming in, because they are afraid of the smell of that spirit, as of an hunteman that waits to catch them.

The spirit of vinegar, honey, and sugar.

He that will distil liquid things, must cast red hot coals into them, as for example into vinegar in the furnace, or if it be honey, or sugar, let them first be dissolved in water, by which means they will

be drunk up by the coals, which being therewith impregnated, must afterwards at several times be cast into the furnace, and be burnt; and whilst the coals are burning, that which is incombustible comes forth. And by this means you may distil liquid things in a great quantity.

Vinegar which is distilled this way, is of the same nature, as that which is distilled in close vessels.

But honey and sugar that are distilled after this manner, are a little altered, and acquire other vertues: but how they shall be distilled without the loss of their volatile spirit shall be taught in the second part. Also after this manner may all liquid things being drunk up by living coals be distilled.

Of the use of distilled vinegar many things might be said, but because the Books of all the Chymists treat abundantly thereof, I account it needless to repeat what they have writ. Yet this is worth taking notice of, that the sharpest vinegar hath a great affinity with some metals, which may be extracted by the help thereof; also dissolved, and reduced into medicaments; yea; many things may be made with the help thereof, as the books of all the Chymists testify.

But there is yet another vinegar, of which there is often mention made in the books of Philosophers, by the help whereof, many wonderful things are performed in the solution of metals, the name whereof the ancients have been silent in; of which I do not here treat, because it cannot be made by this furnace; but I shall treat of it in another part; yet so that I incur not the Curse of the Philosophers.

How spirits may be made of the salt of tartar, vitriolated tartar, the spirit of salt tartarified, and of other such like fixed salts.

As many Chymists as there hath been, almost all have been of the opinion that a spirit cannot be drawn out of salt of tartar, and other fixed salts. For experience hath taught that by retort little or no spirit can be drawn from thence, as I had often experience of before the invention of this furnace: the reason of which thing was the admixtion of sand, earth, bole, powder of tiles, & etc. for to prevent the flowing of the salt of tartar, being by this means dispersed. But this is done through the ignorance of Authors, who have been ignorant of the properties of salt of tartar. For a stony matter, as sand, flint, bole, & etc. being mixed with salt of tartar, feeling the heat of the fire, and being made red with the same, is joined to it most closely, so as no spirit can be drawn from thence, but become a most hard stone. For sand, and such things that are like to it, have so great an affinity with the salt of tartar, that being once united can scarce ever be separated. Yet it may be made by Art by the addition of pure sand, or flint, because the whole substance of the salt of tartar may be turned into a spirit in the space of one or two hours, as shall be taught in the second part, and it excels all other medicaments in virtue, in curing the stone, and gout. And if by the regimen of art there be left any CAPUT MORTUUM in the distillation, it hath, being dissolved in the air, a power to putrify metals being prepared, and mixed with it, in the space of few hours, so as to make them become black, and to

67.

grow up like trees with their roots, trunks, arid boughs, which by how much the longer they are so left, become the better. Of calx of lead being subtilized, and of salt of tartar may be made a SPIRITUS GRADATORINS of wonderful virtues as well in Medicine as Alchemy. There is made of the CAPUT MORTUUM, PER DELIQUIM a green liquor which doth wonderful things; whence it is proved, THAT SATURN IS NOT THE LOWEST OF THE PLANETS; enough to the wise.

And so is the Lac Virgins, and the Philosophical Sanguis Draconis made,

Sometimes there is found a certain earth, or bole, which hath no affinity with tartar, which being mixed with salt of tartar yields a spirit, but very little. But in this furnace may all fixed things be elevated, because the species not being included in it, but dispersed, being cast upon the fire, are from the fire elevated through the aire, and are being refrigerated in the recipients again condensed, which cannot be well done by a close retort.

He that therefore that will make the spirit of the salt of tartar, need do nothing else than cast the calcined tartar into the fire, and it will wholly come over in a spirit; but then there are required glass recipients, because those that are earthen cannot retain it.

And this is the way whereby most fixed salts are distilled into a spirit by the first furnace. In the second furnace (viz, in the furnace of the second part) it may be done better, and easier, where together with the preparation shall be taught the use thereof.

The spirits, flowers, and salts of Minerals and stones.

By this way spirits may be raised from any mineral or stone, and that without the addition of any other thing: yet so as that the minerals, and stones, as flints, Crystals, talk, LAPIS CALANINARIS, Marcasite, Antimony, being ground with an Iron ladle cast upon the coals, and there will arise together with a certain acid spirit, some salt and flowers, which are to be washed off from the recipients, and filtred, and the flowers will remain in CHARTA BIBULA, or filter for the water together with the spirit, and the salt passeth through the filter, all which may be separated, rectified and be kept close by themselves for their proper uses, Now this you must know, that you must choose such minerals which have not been touched by the fire, if you desire to have their spirit.

How minerals, and metals may be reduced into flowers, and of their virtues.

Hitherto the flowers of metals, and minerals have not been in use, excepting the flowers of Antimony, and sulphur, which are easily sublimed: for Chymists have not dared to attempt the sublimation of other metals, and fixed minerals, being content with the solution of them with Aqua fortis, and corrosive waters, precipitating them with the liquor of salt of tartar, and afterwardsedulcorating, and drying them; and being so prepared they have called them their flowers: but by Flowers I understand the same matter which is by the help of fire without the

addition of any thing sublimed, and turned into a most subtile powder, not to be perceived by the teeth or eyes, which indeed is (in my judge-merit) to be accounted for the true flowers; when as the flowers which others make are more corporeal, and cannot be so welledulcorated, but retain some saitness in them, as may be perceived by the increase of their weight, and therefore hurtful to the eyes, and other parts.

But our flowers being by the force of the fire sublimed by themselves, are not only without saitness, but are also so subtile that being taken inwardly presently operate, and put forth their powers, viz, according to the pleasure of the Physican, Neither is their preparation so costly as the others.

Metals also, and minerals are maturated, and amended in their sublimation, that they may be the more safely taken; but in other preparations they are rather destroyed, and corrupted, as experience witness-eth: Now how these kind of flowers are to be made I shall now teach, and indeed of each metal by it self, whereby the artist in the preparation cannot err, and first thus.

Of Gold and Silver.

Gold and silver can hardly be brought into flowers, because many are of opinion, that nothing comes from them in the fire, especially from Gold, although it should be left there for ever: which although it be true, viz, that nothing comes from gold in the fire, although it should remain there a long time, and from silver but a little except

it have copper or any other metal mixed, which yet vapours away but by little and little.

Which I say although it be so, yet they being broken and subtilized and scattered upon coals, and so dispersed, may by the force of the fire and help of the air be sublimed, and reduced into flowers.

Now seeing the aforesaid metals are dear, and of a great price, and the furnace with its recipients large, I would not that any one should cast them in, especially gold, because he cannot recover them all; but I shall to those that desire to make these flowers shew another way in the second part, whereby they may make them without the loss of the metal; to which I refer the reader. For this furnace serves for the subliming of metals, and minerals, which are not so precious, the loosing of which, whereof is not so much regarded. And thus much is said to shew that gold, silver, although fixed, may be sublimed, Now other metals may more easily be sublimed, yet one more easily than another, neither need they any other preparation but beating small, before they be cast into the fire.

Flowers of Iron and Copper.

Take of the filings of Iron or Copper, as much as you please, cast them with an Iron laddle upon burning coals, viz. scatteringly, and there will arise from Iron a red vapour, but from Copper a green, and will be sublimed Into the sublimatory vessels. As the fire abates it must be renewed with fresh coals, and the casting in of these filings

71.

be continued, until you have got a sufficient quantity of flowers, and then you may let all cool. This being done take off the sublimatory vessels, take out the flowers, and keep them, for they are very good if they be mixed with unguents, and emplasters: and being used inwardly cause vomiting; therefore they are better in Chirurgery, where scarce any thing is to be compared to them. Copper being dissolved in spirit of salt, and precipitated with oil of vitriol,edulcorated, dried, and sublimed, yields flowers, which being in the air resolved into a green balsom, is most useful in wounds, and old putrid ulcers, and is a most precious treasure.

Flowers of Lead and Tin.

You need not reduce these metals into small crums, it is sufficient if they be cast in piece by piece, but you must under the grate put an earthen platter glazed, and filled with water, to gather that which flows down melted, which is to be taken out, and cast again into the fire, and this so often until all the metal be turned into flowers, which afterwards are again, the vessels being cold, to be taken out, as hath been said of the flowers of MARS and VENUS. And these flowers are most excellent being mixed with plasters and ointments in old and green wounds, for they have a greater power to dry, than metals calcined, as experience can testifie.

72.

Of Mercury.

This is easily reduced into flowers, because it is very volatile, but not for the aforesaid reason, because it leaps in the fire, and seeks to descend. And if you desire to have the flowers thereof, mix it first with sulphur that you may pulyerize it, and cast into a red hot crucible set in the furnace, a little quick Mercury, viz, by times with a ladle, presently it will fly out, and some part thereof will be resolved into an acid water, which. is to be preferred before the flowers in my judgement; but the rest of the Mercury drops into the receiver. But here are required glass vessels, because the aforesaid water is lost in earthen, And this water without doubt doth something in Llchyniy:

It is also good being applyed outwardly, in the scab, and venereal ulcers.

The flowers of Zink.

It is a wonderful metal, and is found in the spagyrical anatomy to be meer sulphur, golden, and immature. Being put upon burning coals doth suddenly fly away wholly; it is inflamed also, and partly burns like common sulphur, with a flame of another colour, viz, golden purple: and yields most gallent white, and light flowers.

The use.

Being given from 4, 5, 6, grains to 12, they provoke sweat wonderfully,

and sometimes vomit, and stools, according to the offending matter. The virtues thereof being externally used are also wonderful, for there are not found better flowers, for they do not only speedily consolidate fresh wounds, but also old, such as always drop water, in which cases they excell all other medicaments. For they are of such dryness, which hath joined with it a consolidating virtue, as that they do even things incredible. They may be used divers ways, as to be strewed by themselves, putting over them a stiptick plaster, or being brought into an unguent with honey to be put into wounds; which unguents in deep wounds may be boiled to a hardness for the making of small suppositories, which are to be put into the wounds, which must afterwards be covered with some plaster, and preserved from the air. Being applyed after this manner they cure fundamentally, being mixed with plaisters also they do wonderful things.

If they be mixed with rose, or rain-water, so as to be united together, and afterwards some of this mixture be sometimes every day dropt into red eyes that water, yielding not to other ophthalxnicks, do restore, and heal them.

These flowers being taken up itt lint and strewed upon those places of Children that are galled with their urine (those places being first washed with water) heal them quickly. They heal also quickly any excoriation which is contracted by lying long in any sickness, and is very painful, if they be strewed thereon.

These flowers also are more easily dissolved in corrosive waters, than other metals, and minerals, neither doth the spirit leave them

in the fire, but an insipid phlegm only distils off, leaving a fat and thick oil, as is above said concerning the LAPIS CALAI⁴INARIS, being ordained for the same uses, but more efficacious then that. Which spirit if it be by the violence of fire driven forth, is of so great strength, that it can scarce be kept, And not only spirit of salt, but also Aqua fortis, and Regia may after this manner be exalted, so as to be able to do wonderful things in the separation of metals; but here is not the place for these things, they shall be spoken of in the fourth part.

But you need not make flowers for this work, because crude Zink doth the same, although the flowers do it something better: whence it appears that a metal contracts a higher degree of dryness in sublimation.

Flowers of Antimony.

There is no difficulty to make the flowers of Antimony, for Chymists have a long time made use of them, and because their preparation was tedious, they were not sold at a low rate.

Wherefore there was no body willing to attempt any thing else in them, because they were used only for vomiting; the dose whereof was from 1. 2. 3. 4. grains to 8. and 10. in effects of the stomach and of the head, as also in fevers, plague, morbus gallicus, & etc. Neither is it a wonder if Chymists tried no further in them, for we see that there are found men in these days who perawade themselves that there is nothing which was not found out by the learned ancients, can be

found out in these days, and if there were any thing to be yet found out it was found out already by them. But this opinion truly is very foolish, as if God gave all things to the ancients, and reserved nothing for them that should come after. Neither indeed do they understand nature in their operations, which works incessantly, and is not wearied in her labours, & etc. But however it is manifest that God hath revealed things in these times which were hid from them of old, and he will not cease to do the same even to the end of the world.

But to return to our purpose again, which is to shew an easier way of making the flowers of Antimony, whereby a greater quantity may be had, as also that they may serve for other uses.

Take of crude Antimony powdered as much as you please, and first make your furnace red hot, then cast in at once a pound of Antimony, or thereabouts, viz. scatteringly upon the coals; and presently it will flow, & being mixed with the coals by the force of the fire will be sublimed through the air into the receivers like a cloud, which will there be coagulated into white flowers. Note, that when the first coals are burnt up, more must be put in to continue the sublimation, and those must be first kindled before they are put in, lest the flowers be by the dust of the coals arising together with them discoloured, and contract thence a gray colour: but it matters not if you will not use them by themselves to provoke vomiting, because there is no danger thereby, for that colour comes only from the smoke of the coals, wherefore you need not be afraid of them. But let him that dislikes this colour, first kindle the coals before he put them into the furnace, and then

he shall have white flowers. Also you must not shut the middle hole through which the coals, and Antimony are cast in, that thereby the fire may burn the more freely: for else the flowers of the superior pots will be yellow and red, by reason of the sulphur of the Antimony, which is sublimed higher than the regulus. Now you may by this way make a pound of the flowers with 3, 4, or 5, pounds of coals. It is a little that goes away from the Antimony, viz, the combustibile sulphur, which is burnt, all the rest going into flowers. You must have a care to provide a sufficient quantity of subliming pots by reason that a large space is required for the sublimation of the flowers.

The flowers that are prepared after this way, are sold at a lower rate, so that one pound thereof is cheaper, than half an ounce of those that are made after the other manner, Also they are safer, as being made with an open free flame of the fire, for they do not provoke vomit so vehemently; moreover the flowers of the lower pots are not vomiting, but diaphoretical, as if they had been prepared with nitre, for thus they are corrected by the fire: And by this way at one and the same operation divers flowers of divers operations may be made, for the flowers of the lower pots are diaphoretical, of the middle a little vomit-lye, but of the uppermost vehemently vomitive. For by how much the more they have endured the fire, by so much the better are they corrected; from whence the diversity of their power proceeds. Wherefore each of them are to be kept by themselves, and the uppermost for plasters or butter, or oil, and those to be made sweet or corrosive thereby:

The middle for purging, and vomiting, but the lowermost for sweat, being

more excellent than BEZOARDICUM MINERALE, or ANTIMONIUM DIAPHORETICUM made with nitre. Truly I do not believe that there is an easier way of making vomiting, and diaphoretical flowers, than ours. Now for the use of them, you must know that those that are vomitive are to be administered to those that are strong, and accustomed to vomit: but to Children, and old Men with discretion, as hath been said above of the butter of Antimony: but those that are diaphoretical may be given without danger to Old and Young, to those that are in health, and to the sick; in any affliction that requires sweat; as In the Plague, Morbus Gallicus, Scorbutic, Leprosy, Fevers, & etc. The Dose of them is from 3, 6, 9, 12, grains to 24. with proper vehicles to sweat in the bed; for they do expel as well by sweat, as by urine, all evil humours. And because they that are vomitive are in a greater quantity than those that are diaphoretical, and not so necessary as these, and there may be many more doses out of them; It is necessary to shew you how those that are vomitive may be turned into diaphoretical; and that may be done three ways; the two former, whereof I have before shewed concerning the butter of Antimony made of flowers with spirit of salt, the third is this, viz. put the flowers in a crucible covered (without luting) lest any thing fall into it, so set them by themselves in a gentle fire, that they melt not, but be made only darkly glow for the space of some hours; then let them cool, for they are become fixed and diaphoretical. Although they had before contracted some yellowness or ash-colour, yet by this means they are made white, fixed, and diaphoretical. Also these flowers, are used in stiptick plasters by reason of their dry nature, with which they are endued.

Also they are melted into a yellow transparent glass, neither is there taught an easier way of reducing Antimony by it self into a yellow transparent glass, where crude Antimony is first sublimed, and being sublimed Is melted into glass.

This sublimation serves instead Of calcination, by the help whereof 20 pound are more easily sublimed, than by the help of the other one pound is brought into caix.

Neither is there here any danger of the ascending fumes, because when the Antimony is cast Into the fire you may be gone, which is safe, and easy calcination, whereas the common way requires the continual presence of the artist stirring the matter, who also takes out the matter when it is once grown together, and grinds it again; by which means he hath much to do, before the matter come to a whiteness; but by our way, the matter is at the first time made sufficiently white, and more than by that common way of calcinatjon and agitation. I suppose therefore that I have shewed to him that will make glass of Antimony, the best, and hitherto unknown way; which being taught, I hope there is no man will hereafter like a fool go that tedious way of the Ancients, but rather follow my steps, For by this way may any Physican, most easily be able to prepare for himself voinitive and diaphoretlcal flowers, and also glass of Antimony PER SE.

Of those flowers may be made oils both sweet and corrosive, and other medicaments, as bath been above said of the spirit of salt, and shall afterwards be spoken In the Second Part.

Let him that will make Flowers of the Regulus, fairer than those

which are made of crude Antimony, cast it being powdered into the fire, and in all things proceed as hath been said, and he shall have them, & etc. for they are easily sublimed. Now, how the regulus is to be made after a compendious manner, you shall find in the Fourth Part. The scoriae also are sublimed, so as nothing is lost. But he that will make Flowers that shall be dissolved in the air into a liquor must add some calcined tartar, or some other fixt vegetable salt, and he shall have flowers that will be dissolved in any liquor: but he that will make red flowers as well those that are diaphoretical, as those that are purging, must mix iron, and he shall have flowers like to Cinnabar: Let him that desires green, mix copper, if purple, LAPIS CALAMINARIS.

And thus out of any mineral may be made flowers whether it be fixed, or volatile; for it is forced to fly on high being cast into the fire. And these may be used diversely in Chyrurgery, in plasters and unguents; for they dry, and astring potently, especially those that are made of LAPIS CALAMINARIS. Neither are they to be slighted that are made of the golden, and silver marcasite. Those that are made of arsenick & auripigmentum, are poisonous, but are useful for Painters. Arsenic & auripigmentum being calcined with nitre, and then sublimed, yield Flowers that are safely to be taken inwardly, expelling all poisons by sweat and stool: For they are corrected two ways, viz, first by the nitre, secondly by the fire in the subliming: they are not therefore to be feared, because that Arsenic was poisonous before the preparation thereof. For by how much the greater poison it was before preparation, so much the greater medicine afterwards.

The Flowers of sulphur are taught in the Second Part, although they may also be made by this furnace, viz, the natures and properties thereof being known by an expert Artist, or otherwise it is burnt.

So also stones being prepared are brought into Flowers, and many other things, of which we need not say any thing, only let him that pleaseth make tryal thereof.

And now I suppose I have made plain, and shewed you clearly: how distillation is to be made in this our first furnace; wherefore I will now end. He therefore that understands and knows the fabrick of the furnace (which he may understand by the delineation thereof) and the use thereof, will not deny but that I have done a good work, and will not disapprove of my labour.

And this is the best way of distilling, and subliming incombustible things. In the Second Part you shall find another furnace in which are distilled combustible things, as also most subtil spirits, & etc. The first furnace serves also for other uses, as the separation of metals; of the pure from the impure; for the making of the central salt, and of the HUMIDUM RADICALE of them all. But because it cannot be done after the aforesaid way, by which things, are cast into the fire to get their flowers, and spirits, but after a certain secret Philosophical manner, by the power of a certain secret fire, hitherto concealed by the Philosophers (neither shall I prostrate that secret before all): It is sufficient that I have given a hint of it for further enquiry, and have shewed the way to other things.

Finis.

