GASTRONOMIC
LIBRARY

Katherine Golden Bitting

pænæ nīm quon-
dīānūdā nobis hodie:

"Give us this day our daily bread"
—the universal supplication of
all people in all times and places.

Class ____________________

Book ____________________

THE KATHERINE GOLDEN BITTING
COLLECTION ON GASTRONOMY
Presented by A. W. BITTING
444 French (John) Art of Distillation, or a Treatise on the Choicest Spagyrical Preparations, Experiments and Curiosities performed by way of Distillation; also the London Distiller, sm. 4to (wormhole), woodcuts, calf neat, 10s 6d 1687
THE
Art of Distillation:

Or,
A Treatise of the choicest Spagyrical Preparations, Experiments, and Curiosities, performed by way of Distillation.

Together with the description of the choicest Furnaces and Vessels used by Ancient and Modern Chymists

And the Anatomy of Gold and Silver; with the chiefest Preparations and Curiosities thereof; together with their Vertues.
In SIX BOOKS.

By John French Dr. in Physick.

To which is added in this Fourth Impression.
Sublimation and Calcination:
In TWO BOOKS.

As also,
The LONDON-DISTILLER
Exactly and truly shewing the way (in words at length, and not in mystical Characters and Figures) to draw all sorts of Spirits and Strong-Waters;
Together with their Virtues, and other Excellent Waters.

London:
Printed by E. Cotes for T. Williams at the Bible in Little Britain, 1657.
To my much Honoured Friend

TOBIAS GAREBRAND, D.,
DOCTOR OF PHYSICK, AND PRINCIPAL
OF GLOUCESTER-HALL IN OXFORD.

SIR,

It is my ambition to let the world know upon what score it is that I do especially honour men. It is not Sir! as they are high born Heirs of the great Potentates, for which most honour them; and upon which account I also shall not deny them their due) but as they excel in honesty, and are friends to Art. That poor Philosophers should take no delight in riches and rich men should take great delight in Philosophy, is to me an argument, that there is more delight, honour, and satisfaction in the one than in the enjoyment of the other. I once read of a noble man's Porter that let in all that were rich apparelled, but excluded a poor Philosopher; but I should, if I had been in his place,
The Epistle Dedicatory.

place, have rather let in the Philosopher, without the gay clothes, than the gay clothes without the Philosopher. As long as I have sense or reason, I shall improve them to the honour of Art, especially that of Alchymie. In the perfection thereof there are riches, honour, health; and length of days: by it Artesius lived 1000 years, Flammel built 28 Hospitals with large revenues to them, besides Churches and Chappels; for it, both they and divers more were accounted Philosophers, and wise men, which sounds more honourably in my ears, than all the ratling and empty titles of honour whatsoever besides. In the perfection of this Art, I mean the accomplishing of the Elixir, is the Sulphur of Philosophers set at liberty, which gratifies the releasers thereof with three Kingdoms, viz. Vegetables, Animal, and Mineral, and what cannot they do, and how honourable are they, that have the command of these? They may command Lead into Gold, drying plants into fruitfulness, the sick into health, old age into youth, darkness into light, and what not? A moneth would fail to give you an account of their powre and dominations. Now for the effecting of this, I shall besides what I have advised in the Epistle to the Reader, say only this; Court the Mother, and you win the Daughter; prevail with Nature, and the fair Diana of the Philosophers is at your service.
The Epistle Dedicatory.

Now if you cannot prevail with Nature for the fairest of her daughters, viz. the Mercury of Philosophers, yet she hath other daughters of wonderful beauty also, as are the Essences, and Magisteries of Philosophers, which also are endowed with riches, honour, and health, and any of these you may more easily prevail with their Mother Nature for. This Art of Alchemy is that Solary Art, which is more noble than all the other six Arts and Sciences, and if it did once thoroughly shine forth out of the clouds whereby it is eclipsed, would darken all the rest, (as the Sun doth the other six Planets) or at least swallow up their light. This is that true natural philosophy which most accurately anatomizeth Nature and natural things, and ocularly demonstrates the principles and operations of them: that empty natural philosophy which is read in the Universities, is scarce the meanest handmaid to this Queen of Arts. It is pity there is such great encouragement for many empty, and unprofitable Arts, and none for this, and such like ingenuities, which if promoted would render an University far more flourishing, than the former. I once read or heard, of a famous University beyond Sea, that was fall into decay, through what cause I know not: but there was a general counsel held by the learned, how to restore it to its primitive glory: The Medium at last agreed upon...
The Epistle Dedicatory.

upon, was the promoting of Alchymie, and encouraging the Artists themselves: But I never expect to see such rational acts in this nation till shadows vanish, substances flourish, and truth prevail; which time I hope is at hand and desired by all true Artists, and to my knowledge, especially by your self, upon which account I truly honour you. Now to your self therefore I crave leave to adumbrate something of that Art which I know you will be willing for the publick good to promote. I dedicate this Treatise to you, not that it is worthy of your acceptance, but that it may receive worth by your accepting of it. I present it to you (as men bring lead to Philosophers to be tinged into gold) to receive the stamp of your favour, and approbation, that it may pass currant, with acceptance amongst the jons of Art, whereby you will continue to oblige him who is

LONDON.
November.
25. 1650,

SIR,

Your most obliged Servant,

John French.
To the Reader.

Here is a glut of Chymical books, but a scarcity of Chymical truths: Nature and Art afford a variety of Spagirical Preparations; but they are as yet partly undiscovered, partly dispersed in many books, and those of divers Languages, and partly reserved in private mens hands.

When therefore I considered what need there is of, and how acceptable a general Treatise of Distillations might be, especially to our English Nation (and the rather since Baker upon Distillations is by reason of the description of a few Furnaces, and Vessels therein, besides which there is small variety either of Preparations, or Curiosities, sold at such a high rate) I thought I could do them no better service than to present them with such a Treatise of that subject, which should contain in it the choicest preparations of the selectest Authors, both ancient and modern, and those of several languages, and which I have attained by my own long and manual experience, together with such as I have by way of exchange purchased out of the hands of private men, which they had monopolized as great secrets: But on the other hand, when I considered what a multitude of Artists there are in this Nation, from many of which more and better things might be expected, than from myself; I was at a nonplus in my resolutions, fearing it might be accounted an unpardonable presumption in me to undertake, that which might be better performed by others: But for the avoiding of this aspersions be pleased to understand, that I present not this to the world under any other notion than of a rough draught (which indeed is the work of the more skilful, and therefore of myself, without exception) to be polished by the more expert Artist. I rejoice as at the break of the day after a long tedious night, to see how this solitary Art of Alchymie begins for to shine forth out of the clouds of reproach, which it hath a long time undeservedly lain under. There are two things which have long time eclipsed it, viz. the mist of Ignorance, and the specious lunary body of deceit. Arise O Sun of truth, and dispel these interpolated fogs.
To the Reader.

sages, that the Queen of Arts may triumph in splendour! if men did believe what this Art could effect; and what variety there is in it, they would be no longer straightened by, nor bound up to, or jurare in verba Galeni, vel Aristotelis, but would now subscribe a new engagement to be true and faithful to the principles of Hermes, and Paracelsus, as they stand established without Aristotle, their Prince, and Galen, and Hippocrates, their Lords and Masters. They would no longer stand dreaming forth, Sic dicit Galenus, but Ipse dixit Hermes. I desire not to be mist, ken, as if I did deny Galen his due, or Hippocrates what is his right, for indeed they wrote excellently in many things, and deserved well thereby; That which I cannot allow of in them, is their strict observation of the quadruplicity of humors (which in the School of Paracelsus, and writings of Helmont, where the Anatomy of humors hath been more rationally and fully discoursed, hath been sufficiently confused) and their confining themselves to such crude Medicines, which are more fit to be put into Spagyrical vessels for a further digestion, than into men's bodies to be fermented therein. Certainly if men were less ignorant they would prefer Cordial Essences before Crude Juices, Balsamical Elixirs before Flegmattick Waters, the Mercury of Philosophers before common Quick-silver. But many men have so little insight in this Art, that they scarce believe anything in it beyond the Distilling of Waters, and Oyls, and extracting of Salts; nay, many that pretend to Philosophy, and would be accounted Philosophers, are so unbelieving, that, as faith Sandivogius, although he would have intimated the true Art to them word by word, yet they would by no means understand or believe, that there was any water in the Philosophers sea. And as he in this case, so I in another know divers that will not believe, that common Quick-silver can of itself be turned wholly into a Transparent Water, or that glass can be reduced into Sand, and Salt of which it is made, saying that fusio vitrificatoria est ultima fuligo, or that an herb may be made to grow in two hours; and the idea of a plant to appear in a glass, as if the very plant itself were there, and this from the Essence thereof, and such like preparations as these: the two former whereof may be done in half an hour, but the latter requires a longer time, but yet possible. And for the possibility of the Elixir, you shall as soon persuade them to believe they know nothing (which is very hard, nay an impossible thing
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thing to do) than to believe the possibility thereof. If there be any such thing (say they) why are not the possessors thereof infinitely rich, famous, do many miracles and cures, and live long? These objections, especially some of them, scarce deserve an answer; yet I shall, to show the vanity of them, make some reply thereunto. Did not Artesius by the help of this medicine live 1000 years? Did not Flamell build fourteen Hospitals in Paris, besides as many in Bologna, besides Churches, and Chappels, with large revenues to them all? Did not Bacon do many miracles? and Paracelsus many miraculous cures? Besides what faith Sandivogius? I have, faith he, incurred more dangers and difficulties by discovering myself to have this secret, than ever I had profit by it; and whenever I would discover myself to the great Ones, it always redounded to my prejudice, and danger. Can a man that carrieth about him 10000 pounds worth of jewels and gold, travel every where up and down, safe, and not be robbed? Have not many rich money-mongers been tortured into a confession where their money was concealed? Did you never hear of a vapouring fellow in London, that pretending to the knowledge of this Mystery, was on a sudden caught aside by money-thirsters, and by them tormented with torments little less than those of Hell, being forced thereby (if he had known it) into a discovery of it? To say nothing of being in danger of being subjected, and enslaved to the pleasure of Princes, and of becoming instrumental to their luxury, and tyranny, as also being deprived of all liberty, as once Raimundus Lullius. The truth is, the greatest matter that Philosophers aim at, is the enjoyment of themselves, for which cause they have sequestred themselves from the world, and become Hermits: Well therefore, and like a Philosopher spake Sandivogius, when he said, Believe me, if I were not a man of that state and condition that I am of, nothing would be more pleasant to me, than a solitary life, or with Diogenes to live hid under a tub; for I see all things in this world to be but vanity; and that deceit and covetousness prevail much, that all things are venedible, and that vice doth excell virtue. I see the better things of the life to come before mine eyes, I rejoice in these. Now I do not wonder, as before I did, why Philosophers when they have attained this medicine, have not cared to have their days shortened, (although by the virtue of their medicine they could have prolonged them) for every Philosopher hath the life to come so clearly set before his eyes, as thy face is seen in a glass.
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glass. Thus much by way of reply to the frivolous objections of those that believe not the verity of his Art, and not only so, but will not believe it. If you should discover to them the process of the Philosophers Stone, they would laugh at your simplicity, and will I warrant you, never make use of it: Nay if you should make projection before them, they would think even in that there were a fallacy, so unbelieving are they: so I find them, and so I leave them, and shall for ever find them the same.

There is another sort of men by whom this art hath been much scandalized, and they indeed have brought a great Odium upon it, by carrying about, and vending their whites, and reds, their sophisticated oysl, and salts, their dangerous and ill prepared Turpentine, and Aurum vitæ's. And indeed it were worth while, and I might do good service for the Nation, to discover their cheats, as their sophisticating of Chymical oysl with spirit of Turpentine, and salts, with salts extracted out of any wood-alks and such like; but here is not place for so large a discourse as this would amount to. I shall only at this time relate to you how Penotus was cheated with a sophisticated Oyl of gold, for faith be, I gave 24. Ducets for the process of an Aurum Potabile which was much cried up and magnified at Prague, but at last it proved to be nothing but a mixture of Oyl of Camphire, Cloves, Fennel-seed, and of Vitriol tinged with the leaves of Gold. I know I shall incure the displeasure of some, but they are sophisticating, cheating mountebanks, who indeed deserve to be bound to the peace, because many men, I dare swear, through their means, go in danger of their lives: Better it is that their knavery should be detected, than a noble Art through their villany be clouded, and aspersed.

Now we must consider that there are degrees in this Art; for there is the accomplishing of the Elixir it self, and there is the discovering of many excellent essences, magisteries, and spirits, and which abundantly recom pense the discoverers thereof with profit, health and delight. Is not Paracelhus his Ludus, that dissolves the stone, and all tartarous matter in the body into a Liquor worth finding out? Is not his Tinea Scatura, a most noble Medicine, that extinguisheth all preternatural heat in the body in a moment? Is not his Althelst a famous dissolvent, that can in an instant dissolve all things into their first principles, and withall is a Specificum against all distempers of the Liver? Who would not take pains to make the quintessence of Honey and the Philo-
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Philosophical Spirit of Wine, which are cordial and balsamical even to admiration? A whole day would fail to reckon up all the excellent, admirable rarities that by this spegymrical Art might be brought to light; in the searching out of which, why may not the Elixir itself at last be attained unto? Is it not possible for them that pass through many Philosophical preparations, to unfold at last the Riddles and Hieroglyphicks of the Philosophers? or were they all mere Phantasms? Is there no fundamentum in re for this secret? Is there no Sperme in gold? Is it not possible to exalt it for multiplication? Is there no universal Spirit in the world? It is not possible to find that collected in one thing, which is dispersed in all things? What is that which makes gold incorruptible? What induced the Philosophers to examine gold for the matter of their medicine? Was not all gold once living? Is there none of this living gold, the matter of the Philosophers, to be had? Did Sandivogius the last of known Philosophers spend it all? Surely there is matter enough for Philosophers, and also some Philosophers at this day for the matter, although they are unknown to us. There are, faith Sandivogius, without doubt many men of a good conscience both of high and low degree (I speak knowingly) that have this Medicine, and keep it secretly: If so, let no man be discouraged in the prosecution of it, especially if he take along with him the five Keys which Nollius sets down, which indeed all Philosophers with one consent enjoy the use and observation of.

1. Seeing it is a thing divine, and celestial, it must be sought for from above, and that not without a full resolution for a pious, and charitable improvement of it.

2. Before thou betakest thyself to the work propound to thyself what thou seest for, and enter not upon the practick till thou art first well versed in the theory; for it is much better to learn with thy brain and imagination, than with thy hands, and costs; and especially study nature well, and see if thy proposals be agreeable to the possibility thereof.

3. Diligently read the sayings of true Philosophers, read them over again and again, and meditate on them, and take heed thou dost not read the writings of imposters in stead of the Books of the true Philosophers. Compare their sayings with the possibility of Nature, and obscure places with clear, and where Philosophers say they have erred, do thou beware, and consider well the general Axioms of Philosophers, and read so long till thou seest a sweet Harmony and consent in the sayings of them.

4. Imagine
To the Reader

4. Imagine not high things, but in all things imitate nature, viz. in matter; in removing what is Heterogeneous; in weight; in colour; in fire; in working; in slowness of working; and let not thy operations be vulgar, neither thy vessels; work diligently and constantly.

5. If it be possible, acquaint thyself thoroughly with some true Philosophers. Although they will not directly discover themselves that they have this secret, yet by one circumstance or another, it may be concluded that they were not ignorant of it. Would not any rational man that had been conversant with Bacon, and seeing him do such miraculous things, or with Sandivogius who did intimate the Art to some wordly word, have concluded that they were not ignorant of it? There have been Philosophers, and perhaps still are, that although they will not discover how it is made, yet may certify you, to the saving of a great deal of cost, pains, and time, how it is not made, and to be convinced of an error is a great step to the truth. If Ripley had been by any Tutor convinced of those many errors before he had bought his knowledge at so dear a rate, he had long before, with less charges attained to his blessed desire.

And as a friendly tutor in this, so in all spagyrrical preparations whatsoever, is of all things most necessary. A faithful well experienced master will teach thee more in the mysteries of Alchymie in a quarter of a year, than by thine own studies and chargeable operations thou shalt learn in seven years. In the first place therefore, and above all things apply thyself to an expert, faithful, and communicative Artist, and account it a great gain, if thou canst purchase his favour, though with a good gravity, to lead thee through the manual practice of the chiefest and choicest preparations. I said apply thyself to an Artist, for there is scarce any process in all Chymistry so ease, that he that never saw it done will not be to seek, and commit some errors in the doing of it. I said expert, that he might be able to instruct thee aright; faithful, that as he is able, so he may faithfully perform what he promiseth; and communicative, that he may be free in discovering himself and his Art to thee. The truth is, most Artists reserve that to themselves, which they know; either out of a desire to be admired the more for their undiscovered secrets, or out of envious to others knowledge: But how far this humor is approvable in them, I leave it to others to judge; and as for my part I have here communicated upon the account of a bare expectation only what I have with many years pains, much reading, and
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great costs known. There is but one thing which I desire to be silent in as touching the process thereof; as for the thing itself to be prepared, what it is, I have elsewhere in this Treatise expressed; and the preparing of that, is indeed a thing worthy of any one's knowing, and which perhaps hereafter I may make known to some. I am of the same minde with Sandivogius, that that fourth Monarchy which is Northern, is dawning, in which (as the ancient Philosophers did divine) all Arts and Sciences shall flourish, and greater and more things shall be discovered than in the three former. These Monarchies the Philosophers reckon not according to the more potent, but according to the corners of the world, whereof the Northern is the least, and indeed is no other than the golden age, in which all tyranny, oppression envious, and covetousnesse shall cease; when there shall be one Prince, and one People, abounding with love and mercy, and flourishing in peace; which day I earnestly expect.

In the meantime, if what I know may add to thy experience, thou hast it freely; and I hope this will be another occasion to set the more expert Artists on work, for the communicatting their experiences to the world. One thing (courteous Reader) let me desyre thee to take notice of, viz. whereas every process is set down plain, yet all of them must be proceeded in secundum Artem Alchymistae, (which Art indeed is obtained by experience) and therefore many that work according to the bare process, effect not what they intend; and the reason is, because there was some Art of the Alchymist wanting. To conclude, if thou knowest more or better things than these, be candid, and impart them; (considering that I wrote these for them that know them not) if not, accept of the endeavours of thy Friend,

JOHN FRENCH.
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FINIS.
What **DISTILLATION** is, and the kinds thereof.

**BOOK I.**

Shall not stand here to shew whence the Art of Distillation had its original, as being a thing not easily to be proved, and if known, yet little conducting to our ensuing Discourse. But let us understand what distillation is, of which there are three principal and chief definitions.

1. Distillation is a certain Art of extracting the Liquor, or the humid part of things by virtue of heat (as the matter shall require) being first resolved into a vapour, and then condensed again by cold.

2. Distillation is the Art of extracting the spiritual, and essential humidity from the flegmatick, or of the flegmatick, from the spiritual.

3. Distillation is the changing of gross thick bodies into a thinner, and liquid substance, or separation of the pure liquor from the impure feces.

I shall treat of Distillation according to all these three acceptions, and no otherwise: hence I shall exclude Sublimation, and Calcination, which are of dry substances, being particularly treated
Of the Art of Distillation. Book I.

treated of hereafter, unless I shall by the way make use of either, in relation to the perfecting of any kind of Distillation.

Now because all, or most of these Distillations are to be performed by heat, it will be necessary to understand how many degrees of heat there are, and which are convenient for every operation: and they are principally four?

The first is only a warmth, as is that of Horse-dung, of the Sun of warm water, and the vapour thereof, which kind of heat serves for putrefaction, and digestion.

2. The second is of seething water, and the vapour thereof, as also of ashes, and serves to distill those things which are subtile, and moist, as also for the rectifying of any Spirit or Oil.

3. The third is of sand and filings of Iron, which serves to distil things, subtile, and dry, or gross and moist.

4. The fourth is of a naked fire, close, open, or with a blast which serves to distil Metals and Minerals, and hard gummy things, as Amber, &c. I do not say serves only to distil these, for many of the former Distillations are performed by this heat, as the distilling of Spirits and Oils, &c. in a Copper-still over a naked fire; but these may be distilled by the two former degrees of heat; but Minerals and such like cannot but by this fourth degree alone.

Of the matter and form of Furnaces.

The matter of furnaces is various, for they may be made either of brick and clay, or clay alone with whites of Eggs, hair, and filings of Iron, (and of these, if the clay be fat, are made the best, and most durable Furnaces) or of Iron, or Copper cast or forged. The forms also of Furnaces are various. The fittest form for Distillation is round; for so the heat of the fire being carried up equally, diffuseth itself every way, which happens not in a Furnace of another figure, as four square or triangular, for the corners disperse and separate the force of the fire. Their magnitude must be such as shall be fit for the receiving of the vessel; their thickness so great as necessity shall seem to require; only thus much observe, that if they be
be made of forged Iron or Copper, they must be coated within side, especially if you intend to use them for a strong fire. They must be made with two bottoms distinguish'd, as it were, into two forges, the one below which may receive the ashes, the other above to contain the fire. The bottom of this upper must either be an Iron grate, or else an Iron plate perforated with many holes, that so the ashes may the more easily fall down into the bottom, which otherwise would put out the fire. Yet some Furnaces have three partitions, as the Furnace for Reverberation, and the Register Furnace. In the first and lowest, the ashes are received; in the second, the fire is put; and, in the third, of the Furnace for Reverberation, the matter which is to be reverberated. This third ought to have a semicircular Cover, that so the heat may be reflected upon the contained matter. The bottom of the third and uppermost partition of the Register Furnace must be either a plate of Iron, or a smooth stone perforated with holes, having stopples of stones fired thereunto, which you may take out or put in, as you would have the heat decreased or increased. In the top or upper part of all these Furnaces where it shall seem most fit, there must be two or three holes made, that by them the smoke may more freely pass out, and the air let in to make the fire burn the stronger if need require, or else which are to be shut with stopples made fit to them. The mouths of the formentioned partitions must have shutters, just like an Ovens-mouth, with which you may shut them close, or leave them open if you would have the fire burn stronger. But in defect of a Furnace, or fit matter to make one, we may use a Kettle, or a Pot, set upon a Tre- foot, as we shall shew when we come to give you a description of the Furnace and Vessels. The truth is, a good Artist will make any shift, yea, and in half a dayes time make a Furnace, or something equivalent to it, for any operations.

Of Vessels fit for Distillation.

Vessels for Distillation are of various matter, and form. For they may be either of Lead, which I altogether disapprove of, for that they turn the Liquors into a white and milky substance, besides the malignity they give to them; or, they may
be of Copper, Iron, or Tin, which are better than the former; or of Jug-metal, or Potter's metal glazed, or Glass, which are the best of all, where they may be used without fear of breaking or melting. Some make them of Silver, but they are very chargeable. They that are able and willing may have the benefit of them.

Of Letters for coating of Glasses, and for Closures, as also several modes of stopping Glasses.

The best Lute is made thus, viz. Take of Loam and Sand tempered with salt water (which keeps it from cleaving) to these add the Caput Mortuum of Vitriol, or Aqua fortis, and scaling of Iron, and temper them well together, and this serves to coat Retorts, or any Glass vessels that must endure a most strong fire, and will never fail if well made. Some add Flax, beaten Glass, and Pots, and Flint, &c.

Take unslaked Lime, and Linseed Oil, mix them well together and Make thereof a Lute, which will be so hard, that no spirit will pierce it, and this serves for the closure of Glasses.

Or,

Take Loam and the white of an Egg, mix them into a Paste, and spread it on a cloth. This also is a good closure.

Or,

Moisten an Ox Bladder in the white of an Egg beaten to water, or in defect of a bladder, use Paper, and bind them round where the Vessels are joyned together, one over another two or three times.

Or,

If the spirits in the Glass be exceeding corrosive, then use the Caput Mortuum of Aqua fortis, Linseed Oil, and Chalk mixed together.

If a Glass be cracked, then wet a linen cloth in the white of an Egg beaten to water, and lay upon it, and upon that, presently while it is wet, sift some unslaked Lime, and press it close with your hand; when that is dry, lay on another cloth thus wet, as before, and on it sift more Lime.

A Vessel may be stop to close with Quick-silver, that no Spirit can break forth, by which means the Glass will be preserved.
Of the Art of Distillation.

ved from breaking by the inclosed Spirits, (for the head will first yield before the Glass breaks) the Vessel must be made thus. This also is a good way to preserve Spirits already distilled from the air.

A, Signifies the head or cover.

B, The body or vessel itself.

C, The little Glass to take out the Liquor that is in the vessel because it cannot well be poured out, as by reason of the Quicksilver which will be apt to be lost, so by reason of the form of the Vessel itself.

D, A false bottom where the Quicksilver must lie in which the head must be set upon the Quicksilver that so the Quicksilver may come above the bottom of the Head.
Of the Art of Distillation

Book I.

Also you may make stipples of Glass, ground to smooth, the stipples being fastened in a Tourne and moistened with Emery and water, and turned in the mouth of the bottle till it be fit, then wipe off the Emery, and smeer over the stipple with a liniment made with fine washed Earth and Oil, and to pollish it, that no vapour can get forth by them, as you may see by this pattern.

A, Signifies the stipple of Glass ground very smooth and fits to the mouth of the Vessel.

B, The Glass-body.

But the best way is to have a crooked Pipe, which may have Quick-silver in it, and be well luted to the body that no Spirit can get forth; and by this means the Glass will never break, for the Quick-silver will first yield.
A, The crooked pipe.

B, The Glass-body.
Or upon the top of a Glass-stoppel there may be fastned some lead, that if the spirit be too strong it will only heave up the stopple and let it fall down again.

C, The Glass-stoppel with lead on the top.

D, The mouth of the vessel itself.

Now the way to nip up a glass, or seal it up Hermitically, is after this manner.

Put what matter you please into a boll-head with a long neck or pipe, put this pipe through a pan that hath a little hole made in the bottom thereof, that the top of it may be three or four inches above the pan, close up the hole round about the pipe with clay; then put coals in the pan, and kindle first those that are farthest off from the pipe, that the heat may come by degrees to the pipe (for otherwise a sudden heat will break it) when the pipe is hot, blow the coals about it till it melt, then with a pair of shears cut it off where it is melted, and then with a pair of tongues, made hot, close it together.

Note, that after you have closed it, you must put the burning coals
Of the Art of Distillation. Book I.

coals upon the top thereof, and let it thus stand till all be cold which must be done by degrees; for otherwise the Glass will certainly crack in the place where it is nipped.

Note that the pan must stand upon some frame, or some hollow place, that there may be a passage for the pipe to come through it.

Also the Bolt-head must stand upon a Trefoor, or some other firm place according to this Figure.

An explanation of such hard words, and terms of Art, which are used in this ensuing Treatise.

A Malgamation, is a calcining or corroding metals with Quick-silver, and it is done thus: Take any metal except Iron, beaten into thin leaves, or very small powder, mix it with about
Book I. Of the Art of Distillation

about 8 parts of quick-silver (which may the better be done if both be heated first) that they may become one uniform mass; evaporate the quick-silver over the fire, and the metal will be left in the bottom as a thin calx.

Calcination, is a reducing any thing into a calx, and making it friable, and it may be done

By Firing

By reducing into ashes.

By reverberating.

Two ways -

By Amalgamation,
Precipitation,
Fumigation or Vaporation,
Cementation or Stratification.

Circulation, is when any liquor is so placed in digestion, that it shall rise up and fall down, rise up and fall down, and so do continually, and thereby become more digested, and mature, for which use for the most part we use a Pellican.

Clarification, is the separating of the gross feces from any decoction or juice, and it is done

By the white of an Egge,

Three ways -

By Digestion,

By Filtration.

Coagulation, is the reducing of any liquid thing to a thicker substance by evaporating the humidity.

Cohobation, is the frequent abstraction of any liquor, poured oft-times on the feces from whence it was distilled, by Distillation.

Congelation, is when any liquor being decocted to the height, is afterward, by setting into any cold place, turned into a transparent substance like unto Ice.

Corrosion, is the Calcining of bodies by corrosive things.

Decantation, is the pouring off of any liquor which hath a setting, by inclination.

Deliquium, is the dissolving of a hard body into a liquor,
Of the Art of Distillation. Book. I.

as salt, or the powder of any calcined matter, &c in a moist, cold place.

Descension, is when the essential juice dissolved from the matter to be distilled, doth descend or fall downward.

Despumation, is the taking off the froth that floats on the top with a spoon or feather, or by percolation.

Distillation, is the extracting of the humid part of things by virtue of heat, being first resolved into a vapour, and then condensed again by cold. Thus it is generally taken; but how more particularly, I shall afterward shew.

Digestion, is a contracting, or maturation of crude things by an easy, and gentle heat.

Dissolution, is the turning of bodies into a liquor by the addition of some humidity.

Dulcoration, or Dulcification, is either the washing off the salt from any matter that was calcined therewith, with warm water, in which the salt is dissolved, and the matter dulcified: or, it is a sweetening of things with sugar, or honey, or syrup.

E.

Elevation, is the rising of any matter in manner of fume, or vapour by virtue of heat.

Evaporation, or Exhalation, is the vapouring away of any moisture.

Exaltation, is when any matter doth by digestion attain to a greater purity.

Expression, is the extracting of any liquor by the hand, or by a press.

Extraction, is the drawing forth of an essence from a corporal matter by some fit liquor, as spirit of wine, the feces remaining in the bottom.

F.

Fermentation, is when any thing is resolved into itself, and is rarified, and ripened, whether it be done by any ferment added to it, or by digestion only.

Filtration, is the separation of any liquid matter from its feces by making it run through a brown paper made like a tunnel, or a little bag of woolen cloth, or through shreds.

Fixation,
Book I. Of the Art of Distillation.

Fixation, is the making of any volatile, spiritual body endure the fire, and not fly away; whether it be done by often reiterated Distillations, or Sublimations, or by the adding of some fixing thing to it.

Fumigation, is the calcining of bodies by the fume of sharp spirits, whether vegetable or mineral, the bodies being laid over the mouth of the vessel wherein the sharp spirits are.

H.

Humectation or Irrigation, is a sprinkling of moisture upon any thing.

I.

Imbibition, is when any dry body drinks in any moisture that is put upon it.

Impregnation, is when any dry body hath drank in so much moisture that it will admit of no more.

Incorporation, is a mixing of dry and moist body together, so as to make an uniform mass of them.

Infusion, is the putting of any hard matter into liquor, for the virtue thereof to be extracted.

Insolation, is digesting of things in the Sun.

L.

Levigation, is the reducing of any hard matter into a moist fine powder.

Liquation, is a melting, or making any thing fluid.

Lustation, is either the flowing of the orifices of vessels that no vapour pass out, or the coating of any vessel to preserve it from breaking in the fire.

M.

Maceration, is the same as Digestion.

Maturatation, is the exalting of a substance that is immature and crude, to be ripened and concocted.

Menstruum, is any Liquor that serves for the extracting the essence of any thing.

P.

Precipitation, is when bodies corroded by corrosive spirits either by the evaporating of the Spirits remain in the bottom, or by pouring something upon the Spirit, as Oyl of Tarra, or a good quantity of water, do fall to the bottom.

Purification
Of the Art of Distillation. Book I.

Purification, is a separation of any Liquor from its fæces, whether it be done by Clarification, Filtration, or Digestion.

Putrefaction, is the resolution of a mixt body into itself by a natural gentle heat.

Quintessence, is an absolute, pure and well digested medicine, drawn from any substance, either animal, vegetable, or mineral.

Rectification, is either the drawing of the fægm from the Spirit; or of the Spirit from the fægm; or the exaltation of any Liquor by a reiterated Distillation.

Reverberation, is the reducing of bodies into a Calx by a reflecting flame.

Solution, is a dissolving or attenuating of bodies.

Stratification, is a burning of corroding powder on plates of metal by course.

Sublimation, is an elevating, or raising of the matter to the upper part of the vessel by the way of a lubbe powder.

Sublimation, is the turning of a body into a Liquor, or into a fine powder.

Transmutation, is the changing of a thing in substance, colour, and quality.

Volatile, is that which flyeth the fire.

Rules to be considered in Distillation.

Make choice of a fit place in your house for the furnace, so that it may neither hinder any thing, nor be in danger of the falling of any thing into it that shall lye over it: for a forcing furnace, it will be best to set it in a chimney, because a strong heat is used to it; and many times there are used brands which will smoak, and the fire being great, the danger thereof may be prevented; and of things of a maligne venenate quality being distilled
distilled in such a furnace, the same, or vapour, if the glass should break, may be carried up into the chimney, which otherwise will fly about the room to thy prejudice.

2. In all kinds of Distillation, the vessels are not to be filled too full: for if you distil Liquors, they will run over; if other solider things, the one part will be burnt before the other part be at all worked upon, but fill the fourth part of gourds, the half of Retorts, the third part of copper vessels, and in rectifying of spirits fill the vessel half full.

3. Let those things which are flatulent, as wax, rosin, and such like, as also those things which do easily boyle up, as honey, be put in a lesser quantity, and be distilled in greater vessels, with the addition of salt, sand or such like.

4. There be some things which require a strong fire, yet you must have a care that the fire be not too vehement for fear their nature should be destroyed.

5. You must have a care that the lute with which vessels are closed do not give vent, and alter the nature of the Liquor, especially when a strong fire is to be used.

6. Acid Liquors have this peculiar property that the weaker part goes forth first, and the stronger last; but in fermented and Liquors, the Spirit goeth first, then the Phlegm.

7. If the liquor retain a certain Empyreuma, or snatch of the fire, thou shalt help it, by putting it into a glass close stop, and so exposing it to the heat of the sun, and now and then opening the glass that the fiery impression may exhale, or else let the glass stand in a cold moist place.

8. When you put water into a seething Balneum wherein there are glases, let it be hot or else thou wilt endanger the breaking of the glases.
When thou takest any earthen, or glass vessel from the fire, expose it not to the cold air too suddenly for fear it should break.

If thou wouldest have a Balneum as hot as ashes, put sand or sawdust into it, that the heat of the water may be therewith kept in, and made more intense.

If you would make a heat with horse dung, the manner is this, viz. make a hole in the ground, then lay one course of horse-dung a foot thick, then a course of unslaked lime half a foot thick, then another of dung, as before; then set in your vessel, and lay round it lime and horse-dung mixt together; press it down very hard; you must sprinkle it every other day with water, and when it ceaseth to be hot, then take it out and put in more.

Note, that always the sand or ashes must be well sifted, for otherwise a coal or stone therein may break your glass.

The time for putrefaction of things is various; for if the thing to be putrefied be vegetables and green, less time is required; if dry, a longer; if Minerals, the longest of all. Thus much note, that things are sooner putrefied in cloudy weather than in fair.

If thou wouldest keep Vegetables fresh and green all the year, gather them in a dry day, and put them into an earthen vessel, which you must stop close, and set in a cold place: and they will, as faith Glauber's, keep fresh a whole year.

Do not expect to extract the essence of any Vegetable, unless by making use of the feces, left after Distillation: for if you take those feces, as for example, of a Nettle and make a decoction thereof, and strain it and set it in the frost; it will be concaved, and in it will appear a thousand leaves of Nettles with their prickles, which when the decoction is again resolved by heat,
vanish away, which shews that the essence of the Vegetables lies in the salt thereof.

16. In all your operations, diligently observe the processes which you read, and vary not a little from them, for sometimes a small mistake or neglect spoils the whole operation, and frustrates your expectation.

17. Try not at first experiments of great cost, or great difficulty, for it will be a great discouragement to thee, and thou wilt be very apt to mistake.

18. If any one would enter upon the practices of Chymistry, let him apply himself to some expert artist, so to be instructed in the manual operation of things: for by this means he will learn more in two months, than he can by his practice and study in seven years, as also avoid much pains and cost, and redeem much time, which else of necessity he will lose.

19. Enter not upon any operation, unless it be consistent with the possibility of nature, which therefore thou must endeavour, as much as possibly may be, to understand well.

20. Do not interpret all things thou readest according to the literal sense; for Philosophers, when they wrote any thing too excellent for the vulgar to know, expressed it enigmatically, that the sons of Art only might understand it.

21. In all thy operations, propose a good end to thyself, as not to use any excellent experiment that thou shalt discover, to any ill end, but for the publick good.

22. It will be necessary that thou knowest all such instruments that thou shalt use about thy Furnace and Glasses; whereof
Of the Art of Distillation.  

Book I.

whereof some are already expressed, and some more shall be here described.

A, Signifies an iron rod with two iron rings at the ends thereof, which must be heated red hot, and applied to that part of the glass which thou wouldst break off. When thou hast held it there so long till the glass be very hot, then take it off, and drop some cold water, whereupon it will break off, and it will presently crack in sundry. These rings are for such glasses as will go into them; Thine must have divers of this sort, even of all sizes.

B, An iron hook which must be red hot and applied to any great glass that will not go into a ring, this hook hath a wooden handle.

C, A pair of tongs which are for divers uses.

D, A crooked iron to rake betwixt the grates to clear them.

E, An iron rake to rake the ashes out of the ash hole.

A thread dipped in melted brimstone and tied about a glass, and then fired, may serve in stead of the iron rings, and the hook.
Common Distilled simple waters, are made thus.

Take what herbs or flowers you please, put them into a common cold Still, and let them distill gently.

This is the form of a common cold Still.

But note, that this kinde of water is but the fleegm of the Vegetable which you distill, and hath very little vertue or odour in it; only roses and mints, and two or three more, have an odour; but all besides, have as little vertue as common distilled water.

I do not deny, but that it may be so ordered, that these kinds of waters may partake both of the smell and strength of their Vegetables in a good measure, and it is thus:

To make waters in a cold Still that shall have the full smell and vertue of the Vegetable.

Take what herbs, flowers, or roots you please (so that they be green) bruise them and mix with them some leaves, and let them stand close covered for four or five days; then distill them after the manner aforesaid.
Another way to make water taste and smell strong of its vegetable.

When you have distilled any vegetable in a cold still, after the usual manner (so that you take heed you dry not the hearth too much, which you may prevent by putting a brown paper in the bottom of the still, giving it a gentle fire, and turning the cake before it be quite dried) take the cakes that remain in the bottom of the still, and the water that is distilled from thence (having a good quantity thereof) and put them into a hot still, and let them stand warm for the space of 34 hours, then distill them. Then if you would have the water strong, put the said water into more fresh cakes, casting away the other, and do as before. This is the truest and best way to have the water of any vegetables. Also, thou shalt by this way purchase some oil, which is to be separated and to be kept by itself.

To make water, at any time of the year in a cold still, without green hearths, so that the water shall smell strong of the hearth.

Put fair water into the body of the cold still, then hang a bag full of that herb that thou wouldst have the water smell of, being first dried, or seed or root thereof first bruised, then make a strong fire under the still.

Note, that those vegetables, of which the water is made after this and the former manner, must be of a fragrant smell; for such as have but little or no smell, cannot yield a water of any considerable odour.

Another way to make water taste, and smell strong of its vegetables.

Take of the dry hearb, or seed, or root, bruised; to a pound of each, put 12 pints of spring water; distil them in a hot still or Alembick; and the water that is distilled off, put upon more of the fresh hearbs, seeds, or roots; do this three or four times.
Book I. Of the Art of Distillation

times, and thou shalt have a water full of the virtue of the Vegetable, being almost as strong as a Spirit.

To make the water of Roses, or other Flowers, of a grateful and pleasant smell, and that shall burn like unto Spirit of Wine.

As out of all other things, and especially nourishing things, may be had, by the help of Fermentation, a burning and fragrant spirit; so also, may be had out of Roses, which are commonly accounted cold.

Therefore take Damask Roses, gathered in a clear air, after the dew is off, beat them very small, put them in a glass-vessel, and set them close stopp'd in a Cellar, that there they may ferment; and when they smell or taste sour, take of the said Flowers as much as you please, and distill them in Balneo Mariae; and the water thence distilled, pour on another part of the said Roses, and distil it again, and so proceed upon another part of the Roses, until all the whole quantity of the fermented Roses be distilled, always keeping the feces that remain in the bottom. Then take all the water that came from the Roses, and distil it in Balneo Mariae, and distill thence a twentieth part or thereabouts, which, if you please, you may rectifie: So have you a most grateful and most odoriferous water, which burneth like unto Spirit of Wine.

Its Vertues.

It exceedingly reviveth the heart and refresmeth the Spirits: It is also much used externally for its odoriferous Nature.

To make the water of the flowers of Jasmin, Honey-suckles, or Woodbine, Violets, Lillies, &c. retain the smell of their flowers.

The reason why these flowers, in the common way of distillation yield a water of no fragrancy at all, although they themselves are very odoriferous, is, either because, if a stronger fire be
be made in the distilling of them, the groffer, and more earthly Spirit cometh out with the finer, and troubleth it, as it is in case the flowers be crushed or bruised (where the odour upon the same account is lost) or because the odoriferous Spirit thereof being thin, and very subtle riseth with a gentle heat; but for lack of body, vapours away. The art therefore that is here required is, To prevent the mixture of the groffer spirit with the finer, and to give such a body to the finer that shall not embase it: and it is thus:

Take of either of the aforesaid flowers, gathered fresh, and at noon in a fair day, let them not at all be bruised. Infuse a handful of them in two quarts of white-wine (which must be very good, or else you labour in vain) for the space of half an hour; then take them forth, and infuse in the same wine; the same quantity of fresh flowers: this do eight or ten times; but still remember that they be not infused above half an hour; (for, according to the rule of infusion, a short stay of the body that hath a fine Spirit, in the liquor receiveth the Spirit: but a longer stay confoundeth it, because it draweth forth the earthly part withall, which destroyeth the finer:) then distil this liquor (all the flowers being first taken out) in a glass-gourd, in a very gentle balneo, or over a vapour of hot water, the joints of the glass being very well closed; and thou shalt have a water of a most fragrant odour. By this means the Spirit of the wine which serves to body the fine odoriferous Spirit of the flowers ariseth as soon the fine Spirit it self, without any earthiness mixed with it.

Note, that in defect of wine, Aqua vinea will serve; also strong-beer; but not altogether so well, because there is more gross earthiness in it, than in wine.

The water of either of these flowers is a most fragrant perfume, and may be used as a very delicate sweet water, and is no small Secret.
A furnace with his vessels, to distil liquors with the steam of boiling water.

A, Shineth the head of the Almbick.
B, The bide thereof, placed in a brass vessel made for that purpose.
C, A brass vessel perforated in many places to receive the vapour of the water. This vessel shall contain the Almbick compassed about with sawdust, not only that it may the better and longer retain the heat of the vapour, but also lest it should be broken by the hard touch of the brazen vessel.

D, Shows the brass vessel containing the water as it is placed in the Furnace.
E, The Furnace containing the vessel.
F, A Funnel by which you may now and then pour in water in stead of that which is vanisht and dissipated by the heat of the fire.
The declination of a Balneum Marix which may also serve for to distil with ashes.

A, Shews the Furnace, with the hole to take forth the Ashes.
B, Shews another furnace, as it were set in the other: now it is of Brass, and runs through the midst of the kettle made also of brass, that so the contained water or ashes may be the more easily heated.
C, The kettle wherein the water, ashes, or sand are contained.
D, The Alembick set in the water, ashes, or sand, with the mouths of the receivers.
E, The bottom of the second brass furnace, whose top is marked with B, which contains the fire.

A water out of Berries, is made thus:

Take of what berries you please being full ripe; put them into a gourd-glass, strewing upon them a good quantity of powdered sugar, cover them close, let them stand three weeks or a month, then distil them in Balneo.

After this manner Strawberries, Rasberries, Elderberries, and Black-cherries, may be distilled: but note, that such as have stones must first be bruised together with their stones.
An ounce or two of this water of Elder-berries is a very excellent Sudorific, and is very good in all diseases that require sweat, as also in Hydropical diseases.

Water out of rotten Apples, is made thus.

Take as many rotten Apples as you please, bruise them, and distil them either in a common cold-still, or gourd glasses in Balneo.

This water is of greater use in feavers, and hot distempers, than the common distilled waters of any cold Vegetables.

It is very good in any hot distemper of the reins, and sharpness of Urine.

It is very good in the inflammations of the eyes.

The simple water of Succory is made thus.

Take the herb and roots of Succory, gathered about the middle of May, twelve pounds, pound it or cut it small, to which pour twenty pounds of Common water, and then macerate it
three days; out of which you may distil eight pounds in a hot
Still.

Its virtues.

It is a very excellent water for the Liver, opening, diuretic, attenuating, and somewhat refrigerating.

The water of Fennel.

Take Fennel seeds bruised small, four pounds, common water
24 pound; to which add, Tartar or common Salt 2 ounces; macerate it in a cold place; then distil it in a copper Still, with
its refrigeratory; so have you both the Water, and Oyl which
must be separated from the water.

Its virtues.

Fennel water is a good Restorative, its Diuretic, encreaseth
Milk, it cleanseth the Breast from the abundance of evils proceeding from thick humours.

To make Cinnamon Water.

Take Cinnamon grossly bruised one pound, to which pour Rose
water and Whintwine, of each three pound, macerate the same in a fit place of warm dung or such like, as long as is necessary (or about fourteen days, every day stirring it) then distil the same in Balneo Maria. Separate the first water, which is the best; also, the second water, and then the third water, keep each apart; the second being fit to be used in the Menstruum for the Maceration; the third, is an unprofitable Flegm to be cast away.

Its virtues.

By its penetrating opening power, it removes all obstructions
of the inward parts; it nourisheth the natural heat, and helpeth
digestion; for which reason it is frequently used in the restoring
of decayed Nature, in the renewing of the spirits and strengthen-
ing of the Bowels. The Dose is a spoonful, either per se, or mixt
with other things.
The Acid water, of Oak, Juniper, Guajacum, Box, &c. is made thus.

Take the Sawdust of Oak, the Rasping of Juniper, Guajacum, or the small bits of Box, distil them in a Glass Retort in Sand until the matter be dry; afterwards separate the Oyl from the water, with filtering paper (the black Oyl remaining in the paper) rectifie the water in Sand, either from Colcothar, or Sea-salt, or its own Ashes; afterwards separate the Flegm by Distillation (in Balneo Maria) from the Acid Liquor, about a third part whereof, (that which cometh last over) is to be kept.

For these uses:

To dissolve Corals and Pearl, and to extract Tinctures: Especially that of Guajacum, for that it evidently helpeth those that have need thereof, in Scabineles, the French Pox, Ringworm, and other purifying diseases of the blood. The Dose is half a dram, or a dram.

How to make Aqua Vitæ, and Spirit of Wine out of Wine.

Take of what wine you please, put it into a Copper Still, two parts of three being empty, distil it with a worm, until no more spirit come off, then this Spirit will serve for the making of any Spirits out of Vegetables: but if thou wouldest have it stronger, distil it again, and half will remain behind as an insipid flegm: and if thou wouldest have it yet stronger, distil it again, for every Distillation will leave behind one moiety of flegm or thereabout; so shalt thou have a most pure and strong Spirit of Wine.
A hot Still.

A, Shevveth the bottome which ought to be of Copper.
B, The head.
C, The barrel filled with cold water to refrigerate and condensate the water and oyl that runs through the pipe or worm that is put through it.
D, A pipe of brass or pewter, or rather a worm of tin running through the barrel.
E, The Alembick set in the furnace with the fire under it.

How to make Aqua Vitæ out of Beer.

Take of stale strong beer, or rather, the grounds thereof, put it into a copper still with a worm, distil it gently (or otherwise it will make the head of the Still fly up) and there will come forth a weak Spirit, which is called, low Wine: of which, when thou hast a good quantity, thou must distil it again of itself, and there will come forth a good Aqua Vitæ. And if thou distillest it two or three times more, thou shalt have as strong a Spirit as out of Wine; and indeed, betwixt which, and the Spirit of Wine, thou shalt perceive none or very little difference.
How to rectifie Spirit of Wine, or Aqua Vitæ.

Diffil it in Balseo until the last drop that comes off be hot, and full of Spirit.

Note, that every time there will remain in the bottom a quantity as weak as water.

Note also, that every time thou distilllest it, when thou perceivest that a very weak water comes over, thou shalt then end that Distillation.

To make the Magistery of Wine, which will be one of the greatest Cordials, and most odorous Liquor in the World.

Take good old rich Canary Wine, put it into a glafs-vessel that it may fill the third part thereof, nip it up and set it in a continual heat of Horse-dung for the space of four months: then in frost y weather set it forth into the coldest place of the air you can, for the space of a month, that it may be conjealed: And so the cold will drive in the true Spirit of the Wine into the Center thereof, and separate it perfectly from its phlegm. That which is conjealed, cast away; but that which is not conjealed, esteem as the true Spirit of Wine. Circulate this in a Pellican, with a moderate heat, for the space of a month, and thou shalt have the true Magistery or Spirit of Wine, which, as it is most cordial, so also most Balsamical, exceeding all Balsoms for the cure of Wounds.

The form of a Pellican.
To make another Magistery of Wine, that a few drops thereof shall turn Water into perfect Wine.

Take of the best Canary wine, as much as you please, let it stand in putrefaction forty days, then distil it in a bath, and there will come forth a Spirit, and, at last, an Oyl; separate the one from the other, and rectifie the Spirit. Set the Oyl again in putrefaction forty days, and then distil it. The fecs that are left after the first Distillation, will yield a volatile Salt, which must be extracted without Calcination, with the flegm of the Spirit, purifie it well, then impregnate the salt with its Spirit, and digest them; then add the Oyl, and digest them together till they become a red powder: which you may use as it is, or else set it in a cellar till it be dissolved into a liquor, and few drops thereof will do as above said.

To make an Oyl of Wine.

Take weak Spirit of Wine, distil it in a vessel of a long neck, then pour on this Spirit again upon the flegm, distil it again, do this several times, and you shall see the Oyl of the Wine swim on the flegm, which flegm you must separate from the Oyl by a tunnel.

If this Oyl be afterward circulated for a month, it will thereby become more odorous, and of singular virtue, and good, being both very Cordial, and Balsamical.

To extract the Spirit out of Wine by the Spirit of Wine.

Put Spirit of wine well rectified upon Canary or Rhenish wine, so cautiously that it may not mix with, but swim upon the wine; let them stand without stirring, the space of 48 hours. Then will the spirit that is in the wine, rise up, and join itself to the spirit that swims on the top, which you shall perceive by the weakness of the flegm, which you must let run out at a tap, which must be made in the bottom of the vessel for that purpose, and so be separated from the Spirit.
To make a very subtil Spirit of Wine at the first distilling.

Take white or wheaten bread as soon as it comes forth of the Oven, break it in the middle (i.e.) the upper side from the lower side, and hang it hot in a Glass-vessel over Canary Wine, but so that it touch not the Wine; then cover the vessel, and let it so stand until the bread swell and be sufficiently impregnated with the Spirit of Wine, which it will attract from the VVine: then take out that bread and put in more, till you have a considerable quantity of bread thus moistened. Then put this bread into a Glass-body, and distil it in Balneo, and you shall have a very subtil Spirit, which you may yet rectifie by Circulation.

By Furnaces and Vessels made after this ensuing figure, there may be made four rectifications of any Spirit at once.

These vessels may either stand in ashes, or in Balneo.

The manner of Distilling in Wooden Vessels.

A, Signifieth the vessel wherein the copper vesse-l lyeth.
B, the copper vessel, part of which is in the Furnace, and part in the vessel of wood.
C, The vessel of wood, wherein the matter must be that is Distilled.
D, The cooling vessel with the worm.
E, The Receiver.
P, The Trifoot wherein the vessel standeth.

Note
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Note, that the greater the copper vessel is, and the less the wooden is, the sooner will the liquor boil.

This furnace shews how to draw forth Spirits and Waters out of Vegetables and Animals, with little cost and in short time.

A Balneum and a boiling Vessel made of Wood.

Note, that on the right hand, these vessels have a copper vessel hanging forth, which must be set into a Furnace, as is above shewed; and on the left hand is a Cock or Tap to let out the water.

The vessel on the left hand is for a Balneum, the holes in the cover thereof are either to set in vessels over the flame of the water, or for the necks of the glasses set in the Balneo to pass through.

The vessel on your right hand is to boil water in for any use, also to brew in.

The Spirit of any Vegetable is made thus.

Take of what Vegetable you please, two pound, macerate it in six Gallons of Aqua Vitæ, or low Wines, or Sack, for the space of 24 hours; then let them be distilled by an Alemibick, or hot Still, putting to every pound of the Spirit two ounces of molt pure Sugar.

Note, that the two first pints may be called the stronger Spirit, and the rest the weaker Spirit, or indeed the water, but if they
be both mixed together, they will make an excellent midling Spirit, for the former hath more of the Spirit of wine, and the latter more of the virtue and odour of the Vegetable.

After this manner may be made the Spirit of

Hearbs,
Flowers,
Roots
the Seeds of Vegetables,
Berries,
Barks,
Rinds, and
Spices.

Note, that Hearbs and Flowers must be cut small, the rest bruised.

If you would make it stronger, then take all the foresaid Spirit, and as much more Sack or low wines, and put them upon the same quantity of fresh Vegetables, and distil them; repeat this three or four times if thou pleasest.

Note also, that the Vegetable must be dried; because else the Spirit will not be so good, as if otherwise.

The form of an Alembick.

A. Signifies the vessel which must be of Copper, in which the matter is contained, and which must be set over a naked fire.

B. Signifies the belly that is fastened to the Neck, that the neck may the more commodiously be applied to the large mouth of the vessel. But it may be so ordered that the mouth of the upper vessel and lower vessel may be so fitted that they shall not need this Belly.

C. The long neck of the upper vessel, whereby the Spirit or water passing is somewhat cooled.

D. The Head.

E. The vessel that compasseth the Head, into which cold water is continually poured after the heating.

F. The long Receiver. G. The top or cock letting out the water when it is hot.
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Book I

The Spirit of any Vegetable may sodainly, at any time of the year be made thus.

Take of what Hearb, Flower, Seeds, or Roots you please. Fill the head of the Still therewith, then cover the mouth thereof with course Canvas and set it on the Still, having first put into it, Sack or low wines. Then give it fire.

If at any time thou wouldest have the spirit be of the colour of its Vegetable, then put of the flowers thereof dried a good quantity in the nose of the Still.

To make any Vegetable yield its Spirit quickly.

Take of what Vegetables you please, whether it be the seed, flower, root, fruit, or leaves thereof; cut or bruise them small, then put them into warm water, put yeft or barm to them, and cover them warm, and let them work three dayes as doth Beer, then distil them, and they will yield their spirit easely.

To reduce the whole Hearb into a Liquor which may well be called the essence thereof.

Take the whole Hearb with flowers, and roots, make it very clean; then bruise it in a stone Morter, put it into a large Glass vessel, so that two parts of three may be empty; then cover it exceeding close, and let it stand in putrefaction in a moderate heat, the space of half a year, and it will be all turned into a water.

To make an Essence of any Hearb, which being put into a Glass, and held over a gentle fire, the lively form and Idea of the Hearb will appear in the Glass.

Take the foregoing water, and distil it in a gourd-glass (the Joynets being well closed) in ashes, and there will come forth a Water and an Oyl, and in the upper part of the vessel will hang a volatile Salt. The Oyl separate from the water, and keep by it self;
self; with the water purifie the volatile Salt by disdolyng, filtring, and coagulating. The Salt being thus purified, imbibe with the said Oyl, until it will imbibe no more, digest them well together for a month in a vessel hermetically sealed. And by this means you shall have a most subtil essence, which being held over a gentle heat will fly up into the Glass, and represent the perfect Idea of that Vegetable whereof it is the essence.

The true essence, or rather Quintessence, of any Herb, is made thus.

When thou hast made the water and Oyl of any Vegetable, first calcine (i.e.) burn to ashes the remainder of the Herb; with the ashes make a Lye by pouring its own water thereon; when thou hast drawn out all the strength of the ashes, then take all the Lye, being first filtered, and vapour it away, and at the bottom thou shalt finde a black Salt: which thou must take and put into a Crucible, and melt it in a strong fire (covering the Crucible all the time it is melting) after it is melted, let it boil half an hour or more, then take it out, and heat it small, and set it in a Cellar on a Marble stone, or in a broad Glass, and it will all be resolved into a Liquor; this Liquor filter, and vapour away the humidity till it be very dry, and as white as snow. Then let this Salt imbibe as much of the Oyl of the same Vegetable as it can, but no more lest thou labour in vain. Then digest them together till the Oyl will not rise from the Salt, but both become a fixed powder melting with an easie heat.

To extract the Quintessence of all Vegetables.

Take of what Spices, Flowers, Seeds, Hearsbs, Woods, you please, put them into a rectified Spirit of Wine; let the Spirit extract in digestion, till no more seces fall to the bottom, but all their essence is gone into the Spirit of Wine, upon which, being thus impregnated, pour a strong Spirit of Salt, and digest it in Balmeo till an Oyl swim above, which separate with a Tunnel, or draw off the Spirit of VVine in Balmeo, and the Oyl will remain clear at the bottom, but before the Spirit of VVine is abstraed, the Oyl is blood red, and a true Quintessence.
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An excellent Essence of any Vegetable, may be made thus.

Take of the distilled Oyl of any Vegetable, with it imbibe the
beest Manna, being very well depurated, until it will imbibe no
more; then digest them a month, and thou shalt have the true bal-
som and excellent essence of any Vegetable.

This hath the virtues of the Vegetable, whereof it was made
but in a more eminent manner.

The depuration of Manna for this use is a great Secret.

Water or spirit of Manna, is made thus:

Take of the best Manna one part, of Nitre two parts, put them
into an Ox Bladder, and tying it close, put it into warm water to
be dissolved. Distil this water in an Alemmbick, and there will
come forth an insipid water, sudorifical and laxative.

The Tincture of dried Roses is thus made.

Put one ounce of Red-Roses dryed, in four pound of warm
water, to which add two drams, or thereabouts, of Spirit of Vi-
triol or Sulphur, and within three or four hours the water will
be very red; which filter or decant, and dissolve therein twelve
ounces of Sugar.

So have you a true cooler of the Liver, in Fevers and other un-
matural heats, when it first seizeth them, its use is great; it is al-
so a great comforter of the Liver, by reason of the Spirit of Vi-
triol; and of the Ventricle, because it bringeth a good diges-
tion.

The Tincture of Violets:

Take the flowers of Violets bruised, macerate them in their
own water, or in the Oyl of Sugar (hereafter described) then
press it, and strain it, until the Tincture be according to your de-
 sire. You may also add Spirit of Vitriol, as before in the Tin-
cure of Roses.
Or, you may put flowers in the pipe of the Alembick, when you distil its own water, which will take a tincture with it.

Or, you may have a bellyed pipe, between the pipe of the Alembick and the Receiver, in which put your fresh Violet flowers; in the body of the Alembick put your bruised flowers to distil, which water passing through the other flowers, carryeth the tincture with it.

The Tincture of Saffron.

It is made with spirit of wine, being powred thereon so often until it hath attracted the whole tincture, and that which is left remain whitish. Filter the tincture, and abstract the spirit of wine, with a gentle heat in Balneo Maria.

Its use.

It hath various and excellent facultys, and wonderfully refresheth and restoreth the spirits, especially in swooning fits, if one drop thereof be given in broth or whirewine.

The Tincture of Rhubarb.

Take Moncks’ Rhubarb cut it in pieces, one ounce, pour thereon the Oyl of bitter Almonds, about three fingers high, or four ounces; set it in the heat of the Sun a Philosophical month, or 40 days; and so the Oyl takes the Essence of the Rhubarb to its self; then press it, and to that which is expressed, add spirit of wine rectified, and leave it for some dayes in Balneo Maria, so the spirit of wine doth attract unto it the whole Essence of the Rhubarb; then put the remaining Rhubarb again with more Oyl, to digest until it be tinged; and again extract the Tincture with spirit of wine, which repeat so often till the Rhubarb yield no more Tincture: Then distil off half the tinged spirit of wine, which return again, and again distil off half, which work repeat four times, then at last distil off the whole. Then is the Tincture brought over, per Alembicum, with the spirit of wine. Afterwards you must separate it, and bring it to be like honey, or the form of a Balsam, in Balneo Vaporofo.
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Book. I.

Its Dose is 10 or 12 drops in some conserve or convenient Liquor.

The Tincture of Sugar.

Take white Sugar pulverized, one pound, put it in a glass-body with two spoonfuls of distilled Vinegar, digest it upon hot ashes for 6 hours; then pour thereon rectified Aqua Vite, that it be two fingers above it, digest it until it be tinged; then decant off the tinged Spirit, and pour on more, until it will extract no more Tincture; then distil off the Menstruum in Balneo Maria, and the Tincture or Essence will remain red in the bottom, which ought to be circulated with Cordial Waters.

The Tincture of Salt of Tartar.

Take the purest Salt of Tartar, that hath been prepared by often Calcinations, Solutions, Coagulations, and Fusions, as much as you please, put it in a strong Crucible, and melt it so long upon coals, until it change from a greenish colour to a blue, and be so sharp, that a little quantity thereof laid on the tongue, burneth it like fire. Then put it into a Glass-body, and pour thereon by little and little, so much Spirit of Wine, till it be three fingers high above the matter, set it in the cold for an hour, then set it in a sand furnace, and let it gently boil, until the spirit be well tinged, which separate, and put on more, until all the Tincture be extracted. Afterwards distil off the spirit of Wine, and so will the tincture remain in the bottom red as blood, and of a most pleasant flavour.

Its use.

The dose is from 5, 6, to 8 drops in White-wine, or opening broth, to provoke Urine, and expel the reliques of the French pox and other invertebrate diseases. Its very good also in any Hypochondriack distempers; it openeth all kind of Obstructions, and they that use it, it alwayes keeps their belly laxative and open.

The
The Chemical Oyl of the Hearb or Flower of any Vegetable, is m. de thu.

Take of the hearb or flower dried, one pound, of Spring water twenty four pints, distil them in a great Alembrick, with its cooler or copper Still with a worm passing through a vessel of cold water. Let the Oyl that is drawn with the water be separated with a Tunnel or separating Glass, and let the water that is separated be kept for a new distillation.

Note, that if this water be used two or three times in the drawing of the Oyl, it will be an excellent water of that Vegetable from which it is distilled, and as good as most that shall be drawn any other way.

After the same manner are made Oyls of the dry kinds of Oranges,
Citrons,
Lemons.

But note, that these Kinds must be fresh, and (the inward whiteness being separated) be bruised.

The Oyl commonly called the Spirit of Roses.

Take of Damask, or red Roses, being fresh, as many as you please, infuse them in as much warm water as is sufficient for the space of twenty four hours. Then strain and press them, and repeat the infusion several times with pressing, until the liquor become fully impregnated, which then must be distilled in an Alembrick with a refrigeratory or Copper Still with a worm, let the Spirit which swims on the water be separated, and the water kept for a new infusion.

This kind of Spirit may be made by bruising the Roses with Salt, or laying a lane of Roses and another of Salt, and so keeping them half a year or more, which then must be distilled in as much Common-water, or Rose-water as is sufficient.
Oyls are made out of seeds thus.

Take of what seeds you please, bruised, two pound of spring-water, twenty pins; let them be macerated for the space of 24 hours, and then be distilled in a Copper Still with a worm, or Alembick with its refrigerating. The Oyl extracted with the water, being separated with a tunnel, keep the water for a new Distillation.

This water after three or four Distillations, is a very excellent water, and better than is drawn any way out of that Vegetable whereof these are seeds; I mean for vertue, though not alwayes for smell.

After the same manner are made Oyls out of Spices, and aromatical woods.

Oyls are made out of Berries thus.

Take of what Berries you please, being fresh, 25 pound, bruise them, and put them into a wooden vessel with 12 pins of spring-water, and a pound of the strongest leaven; let them be put in a cellar (the vessel being close stopped) for the space of three months, then let them be distilled in an Alembick, or Copper-Still with their refrigeratory, with as much spring water as is sufficient. After the separation of the Oyl let the water be kept for a new Distillation. Note, that the water being used in two or three Distillations, is a very excellent water, and full of the vertue of the Berries.

Oyl is made out of solid Wood thus.

Take of what wood you please, made into gross powder, as much as you will, let it be put into a Retort, and distilled in sand. The Oyl which first distils, as being the thinner, and sweeter, must be kept a part; which with rectifying with much water yet may be made more pleasant; the acid water or spirit, which in distilling comes forth, being separated; which also (being rectified from the flegm with the heat of a Balneum) may be kept for use, being full of the vertue of the wood.
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After the same manner are made the Oyl and Spirit of Tarrat; but thus much more, that both are more pure and pleasant, being made out of the Crystals, than out of the crude Tarrat.

To make a most excellent Oyl out of any Wood or Gums, in a short time, without much cost.

Take of what wood you please, or Gum, bruised small, put it into a vessel fit for it, then pour on so much of spirit of Salts as will cover your matter, then set it in Sand with an Alemick, make the spirit boil, so all the Oyl flyeth over with a little phlegm; for, the spirit of Salts, by its sharpness, freeth the Oyl, so that it fl.eth over very easily.

The spirit of Salt being rectified may serve again.

To make Vegetables yield their Oyl easily.

Distill them, being first bruised in salt water, for Salt freeth the Oyl from its body; let them first be macerated three or four days in the said water.

The Spirit of Turpentine is made thus.

Take of clear Turpentine, as much as you please, put it in a Copper-still with its Refrigeratory, near full; so shall you distill a spirit which will swim on the water, which you may rectifie in Balneo Mariae, and by often distillations, exalt it to the height of spirit of Wine.

Another more excellent way.

Take of simple Venice Turpentine, as much as you please, distil it per se, in a gentle Balneo Vaporoso, having very well enclosed all the joints, and that spirit will distil so very subtil, that it will vapour away in ones hand: Out of one pound of Turpentine you will scarce have half an ounce. The other part thereof keep for other uses.

This Spirit is an excellent Remedy in the Gonorrhea, and is a notable
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A notable Diuretick; it cleanseth, it ripeneth Imposthumes; it is Narcotick, and equalleth the vertues of the true Balsam.

Oyl or Spirit of Turpentine is made thus.

Take of Venice Turpentine, as much as you please, of Spring-water four times as much, let them be put into an Alembick, or copper Still with its refrigeratory, then put fire under it; so there will distil a thin white Oyl like water, and in the bottom of the vessel will remain a hard gum called Colophonia, which is called boyled Turpentine; that white Oyl may be better and freer from the smell of the fire if it be drawn in Balneo, with a gourd, and glafs head.

Common Oyl Olive may be distilled after this manner, and be made very pleasant, and sweet, also most unctuous things, as Sperma Ceti, Storax liqu'd, and also many Gums.

Another way to make the Oyl of Turpentine.

Take the matter that is left in the Distillation of the Spirit of Turpentine (so that the spirit be not drawn with too strong a fire.) And distil it per se, in a glafs Retort, in Ashes or Sand; so shall you have first a yellow Oyl, called, The true Oyl of Turpentine; then a thick and red Oyl, called, The Balsam of Turpentine; then there remains in the bottom of the Retort, the Colophonia, improperly so called, the former matter being properly Colophonia; this being so very black and dry. If you digest the Oyl in Balneo Maria, it will take away its evil Savour.

Its vertues.

It healeth, it dissolveth, it openeth, cleanseth, and comforteth, and may be outwardly used in stead of a true Balsam; it may also be used in all wounds incurable and Itincking Ulcers, Boyles, Fractures, Contractions, refrigerated members, Chilblains, &c.

But it is not alwayes to be used per se, or alone; but there is further required that it be conveniently mixed with other things fit for the cure intended.
Book. I. Of the Art of Distillation.

Oyl of Gums, Resines, fat and oly things that may be drawn thus.

Take of either of these which you please, being melted, a pound; mix it with three pound of the powder of tiles, or unflaked lime; put them into a Retort, and extract an Oyl, which with plenty of water may be rectified.

Note, that the water from whence the Oyl is separated, is of excellent vertue, according to the nature of the matter from whence it is drawn.

Oyl of Camphire is made thus.

Take of Camphire sliced thin, as much as you please, put it into a double quantity of Aqua fortis, or Spirit of Wine, let the glass, having a narrow neck, be set by the fire, or on sand or ashes, the space of five or six hours, shaking the glass every half hour, and the Camphire will all be dissolved, and swim on the Aqua fortis, or Spirit of Wine, like an Oyl.

Note, that if you separate it, it will all be hard again presently, but not otherwise.

Another way to make Oyl of Camphire, that it shall not be reduced again.

Take of Camphire powdered, as much as you please, put it into a glass like a U inal, put upon it another urinal-glass inverted, the joints being close shutten; subline it in ashes, inverting those urinals so often till the Camphire be turned into an Oyl, then circulate it for the space of a month, and it will be so subtle, that it will all presently vapour away in the air, if the glass be open.

Another way to make Oyl of Camphire.

Take two ounces of Camphire, dissolve it in four ounces of pure Oyle Olive, then put them into four pints of salt water, and distil.
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Book I.

distil them all together in a glass gourd, either in ashes or Balneo, and there will distil both Water, and Oyl, which separate and keep by it self.

All these kinds of Oyl of Camphire are very good against putrefaction, fits of the Mother, passions of the heart, &c. A few drops thereof may be taken in any liquor, or the breath be anointed therewith: Also the fume thereof may be taken in at the mouth.

A true Oyl of Sugar.

Take of the best white Sugar-candy, imbibe it with the best spirit of Wine ten times, after every time drying it again, then hang it in a white silken bag in a moist cellar, over a glass vessel, that it may dissolve, and drop into it. Evaporate the water in Balneo, and in the bottom will the Oyl remain.

This is very excellent in all distempers of the Lungs.

Oyl of Sage.

Take a great quantity of Sage, set it in the shade for two or three weeks, in a large Glass vessel, close shut; then distil it in a Copper Still, with its Refrigeratory; and there have you the water, which you may rectifie: and also the yellow Oyl. It is good in all diseases of the Nerves, the Palsy, Apoplexy, Convulsions and such like.

Oyl of Amber is made thus.

Take of white Amber, one part, of the powder of flints calcined, or the powder of tiles, two parts; mingle them, and put them into a Retort, and distil them in Sand; The Oyl which is white and clear, which first distilled off, keep it by it self; continuing the distillation as long as any Oyl distils off.

The salt of amber, which adheres to the neck of the Retort within side, being gathered, let be purified by solution, filtration, and coagulation, according to art, and be kept for use.
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After the distillation is ended, and all be cold, let there be a rectification and separation of the clear Oyl from the fætid Oyl, after this manner; Put the distilled Liquors into a glass-body, and distil it in Balneo Maria, with a fire strong enough, and sift the Phlegm, or spiritual part, will distil over, and also the Golden Oyl swimming on that Liquor, which is then to be separated with a separating-glass; and kept for its use. But the thickening blackish Oyl remains in the body, take that and keep it by itself, as a Balsom of Amber.

Its virtues,

The yellow Oyl of Amber was once esteemed Sacred for its excellent Virtue, which either by itself, or compounded with other things, it is effectual in the Epilepsie, Apoplexie, Melancholy, Cramp, Vertigo. Petilence, Stone, Cold defluxions in the head, Palpitation of the heart, for such that are troubled in Mind, in the Jaundies, difficulty of Breathing, difficulty of Urine, hard Travel, Strangulation of the Womb, retention of the Menstruaums, the white Flux in women, Worms and Fevers. The Dose is from two grains to four grains. But the Balsom of Amber is seldom used inwardly, unless it be one or two grains in the suffocation of the Matrix: But externally its used to smell to, against the suffocation of the Matrix; or else for Esmallers in closing of wounds, and staunching of blood: for the same purposes serves the yellow Oyl.

After the same manner may be made Oyls out of any Gums which may be powdered.

Oyl of Myrrh is made thus.

Take of Myrrh bruised, or Bay-falt, of each six pound, let them be dissolved in sixty pints of spring-water, and be distilled in an alembick, or Copper-still, according to Art.
Of the Art of Distillation. Book I.

Oil of Myrrhe per deliquium, or by dissolution, is made thus.

Take hen-eggs, boiled hard, and cut in the middle lengthways; take out the yolks, then fill up the hollow half way with powder of Myrrhe, and join the parts together again, binding them with a thread, and so set them upon a grate between two platters, in a cold moist place, so the liquor of the Myrrhe dissolved will distill into the lower platter.

Oil of Tartar per deliquium (i.e.) by dissolution.

Take of the best Tartar, calcined white, according to Art; put it into a cotton bag, hang it in the cellar or some moist place, putting under a Receiver.

Oyles by expression are made thus.

Take of what things you please, such as will afford an Oyl by expression, bruise them, then put them into a bag, and press them strongly, putting a vessel under to receive the Oyl.

Note, that they must stand in the press some hours, because the Oyl drops by little and little.

Note also, that if you warm them before you put them into the press, they will yield more Oyl, but then it will not keep good so long as otherwise.

After this manner are made Oyls of Nutmegs, Mace, Almonds, Linseed, and such like.

A vomiting, and purging Oyl made by expression.

Take of the Berries of Ebulus or Dwarfse Elder, as many as you please, let them be dryed but not over much, then bruise them, and in bruising them, moisten them with the best Spirit of Wine, until they begin to be Oily; then warm them by
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by the fire, and press forth the Oyl, and set it in the Sun to be purified.

Ten drops of this Oyl taken inwardly worketh upward and downward, and is very good against the Dropie, and all waterish diseases.

The belly being therewith anointed, is made thereby soluble.

Any part that is much pained with the Gout, or any such grief, is presently eased by being anointed with this Oyl.

Oyl of Jasmin is made thus.

Take of flowers of Jasmine, as many as you please, put them into as much sweet mature Oyl, as you please; put them into a glass close stop, and set them into the Sun to be infused for the space of twenty days, then take them out, and strain the Oyl from the flowers: and if thou wouldst have the Oyl yet stronger, put in new flowers, and do as before.

This is a pleasant perfume, and being mixt with Oyls and Ointments, gives them a grateful smell. It is also used in the perfuming of Leather.

After this manner may be made Oyl of any flowers: but because I shall keep myself to the Art of Distillation only, I shall not so far digress as to speak of these kinds of Oyls; only I thought good to set down the Oyl of Jasmine because by reason of its fragrancy it hath some analogy with Chymical Oyls that are made by Distillation.

To make any Oyl, or Water, per descensum.

Take an earthen gourd, fill it full with wood or hearths, or what you please, being cut small, then invert it (i.e.) turn it upside down, and set it in the furnace, lute it well therewith, then set another gourd of earth under it, with a wider mouth, that the uppermost may go into it, before you put the one into the other, you must have a little vessel or instrument of Tin with brims round about on the top, by which it must hang into the lower gourd, and the body thereof being 2 or 3 inches deep, and full of holes, that the Oyl or Water may drop through, and not
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not the Vegetable it self. Into this instrument, being first set into the lower gourd, put the mouth of the upper gourd; then make thy fire on the top, and keep it burning as long as any liquor will

The figure of this Furnace is thus

A, Signifies the Gourd containing the matter to be distilled.
B, The furnace containing the Coals; so that they surround the upper Gourd.
C, The lower Gourd or Recipient set upon straw rings.
D, The vessel of Tin with holes, and brims which must be set in the Recipient.

How to make an Oyl and Water out of Soot.

This may be distilled per defumam, or by Retort, as thus, viz.
Take of the best Soot (which shines like jet,) fill with it a Glass Retort coated, or earthen Retort to the Neck, distil it with a strong fire, by degrees into a large Receiver, and there will come forth a yellowish Spirit with a black Oyl, which thou maist separate and digest.
How to rectifie Spirits.

You must set them in the Sun, in glasses well stopped, and half full, being set in sand to the third part of their height, that the water waxing hot by the heat of the Sun, may separate itself from the flegm mixed therewith, which will be perforated in twelve or fifteen days. There is another better way to do this, which is, to distil them again in a Receiuer with a gentle Fire; or, if you will, put them into a Retort furnished with its Receiver, and set them upon crystal or iron bowls, or in an iron mortar, directly opposite to the beams of the Sun, as you may learn by these ensuing Signs.

A Retort with its receiver standing upon Crystal bowls just opposite to the Sun-beams.

Another Retort with its receiver standing in a Marble or Iron Mortar, directly opposite to the Sun.
Of the Art of Distillation.

How to rectifie all stinking, thick black Oils that are made by Retort, and to take away their stink.

Take Oyl of Amber, or any such stinking Oyl, put it into a glass Retort, the fourth part only being full; pour on it drop by drop the spirit of Salt, (or any other acid Spirit) and they will boil together; and when so much of the Spirit is poured on, that it boyleth no more, then cease and distil it. First cometh over a stinking water, then a clear white, well smelling Oyl, and after that a yellow Oyl; which is indifferent good: but the spirit of Salt hath lost its sharpness: the volatile Salt of the Oyl, remaineth coagulated with the spirit of Salt, and is black, and tainteth like salt Armoniack, and hath no smell being sublimed from it. Now the reason of all this is, because the volatile Salt of the Oyl, which is the cause of the stink thereof, is fixed by the acid spirit of the Salt: for acid Spirits, and volatile Salts, are contrary to the other, and spirit of Urine, or any volatile Salt, will precipitate any metal as well as Salt of Tartar.

These Oyls will remain clear, and have far more vertue, than the ordinary sort of Oyls have.

As for common ordinary distilled Oyls, they need not, if they be well separated from the water with which they were distilled, any Rectifying at all; and if you go about to rectifie them, you will lose a good part of them, and make that which remains, not at all the better. But if there be any better than another for rectifying of them, it is by digestion, by which means there will be a separation of what is degmatick, which you may separate afterwards, and by this means you shall lose none of the Oyls.
Of compound Waters, Oyls, and Spirits.

BOOK II.

A dissolving Menstruum.

Take Cyprus Turpentine, and the best spirit of Wine, of each two pound; distil them in a Glass gourd either in Balsam or Ashes. Separate the Oyl from the Spirit with a tunnel or separating glass, distil the Spirit again, and so often until it favour no more of the Oyl of Turpentine: and then it is sufficiently prepared.

This Menstruum dissolves any hard stones presently, and extracts the tincture of Coral.

A Glass-Gourd with its Head.
Of the Art of Distillation.  Book. I.

Another dissolving Menstruum, or acetum Philosophicum.

Take Honey, Salt melted, of each a pound, of the strongest Spirit of Vinegar, two pound; digest them for the space of a fortnight, or more; then distil them in Ashes, corroborate the Liquor upon the faces three or four times, then rectifie the Spirit.

Note, that they must be done in a large Glass-gourd.

This is of the same virtue as the former, if not more powerful.

Another dissolving Menstruum.

Take of the best rectified spirit of Wine, with which imbibe the strongest unslaked Lime, until they be made into a paste; then put them into a Glass-gourd, and distil off the spirit in Ashes: This Spirit, pour on more fresh Lime, and do as before; do this three or four times, and thou shalt have a very subtle spirit able to dissolve most things, and to extract the virtue out of them.

Paracelsus his Elixir Subtilissimus.

Take Oyl Olive, Honey, rectified spirit of Wine, of each a pint, distil them all together, in ashes, then separate all the flegm from the Oyls, which will be distinguished by many colours, put all these colours into a Pellican, and add to them the third part of the Essence of Balm, and Salendine, digest them for the space of a month: Then keep it for use.

This Liquor is so subtle that it penetrateth every thing.

Usque-bath, or Irish Aqua vitæ, is made thus.

Take a Gallon of small Aqua vitæ, put it into a Glass-vessel; put thereto a quart of Canary Sack, two pounds of Raisins of the Sunstoned, but not washed, two ounces of Dates stoned, and the white skins thereof pulled out, two ounces of Cinnamon grosly bruised, four good nutmegs bruised, an ounce of the best English Licorish sliced, and bruised; stop the vessels very close,
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close, and let them infuse in a cold place six or eight days, then let the Liquor run through a bag called *Manica Hippocratis* made of white Cotten.

This Liquor is commonly used in surfeits, being a good Stomach water.

*Aqua Coelestis* is made thus.

**Take of**

- Cinnamon
- Cloves
- Nutmegs
- Ginger
- Zedoary
- Galangal
- Long Pepper
- Citron-pill
- Spicknard
- Lignum-aloes
- Cububs
- Cardamums
- Calamus aromaticus
- Germander
- Ground-pipe
- Mace
- White Frankincense
- Tormentil
- Hermodactylis
- the pith of Dwarf-elder
- Juniper berries
- Bay berries
- the seeds and flowers of Motherwort
- the seeds of Smallage
- Fennel
- Anise
- the leaves of Sorrel
- Sage
- Felwort

**Of**

- Rosemary
- Marjoram
- Mints
- Penny-royal
- Stelchados
- the flowers of Elder
- Roses red
- white
- of the leaves of Scabious
- Rue
- the lesser Moonwort
- Egrimony
- Centory
- Fumitary
- Pimpernel
- Sow-thistle
- Eye-bright
- Maiden-hair
- Endive
- Red Saunders
- Aloes, of each two ounces;
- Pure Amber
- the best Rhiubarb, of each two
  Drams;
- dryed Figs
- Raisins of the Sun
- Dates sloned
- Sweet Almonds
- Grains of the Pine, of each an ounce.
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Of the best Aqua vitae, to the quantity of them all, of the best hard Sugar a pound, of white Honey half a pound, then add the root of Gentian the root of Briony flowers of Rosemary Sowbread Pepperwort, Wormwood, of each half an ounce.

Now before these are distilled, quench Gold, being made red hot, oftentimes in the foresaid water, put therein oriental Pearls beaten small, an ounce; and then distil it, after twenty four hours infusion.

This is a very Cordial water, good against faintings and infection.

_Aqua Imperialis is made thus._

Take of the rind of Citrons dried
Oranges,
Nutmeg
Cloves
Cinnamon of each two ounces;
the roots of Flower-de-luce
Cyprus
Calamus aromaticus
Zedoary
Galingal
Ginger, of each half a pound.

Of the tops of Lavender,
Rosemary, of each two handfuls;
the leaves of the Bay-tree
Marjoram
Balm
Mints
Sage
Thyme

Flower of Roses white
Damask, of each half a handful;
Rose-water four pints
the best White-wine a gallon.
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Bruise what must be bruised, then infuse them all twenty four hours, after which distil them.
This is of the same vertue as the former.

Aqua Mirabilis is made thus.

Take of Cloves     Nutmegs
   Galingal        Ginger, of each a Dram;
   Cububs         the juice of Salene, half a pint;
   Mace           Spirit of Wine a pint,
   Cardamoms      White-Wine three pints.

Infuse all these twenty four hours, and then distil off, two pints by an Alembick.
This water is very good against wind in the Stomach and Head.

Dr. Stephens Water is made thus.

Take a gallon of Gascoin wine     Sage
   Ginger                      Red Mints
   Galingale                   Red Roses
   Cinnamon                    Thyme
   Nutmegs                     Pellitory
   Grains                      Rosemary
   Anniseseeds                Wild Thyme
   Fennel seeds                Camomil
   Caroway seeds               Lavender, of each a handful

Beat the Spices small, and bruise the Herbs, letting them macerate twelve hours, stiring them now and then, distil them by an Alembick or Copper-Still with its refrigeratory, keep the first pint by itself, and the second by itself.

Note, that the first pint will be the hotter, but the second the stronger of the ingredients.
This Water is well known to comfort all the Principal parts.

A famous
A famous Surfeit Water.

Take of red Poppy-cakes (after the water hath been distilled from them in a cold Still) not over dryed, two pound; pour upon them of the Water of red Poppy, a gallon and half; Canary-Wine three pints; add to them of Coriander-seeds bruised, four ounces, of Dill seed bruised two ounces, of Cloves bruised half an ounce, of Nutmegs sliced an ounce, of Rosemary a handful, three Oranges cut in the middle, distil them in a hot Still, to the Water put the juice of six Oranges, and hang it in half an ounce of Nutmegs sliced, and as much Cinnamon bruised, two drams of Cloves, a handful of Rosemary cut small, sweet Fennel-seeds bruised an ounce, of Raisins in the Sun (stoned half a pound, being all put into a bag, which may be hanged in the Water (the vessel being close stopp’d) the space of a month, and then be taken out and cast away, the Liquor thereof being first pressed out into the forefaid water.

This Water is of wonderful vertue in Surfeits, and Plurises, composeth the Spirits, causeth rest, helpeth digestion if two or three or four ounces thereof be drunk, and the patient compose himself to rest.

A Pectoral Water.

Distil green Hyssop in a cold Still till you have a gallon and half of the Water, to this put four handful of dried Hyssop, a handful of Rue, as much of Rosemary, and Horehound, Elecampany-root bruised, and of Horse radish-root, bruised, of each four ounces, of Tobacco in the leaf three ounces, Annis-seed bruised two ounces, two quarts of Canary-wine, let them all stand in digestion two days, then distil them, and in the water that is distilled put half a pound of Raisins of the mentioned, of Licorish two ounces, sweet Fennel-seeds bruised two ounces and a half, Ginger sliced an ounce and a half, and let them be infused in Frigido the space of ten days then take them out.

This water sweetened with Sugar-candy and drunk to the quantity of three or four ounces twice in a dayes, is very good
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for those that are prisical, it strengtheneth the Lungs, attenuates thick flegm, opens obstructions, and is very good to comfort the stomack.

A very excellent water against the worms.

Take of Worm-seed bruised eight ounces, the shavings of Harts-horn two ounces, of Peach flowers dryed an ounce, of Aloes bruised half an ounce, pour on these the water of Tangie, Rue, Peach flowers, and of VVorm-wood of each a pint and half; let them, being put into a glass vessel, be digested the space of three days, then distil them; cohabote this water three times.

This water is very excellent against VVormes; it may be given from half an ounce to three ounces, according to the age of the patient.

A Water against the Convulsions.

Take of Ros Vitrioli (which is that water that is distilled from Vitriol in the calcining thereof) two quarts, in this put of Rue a handful, of Juniper-berries bruised an ounce, of Bay-berries bruised half an ounce, Piony-berries bruised six drams, Camphire two drams, Rhubarb sliced an ounce; digest these four days in a temperate Balne, then distil them in a glass vessel in ashes, and there will come over a water of no small vertue.

It cures Convulsions, in children especially; it helps also the Vertigo, the Hysterical passion, an Epilepsie; it is very excellent against all offensive vapours, and wind, that annoys the head and stomach.

It may be taken from two drams to two ounces.

An Hydroplical Water.

Take of VVorm-wood, Broom-blossoms, of each a like quantity, bruise them, and mix with them some leaven, and let them stand in fermentation in a cold place, the space of a
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A week; then distil them in a Cold Still, till they be very dry: Take a gallon of this water, and half a gallon of the Spirit of Urine, pour them upon two pound of dried Broom-blossoms, half a pound of Horse-radish roots, dried; three ounces of the best Rhubarb sliced, two ounces of sweet Fennel-seeds bruised, and an ounce and half of Nutmegs: let them digest a week, being put into a glass vessel, in a temperate Balneo; then press the liquor hard from the feces, put this liquor in the said vessel again, and to it put three ounces of sweet Fennel-seeds bruised, Licorish sliced, two ounces, digest them in a gentle heat the space of a week, then pour it off from the feces, and keep it close stop.

This water being drank from the quantity of an ounce to four ounces every morning, and at four of the clock in the afternoon, doth seldom fail in curing the Dropse; it strengtheneth also the Liver, is very good against gravel in the back, stone, cures the Scurvy, Gout, and such diseases as proceed from the weakness, and obstructions of the Liver.

A water against the Colick.

Take of Anniseed three ounces
Cummin seed three grains
Cinnamon half an ounce
Mace
Cloves
Nutmegs, of each a dram,
Galangal three grains,
Calamus Aromaticus, dried half an ounce,
The dried rind of Oranges, two ounces,
Bayberries, half an ounce.

Let all these being bruised, be macerated in six pints of Mallago-wine 48 hours, then be distilled in Balneo, till all be dry.

This water being drank to the quantity of an ounce or two at a time, doth ease the gripings of the belly, and stomach, very much.
A Water against the Vertigo, and Convulsions.

Take of Black cherries bruised with their kernels, a gallon, of the flowers of Lavander three handfuls, half an ounce of white Mustard seed bruised, mix these together; then put some ferment to them, and let them stand close covered, the space of a week, then distil them in Balneo till all be dry.

This water being drank to the quantity of an ounce or two or three, doth much relieve the weakness of the head, and helps the Vertigo thereof, as also strengthens the sinews, and expels windiness out of the head and stomach.

A compound Water of Burre-root causing sweat.

Take the root of the great Burre, fresh,
The middle rind of the root of the An-n-tree, of each two pounds; cut them small, and infuse them 24 hours in the best White wine, and Rue vinegar, of each five pints; then distil them in Balneo till all be dry; put to the Water as much of the Spirit of Sulphur Per Campanum, as will give it a pleasant acidity, and to every pint of the water put a scruple and half of Camphire cut small, and tied up in a bag, which may continually hang in the water.

This was a famous water in Germany against the Plague, Peste-lential and Epidemical diseases; it causeth sweat wonderfully, if two or three ounces thereof be drank, and the patient compole himself to sweat.

Another excellent Sudorifick and Plague Water.

Take of the best Spirit of Wine a gallon,
Andromachus Treacle, six ounces,
Myrtle, two ounces,
The roots of Colts foot, three ounces,
Sperma Ceti,
Terra sigillata, of each half an ounce,
K 2

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The root of Swallow-wort, an ounce,
Dittany
Pimpernel
Valerian-root, of each two drams
Camphire, a dram

Mix all these together in a glass vessel, and let them stand close upon the space of eight days in the Sun.

Let the Patient drink of this a spoonful or two, and compose himself to sweat.

Dr. Burges his Plague water.

Take three pints of Muscadine, and boil in it Sage and Rue, of each a handful, till a pint be wasted; then strain it, and let it over the fire again, put thereto a dram of long- Pepper, Ginger, and Nutmeg, of each half an ounce, being all bruised together; then boil them a little, and put thereto half an ounce of Andromachus-treacle, and three drams of Mithridate, and a quarter of a pint of the best Angelica-water.

This water (which, as faith the Author, must be kept as your life, and above all earthly treasure) must be taken to the quantity of a spoonful or two morning and evening, if you be already infected, and sweat thereupon: if you be not infected, a spoonful is sufficient, half in the morning and half at night; All the Plague-time, under God (faith the Author) trust to this, for there was never man, woman, or child, that failed of their expectation in taking of it: This is also of the same efficacy not only against the Plague, but Pox, Measles, Scurfes, &c.

Crollius his Treacle water Camphorated.

Take of Andromachus Treacle, five ounces,
The best Myrhe, two ounces, and half,
The best Saffron, half an ounce,
Camphire, two drams:

Mix them together, then pour upon them ten ounces of the best spirit of Vine, and let them stand 24 hours in a warm place, then distil them in Balneo with a gradual fire, cohobate the spirit three times.

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This spirit causeth sweat wonderfully, and resists all manner of infection. It may be taken from a dram to an ounce in some appropriate liquor.

A distilled Treacle Vinegar.

Take of the roots of Bistort
Gentian
Angelica
Tormentil
Pimpernel, of each ten drams,
Bay-berries
Juniper-berries, of each an ounce,
Nutmeg, five drams,
The shavings of Sassafras, two ounces,
Zedoary, half a dram,
White Sanders, three drams,
The leaves of Rue

Wormwood
Scordium, of each half a handful,
The flowers of Wallflower
Bugloss, of each a handful and half,
Andromachus Treacle
Mithridate, of each six drams.

Infuse them all in three pints of the best White-wine vinegar, the space of eight dayes in Frigido in glass vessels, then distil them in Balneo.

This Spirit is very good to prevent them that are free, from infection, and those that are already infected, from the danger thereof, if two or three spoonful thereof be taken once in a day with sweating after, for those that are infected, but without sweating for others.
An excellent Water against the Stone in the Kidneys.

Take of the middle rind of the root of Ash bruised, a pound, Juniper-berries bruised, three pound, Venice Turpentine that is very pure, two pound and half.

Put these into twelve pints of Spring-water in a glass vessel well closed, and there let them putrifie in horse-dung for the space of three moneths, then distil them in ashes, and there will come forth an Oyl and a water; separate the one from the other.

Ten or twelve drops of this Oyl being taken every morning in four or six spoonfuls of the said water, dissolves the gravel and stone in the kidneys, most wonderfully.

Another Water for the same use.

Take the juice of Raddish, Lemmons, of each a pound and half; waters of Betony, Taney, Saxifrage, and Verwin, of each a pint; Hydromel, and Malmesey, of each two pound: In these Liquors mixed together, infuse for the space of four or five dayes in a gentle Balsem, Juniper-berries, ripe and newly gathered, being bruised, three ounces, the seed of Gromel, Bur-dock, Radish, Saxifrage, Nettles, Onyons, Annise and Fennel, of each an ounce and half, the four cold seeds, the seed of great Mallows, of each three drams, the Calx of Eggs-shells, Cinnamon, of each three drams, of Camphire two drams; let all be well strained and distilled in ashes.

Two ounces of this water taken every morning doth wonderfully cleanse the Kidnies, provoke Urine, and expel the stone, especially if you calcine the feces and extract the salt thereof with the said water.

To make an excellent Wound-water.

Take Plantain, Rib-wort, Bone-wort, wild Angelica, Red-mints, Betony, Egtrimony, Saracle, Blew-bottles, White-bottles, Scabius:
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Scabins, Dentelyon, Avens, Honey-tackl-leaves, Bramble-buds, Hawthorn-buds, and leaves; Mugwort, Dale-roots, leaves and flowers; Wormwood, Southernwood, of each one handful: Boyl all these in a pottle of White-wine, and as much Spring-water, till one half be wasted; and when it is thus boyled, strain it from the herbs, and put to it half a pound of Honey, and let it boyl a little after; then put it into bottles, and keep it for your use.

Note, that these hearbs must be gathered in May only, but you may keep them dry; and make your water at any time.

This water is very famous in many Countries, and it hath done such cures in curing outward and inward wounds, Impotlumes, and Ulcers, that you would scarce believe it, if I should recite them to you: also it is very good to heal a sore mouth.

The Patient must take three or four spoonfuls thereof morning and evening, and in a short time he shall finde ease, and indeed a cure, unless he be so far declined, as nothing almost can recover him.

If the wound be outward it must be washed therewith, and linen clothes wet in the same be applied thereto.

Dr. Mathias his Palse Water is made thus.

Take of Lavender flowers, a gallon; pour upon them of the best Spirit of Vine, three gallons; the vessel being close stopped, let them be macerated together in the Sun for the space of six dayes, then distil them in an Alembeck with its refrigeratory, then

Take the flowers of Sage
Rosemary
Betony, of each a handful;
Borage
Buglofs
Lilly of the valley
Cowflips, of each two handfuls.
Let all the flowers be fresh, and seasonably gathered, and macerated
cerated in a gallon of the best Spirits of Wine, and mixed with
the aforesaid spirit of Lavender, adding then
the leaves of Balm
Motherwort
Orange tree, newly gathered
the flowers of Stechados
Oranges.
Bay-berries, of each an ounce.
After a convenient digestion, let them be distilled again, then
add the outward rinds of Citrons,
the seed of Pison husked, of each six drams
Cinnamon
Nutmegs
Mace
Cardamums
Cububs

Of Yellow-Sanders, of each half an ounce,
Lignum Aloes, one dram,
the best Jujubs, the kernels taken out, half a pound.
Let them be digested for the space of six weeks, then strain and
filter the Liquor, to which add of prepared Pear a two drams.
Prepared Emerald, a scruple,
Amber Gryse
Musk
Saffron
Red Roses
Saunders, of each an ounce,
Yellow Sanders
Rinds Citrons dried, of each a dram.

Let all these species be tied in a silken bag, and hanged in the
aforesaid Spirit.

A Scorbutical-water, or a Compound-water of Horse-
Radish, is made thus

Take the leaves of both sorts of Scurvy-grass, being made very
clean, of each six pound: let these be bruised, and the juice pre-
sed forth, to which add the

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Juice of Brook-lime,
Water-cresses, of each half a pound,
of the best White-wine eight pints,
twelve whole Lemmons cur,
of the fresh roots of Biony four pounds,
Horse-radish a pound,
of the bark of Winteran half a pound,
of Nutmegs four ounces.

Let them be macerated three dayes, and distilled.
Three or four spoonsfuls of this water taken twice in a day,
cures the Scurvy presently.

Spirit of Castor is made thus.

Take of fresh Castoreum two ounces,
flowers of Lavender fresh half an ounce,
Sage,
Risemar, of each two drams,
Cinnamon three drams,
Mace,
Clove, of each a dram,
the best rectified Spirit of Wine three pints.

Let them be digested in a Glass (two parts of three being empty) stopp close with a Bladder, and Cork, two dayes in warm ashes, then distil the Spirit in Balneo, and keep it in a glass close stoppt. If you would make it stronger, take a pint of this Spirit, and an ounce of the powder of Castoreum, put them into a glass, and digest them in a cold place for the space of ten dayes, and then strain out the Spirit.

This Spirit is very good against fits of the Mother, passions of the heart which arise from vapours, &c.

Besoar Water is made thus.

Take of the leaves of the greater Sallandine, together with the roots thereof, three handfuls and a half.

Of Rue two handfuls,
Scordium four handful,

Dittany
Of the Art of Distillation

Dittany of Crete,
Carduus, of each a handful and a half.
The Roots of Zedoary,
Angelica, of each three drams.
The outward rind of Citrons,
Lemmons, of each six drams,
The flower of Wall-gilly-flowers, an ounce and half,
Red-roses,
The lesser Centory, of each two drams.

Cinnamon,
Clove, of each three drams.
Andromachus his Treacle three ounces,
Mithridate an ounce and half,
Camphire two scruples,
Trochilces of Vipers two ounces,
Mace two drams,
Lignum-Aloes half an ounce,
Yellow Sanders a dram and half,
The seeds of Carduus an ounce,
Citrons six drams.

Cut those things that are to be cut, and let them be macerated three days in the best spirit of Wine, and Muscadine, of each three pints and half, Vinnegar of Wall-gilly-flowers, and the juice of Lemmons, of each a pint; let them be distilled in a glazed vessel in Balneo.

After half the liquor is distilled off, let that which remains in the vessel be strained through a linen cloth, and vapoured away to the thickness of Honey, which may be called

A Bezoard extract.

This Water is a great Cordial, and good against any Infection.

To make a Specifical Sudorifick.

Take of Ginger a pound, Long-pepper, and Black-pepper, of each half an ounce, of Cardamoms three drams, of Grains an ounce, powder them, and put them into a glass with half an ounce of the best Camphire, distilled Vinnegar two pounds, digest them a moneth; then separate the Vinnegar by expression, which must
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must purrefie a month, and then be circulated for the space of a
week; then filter it, and thou hast as powerful a Sudorifick as ever
was or can be made.

The dose is from a dram to half an ounce, and to be drank in
a draught of Poslet-drink.

Treacle-water is made thus.

Take of the juyce of the green shales of Walnuts four pound,
the juyce of Rue three pints.
Carduus,
Mary-gold,
Balm, of each 2. pints.
The root of Butter burr fresh, a pound and half,
Burre,
Angelica.
Matter-wort fresh, of each half a pound,
The leaves of Scordium 4. handful,
Old Andromachus Treacle,
Mithridate, of each 8. ounces.
The best Canarie, 12. pints.
The sharpest vinegar 6. pints.
The juice of Lemmons 2. pints.
Digest them two days in Horse-dung, the vessel being close
flopped; then distil them in land.

Aqua Marie is made thus.

Take of Sugar candid one pound,
Canarie-wine 6 ounces,
Rose-water 4. ounces.
Make of these a sirup, and boil well to which add
of Aqua Imperialis 2. pints,
Amber-grieve,
Musk, of each 18. grains,
Saffron 15. grains,
Yellow-Sanders infused in Aqua-Imperialis 25
drams.
The Mother-water commonly called Hysterical-water, is made thus.

Take of the juice of the root of Briony 4. pound.
leaves of Rue,
Mugwort, of each 2. pound,
Savi dried 3. handful;
Mother-wort,
Neppe,
Penny-royal, of each 2. handful
Garden Basil,
Cretensen Dittany, of each a handful and half,
The rind of yellow-Oranges, fresh, 4. ounces,
Myrrhe 2. ounces,
Caflorem an ounce,
The best Canary Wine 2. pints.

Let them be digested four dayes in a fit vessel, then distil them in Balneo.

A vomiting Water is made thus.

Take of the best Tobacco in leaves, cut small, 4. ounces, Squills
2. ounces, Nutmegs sliced half an ounce, put these into 3. pints
of Spring-water, a pinte of White-wine-vinegar, distil them in
a hot Still or Alembick.

If thou wouldst have it stronger, thou maist put this water on
fresh ingredients and distil it again.

A little quantity of this water is a most safe, and effectual Vo-
mit, and may be taken from the eldest to the youngest, if so be
you proportion the quantity to the strength of the Patient.
You maist dulcifie it with Sugar, or Syrup, if you please.

A Vomiting Water made by Platerus.

Take green VValnuts gathered about Midsummer, Radish-
root, of each bruised 2. parts, of distilled VVine-vinegar 4 parts
digest them 5. dayes, then distil them in Balneo.

This being taken to the quantity of 2. spoonsfuls, or 3. causeth
easie vomiting.
A distilled Water that purgeth without any pain or griping.

Take of Scammony an ounce, Hermoldaclys 2. ounces, the seeds of Broom, or lesser Spurge, of Dwarf-elder, of each half an ounce, the jucyce of Dwarf-elder, of wild Aasses, Cucumber, of black Hellebore, the fresh flower of Elder, of each an ounce and half, Polypodium 6. ounces, of Sene 3. ounces, Red-sugar 8. ounces, common distilled water 6. pints.

Let all these be bruised, and infus'd in the water 24. hours, then be distilled in Balneo.

This water may be given from 2. drams to 3. ounces, and it purgeth all manner of humors, opens all obstructions, and is pleasant to be taken, and they whose stomachs loath all other Phyfix, may take this without any offence.

After it is distilled there may be hanged a little bag of Spices in it, as also it may be sweetned with Sugar, or any opening Syrup.

A special Liquor against the Tooth-ach.

Take of Oyl of Cloves well rectified half an ounce, in it dissolve half a dram of Camphire, add to them of the Spirit of Turpentine four times rectified, in which half a dram of Opium hath been infus'd, half an ounce.

A drop or two of this Liquor put into a hollow tooth with some Lint, eath the Tooth-ach presently.

A water of wonderful Efficacy, not undeservedly called, the Mother of Balsam.

Take Turpentine,
Lignum-Aloes,
Obliumnum, of each five ounces;
Cinnamon,
Lilly-leaves, of each half an ounce;
Pepper-wort,
Balsam, of each two ounces.
Mix them well together, and distil them according to Art
in a gentle fire, and there will come a clear water, good in all diseases, wherein the Balsam is usually applied.

1. It takes away the Pimples in the face. 2. It takes away all blemishes in the eyes. 3. It comforteth a cold head, and helpeth the memorative faculty. 4. It retardeth gray-hairs. 5. It cheareth the Spirits. 6. It strengtheneth the digestive faculty.
7. It healeth the Nerves. 8. It preventeth the Palsy. 9. It expelleth all wind out of the body, and giveth a good favour to the whole body.

When you see no more white and yellow water, to ascend the Alembick, or Distill; then increase the fire a little, until it leave distilling. This water keep apart, for it is of infinite virtues, which I am not able to comprehend.

1. It purgeth the whole body, and preserveth it from putrefaction, like the true natural Balsam. 2. After a man is dead, it admitteth not of any corruption. 3. It cureth Leprosy. 4. It is good in the Epilepsie. 5. It is good in an old deafness. 6. It removeth Rhume. 7. It suffereth not gray-hairs. 8. It preserveth youth, &c.

When this water hath done distilling, then increase the fire, and there will distil a red water.

1. If you put one drop of this water in your hand, it will immediately penetrate it, whereby it sheweth its virtue in contractures. 2. It is a very good remedy in the Falling-sickness, if the inward parts are also comforted with convenient medicines. 3. It preserveth a dead body for ever from corruption. 4. It taketh away forgetfulness, proceeding from any infirmity, and comforteth the Memory. 5. It cureth the Crook-back, if it be rightly applied.

**An excellent Sanative Oyl for Wounds and Bursten-bellies.**

Take the flowers of Rosemary, Borrage, Buglofs, Camomile, Violers, Roses, of each a handful. Stæca-
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Stæcados, or Cotten weed, half a handful.
Bay-leaves,
Marjoram,
Sage, of each half a handful.

Let them be cut very small, and let them stand two dayes with the best VVine, then distil it. In this distilled Liquor put
Turpentine half a pound,
of the best Frankincense,
Mastic,
Bdelium,
Anacardium, of each 2. drams.

Beat them together, and macerate them in the said water for two dayes, then distil them together, and add to it
Nutmegs,
Gilly-flowers,
Cubebs,
Mace,
Ginger,
Cardamoms, of each 2 Scruples.
Lignum Aloes, half a dram.
Amber,
Musk, of each half a scruple.

Powder them all, and digest them in the aforesaid water in heat for two dayes, then distil them; and at last encrease the fire, and you will have a most excellent Oyl, which you may use with very prosperous success.

A notable Water against the Falling-Sickness.

Take Juniper-berries six ounces,
Zedoary,
Galingleal, of each six drams.
Saffron 2. drams,
Lavender,
Sage, of each one handful.
Powder of Gems,
Diacastoreum, of each a dram and a half,

Digest them for a moneth in a Glass with VVine, three times re&
Of the Art of Distillation.  

rectified in the Sun, then distil it in an Alembick, the dose is evening and morning half an Egg-shel full.

A most excellent Water, receiving the natural and lively colour, and preserving the health of Man:

Take Cinnamon, Gilly-flowers, Ginger, Saffron, Cububs, Grains of Paradise, of each two drams. The Powder of Dia-margarium of Gems, of Pearls, of each one dram; the shells of Grains, Zedoary, Galingal, of each a dram and a half; Lavender, Bay berries, Bay-leaves, Musk, Amber, of each half a dram.

Powder them, and add Rose-water 2 pounds, *aqua viva*, rectified 4 pounds, put them in a Glass vessel well closed, and digest them in the Sun, or other convenient heat 14 days, then distil it. Drink this water every morning, and wash your face with it.

A very excellent Anti-Epileptic Water.

Take Venice-Turpentine 18 ounces, Male-Frankincense 2 ounces, Lignum-Paradise 6 drams, choice Mastick, Rosemary-flowers, Nutmegs, Galingal, Cinnamon, of each one ounce and half, Oriental Saffron five drams.
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Fennel-seeds,
Bay-berries, of each one ounce,
the best spirit of Wine eight pounds.

Let them stand together four dayes, and then be distilled per Alembicum.

How effectual this water is in these following diseases, let them testify, that for these many years have made experience thereof, to their great benefit, viz.

For those that are out of their mind, and in all diseases of the head; as the Epilepsie

Apoplexy
Palsy
Vertigo
Trembling
Lethargy, and such others, as well inwardly as outwardly administered.

A water effectual in any diseases in the Joints, arising from cold Rheumes, or any other causes.

Take Hungarian Vitriol 2. pounds,
White Tartar one ounce and a half,
Mummy
Mastic
Frankincense
Myrrhe, of each 2. ounces,
Ammoniack
Balsam
Opompanax, of each one ounce and a half,
Honey 2. pound,
rectified spirit of Wine 6. pound.

Distil it in Balneo Mariae, and cohabate it five times.

Its use is, heat it a little in a silver Spoon, and anoint the place grieved with old linen rags dipped in it.

The Oyl of the Philosophers; not common.

Take pure fine Wax 12. ounces,

Venice
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Venice-Turpentine 18. ounces,
Benjamin 2. drams,
rectified Spirit of Wine 30. ounces,
Common Ashes 6. ounces.

Mix them, and distil them in a Retort according to Art, and there will first come the Phlegm, then the water, and lastly, the Oyl; which you shall separate every one apart, and so keep them for these uses:

The Phlegm being applied to painful Ulcers, immediately mitigates the pain.

The water is good against the Pestilence, and also the Pin and VVeb in the Eye.

But the Oyl is of infinite virtues.

1. If any one be wounded, let him anoint the wound with this Oyl, and take every morning and evening three drops in warm VVine, and he shall be cured without any other medicine.

2. If any one be troubled with the Strangury, or obstruction of the Urine, let him take three or four drops.

3. It is good against the pain of the side, or Plurisie.

4. It killeth VVorms.

5. It removeth the Cough and Rheums.

6. It is a remedy not to be neglected in all diseases.

7. It comforteth all the weaker parts.

8. It cureth those sick of the Pestilence, even to a Miracle.

Oleum Benedictum.

Take the whites of Eggs boiled 12. ounces,
Venice-Turpentine 14 ounces,
Myrrhe 3. ounces,
Camphire 2. ounces.

Mix them, and distil them in a Glass Retort with a gentle fire, encreasing the fire by degrees, and the Oyl will distil.

1. This Oyl wonderfully cureth the wounds of the head, consolidateth it, and taketh away the pains, and preserveth it from subsequent symptoms.

2. In other perishing and tormenting wounds, inject two or three
Book II. Of the Art of Distillation

three drops, and it immediately mitigateth the pains, and will cure the wound.

An Artificial Balsam.

Take Turpentine 2. pound,
Oyl of Bays 4. ounces,
Galbanum 3. ounces
Gum-Arabick 4. ounces,
Olibanum
Myrthe
Gum-Hedera, of each 3. ounces,
Lignum-Aloes
Galingal
Gilly-flowers
the Greater and Lesser-Comfry
Cinnamon
Nurmegs
Centaury
Ginger
White-Dittany, of each 1 ounce,
Musk
Ambergrieve, of each 2. drams,
of Rectified Spirit of Wine 6. pound.

Distil them by Retort, and there will come a white water with a yellow Oyl, as soon as it inclineth to a blackness, increase the fire until no more proceed.

1. This water is good for the Sight, and preserveth the Members.

2. It breaketh the Stone, and provoketh Urine.

3. It curseth all wounds, if they are washed therewith, and Tow moistened with it applied.

4. It is good in the Sciatica and Gout.

5. It taketh away the Cough, and stoppeth Rheumes,

6. It ceaseth all pains in an instant.
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The Oyl is effectual against

1. Baldness.
2. Poisonous corroding Ulcers.
3. The Leprosie.
4. It preserves the Brain and Stomach.
5. It plainly resolveth all Tumors.
6. It cureth Quartane-Agues.

A Compound Oyl against the Megrim.

Take Rue one handful, boil it in a pound of Oyl of Olives, in a new pot for half an hour, then put it in a Retort, to which add Venice-Turpentine 12 ounces; Colophonia 4 ounces; Distil them in sand, separate the first water that comes, being of no worth; then increase the fire by degrees, and the Oyl will distil, which keep by it self: which you must use at the time of the Fit, warm a little of it at the fire, and with Cotton moistened in it, anoint the Fore-head and Temples, and the parts grieved, when the Patient is lying down.

A Compound Oyl for the Suffocation of the Matrix.

Take Powder of Rue, a little dried, one pound, Castoreum 2 ounces, Olibanum Myrthe, of each 4 ounces, Linsed Oyl one pound and a half.

Let them be digested 4 dayes, in Ventre Equino, or such like heat; afterwards distil it by a Retort in a close Reverberatory. With this Liquor anoint the Navil morning and evening.
Of MINERALS.

BOOK III.

Spirit of Salt is made thus.

Take of the best Bay salt as much as you please, let it be dissolved in Spring-water, and filtered; mix with this Brine in a Copper-vessel, of the powder of Bricks or Tiles, twice or thrice as much as the Salt, before its dissolution, was in weight; let the water vapour away over the fire (continually stirring of it) until it be dry; Then put this Powder into a Glass Retort well luted, or an earthen Retort, and put into a Furnace (a large Receiver joyned to it according to Art) then give fire to it by degrees, until it will bear an open fire, for the space of 12 hours. Thou shalt have a very acid Oyl or Spirit in the Receiver. That Liquor being put into a Retort in Sand, may be rectified by the vapouring away of the flegm; then keep it for use in a Glass very well stopp'd, that no air go in.

Spirit of salt is very good in Feavers putrid, as in Hydro-pical.
Of the Art of Distillation.

A Retort and its Receiver before they be set on work.

A Retort with its Receiver set on work.

Oyl, or Spirit of Salt, may also be made after this manner:

Take one part of Salt, and three parts of powder of Bricks or Tiles, and mix them together, and put them into a Retort, either of Glass or Earth, to which put fire as before.

After this manner you may make Oyl, or Spirit of Nitre, Salt Gem, Allum.

Note
Note, that these Salts must first be calcined, which is done by exhaling their flegm.

How to make a white acid, and a red volatile Spirit, out of Salt Nitre.

Take two parts of Allume, and one of Salt-Nitre; make them both into powder, mix them well together, and cast into the Still a little and a little thereof, as above in the making of other spirits hath been taught; and there cometh over an acid spirit, together with the volatile spirit, and so many pounds as there is of the materials, which are to be cast in, so many pounds of water must be put into the Receiver; to the end that the volatile spirits may so much the better be caught and saved. And when the distillation is performed, the two spirits may be separated by the means of a gentle rectification made in Balneo; and you must take good heed, that you get the volatile spirit pure, by changing the Receiver in good time, so that no flegm be mixed with the red spirit, whereby it will be weakened and turn white. The mark whereby you may perceive, whether the spirit or the flegm doth go forth, is this: when the volatile spirit goeth, then the Receiver looketh of a deep red: and afterward when the flegm doth come, the Receiver looks white again: and lastly, when the heavy acid spirit goeth, then the Receiver to be red again, but not so as it was, when the first volatile spirit came over.

Of the use of the red volatile Spirit

This Volatile Spirit (which being quite freed from the flegm remaineth always red, and doth look like blood,) in all occasions may be accounted like in vertue unto the former sulphurous spirits; especially in extinguishing of inflammations and Gangrenes, it is a great cure, the clothes being dip't in it, and laid upon the grieved place: also it goeth almost beyond all other medicines in the Erysipelas and Colick: and if there be any congealed blood in the body (which came by a fall or blow) this spirit outwardly applied with such waters as are proper
proper for the grief, and also taken inwardly, doth dissolve and expel it: and being mingled with the volatile spirit of Urine it doth yield a wonderful kind of Salt, as hereafter shall be taught.

The use of the white acid Spirit of Salt-Nitre.

The heavy and corrosive Spirits of Salt-nitre is not much used in Physick, though it be found almost in all Apothecaries' shops, and there is kept for such use, as above hath been mentioned in the spirit of Vitriol; viz. to make their conserve and cooling-drinks tall sowthrift. Also it is used by some in the Collick; but it is too great a corrosive, and too gros to be used for that purpose; and although its corrosiveness may be mitigated in some measure by adding of water thereto, yet in goodness and virtue it is not comparable at all to the volatile spirit, but is as far different from it, as black from white, and therefore the other is fittest to be used in Physick; but this in dealing with metals and minerals, for to reduce them into vitriols, calxes, flowers, and crocus.

To turn Salt-peter into a water by a meer digestion.

Take of Salt-peter powdered very small, with it fill the fourth part of a Bolt-head, close it well, and let it stand in the heat of ashes, or sand, the space of six weeks, and you shall see good part of it turned into water: continue it in the said heat till it be all dissolved.

This is of incomparable use in Feavers, and against Worms; or any putrefaction in the body, and indeed, a most rare secret.

Spirit of Salt-Armoniack:

Dissolve Salt-Armoniack in distilled Spirit of Urine over a moderate heat; in this Spirit let Bricks be beaten into small pieces, and made red-hot be quenched, till they have imbibed all the water, then make distillation in a Retort in sand, or in a naked fire.

This Spirit is of greater strength than that of other Salts.
Another way,

Take of Salt-Armoniack one part, of Lapis Calaminaris two parts, beat them small and mix them well together; and distil them in a Glass Retort in Sand; first with a very gentle fire, and the fleam will come over, which (if you will have your Spirit very strong) you may take away: Then increase the fire by degrees; and you have the true spirit of Salt-Armoniack, very powerful and effectual in many operations.

Oyl or Spirit of Vitriol, is made thus.

Take of Hungarian, or the best English Vitriol, as much as you please, let it be melted in an earthen vessel glazed, with a soft fire, that all the moisture may exhale, continually frosting of it, until it be brought into a yellow powder, which must be put into a Glass Retort well luted, or an earthen Retort, that will endure the fire: Fit a large Receiver to the Retort, and close the joints well together; then give it fire by degrees, till the second day, then make the strongest heat you can, till the Receiver (which before was dark with fumes) be clear again, let the liquor that is distilled off be put into a little Retort, and the fleam be drawn off in sand; so will the Oyl be rectified, which is most strong, and ponderous, and must be kept by itself.

Many call that fleam, which is drawn off in rectifying the spirit of Vitriol.

This Oyl (or Spirit) is very excellent in putrid Feavers, rectifying putrefaction; also it opens all obstructions, and is very diuretical.

A red and heavy Oyl of Vitriol.

Take of calcined Vitriol one part, Flints grossly powdered 2 parts, of these with Spirit of Wine make a Paste, distil it in a Retort, and there will come forth a red heavy Oyl.

This is to be used rather about metals than in the body, only, if the scurfe on the head be anointed therewith two or three times in a week, it will fall off, and the head be cured.
To dulcissee the spirit of Vitriol, and of Salt.

Take the Spirit of Vitriol, or of Salt, the best Spirit of Wine, of each half a pound; distil them in a Retort together, three or four times, and they will be united inseparably, and become sweet.

Some put 8. ounces of the best Sugar-candy to these Spirits before they be thus distilled.

Ten or twenty drops of this compound Spirit (being taken in any appropriated Liquor) is very good in any putrid or Epidemiical disease.

_Gilla Theophrasti_, or a most delicate vomiting Liquor made of Vitriol.

Take of Crystals made out of Copper, or Iron, dissolve them in the acid flegm that first comes forth in the distilling off common Vitriol, circulate them 8. days.

This Liquor must be taken in Wine, and it causes vomiting instantly, and is most excellent to cleanse and strengthen the stomack, and to cure all such distempers that arise from thence, as Salt-defluxions, Feavers, Worms, Head-ach, and Vertigoes, the Hysterical passion; and such like.

The dose is from a scruple to two scruples.

_Oyl of Sulphur per Campanam._

Take a large Iron Vessel like a Platter, over it hang a Glass-bell, that hath a nose like the head of a cold Still; fill the lower vessel, being narrower than the compass of the Bell, or Head, with Brimstone, or Sulphur, inflame it; so will the fume which ariseth from thence be condensed in the Bell into a Liquor which will drop down through the Nose into the Receiver.

Note, that the Bell must hang at such a distance from the other vessel, that the flame of the Sulphur touch it not, according to this following example.
If (instead of this broad vessel) you take a large Crucible and melt it in Salt-Peter, and cast Sulphur upon it thus melted, you shall make a great deal quicker dispatch.

This Spirit is of the same nature, and hath the same operations as Oyl of Vitriol.

There is lately discovered by an Ingenious Italian Chimist, living in Fan church-street, a better way of drawing this Oyl of Sulphur, which is by a Campane, or Bell, which hath a P pe perpendicular and open at the top for the Flowers of the Sulphur to fly away, which hinder the condensation of the Spirit. By which means a far greater quantity of Spirit may be drawn in a less time than the other; and so consequently much more effectual in the cure of diseases.

Of the Spirit or acid oyl of Sulphur, according to Glauberus.

To reduce Sulphur into a sour Spirit, or Oyl, hath been sought hitherto by many, but found by few. Most of them made it in
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In Glass bells, but got very little that way; for the Glasses being quickly hot, could not hold the Oyl, so that it went away in a smock. Some thought to get it by distilling, others by dissolving, but none of all these would do the feat: Which is the reason why now ayes it is found almost no where right. In the Druggers and Apothecaries shops, they usually sell oyl of Vitriol in stead of it, which by far is not to be compared in vertue to the Oyl of Sulphur: For this is not only of a far pleasant flavor, but (in efficacy also much) exceeds the other. And therefore being of so great ufe both in Physick and Alchymie; as in all hot diseases, mingling the Patients drink therewith, till it get a pleasant flavor, for to quench the intolerable heat, to strengthen the Stomach, to refresh the Lungs and the Liver: Also externally for to cure the Gangrene: Also for to crystallise some Metals thereby, and to reduce them into pleasant Vitriols, useful as well in Alchymie as Physick; I thought good to set down the preparation, though it be not done in this our distilling furnace, but in another way by kindling and burning it as followeth.

Make a little furnace with a grate, above which a strong Crucible must be fastned, resting on two Iron bars; and is to be ordered so, that the smock be conveyed (not above by the Crucible, but) through a Pipe at the side of the Furnace: the Crucible must be filled with Sulphur even to the top; and by a cole-fire without flame be brought to burn, and kept burning. Over the burning Sulphur, a vessel is to be applied of good flinty earth, like unto a flat dish with a high-brim, wherein is always cold water to be kept, and whereunto the burning Sulphur doth flame: Which thus burning its fatness consumeth; and the acid Salt is freed and sublimed to the cold vessel; where it is dissolved by the air, and (in the form of a sharp Oyl) runs from the hollow vessel into the Receiver; which must be taken off sometime, and more Sulphur supplied in stead of that which hath been consumed, to the end that the Sulphur may still burn in the crucible, and beat with the flame to the cold head: and within few days you will get a great quantity of Oyl, which else by the (campana) Glass bell in many weeks could not be done.

N. B.
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N. B. Such a sour spirit (or Oyl) may also be got by distillation, together with the flores, viz. thus: If you take pieces of Sulphur, as big as Hens-eggs, and carry them (one after another) into the hot distilling vessel, a sour Oyl together with flores will come over into the Receiver, which must with water be separated out of the flores, and the water abstracted from it again, in a Cucurbit; and in the bottom of your Glass-body you will find the Oyl, which in vertue and taste is equal to the former, but you get nothing near so much in quantity by this way; and if you do not look for the Oyl, you may leave it with the Flores, which by reason of their pleasant acid taste are much toothsomer to take than the ordinary ones.

The Oyl of Sulphur is made after a more Philosophical manner thus.

Take of crude Sulphur as much as you please, put it into a melting vessel, to be dissolved over the fire; being dissolved, pour it forth into seething hot water (this do ten or more times, remembering that the water must always be seething hot) and thou shalt see that the Sulphur will be like Butter, then put it into a Retort, pouring on it the best spirit of Wine; then distil it with a soft fire, and there will come forth an Oyl of a golden colour, of a good taste and smell, which is the true Balsome of Sulphur. The Oyl that swims on the Spirit must be separated.

This Oyl for the cure of all distempers of the Lungs, for all Feavers, whether putrid or pestilential, and the cure of Wounds and Ulcers, is scarce to be equalled.

The Essence of Sulphur.

Take of Sulphur, vivum as much as you please, dissolve it as well as you can in Aqua-fortis (made of Vitriol, and Salt-peter; then evaporate the Aqua-fortis, and then reverberate the matter, till it become very red; Extract the Tincture with Spirit of Wine, then digest them till the Essence be separated from the Spirit like an Oyl, and sink to the bottom.
This Essence also is of wonderful vertue against all putrefaction both inward, and outward, a great preservative against the Plague, and is wonderful balsamical, and cures all sores both old and new, even to admiration.

The Oyl of Arsenick is made thus.

Take of Crystalline Arsenick (being first sublimed with Calcothar alone) as much as you please, mix it with an equal weight of the Salt of Tartar, and Salt-peter; and let them be betwixt two little pots or crucibles (whereof the upper hath a hole) calcined, until no fume ascend. The matter being thus calcined, dissolve in warm water, that you may draw a Salt from thence; the powder which falls to the bottom imbibe with the Liquor of Tartar, and dry it by the fire, and this thou must do three times; then dissolve the matter in warm water, that thou maist draw out the Salt thereof, and there will remain a molt white powder, and fixed, which in a moist place, will be dissolved into a liquid matter like Oyl, or Butter.

Of the Nitrous Spirit of Arsenick.

If you take white-Arsenic and pure Salt-Nitre of each an like quantity, ground into fine powder, and distil them, you will get a blew Spirit, which is very strong; but no water must be put into the Receiver, else it would turn white; for Arsenick, from which the blew cometh, is precipitated by the water. This Spirit dissolveth and graduareth the Copper as white as Silver, and maketh it malleable, but not fix. The remaining Caput mortuum maketh the Copper white, if it be cemented therewith, but very bristle and unmalleable; but how to get good Silver out of Arsenick, and with profe, you shall finde in the fourth part. In Physick the blew Spirit serveth for all corroding cancrous sores, which if they be anointed therewith, will be killed thereby, and made fit for healing.
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To make a Spirit of Sulphur, Crude-Tartar and Salt-Nitre.

If you grind together one part of Sulphur, two parts of Crude-Tartar, and four parts of Salt-Nitre, and distil it Philosopher-like, you will get a most admirable Spirit, which can play his part both in Physick and Alchemy. I will not advise any body to distil it in a Retort; for this mixture, if it groweth warm from beneath, it fulminareth like Gunpowder; but if it be kindled from above, it doth not fulminare, but only burneth away like a quick fire: metals may be melted and reduced thereby.

To make Spirits and Flowers of Nitre and Coals.

If you distil Nitre (well purified from its superfluous Salt) mixed with good Coals, the Egyptian Sun-bird doth burn away, and out of it doth sweat a singular water, useful for men and metals. Its burnt ashes are like unto calcined Tartar, and for the purging metals not to be despised.

Aqua-fortis, or a strong Spirit, (that will dissolve Silver and baser metals) is made thus.

Take of Vitriol calcined 2. parts, of Nitre one part, grind and mix them well together, and put them into a Glass Retort coated, or earthen Retort that will endure the fire, and set them into the Furnace in an open fire, and then having fitted a large Receiver, distil it by degrees the space of 24. hours, then rectifie the Water or Spirit in Sand.

Aqua-regia, or Stygia, or a strong Spirit that will dissolve Gold, is made thus.

Take of Nitre 2. parts, Salt-Armoniack one part, the powder of Flints 3. parts, put them into a Glass Retort coated, or earthen Retort that will endure the fire; distil them by degrees over a naked fire for the space of 12. hours, take it out and rectifie it. This Water will dissolve Gold.
Another Aqua-regia is made thus.

Take of Spirit of Nitre, as much as you please, put a dram of crude Salt-Armoniack to every ounce of it, and it will be as strong as any Aqua-regia.

This water dissolve Gold.

To make a most strong and vehement Aqua-regia.

Take of the strongest Aquafortis that you can get, and well rectified, a pound of Mercury sublimed four ounces, Salt-Armonyack twenty ounces, mix all these together, and distil them.

Oyl, or Butter of Antimony, is made thus.

Take of crude Antimony as much as you please, of sublimed Mercury a like quantity, make them both into a very fine powder, and mix them, and put them into a Glass Retort. Give fire by degrees in a close Reverberatory, or let the Distillation be made in Sand. There will distil into the Receiver a farnes, part whereof (licking to the neck of the Retort) will melt by a light fire being put to it. That farnes may be rectified in a Retort, and either be kept by it self as it is, or set in a Cellar or moist place, and be resolved into a Liquor.

This Oyl might be washed in good store of water, and then there will settle to the bottom a white powder, which being oft washed in fair water, till all the Sharpness is gone, is then called Mercurius viva, six or seven grains whereof is an excellent vomiting medicine.
A. Furnace for a close Reverberation furnished with its
   Receiver and Receiver.

A, Shows the Furnace.
B, The Retort.
C, The Receiver.
D, The Vessel filled with cold water.

How to make a water out of Antimony, whereof a few drops shall
 purge, or savour, and which hath neither smell, nor scarce any taste.

Take flowers of Antimony, sublimate them with salt-Amoniac six or seven times, then wash away the Salt with warm water, and dry the powder, which then lay thin on a Marble in a Cellar till it be dissolved, (which will be in six weeks time.)
This water, if it be taken to the quantity of twenty drops, will
purge, if in a lesser quantity, it will sweat.

To make an Oyl, or Quintessence of Metals.

Dissolve what Metal, or Mineral you please, in a strong spirit
of Salt, (except Silver, which must be dissolved in Aqua fortis)
draw off the tinctum in Balneo, pour on rectified Spirit of Wine,
digest them so long till a red Oyl swim above, which is the
Quintessence of Metals, and Minerals, and is a very great secret.
A sweet and red Oyl 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 Oyl sweet, and as red as blood, together with the spirit of Salt: and sometime 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 Nitre, and proceed in all things as was spoken of the other Metals. Concerning the use of these Essences, I need not speak much thereof; for to him that knows the preparation shall be discovered the use thereof.

The True Spirit of Antimony is made thus.

Take of the subtile powder of the Regulus of Antimony as much as you please, sublime it of itself till it will sublime no more (fill putting what is sublimed to that which remains at the bottom) or with salt-Armoniack six or seven times (remembering that then you must dulcifie it with warm water, by dissolving therewith the Salt) and dry the Precipitate afterwards. Set this fixed powder in a Cellar, laying it very thin upon a Marblestone, and about six weeks, or two moneths, it will all be dissolved into water, which must be filtered. Then evaporate part of this water, and let it stand two or three dayes in the Cellar to crystallize. These Crystals purifie, and dry: Mix them with three times the quantity of the gross powder of Tiles, and distil them in a Retort, and there will come forth, first a white spirit, and then a red, which you may rectifie in Balneo.

The true Oyl or Essence of Antimony is made thus.

Take of the foresaid Crystals; dissolve them in good rectified spirit of Wine, digest them two moneths in Balneo, or Horse-dung:
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dung: then evaporate the spirit of Wine, and there will remain in the bottom the true Oyl or Essence of Antimony.

Then take new Crystals of Antimony, and let them imbibe either this Oyl, or the foresaid spirit, till they will imbibe no more, then digest them two months in sand, and they will become a flowing fixt Salt, and of excellent vertue.

The foresaid Spirit, this Oyl, and Essence of Antimony, may be equalized to Aurum potabile, to all intents and purposes, according to a medicinal use, especially the fixt Essence. The dose is five or six grains.

A burning Spirit made out of Lead, most fragrant and Balsamical.

Take the Calx of Saturn, or else Minium, pour upon it so much spirit of Vinegar, that may cover it four fingers breadth; digest them in a warm place the space of twenty four hours, often stirring them, that the matter settle not too thick in the bottom: then decant the Menstrum, and pour on more, digest it as before, and this do so often, until all the saltiness be extracted. Filter and clarify all the Menstrum, being put together, then evaporate it half away, and let the other part in a cold place till it crystallize. These Crystals dissolve again in fresh spirit of Vinegar; filter and coagulate the Liquor again into Crystals, and this do so often, until they be sufficiently impregnated with the salt Armorick of the Vinegar as with their proper ferment. Digest them in a temperate Balneo, that they may be resolved into a Liquor like Oyl: then distill this Liquor in sand, in a Retort, with a large Receiver annexed to it, and well closed, that no spirits evaporate, together with the Observations of the degrees of the fire: then there will distill forth a spirit of such a fragrant smell, that the fragrancy of all flowers, and compounded perfumes are not to be compared to it. After Distillation, when all things are cold, take out, and cast away the black feces which is of no use: Then separate the yellow Oyl, which swims on the top of the Spirit, and the blood red Oyl which sinks to the bottom of it: Separate the flegm from the Spirit in Balneo. Thou shalt by this means have a most fragrant Spirit, that even ravineth the senses, and so Balsamical, that it cures all old
and new forees inward and outward, and so cordial, that the dying are with admiration revived with it.

They that have this medicine need scarce use any other either for inward, or outward griefs.

How to turn Quick-silver into a water without mixing any thing with it, and to make thereof a good Purgative and Diaphoretick Medicine.

Take an ounce of Quick-silver not purified, put it into a bolt-head of Glass, which you must nip up; set it over a strong fire in Sand, for the space of two moneths, and the Quick-silver will be turned into a red sparkling Precipitate. Take this powder, and lay it thin on a Marble in a Cellar for the space of two moneths, and it will be turned into a water, which may safely be taken inwardly: it will work a little upward and downward, but chiefly by sweat.

Note, that you may set divers glassses with the same matter in the same Furnace, that so you may make the greater quantity at a time.

I suppose it is the Sulphur which is in the Quick-silver, and makes it so black, that being fired up by the heat of the fire fixeth the Mercury.

A fragrant Oyl of Mercury.

Take of Mercury seven times sublimed, and as often revived with un花开ed Lime, as much as you please; dissolve it in Spirit of Salt in a moderate heat; then abstract the Spirit of Salt, and edulcorate it very well by boiling it in Spirit of Vinegar; then abstract the Spirit of Vinegar, and wash it again with distilled rain-water; then dry it, and digest it two moneths in a like quantity of the best rectified Spirit of Wine you can get. Distil them by retort, making your fire moderate at the beginning, afterwards increasing it; then evaporate the Spirit of Wine in Balneo, and there will remain in the bottom a most fragrant Oyl of Mercury.

This Oyl so purifies the blood by sweat, and urin, that it cureth all distempers that arise from the impurity thereof, as the venereal disease, &c.

The truth is, they that have this medicine well made, need but few other medicines: the dose is four or five drops.
To make the Water of Mercury.

Take mercury sublime, and Salt-Armoniack, and sublime them together; then grind that which is sublimed, with that which remained after sublimation, and put it to sublime again, and there will remain more in the bottom of the Sublimatory than there did the first time, which work repeat so often, till all remain in the bottom, and look black, and melt like wax; which take and bruise small, and set in a cold Cellar on a Marble-stone, and it will dissolve into a Water of Mercury, which you may coagulate and dissolve till it be pure.

To turn Mercury into a Water by itself.

Set this following vessel, being made of iron, into a Furnace, so that the three bowles thereof be within the Furnace, and the Pipe and the Receiver be without. Make your Furnace so, as that there be a great hole left open at the top: where you must put in your coals, shutting it afterward with a cover of stone made fit thereunto: on the top also must be holes to let in air.

The Vessel for this Operation.
First make your Iron-vessel as red hot as possibly it can be made, (or else you do nothing) having first annexed an earthen well-glazed Receiver to the bottom of it. Then put half an ounce of Quick-silver at a time in at the top (which presently stops with clay) and presently the Mercury will come over, part in a sharp Liquor, and part as crude a Mercury as it was before, which you may put in again till it be all turned to water.

Note, that unless the Quicksilver give a great crack presently after it is put in, it is a sign that the vessel was not hot enough.

This operation being well prosecuted, may produce a medicine with which none under the Philosophers Elixir may compare.

How to distil Spirits, and Oyle out of Minerals, Vegetables, Bones, Herbs, and Fester, and in a greater quantity in one hour, than in the common way in twenty four.

The Furnace must be twice so high, as wide, and the Pipe must be a foot-long out of the Furnace.

The Vessel walled in, must be of earth for the distilling of Antimony, Sulphur, and such things as will corrode Iron: but for other things, Iron is most convenient.

Before you make any Distillation let the vessel which is walled in be red hot, then by little and little, cast in your matter, which must be cut, or powdered small, and clap down the cover into the false bottom above, which is full of molten lead, and therefore suffereth no flame to go forth.

When you see the fumes in the Receiver (which must be of Glass) to cease, and condensed into a Liquor, then put in more matter.

By this way you may make a far greater dispatch, and distill a greater quantity out of the same proportion of matter, than by the common way.

By this way there is no danger of breaking your Receiver, and you may end and begin when you please, and try divers experiments in one hour, and cannot make the fire too strong, and may make the spirits, of such things, as can hardly, or not so well be made by a Retort; as the spirits of Salt, of Tarrar, Harts-horn, Antimony, &c.
This must be done in such a Furnace as this.

A, Signifies the Furnace with its Iron, or earthen distilling vessel walled in, to which a very large Receiver is joyned. B, the Distiller, who with his left hand taketh off the cover, and with his right casteth in his prepared matter with an Iron-ladle. C, the form of the distilling vessel. D, the same, as it appeareth inward. E, the form of the vessel not walled in, but standing on the coals for other uses.
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Salt and such things as will flow must have hole, or powder of Brick mixed with them before they be cast into the vessel; or if you please, you may first dissolve what Salt you please, and with red hot gross powder of Brick, imbibe the water, then cast in this powder by little and little into the distilling vessel, and the Salt by this means will yield its spirit quickly and in abundance. By either of these two ways you may make a pound of the spirit of Nitre in an hour, and of Salt in two hours.

Now whereas some things yield a spirit, and a thick and heavy Oyl, they may be rectified thus: viz. by putting them into a Retort, and distilling them in sand, or ashes, with a gradual heat: there will come forth the phlegm of some Liquors first, and then the spirit, and of othersome the spirit, and then the phlegm; but of all these the heavy thick Oyl at last; which by distilling off becomes far clearer than before, which may again be rectified by spirit of salt, as I have shewed before, and therefore need not here repeat it.

How to make the acid Oyl and volatile Spirit of Vitriol.

To distil Vitriol, there needs no other preparation, but only that it be well viewed, and there be any filth amongst it, that the same be carefully picked out, left being put together with the Vitriol into the distilling vessel, the spirit be corrupted thereby.

Now your vessel being made red hot, with an Iron-Ladle cast in one or two ounces of your Vitriol at once, put on the lid, and presently the spirits together with the phlegm will come over into the Receiver, like unto a white cloud or mist; which being vanished, and the spirits partly settled, carry in more Vitriol, and continue this so long, until your vessel be full: Then uncover your vessel, and with a pair of Tongs, or an Iron-Ladle, take out the Caput-Mortuum, and cast more in; and continue this, proceeding as long as you please, still emptying the vessel when it is filled, and then casting in more matter, and so proceeding until you conceive that you have got Spirits enough. Then let the fire go out, and let the Furnace cool; take off the Receiver,
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Receiver, and pour that which is come over into a Retort, and lay the Retort in Sand, and by a gentle fire distil the volatile spirit from the heavy Oyl; having first joined to the Retort the Receiver, which is to receive the volatile spirit, with a good lute.

All the volatile spirit being come over, which you may know by the falling of bigger drops, then take off the Receiver, and close it very well with wax, that the Spirit may not make an escape; then apply another (without luting it) and so receive the phlegm by itself, and there will remain in the Retort a black and heavy corrosive Oyl, which if you please, you may rectifie, forcing it over by a strong fire, and then it will be clear; if not, let all cool; then take out your Retort together with the black Oyl, and pour upon it the volatile spirit, which in the rectifying went over first; put the Retort into the Sand, and apply a Receiver, and give it a very gentle fire, and the volatile Spirit will come over alone, leaving its phlegm behind with the Oyl, which by reason of its dryness doth easily keep it. Thus the spirit being freed from the phlegm, is become as strong as a meer fire, and yet not corrosive. And if this Spirit be not rectified from its own Oyl, it will not remain good, but there doth precipitate a red Powder after it hath stood for some space of time, and the spirit lootheth all its virtue, in so much that it is not to be discerned from ordinary water, which doth not happen when it is rectified. The reason of this precipitation is no other than the weakness of the spirit, which is accompanied with too much water; and therefore not strong enough for to keep its Sulphur, but must let it fall: but after it is rectified by its own Oyl, it can keep its Sulphur well enough, because then it is freed from its superfluous moisture. However the red Powder is not to be thrown away, but ought to be kept carefully; because it is of no less vertue than the spirit itself. And it is nothing else but a volatile sulphur of Vitriol. It hath wonderful vertues, some of which shall be related.
The Use and Dose of the Narcotick Sulphur of Vitriol.

Of this Sulphur 1. 2. 3. 4. or more grains (according to the condition of the Patient) given at once, mitigates all pains, causeth quiet sleep; not after the manner of Opium, Henbane, and other the like medicines, which by stupefying and numbing cauſe sleep, but it performeth its operation very gently and safely, without any danger at all; and great diseases may be cured by the help thereof. Paracelsus held it in high esteem, as you may see, where he doth write of Sulphur embrionatum.

To make an Oyl of Lapis Calaminaris.

Take of Lapis Calaminaris powdered as much as you please, pour on it five or six times as much of rectified spirit of Salt; shake them together continually, or else it will be congealed into a hard mass, which can hardly be mollified again: when no more will dissolve in frigido; put it in warm Sand so long till the spirit of Salt be of high yellow colour, then pour it off, and put on more, till all be dissolved that will; cast away the feces, put the solution into a Glass-body, and distil it in Sand: about the third part of the spirit of Salt cometh over as insipid as common water, though the spirit were well rectified before, for the dryness of the Lapis Calaminaris (which is the dryest of all Minerals and Metals except Zink) retaineth the spirit after the flegm is come over, let the Glass cool; and thou shalt find at the bottom a thick red Oyl very fat, even as Oyl-Olive; and not very corrosive; keep it from the air, or else it turneth into water.

It is of wonderful vertue for inward, and outward griefs; for it hath in it a pure golden Sulphur.

Common Sulphur mixed with this Oyl, and melted in a strong fire swimmeth like water above, and is transparent.

This Oyl distilled in a Retort with pure Sand in a strong fire, yieldeth a Spirit like fire, scarce to be contained in any vessel,
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vessell, and dissolveth all metals, except Silver; and reduceth pure spirit of Wine into an Oyl within a few dayes.

To make Oyl of Talk.

Take of the best Talk reduced into very thin flakes, make them red hot, and then quench them in the strongest Lixivium that Sopel-boysers use, do this fifteen times, and it will become as white as snow; then powder it very small, and Calcine it by fumigation, (i.e.) by the fume of some very sharp spirit, as of Aqua-fortis, or the like; when it hath been thus calcined for the space of a Fortnight, it will become somewhat mucilaginous; then set it in any heat of putrefaction, as it is (for it hath imbibed enough of the sharp spirit to moisten and ferment it) for the space of two months in a bolt head nipt up; then evaporate the acid Spirit, and dulcisfe it with distilled Rain-water. After this, extract what thou canst out of it with the best rectified spirit of Wine; pour off the solution and evaporate the spirit of Wine, and at the bottom will be a most beautiful Oyl.

The Oyl is the most glorious focus or paint in the World.

To make Oyl of Talk another way.

Take of the foresaid powder of Talk after it hath been purified, and again dulcisfe as much as you please, put four times as much of the best circulated Oyl of Camphire to it, digest them in Horse-dung till all the powder be dissolveld, and the Oyl become mucilaginous, which will be within two months.

This is the same use as the former.

There is required a great deal of pains, and care, and no small cost in the preparation of these Oyls.

Oyl is made of Bole-Armoniack, Terra-sigillata, and such kinds of Clay earths, thus:

Take of either of those Earths as much as you please, break it,
it into small pieces, and put it into a Retort over a naked fire for the space of twelve hours, and there will distil into the Receiver (which must be large) the fleam; then white Spirits in a little quantity, yet of a grateful taste and smell,

Oyl out of these kinds of Earth is made better thus.

Take of either of these Earths which you please, as much as you will; pour upon it distilled Rain-water, set it in some warm place for a month, or more, and the Oyliness will separate from its body, of its own accord, and swim upon the water. Separate the water by a Tunnel, and distil the Oyl with five parts of the spirit of Wine well rectified, and there will comeforth an Oyl of a golden colour, swimming on the spirit, which is a most excellent Balsam.

Spirit of unslaked Lime is made thus.

Take of unslaked Lime as much as thou pleasest; reduce it into a subtle powder, imbibe it with spirit of Wine most highly rectified, (which must be pure from all its fleam, or else you labour in vain) as much as it can imbibe; draw off the spirit of Wine with a gentle heat, cohabit it 8. or 10. times, so will the fiery virtue of the Lime be fortificed.—Take of this levigated Lime 10. ounces, pure Salt of Tartar one ounce, the feces of Tartar after the Salt is extracted 11. ounces; mix these well together, put them into a Glass-Retort coated, see that 2. parts of 3. be empty; distil them into two Receivers, the phlegm into one, the spirit into the other, which must have a little of rectified spirit of Wine in it to receive the spirit.

If thou wilt separate the spirit of Wine, then put fire to it, and the spirit of Wine will burn away, and the spirit of the Lime stay behind, which is a kind of a fixed spirit.

This is a very rare secret for the consuming the Stone in the Bladder, and the curing of the Gout.
Oyl made out of Tile-stones called the Oyl of Philosophers.

Take of Bricks or Tiles as many as you please, break them into small pieces, make them red fire hot, then quench them in pure old Oyl Olive (in which let them lye till they be cold), then take them out and grind them very small, let the powder be put into a glass Retort, coated, a fit Receiver being put there-to and distil off the Oyl in a naked fire by degrees, which being distilled off keep in a viol close Stop.

This Oyl is wonderful penetrating, and is good against all cold distempers whatsoever.

The Liquor or Water of Coral, is made thus.

Take Salt-Armomiac well purified by sublimation, of red Coral finely powdered, of each a like quantity; sublime them so often till the Coral will no more rise up; then take the Calx of Coral that remains in the bottom of the sublimatory and put it on a marble or glass in the cellar to be dissolved; that which will not be dissolved, sublime again, and do as before till all be dissolved: and so thou hast the Liquor of Coral.

Note, that if you will have the true tincture of Coral, evaporate the humidity of the forefaid Liquor, then extract the tincture out of the powder with Spirit of Wine, which Spirit evaporate to the consistence of Honey: And thou hast a most rare medicine.

This Medicine strengtheneth all the parts in the body, and cures all distempers that arise from the weakness thereof.

To make a Water out of Lapis Armenus that shall have neither taste nor smell, a few drops whereof shall purge.

Take of Lapis Armenus powdered small, and calcined, as much as you please, sublime it with Salt Armomiac until it will sublime no more, but remain in the bottom of the sublimatory, then take it out, and lay it very thin upon a marble in a cellar, and there let it lye two months, and it will be almost all dissolved into a Liquor.
Take of *Lapis Armenius* powdered small and calcined, as much as you please; pour upon it of distilled Vinegar, as much as will cover it four fingers breadth, then set it over a gentle heat, stirring it 2 or 3 times in an hour, for the space of 6 hours or thereabouts; then the spirit being tinged very blew with the powder, filter off from the feces, then pour more spirit of Vinegar on the feces, and do as before, till the spirit be tinged no more; then take all the blew spirit, and vapour it away; and at the bottom you shall have a salt, which you must put into a calcining pot, and calcine so long in the fire till no more vapour will arise, and it become a dark red powder; then put it upon a marble in the Cellar for the space of two months, and it will be dissolved into a Liquor, a few drops whereof put into a glass of beer will purge delicately.

*How to make a Furnace that shall of it self, without any vessels which should contain the matter, being put into it, sublime Minerals, and distil all manner of Oyls and Spirits out of Minerals, Vegetables, and Animals, and that in a very great quantity, in a very short time, and with small cost.*

The Furnace is made as followeth: It may be made of one piece by a Potter, or of brick, round, or four-square, greater or lesser as you please; if the inside be one span broad in the middle, it must be four high; one for the Ash-hole, another above the grate to the middle Coal-hole, and two above the Pipe; this pipe being made of earth or Iron, must be a span long between the Furnace and the Receiver, and a third part as wide as the Furnace within.

The Receivers must be made of glass, or very good earth well luted together; the greater the better.
A, Signifies the Ash-hole, which must be as wide as the Furnace, and always open that the fire may burn the stronger.
B. The middle hole of the Furnace for the putting in of coals.
C. The stopple made of stone.
D. The upper hole of the Furnace with a false bottom wherein sandyleth, which is there laid that the cover may lye the closer, and keep in the fumes the better.
E. The Cover, which must presently be clapt on, as soon as the matter to be distilled is put in.
F. The pipe which goeth out of the Furnace, and to which the Receiver is fitted.
G. The first Receiver for flowers.
H. The second.
I. The third.
K. A stew wherein the first Receiver reseth, in the midst whereof is a hole through which goeth the neck of the Receiver to which another glass is fitted.
L. The glass fitted to the Receiver for the uniting the Spirits that drop down.
M. Another Receiver united to the former Glass, and into which the united Spirits do run.
N. A stew through the middle whereof goeth a screw for the raising of that glass, which is set under the first Receiver, higher, or lower.
O.
P. The Grate with two thick Iron-bars, which lye fast, upon which four or five thinner are laid, which may be stirred when the Furnace is made clean.

Thus far the first of the figures is explained, by which you may see how sublimation and distillation is made at one time, viz. of those things which will yield both flowers, and spirits, (the flowers sticking in the three upper Receivers, and the spirits dropping down into the lower.)

Now follows the explanation of the second figure, which is the same with the former in respect of the Furnace itself, but differing in respect of the Receivers, which serve for the receiving of the Spirits and Oyles of such things as yield no flowers: Therefore I shall begin with the explanation of the Receivers.
G, The first crooked pipe as it is fitted to the pipe that comes out of the Furnace.

H, The Recipient with its cover, in which is one hole for one crooked pipe to go through, as you may see in the first H, and two holes for two pipes to go through, as you may see in the second H, and so on.

Note, that these pipes may either be fastened to the cover, being all of one piece, or they must be well luted, that no vapours may pass through. Now you must conceive that in the lower Receivers the vapour that goeth out of the first pipe goeth first into the Receiver, then out of that into the next Pipe, and so forward till it cometh into the last Receiver, by which means it is much cooled (for indeed such vapours that come out of the Furnace, especially when some materials are distilled, if there were not some such art to cool them, would break all Receivers.)

I, A Tub of water, wherein the Recipient stands, to cool the vapours and condense them.

K, The first crooked pipe as it goeth into the Recipient.

L, The second crooked pipe, whereof one end goeth into one Receiver, and another end into another.

M, The last crooked pipe, to which you must annex a Receiver.

Now the manner of distilling is thus: Let the Furnace be full of coals well kindled, then cast on your matter, and stop your Furnace close: This Furnace needs no Retort, or other vessels to be set into it, neither can you do any hurt by too much or too little fire; and you may finish your operation when you please, and in one hour try divers experiments. It saveth very much time, and cost, and in one hour will do as much as can be done in another Furnace in 24. In one hour you may make a pound of spirit of Salt with four or five pound of coals, and as much flowers of Antimony in a like space of time, and with as few coals.

If your materials be vegetables, or horn, or bones, cut them small;
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Small; if hard Minerals, let them be powdered very small; if salts, let them first be dissolved in water, which water must be imbibed with red hot coals, until all the Liquor be imbibed: then cast in those coals into the Furnace.

If you would by this means procure the Spirit of hard Minerals, as of Antimony, you must take them as they come from the Mine, before they have passed the fire.

By this Furnace you may make the Spirits of such things, which will not yield them in any other way.

Note, that such Oyls and spirits as are drawn by this Furnace, must be rectified in spirit of Salt, as I have above shewed.

The way to make Spirit of Salt by this Furnace.

Mix Salt, and Vitriol or Allom together, grinding them very well in a Mortar, (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 distill down into a dish, and thence into another Receiver. And if thou knowest how to work aright, the spirits will like water continually run out through the pipe the thickness of a straw, and thou mayest 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 Allom, 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 excotion 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 Allom, but mixed, and compounded. I answer; There can by
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This way distil no spirit of Vitriol, and Allom, being that which I often tried, calling Vitriol, or Allom 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 phlegm, nothing distils. Wherefore the spirit of Salt that is made after this manner is not mixed, but pure and mere spirit of Salt, of the same taste, and virtue as that is of, that is made by itself; because in this Furnace the spirit of Allom, and Vitriol, cannot be made, unless a pipe go out of the Furnace near the grate, as you may see by the delineation of the Furnace, for otherwise it cannot be made.

Of the use of the Spirit of Salt.

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 precematural thirst in hot diseases, absterseth, and consumeth flegmaticque humors in the stomach, exciseth the appetite, is good for those that are hydroptical, have the Stone, and Gout, &c. 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.

The clear Oyl of Massick, and Frankincense.

Take of Frankincense, or Massick, powdered small, as much as will serve to fill the third part of a corumete,(which must be coated) upon which pour a sufficient quantity of the Spirit of Salt, taking heed that the Retort be not filled too full, or else the spirit when it boil, flows over it, then place it in Sand, and give fire by degrees, and there will first come out some phlegm, after which a clear transparent Oyl, together with the spirit of Salt, which must be kept by itself, after this a certain yellow Oyl, which must be received by itself: and last of all, there follows a red Oyl, 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
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with Oyntments and Emplasters; 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 affects, but especially in the stiffness of the Nerves caused by cold humors, upon which follows a contraction; but then you must first rub the member contracted with a linen cloth, that it may be well warmed, into which then the Oyl must be chafed with a warm hand: For it doth do wonders in such like affects of the Nerves.

After the same manner may Oyls be made out of all Gums; The red, tenacious, and linknig Oyls of Tartar, Harts-horn, Amber, &c. 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.

Ros Vitrion is made thus.

Take of the best Danmark Vitrion, as much as you please, uncalcined; put it into a Glass gourd, and distil it in Sand, and there will come over a water somewhat sharpish.

This Water or Ros is of greater use, than the Spirit of Oyl thereof.

It helpeth all inward inflammations, as of the Liver, Kidneys, Stomach, helps the ebullition of blood, and all distempers that come from thence.

This is that phlegm, which most vapour away, but it is because they know not the vertues thereof.

A sweet green Oyl of Vitrion is made thus.

Take as many Copperas stones as you please beat them small, and lay them in a cool Cellar, and in twenty or thirty days they will attract the air, and look black, and after fourteen days become whish, and sweetish, then dissolve them in distilled rainwater; then filter and evaporate the water, and they will shoot to green Crystals, which you may dissolve in a cellar per
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deliquium, being first beaten small, and laid on a Marble-stone.
This Liquor is that famous medicine of Paracelsus for the Falling-sickness, a few drops thereof being taken in any appropriated Liquor.
Take heed that it come at no strong fire, for then faith Paracelsus, it loseth its greenness, and as much as it loseth of that, so much also of its vertue.
A spirit may be drawn from hence by an ingenious Artisft, that will smell like Musk, or Amber.

The Sulphur of Vitriol may with Spirit of Wine be extrified thus.

Take of the best Danfick Vitriol half a pound, dry it by a gentle fire till it be whitish, then pour on it of the best rectified spirit of Wine thirty ounces, (Note, that there must come to it no other moisture than the spirit of Wine, the Glass also must be very dry, else you labour in vain) then digest it in Horse-dung, the space of a month; then decant from the feces the spirit of Wine without any troubling of it, then in Balsam, evaporate the spirit, and at the bottom you will have a yellow Liquor of a most wonderful spiriticity.
This Liquor is a famous Anodynum, supressing all noxious vapours whatsoever, and causing rest.
A few drops thereof may be taken in any specific Liquor.

A Sudorific Water to be used outwardly.

Take of sublimed Mercury very finely powdered an ounce and half, of Euphorbium powdered a scruple, Spirit of Wine well rectified, and Rose-water, of each a pound; digest them two or three hours in a gentle Balsam, the neck of the vessel which must be very long, being well stoped; then let them boil a quarter of an hour: when the Liquor is cold, pour it from the feces, and keep it in a Glass.
If the Back-bone be bathed with this Water, or the wrist of those that be weak, it causeth sweat presently; if it be done in the bed, By which means diseases that require sweat may be cured. Also any pained place by being
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ing bathed with this Water is in a little time eased.

Note, that you must not bath any place above three or four times with it, for by being too often used, it contracts the skin.

How an acid Spirit, or Vinegar, may be distilled out of all Vegetables, as Herbs, Woods, Roots, Seeds, &c.

First put a few living coals into the Furnace, then put upon them 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 cost, because the wood to be distilled is put but 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 between 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 pounds, 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 Peaches, and Carps, Corals also and Pearl, &c. as doth Vinegar of Wine. By means thereof all are dissolved the glasses of Metals, as of Tin, Lead, Antimony; and are extracted, and reduced into sweet Oyls.

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
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the Minerals, as Stones, Flint, Crystal, Talk, Lapis Callinarius, 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 filtered; and the flowers will remain in Charta bibula, for the water together with the Spirit, and the Salt passeth through the filter, all which may be separated, rectified and be kept 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 to rectifie Oys and Spirits of Minerals.

Put the Liquor that is distilled from Minerals into the Retort, to which give fire by degrees, and the spirit will rise up into the upper Receiver, and the heavy Oyl will go into the middle Receiver, which is the biggest of all; and into the little Receiver annexed to the end of the middle, will pass some of the Spirit, which though it passeth into the middle Receiver, will not stay there, but goeth beyond it because it finds vent.
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BOOK IV.

Waters, Spirits, and Oys, simple and compound out of Animals.

Oyl and Water out of Blood, is made thus.

Take of blood as much as you please, let it stand in putrefaction in a Glass vesse close covered the space of forty days, then distil it in ashes, and there will come forth a Water and Oyl: extract the Salt out of the feces with the said water, calcine the Salt in a Crucible, and then dissolve it in the said water, and then distil off the water (which will be a good rectifying of the Water) and dry the Salt very well, which then mixed with the foresaid Oyl, being first rectified, and digest them both together for the space of a month.

To make the Magistery of Blood.

Take of the purest Blood as much as you please, put it into a Pellican, that three parts of four may be empty, and digest it a month
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month in Horse-dung (in which time it will swell and become as much more as it was, when it was put in) then distil off the slygm in Balneo, and in the bottom will remain the Magistery of Blood, which must be distilled, and coohobated nine times in a Retort in ashes, and then it is perfected.

This Magistery is of excellent vertue, which being taken inwardly, and applied outwardly, cureth most diseases, and easeth pain, being very Balsamical.

Elixir of Mummie is made thus.

Take of Mummie (viz. of Mans-flesh hardened) cut small four ounces, Spirit of Wine cebribinthinated ten ounces, put them into a glazed vessel, (three parts of four being empty) which set in Horse-dung to digest for the space of a month; then take it out and express it, let the expression be circulated a month, then let it run through Manica Hippocratis; then evaporate the Spirit, till that which remains in the bottom be like an Oyl, which is the true Elixir of Mummie.

This Elixir is wonderful preservative against all Infections, also very Balsamical.

The Essence of Mans brains.

Take the Brains of a young man that hath dyed a violent death, together with the Membranes, Arteries, Veins, Nerves, and all the pith of the Back; bruise these in a Stone-mortar till they become a kinde of pap, then put as much of the Spirit of Wine, as will cover it three or four fingers breadth; then put it into a large Glass, that three parts of four be empty, being Hermetically closed, then digest it half a year in Horse-dung, then take it out and distil it in Balneo, and coohobate the water till the greatest part of the Brains be distilled off.

A scruple or two of this Essence taken in some specifical water once in a day, is a most infallible medicine against the Falling-sickness.
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A famous Spirit made out of Cranium-humanum.

Take of Cranium-humanum as much as you please, break it into small pieces, which put into a Glass Retort well coated, with a large Receiver well luted, then put a strong fire to it by degrees, continuing it till you see no more fumes come forth; and you shall have a yellowish Spirit, a red Oyl, and a volatile Salt.

Take this Salt and the yellow Spirit, and digest them by circulation two or three months in Balneo, and thou shalt have a most excellent Spirit.

This Spirit is of affinity with, if not the same as that famous Spirit of Dr. Goddard's in Holborn.

It helps the Falling-sickness, Gout, Dropsie, infirm Stomach; and indeed strengthens all weak parts, and openeth all obstructions, and is a kind of Panacea.

Another excellent Spirit made out of Cranium Harts horn, or Ivory.

Take of either of these, (if you take Cranium, it need not be bruised at all, only broke into little pieces; if Harts horn or Ivory, you must cut them in thin pieces) lay it piece by piece upon a net spread upon any vessel, being almost full of water, cover this net with another vessel very close; then make the water boil, and keep it boylng three days and three nights, and in that time the Bones, or Horns, will be as soft as Cheele; then pound them, and to every pound thereof, put half a pound of Hungarian Vitriol uncalcined, and as much Spirit of Wine as will make them into a thin paste. This Paste digest in a vessel Hermetical sealed the space of a month in Balneo, then distil it in a Retort in Sand till all be dry, and you shall have a most excellent Spirit.

This Spirit is of wonderful use in the Epilepsie-Collusions, all Fevers putrid or Pelilential, passions of the heart, and is a very excellent Sudorifick.

This Spirit may be taken from the quantity of half an ounce to an ounce in some specifical Liquor.
A Water and Oyl made out of Hair.

Fill an earthen Retort with Hair cut small, set it over the fire, and fit a Receiver to it, and there will come over a very thinning Water and Oyl.

This Water and Oyl is used in Germany to be sprinkled upon fences and hedges, to keep wild and hurtful Cattle from coming to do harm in any place; for such is the stink of this Liquor that it doth affright them from coming to any place near it.

Water of Milk is made thus.

Take of what Milk thou pleasest a Gallon, in it dissolve half a pound of Salt, and put to it two handful of Plantain, and an ounce of Licorish sliced, then distil it in a hot still with a gentle fire.

This water is of excellent use in hot distempers of the Lungs and Kidneys.
You may put in other ingredients, according to the use you would have it for.

An excellent compound Water of Milk for any Inflammations in the eyes.

Take of Womans milk a pint, of white Copperas a pound, distil them in ashes. Note, that as soon as thou perceivest any sharp to come off, then cease.

Let inflamed eyes be washed three or four times in a day with this water, and it helpeth them wonderfully.

Spirit of Urine is made thus.

Take of the Urine of a young man drinking much Wine, as much as you please, let it stand in Glass vessels in putrefaction 40 days; then pouring it from its feces, distil it in a Glass-gourd in Sand, till all be dry; then cohabore the said Spirit on the Capiut-Mortuum three times; then distil it in a Gourd of a long neck,
neck, and there will ascend, besides the Spirit, a Crystalline Salt, which thou must either keep by itself, being called the Volatile Salt of Urine, or mix it with its Spirit, which will thereby become very penetrating, if they be digested for some dayes together.

Note, that the pipe of the head must be wide, or else the Volatile Salt will soon stop it.

Note, that this Salt is so penetrating, that it penetrateth the body of the Glass.
This Spirit by rectification may be made so pure, and subtle, that it will burn as fire, and dissolve Gold, and precious Stones.
This being often applied to any place pained with the Gout, easeth it presently; it also quickens any part that is benummed.
The salt Volatile is Helmont's famous medicine for the Jaundice.

A compound Spirit of Urine:

Take of Hungarian Vitriol a pound, the Urine of a Boy that is healthy, four pints; put these into a Glass vessel well closed, that three parts of four may be empty; digest them in Balneo for the space of a month, then distil them in ashes till all be dry.
This Spirit is of great vertue in the Epilepsie, Gout, Dropse, Convulsions, being taken from two drams to half an ounce in some specificall Liquor.

To make a Spirit of Honey.

Take good Strong stale Mead, otherwise called Metheglin, as much as thou pleasest, distill in a Copper Still, or Alembick, with its Refrigeratory, and it will yield a Spirit like Aqua-vite.

The Quintessence of Honey is made thus.

Take of the purest Honey two pound, of Fountain water one pound; boil these together till the water be boiled away, taking off all the scum that riseth, then take the Honey and put it
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it into a Glass, four parts of the five being empty, close it well, and set in digestion a whole year, and thou shalt have the Essence of Honey swimming on the top, in the form of an Oyl, being of as fragrant a smell as any thing in the world; the phlegm will be in the middle, and the succulent matter in the bottom, of a dark colour, and flinking smell.

Some make the Quintessence of Honey after this manner.

Take as much Honey as thou pleasest, of the best, put it into a Gourd of Glass; first distil off the phlegm in Balneo, then extract the tincture out from what remains, with the said Water; then calcine the remaining feces, and extract from thence the Salt with the foresaid Water, being distilled off from the Tincture; calcine the Salt, and melt it in a Crucible, then let it dissolve in a Cellar; then again evaporate it away, and thou shalt have a most white Salt, which let imbibe as much of the Tincture as it will; digest them for three months, and thou shalt have an Essence of Honey.

An Essence of Honey may be made thus.

Take of Honey well despuiter as much as you please, pour upon it as much of the best rectified Spirit of Wine as will cover it five or six fingers breadth; digest them in a Glass-vessel well closed (the fourth part only being full) in a temperate Balneo, the space of a fortnight, or till the Spirit be very well tinged, then decant off the Spirit, and put on more till all the tincture be extracted; then put all these tinctures together, and evaporate the Spirit till what remains begin to be thicken at the bottom and of a golden colour.

This is a very excellent Essence of Honey, and is of so pleasant an odour, that scarce any thing is like to it.

It is so cordial, that it even revives the dying, if two or three drops thereof be taken in some Cordial Water.

A most strong Spirit of the Vinegar of Honey.

Take a pound of Honey, put to it of the best White-wine-vinegar.
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vinegar six pints, an ounce of white Pepper bruised small, of the strongest Mustard-seed bruised three ounces; put these into a Glass vessel, that three parts of four may be empty; digest them in a temperate Balsam, or set the Vessel in the Sun for the space of a fortnight, then distil them in Balsam, and thou shalt have a spirit far sharper than the common Spirit of Vinegar.

This Spirit is stronger, and better than any common distilled Vinegar for the dissolving of hard things, and extracting the tinctures out of things.

Oyl, or Quintessence of Wax.

Take of the best Wax a pound, as much of pure Sand well washed from all its impurity, and again dried; First melt the Wax, and then mix the Sand with it very exactly; then put them into a Glass-Retort well coated, fit a strong Receiver to it, and set it in Sand, give it fire by degrees, continuing it four days which at last must be very strong, and there will come off a spirituous Oyl, which must be rectified, seven times in a Glass Retort, every time changing the Retort, and you shall have a subtle Oyl of a golden colour.

This Oyl extracts the virtues out of all Flowers presently, being set in the Sun, it is wonderful Balsamical for the cure of wounds or ulcers, both inward, and outward; it also being applied outwardly, easeth all pains, quickens any dead members, as in the Palsy.

Water is made out of any Flesh thus.

Take what Flesh you please, the bloudiest part thereof, unwashed, being cut very small, and then bruised (or if it be a feathered fowl, take it being chased up and down, until it be wearied, and then suddenly strangled, the feathers being plucked off without putting of it into water, and being thus plucked bare, and the bowels taken out, cut the flesh, bones, gizzard liver, heart,) and pour upon it as much water as will be sufficient, with what spices and herbs thou pleaseth, then set it over a gentle fire in an earthen vessel glazed, the space of 24 hours, then put the head upon it and
and lute it close, and there will distil off a comfortable restorative water.

*Water, or Liquor, is made out of flesh thus.*

Take of what flesh you please, or feathered fowl prepared as before, bruise it small, and put it into a Copper vessel tinned within side, without any water being put to it, put a cover to it, and lute it close, and set it in *Batne*, or over the vapour of seething water, and if the flesh be tender, it will be turned into a clear Liquor the space of twelve hours; if harder, it will require a longer time: You may put into what spices of herbs you please, to give it a good relish and odour; after all is done, you may strain it and keep it for use, being very restorative and good for weak stomachs, that cannot conceit hard meat.

If this be digested in a Pellican or Bolt-head a fortnight, it will be far better.

After this manner may be preserved Snails, VVorms, &c. and such like, which are very medicinable.

*A very excellent Restorative Liquor.*

Take of the heart, lungs, and liver of a Calf, the same part of a Fox new killed, cut them small, put to them a quart of Shell-Snails well scoured in salt-water; let these be put into a Copper vessel tinned within side, and covered close, that no vapour come forth; set this vessel over the vapour of seething water, and in 24 hours, or thereabouts, they will be for the most part of them turned into a Liquor of themselves; then take out this Liquor, and put it into a large Pellican, or Bolt-head, putting to them a quart of old Malligo-wine, Rosemary-flowers, Betony-flowers, Marygold-flowers, Marsh mallow-flowers, of each a handful, half a pound of Raifsins of the Sun floned, Mace and Nur-meg, of each two drams, digest all these together the space of a fortnight, then pour off that which is clear from the faces, and sweeten it with Sugar, or Syrup of Gilly-flowers, and let the Patient take thereof five or six spoonsfuls, three or four times in a day. This
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This Liquor recovereth the decaying strength wonderfully; they that by reason of their weakness can neither eat, or digest any manner of common meat, will in a short time be sensibly strengthened, if they drink a quarter of a pint of this morning and evening.

It is very good in Consumptions, and repairsthe radical moisture marvelously.

A Balsom made of Bears-fat.

Take of Bears-fat a pound, distil it in a Retort, and rectifie it three or four times: to this thus rectified, put the tincture of Rosemary and Sage, made with Spirit of Wine, of each three ounces, mix them well together; in these infuse Cloves, Cinnamon, Saffron, Nutmegs, of each three drams, in warm ashes the space of a night, then strain them, and put to the Oyl four ounces of the best Wax melted, and mingled well together.

This is a most incomparable Balsom for the Gout, and Pallie.

The Oyl of Snakes and Adders.

Take Snakes, or Adders, when they are fat, which will be in June, or July; cut off their heads, and take off their skins, and unbowel them, and put them into a Glass gourd; and pour on so much of the pure Spirit of Wine well rectified, that it may cover them four or five fingers breadth, stop the Glass well, and set it in Balsam till all their substance be turned into an Oyl, which keep well stopp'd for your use.

This Oyl doth wonderful cures, in recovering hearing in those that be deaf, if a few drops thereof be put warm into the Ears.

A Noble-man of Germany, that was famous for curing the deaf, used this as his chiefest medicine, by which they say he cured those that were born deaf.

The Quintessence of Snakes, Adders, or Vipers.

Take of the biggest and fattest Snakes, Adders or Vipers, which
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which you can get in June, or July, cut off their heads, take off their skins and unbowel them, then cut them into small pieces, and put them into a Glass of a wide mouth, and set them in a warm Baine, that they may be well dried, which will be done in three or four days: then take them out, and put them into a Bolt-head, and pour on them of the best alcolizated Wine, as much as will cover them six or eight fingers breadth. Stop the Glass Hermetically, and digest them fifteen days in Baine, or so long till the Wine be sufficiently covered, which pour forth; then pour on more of the forelaud Spirit of Wine till all the Quintessence be extracted: Then put all the tinged spirits together, and draw off the spirit in a gentle Baine, till it be thick at the bottom; on this pour Spirit of Wine cariphyllated, and stir them well together, and digest them in a Circulatory ten days, then abstract the Spirit of Wine, and the quintessence remaineth at the bottom perfect.

This Quintessence is of extraordinary vertue for the purifying of the blood, flesh and skin, and consequently of all diseases therein. It cures also the Falling-sickness, and strengthens the Brain, Sight, and Hearing, and preserveth from Gray-hairs, reneweth Youth, preserveth Women from Abortion, cureth the Gout, Consumption, causeth sweat, is very good in, and against Pestilential infections.

Viper-Wine is made thus.

Take the best fat Vipers, cut off their heads, take off their skins, and unbowel them, then put them into the best Canary-sack, four or six, according to their bigness into a gallon: Let them stand two or three months, then draw off your VVine as you drink it.

Some put them alive into the wine, and there suffocate them, and afterwards take them out, and cut off their heads, take off their skins, and unbowel them, and then put them into the said wine again, and do as before.

This VVine hath the same vertues as the fore-going Quintessence; it also provoketh to Venery, and cures the Leprotie, and such like corruption of blood.
Kunrath's famous Water, called Aqua-Magnanimitatis,

Take of Pismires, or Ants, (the biggest, that have a fowish smell, are the best) two handfuls, Spirit of VVine a Gallon; digest them in a Glafs-vessel close shut, the space of a month, in which time they will be dissolved into a Liquor; then distil them in Balneo, till all be dry: Then put the same quantity of Ants as before, digest, and distil them in the said Liquor as before: do this three times, then aromatize the Spirit with some Cinnamon.

Note, that upon the Spirit will float an Oyl, which must be separated.

This Spirit is of excellent use to stir up the Animal spirit: in so much, that John Casimir Palgrave of the Rhine, and Seyfrie of Collem, General against the Turks, did always drink of it when they went to fight, to increase Magnanimity and Courage, which it did even to admiration.

This Spirit doth also wonderfully irritate them that are slackful to Venery.

It also provoketh Urine even to admiration.

It doth also wonderfully irritate the spirits that are dulled, and deaded with any cold distemper.

This Oyl doth the same effect; and indeed more powerful.

This Oyl doth besides what is spoken of the Spirit, help deafness exceedingly, two or three drops being dropped into the Ear, after it is well syringed, once in a day, for a week together.

It helpeth also the Eyes that have any film growing on them, being now and then dropped into them.

Another Aqua-Magnanimitatis is made thus.

Take of Ants, or Pismires, a handful, of their Eggs two hundred, of Millepedes, (i.) VVoodlice one hundred, of Bees one hundred and fifty; digest all these in two pints of Spirit of VVine, being very well impregnated with the brightest Soot: Digest them toge-
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Together the space of a month, then pour off the clear spirit, and keep it safe.
This water, or spirit, is of the same virtue as the former.

Water of Dung is made thus.

Take of any dung as much as thou pleasest, whilst it is fresh, put it into a common-cold Still, and with a soft fire distill it off; it will be best, if the bottom of the Still be let over a vapour; if thou wouldst have it be stronger, cohabate the said water over its feces several times; for we see there is great virtue in dung, it makes ground fertile, and many sorts thereof are very medicinal.

A Water of Dove's dung is made thus.

Take of Dove dung dry'd as much as you please, to every pound put a pint of Rhemish-wine, in which let it steep all night in a gentle Balneo, then distill it in a Glass-gourd in Stoves: Cohabate this Liquor three times; if there be any Volatile Salt, mix it with water.

This water is very excellent against all obstructions of the Kidneys, Bladder; it helpeth the Jaundice presently, two or three spoonsfuls thereof being drank once every morning and evening.

A Water being made of Horse dung.

Take of the dung of a Horse, that is fed in the stable as much as you please; let it stand two days out of the Sun, and out of the wet, to every pound of this pour a pint of White-wine, let them stand in a warm Balneo a fortnight; then distill them in a Glass-gourd in Sand, cohabate this three or four times; if there be any volatile Salt, mix it with the water.

This water is very excellent against the Bastard plurisse, Stitches, VVind, obstruction of the Reins, Bladder, very good in a Dropse, Jaundice, Scurvy, &c. If three or four spoonsfuls be taken every morning in the water of Juniper-berrys, it also causeth sweat.
A Water smelling like Amber made by Paracelsus out of Cow-dung.

Take of Cow-dung, and distil it in Balneo, and the water thereof will have the smell of Amber-grieve.
This water is very excellent in all inward inflamations.

An excellent Sudorific made of the young buds of Harts-horn.

Take of the young buds of Harts-horn, whilst they are full of blood and moisture; bruise them into a paste, then mix as much Canary-wine as will make a very thin paste; distil them in ashes till they be very dry.

This is an excellent Sudorific in all burning Feavers and Epidemical diseases; if a spoonful be taken by it self, or in any appropriated Liquor.

Oyl out of Bones, and Horns, is made thus.

Take of what Bones you please, reduce them to a gross powder, put them into a Retort putting a strong fire by degrees thereunto; and there will come forth an Oyl, and volatile Salt, both which thou maist mix together, and digest them into an Essence, the Oyl being first rectified with Spirit of Vine.

The Water of Swallows against the Falling-sickness.

Take of Swallows, cut into pieces without separating anything from them six ounces, of Castoreum cut small an ounce; mix them together, infuse them twelve hours in half a pint of Canary-wine, then put them into a Glass gourd, and distil them in Sand till all be dry, then cohabate the Liquor three times.

This Water being drank to the quantity of two spoonfuls every morning, cureth them that have the Falling-sickness.
Oyl out of Eggs is made thus.

Take of the yeoks of Eggs boyled very hard, rub them in pieces with your fingers, then fry them in a pan over a gentle fire, continually stirring them with a spoon till they become red, and the Oyl be resolved, and flow from them, then put them into a hair-cloth, and so press forth the Oyl.

This Oyl cleaneth the skin from any filthiness contracted by heat; it cureth Pustules, Chaps, Excoriations, Ring-worms, but especially all burnings.

A Water of the Whites of Eggs that will cure a Wound without any visible Scar.

Take as many Eggs as you please, boil them very hard, then cut them into the middle, and take out the yeoks, filling up the cavities, with some of those whites being first bruised into a paffle, then put both sides of the Eggs together as before, and tie them together with a thread, and with a string hang them in the middle of a Gourd-glass, that they touch not the sides, stop this Glass very close, and set it in Balneo, and you shall see those whites which were bruised drop down into a Liquor which you must gather up out of the bottom of the Glass, and keep.

You will have very little of this Liquor.

This Liquor applied to any green wound with a feather, cures it presently, wherefoever it be, without any visible scar. It cures most wonderfully all wounds in the Eyes.

A Water of Crabs is made thus.

Take Crabs, or Craw-fish, as many as you please, break them in pieces, then macerate them in water of Sourgren for the space of a day, then distil them, cohobate the water three times.

This Water is of singular vertue in all manner of inflammations inward and outward.
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An Oyl, or Liquor, is made out of Crabs eyes thus.

Take of Crabs-eyes, very finely powdered, five parts, Oyl of Tartar per Deliquium six parts: (This Oyl of Tartar, must be made of Salt of Tartar, after it hath flowed in the fire;) digest them in Horse-dung the space of a month, then coagulate the Liquor, and make an extraction with the best rectified spirit of wine that can be made, or else you lose your labor; then evaporate the spirit of Wine, and there remains an Oyl at the bottom.

This Oyl is of wonderful vertue in putrid Feavers, and such like distempers; also in all obstructions especially of the Kidneys.

Water of Spawn of Frogs is made thus.

Take of the Spawn of Frogs gathered in March, as much as you please, put a halvdial of Salt to every quart, and put them into a common cold Still, and with a gentle fire distill off the Water till no more will distill.

A compound Water of the Sperm of Frogs.

Take of the Sperm of Frogs gathered in March, about the new of the Moon four pound, of Cow-dung fresh six pound; mix them well together, and let them stand the space of a day, then distill them in ashes.

This water allayes all hot pains both inward, and outward, especially of the Gout.

Another compound Water of the Sperm of Frogs.

Take of the Sperm of Frogs gathered in March, two pound and half, the Urine of a young man three pints, new Treacle two ounces and a half, white Vitriol, Salt, Allum, of each four ounces, then distill them, and put to the Water an ounce and half of the Salt of Vitriol, Camphire, and Saffron, of each an ounce.

This water being applied outwardly, helpeth all pains, especially of the Gout, and such like; also allayeth hot or cold swellings; it also stauncheth bleeding.
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A Miscellany of Spagirical Experiments, and Curiosities.

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The Spagirical Anatomie of Water.

Water seems to be a body so very Homogeal, as if neither Nature or Art could discover any Heterogeneity in the parts thereof: Thus indeed it seems to the eye of the Vulgar, but to that of a Philosopher far otherwise; as I shall endeavour to make credible, by presenting to your consideration a twofold process of the discovering the dissimilarity parts thereof; whereof the one is natural only, and the other artificial: But before I speak of either, it must be premised, that in the element of water there is great plenty of the Spirit of the world, which is more predominant in it, than in any other element, for the use, and benefit of universal Nature; and that this Spirit hath three distinct substances, viz. Salt, Sulphur, and Mercury. Now by Salt, we must understand a substance very dry, vital, and radical, having in it the beginning of corporification, as I may so call it: by Sulphur, a substance, full of light, and vital heat,
hearth, or vivifying fire, containing in it self the beginning of motion, by Mercury, a substance abounding with radical moisture, with which the Sulphur of life, or vital fire is cherished, and preserved. Now these substances which are in the Spirit of the World, make all Fountains, and Waters, but with some difference, according to the predominancy of either, This several predominancy thereof, is ground of the variety of productions; I say, of productions, because all things are produced out of water: for Water is both the Sperm, and the Menstruum of the World; the former, because it includes the seed of every thing; the latter, because the Sperm of Nature is purrified in it, that the seed included in it should be actuated, and take upon it the divers forms of things; and because, by it the seed itself, and all things produced of seed grow, and are increased. Now this being premised, I shall shew you how the natural process is, which I shall make plain by instancing in three several productions, viz. of the Spawn of Frogs, of Stones, and of Vegetables.

The spawn of Frogs is produced after this manner; viz. The Sulphur which is in the Water, being by the heat of the Sun resolved, and dissolved, is greedily, and with delight conceived by the element of water, even as the Sperm of a Male is by the matrix of the Female, and that upon this account. The water wants ficity, which the sulphur hath, and therefore exceedingly desiring it, doth greedily attract it to itself. Sulphur also wants humidity, and therefore attracts the humidity of the water: Moreover the humidity of the water, hath the humidity of the salt laid up occultly in it: also the Sulphur cherisheth the ficity of the fire, and desires nothing more than the humidity of the Salt, that is in the water. Sulphur also contains the ficity of the Salt, whence it is that Salt requires a ficity from the Sulphur. And thus do these attractive virtues mutually act upon each other's subject. Now by this means there is a conception made in the water, which now begins to be turgid, puffed up, and troubled, as also to be grosser, and more slimie, until out of the spermatick vessels, the Sperms be cast upward, in which Sperms after a while appear black specks, which are the seed of the Frogs, and by the heat of the Sun, are in a short time turned into
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2. Stones are produced out of water that have a mucilaginous Mercury, which the Salt, with which it also abounds, fixeth into stones: Thus you may see cleared by putting stones into water, for they will after a time contract a mucilaginous slimy matter, which being taken out of the water, and set in the Sun, becomes to be of a stony nature. And whence comes those stones, gravel, and sand, which we see in springs? They are not washed down out of the Mountains and Hills (as some think) from whence the water spring, neither were they in the earth before the springs brake forth (as some imagine) and now appear by washing away of the earth from them; for if you dig round about the springs, even beyond the heads of them, you shall find no stones at all in the earth, only in the veins thereof through which the water runs: Now the reason of the smallness of these stones is the continual motion of water, which binders them from being united into a continued bigness. I shall make a further confirmation of this in the artificial process of manifesting the heterogeneity of water. I shall here only add the assertion of Helmont, saying, that with his Alkali all stones, and indeed, all things may be turned into water: If so, then you know what the Maxime is, viz. All things may be resolved into that from whence they had their beginning.

3. Vegetables are produced out of water, as you may clearly see by the waters sending forth plants that have no roots fixed in the bottom; of which sort is the heebre called Duck-weed, which putteth forth a little string into the water, which is as it were the root thereof. For the confirmation of this, that this herb may be produced out of the water, there is a Gentleman at this time in the City, of no small worth, that saith he had fair water standing in Glasses divers years, and at last a plant sprang out of it. Also if you put some plants, as Water-mint, &c. into a Glass, of fair water, it will germinate, and shoot out into a great length, and also take root in the water, which root will in a short time be so increased, and extended, as to fill up the Glass; but you must remember, that you put fresh water into the Glass once in two or three days. Hereunto also may be added the experiment
of Helmont, concerning the growth of a tree; For (faith he) I took two hundred pound weight of earth dried in an oven, and put it into a vessel, in which I set a Willow-tree which weighed five pound, which by the addition of water to the earth, did in five years time grow to such a bigness, as that it weighed 169 pound; at which time I also dried and weighed the earth, and within two ounces it retained its former weight. Besides, the Ancients have observed, that some hearths have grown out of snow, being putrified: and do not we see that all Vegetables are nourished, and increased with an insipid water, for what else is their juice? If you cut a Vine in the month of March, it will drop divers gallons of insipid water, which water, if it had remained in the trunk of the Vine, would in little time have been digested into Leaves, Stalks, and Grapes, which Grapes also by a further maturation would have yielded a Wine, out of which you might have extracted a burning spirit: Now I say, although this insipid water be by the specific Sulphur and Salt of the Vine, fixed into the Stalks, Leaves, and Grapes of the Vine, yet these give it no corporificative matter, for that it had before, and an aptitude and potentiality to become what afterwards it proves to be: for indeed Stalks, Leaves, and Grapes, were potentially in it before, all which now it becomes to be actually, by virtue of the Sun, and of the aforesaid Sulphur and Salt, whereof the two latter were originally in the small seed; and therefore as I said, could not add any bulk to them.

Moreover, Do not we see, that when things are burnt and putrefied, they ascend up into air by way of vapour and fume, and then descend by way of insipid dew, or rain? Now what do all these signify, but that from water, are all things produced, and in it are dissimilar parts?

a. The artificial process is this: Take of what water you please, whether Well-water, Fountain, River, or Rain-water, as much as you please; let it settle three or four hours, until the slime thereof separates itself: then digest it the space of a month; after which time evaporate the fourth part, by a very gentle heat, and cast it away, being but the phlegm; then distil off the remainder of the water, till the seces only be left, which seces
will be a slimy saltish substance: This middle substance distill again as before, casting away every time the fourth part, as phlegm, and keeping the feces by themselves for further use; and this do seven times. Note, that after the fourth or fifth distillation, the water will distill over like milk, colouring the head of your still, so that it can hardly be washed or scoured off. This pure water after the seventh distillation will leave no feces behind: and if you digest it three months, it will be coagulated into stones and crystals, which some magnifie very much for the cure of inward, and outward putrefactions; out of which also may be made a dissolving spirit. Note, that as this water stands in digestion, you may see divers curious colours. Now as for the feces, which I spake of, (which indeed, all waters, even the sweetest leave at the bottom) being as I said, a saltish slime, and in taste, as it were, a medium betwixt salt, and nitre; take them and distill them in a Retort in sand, and there will first come forth a white fume, which being condensed descendeth in a straight line to the bottom, next will come over a red oyl of great efficacy, exceeding the virtues of the spirit of salt, or nitre. For confirmation of part of this process, take May-dew gathered in a morning, (when it hath not rained the night before) and put it into a glass vessel, covered with a parchment pricked full of holes, and set it in the heat of the sun for the space of four months, and there will store of green feces fall to the bottom, the residue of the water being white and clear. Now by all this, you may conclude, what manner of dissimilarity there is in the parts of water. I shall add but one observation more, and so conclude this subject.

Take a flint of river water, and put it into a glass vessel, pour upon it as much river water as will fill the glass, evaporate this water till the flint be dry, then pour on more fresh water; do this so long till the flint will fill up the glass, (for in a little time it will fill it up, and become to be of the form of figure of the glass) for it attracts to itself the mucilaginousness of the water, which indeed, is a slimy saltish matter, and the true matter of stones. And thus thou shalt have that done by art in few days, which Nature would have been perfecting many years; and indeed, just such a flint as is produced in the rivers. Any one that should

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should see this Flint in the Glass, would wonder how it should come in there. You may break your Glass, and take out your Flint.

There are divers such processes which may be used, but in effect, they demonstrate but little more concerning the potential heterogeneity of water; and therefore to avoid tediousness, I shall here end with the Anatomy of water, concerning which, if any one can make a further illustration, let him be candid and impart it; and I shall be glad to learn of him, and in the meantime, let him accept of these my endeavours.

The Spagyrical Anatomy of Wine.

I shall not speak here of the juice of Grapes, as being naturally divided into Wine, Tartar, and Lees; but of wine as artificially divided into pure Spirit, Phlegm, and Fumes.

1. The Spirit is that hot, subtle, pure, clear, cordial, and balsamical substance, which arises with a small heat after four or five distillations, being indeed, but the twentieth part of the wine. This Spirit is not that inebriating substance of the wine, as most think; for a man may drink the spirit that is extracted out of ten pints of wine, without distempering of his brain at all, when as perhaps, he would be distempered with drinking a pint or two of the wine.

Now this Spirit contains in it a subtle Armoniack, and essential Sulphur inseparably conjoin'd, which indeed, are the life of the Spirit, and may be separated from the Mercurial, or watery part thereof, which after separation of them, remains insipid, but yet of wonderful subtility. They may be separated thus: First, rectifie the spirit as high as you can the ordinary way; then rectifie it once or twice in these following vessels.
Note, that if there be any flewm remaining in the Spirit, it will go no further than the middle Receiver, especially the second time. By this means thou shalt have so subtle a Spirit, that unless it be kept in a vessel close stop'd, it will fly away in the air. Then take of this Spirit two ounces, and pour it upon six ounces of calcined Tarrar, before the Salt be extracted, and mingle them well together; then distil it in Balneo, and there will come over an insipid water, which, as I said before, is very
very subtle, then put on a like quantity of the said spirit as before, and distil it off, and thus do so long till the water that comes over, is not insipid, but the spirit comes over again hot as it was poured on: for by this time the fixed matter is glutted with the Salt Armoniack, and Sulphur of the spirit. Then put this dried matter into a glass sublimatory, and put fire to it, and there will sublime a salt from thence, even as Camphire is sublimed. This salt is the true Essence of Wine indeed, and its virtues are wonderful, for there is no disease, whether inward or outward, that can withstand it. This is that Essence of Wine of the Philosophers, which is so penetrating, a wonderful cordial, and balsamical, which if thou dost once obtain, thou shalt need but few other medicines.

Now this Spirit or Aqua-vite is in all Vegetables, as you may see in Malt, and Vegetables that are purrified before they be distilled, which then yield a burning Spirit; yet it is in Wine more than in any other Liquors; I say Liquors, for if you take eight gallons of Sack, and as much Wheat, which is a solid body, the Wheat being malted will yield more Aqua-vite than the Sack.

2. The flegm is that which remains after the spirit is distilled off, and is a putrid, insipid, cold, narcotic, and inebriating Liquor, debilitating the stomach, and offending the head. A few spoonfuls of this will presently make a man drunk, nay, the flegm of half a pint of Wine will make a man drunk, when as two pints of Wine it self would hardly do it: whence you may collect what a great corrector of Malignant Spirits and vapours, the Spirit of Wine is; which, whilst it is mixed with the flegm before distillation doth temper and correct this inebriating quality thereof, and as it doth thus, so also being given (I mean the pure dephlegmated Spirit) to them that are already inebriated, doth much allay their distemper. This flegm therefore being of so narcotic a quality is the cause of Pallas, and such like distempers.

Moreover, it is to be observed that when this flegm is distilled off, there remains at the bottom a visous corrosive matter, which, by reason of its viscosly is the cause of obstructions, and by reason of its corrosiveness is the cause of the gout, collick, stone, &c.
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3. This seces being distilled, yields a sharp Spirit, and stid Oyl, which leave behind, them a saltish substance, out of which, when the Salt is extracted, there remains an insipid Earth.

Now, if any shall object against what I have asserted, and say, that Aqua vitae, or Spirits of Wine, are inebriating, the cause of Palse, Gout, Stone, Colick, week Stomachs, and such like, as we see by daily experience in those that are given to the drinking of these Liquors: to which I answer, it is true; but then I must distinguish of Aqua vitae, and Spirit of Wine, for there is a common Aqua vitae, and Spirit of Wine, of which also they make Aniseed-water, by putting a few Aniseeds thereunto, and other such like Waters, as Clove, Angelica, Lemmon, &c. With which this Nation is most abominably cheated, and their health impaired. But these are not rectified thoroughly, and three parts of four of them are insipid Narcotick phlegm, containing in it the seces I spoke of, all which, I can in a day separate from the true pure spirit, which spirit rather prevents, than caueth such distempers: And the truth is, all the goodness of the Wine is from this pure spirit.

The famous Arcanum, or Redor's true Medicament of Paracellus, called his Homunculus.

First, we must understand, that there are three acceptions of the word Homunculus in Paracellus, which are these:

1. Homunculus is a superstitious Image made in the place, or name of any one, that it may contain an astral and invisible man; wherefore it was made for a superstitious use.

2. Homunculus is taken for an artificial man, made of Sperma humanum Masculinum, digested into the shape of a man, and then nourished and increased with the essence of man's blood; and this is not repugnant to the possibility of Nature, and Art. But is one of the greatest wonders of God, which he ever did suffer mortal man to know. I shall not here set down the full process, because I think it unfit to be done, at least to be divulged: besides, neither this, nor the former, is for my present purpose.

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3. Homunculus is taken for an excellent Arcanum, or Medicament, extracted by the Spagyrical Art, from the chiefest staff of the natural life in man, and according to this description, I shall here speak of it: But before I shew you the process, I shall give you an account why this Medicament is called Homunculus; and it is this.

No wise man will deny, that the staff of life is the nutriment thereof; and that the chiefest nutriment is Bread and Wine, being ordained by God, and Nature, above all other things, for the sustentation thereof. Besides, Paracelsus preferred this nutriment for the generation of the blood and spirits, & the forming thence the sperm of his Homunculus. Now by a suitable allusion the nutriment is taken for the life of man; and especially because it is transmuted into Life: and again, the life is taken for the man; for unless a man be alive, he is not a man, but the carcass only of a man, and the baste part thereof, which cannot perfectly be taken for the whole man, as the noblest part may. In as much therefore as the nutriment, or aliment of life, may be called the life of man; and the life of man be called man; this nutriment extracted out of Bread, and Wine, and being by digestion exalted into the highest purity of a nutritive substance, and consequently becoming the life of a man, being so potentially, may metaphorically be called Homunculus.

The process, which in part shall be set down allegorically, is thus: Take the best Wheat, and the best Wine, of each a like quantity, put them into a Glass, which you must Hermetically close; then let them purifie in Horse-dung three days, or until the Wheat begin to germinate, or to sprout forth, which then must be taken forth, and bruised in a Mortar, and be pressed through a linen cloth, and there will come forth a white juice like Milk; you must cast away the feces: Let this juice be put into a Glass, which must not be above half full; stop it close, and set it in Horse-dung, as before, for the space of fifty days; If the heat be temperate, and not exceeding the natural heat of a man, the matter will be turned into a spagyrical Blood, and flesh, like an Embryo. This is the principal, and next matter, out of which is generated a twofold sperm viz. of the father and mother, generating the Homunculus, without which,
which, there can be made no generation, whether humane, or animal.

From the blood, and flesh of this Embryo, let the water be separated in Balneo, and the air in ashes, and both be kept by themselves. Then to the sexes of the latter distillation, let the water of the former distillation be added: both which must (the Glass being close) putrefie in Balneo, the space of ten days, after this distil the water the second time, (which is then the vehiculum of the fire) together with the fire in ashes; then distil off this water in a gentle Balneo, and in the bottom remains the fire which must be distilled in ashes. Keep both these apart. And thus you have the four Elements separated from the Chaos of the Embryo.

The feculent earth is to be reverberated in a close vessel for the space of four days: In the interim distil off the fourth part of the first distillation in Balneo, and cast it away; the other three parts distil in ashes, and pour it upon the reverberated earth, and distil it a strong fire; cohabit it four times, and so you shall have a very clear water, which you must keep by itself: Then pour the air on the same earth, and distil it in a strong fire, and there will come over a clear, splendid, odoriferous water, which must be kept apart. After this, pour the fire upon the first water, and putrefie them together in Balneo the space of three days, then put them into a Retort, and distil them in Sand, and there will come over a water tasting of the fire: let this water be distilled in Balneo, and what distils off, keep by itself, as also what remains in the bottom, which is the fire, keep by itself. This last distilled water pour again upon its earth, and let them be macerated together in Balneo for the space of three days, and then let all the water be distilled in Sand, and let what will arise be separated in Balneo, and the residuum remaining in the bottom be reserved with the former residuum. Let the water be again poured upon the earth, be abstracted, and separated as before, until nothing remain in the bottom, which is not separated in Balneo. This being done, let the water which was last separated be mixed with the residue of its fire, & be macerated in Balneo three or four days, and all be distilled in Balneo, that can ascend with that heat, and let what remains be distilled in ashes from the fire, and what shall


be elevated is aerial; and what remains in the bottom is fiery. These two last Liquors are ascribed to the two first principles, the former to Mercury, and the latter to Sulphur, and are accounted by Paracelsus, not as elements, but their vital parts, being, as it were, the natural Spirits and Soul, which are in them by nature. Now both are to be rectified, and reflected into their center with a circular motion, that this Mercury may be prepared with its water, being kept clear, and odoriferous in the upper place, put the Sulphur by itself. Now it remains, that we look into the third principle: let the reverberated earth, being ground upon a Marble, imbibe its own water, which did above remain, after the last separation of the Liquors made in Balneo, so that this be the fourth part of the weight of its earth, and be congealed by the beat of ashes into its earth, and let this be done so oft the proportion being observed, until the earth hath drunk up all its water. And lastly, let this earth be sublimed into a white powder, as white as snow, the feces being cast away. This earth being sublimed, and freed from its obscurity is the true Chaos of the Elements, for it contains those things occult, seeing it is the Salt of Nature, in which they lye hid, being, as it were, reflexed in their center. This is the third principle of Paracelsus, and the Salt; which is the matrix, in which the two former sperm, viz. of Mercury, and Sulphur are to be put, and to be closed up together in a glazed womb, sealed with Hermes seals for the true generation of the Homunculus produced from the Spagyrical Embryo: and this is the Homunculus, or great Arcanum, otherwise called the nutritive Medicament of Paracelsus.

This Homunculus, or nutritive Medicament is of such vertue, that presently after it is taken into the body it is turned into blood, and spirits. If then diseases prove mortal, because they destroy the Spirits, what mortal disease can withstand such a medicine, that doth so soon repair, and so strongly fortifie the spirits, as this Homunculus, being as the Oyl to the flame, into which it is immediately turned, thereby renewing the same. By this Medicament therefore, as diseases are overcome, and expelled, so also youth is renewed, and gray hairs prevented.
An artificial way to make flesh.

Take of the Crumbs of the best Wheaten bread as soon as it comes forth out of the Oven, being very hot, as much as you please; put it into a Glass vessel, which you must presently Hermetically close. Then set it in digestion in a temperate Balnea the space of two months, and it will be turned into a fibrous flesh.

If any Artist please to exalt it to a higher perfection, according to the rules of Art, he may find out, how great a nourisher and restorative Wheat is; and what an excellent medicine it may make.

Note, that there must be no other moisture put into the Glass, besides what is in the bread itself.

Paracelsus his way for the raising of a dead Bird to life, and for the generating many Serpents of one, both which are performed by putrefaction.

A Bird is restored to life thus, viz. Take a Bird put it alive into a Gourd-glass, and seal it up Hermetically, burn it to ashes in the third degree of fire, then putrefie it in Horse-dung into a mucilaginous phlegm, & so by a continued digestion, that phlegm must be brought to a further maturity (being taken out, and put into an oval vessel of a just bigness to hold it) by an exact digestion, and will so become a renewed Bird: which faith Paracelsus is one of the greatest wonders in Nature, and shews the great vertue of putrefaction.

2. Cut a Serpent into small pieces, which put into a Gourd-glass, which you must Hermetically seal up, then putrefie them in Horse-dung, and the whole Serpent will become living again in the Glass, in the form either of worms, or Spawn of Fishes; now if these worms be in a fitting manner brought out of the putrefaction, and nourished, many hundred Serpents will be bred out of one Serpent, whereof every one will be as big as the first. And as it is said of the Serpent, so also many other living creatures may be raised, and restored again.
To make artificial Mallago Wine.

First take a VVine-barrel well hooped, and dressed, with one end being open, to which a close cover must be well fitted, which must be to take off and put on at pleasure; Set it in a warm place VVinter or Summer, fill it full with clear and pure water, to each three gallons, put six pound of the best Mallago Raisins, which you must bruise in a Stone-Mortar, and then throw upon the water, upon each twenty Gallons of which, you must cast a handful of Calx-vive, then cover the vessel close with the cover, and cast clothes upon it to keep it warm, and let it stand four or five days, to work as VVine or Beer do, when they be new; then see if the Raisins be risen up to the top of the water; if so, then put them down again, and cover it again as before; let them thus stand three weeks or a month together, the Raisins being every fourth or fifth day put down in case they rise up. Then put a tap into the vessel three or four fingers above the bottom, and try if it be good, and taste like VVine; if not, let it stand a while longer; but if so, draw it off into another VVine-vessel, and to every twenty gallons that you have drawn off, put a pint of the best Aqua-vite, two new laid Hens-eggs, and a quart of Alligant beaten well together, and let it stand in a cellar, as other wine doth, till it be clear and fit to be drunk.

To make an artificial Claret-Wine.

Take six gallons of water, two gallons of the best Cidar, put thereunto eight pound of the best Mallago-Raisins bruised in a Mortar; let them stand close covered in a warm place the space of a fortnight, every two days stirring them well together; then press out the Raisins and put the Liquor into the said vessel again, to which add a quart of the juice of Raspberries, and a pint of the juice of Black-cherries, cover this Liquor with Bread spread thick with strong Mustard, the Mustard-side being downward, and so let it work by the fire-side three or four days, then turn it up, and let it stand a week, and then bottle it up. And it will taste as quick as bottle Beer, and indeed, become a very pleasant drink,
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and indeed far better, and wholesome than our common Claret.

An artificial Malmsey.

Take two gallons of English Honey, put it into eight gallons of the best Spring-water, set these in a vessel over a gentle fire, when they have boiled gently an hour, take them off, and when they be cold, put them into a small Barrel, or Runlet, hanging in the vessel a bag of Spices, and set it in the Cellar, and in half a year you may drink thereof.

To make an excellent aromatical Hypocras.

Take of Cinnamon two ounces, Ginger an ounce, Cloves and Nutmegs, of each two drams, of white Pepper half a dram, of Cardamums two drams, of Musk-Mallow-seed, three ounces. Let all these be bruised, and put into a bag, and hanged in six gallons of Vine. Note, that you must put a weight in the bag to make it sink.

Some boil these Spices in wine, which they then sweeten with Sugar, and then let run through a Hypocras-bag, and afterwards bottle it up, and use when they please.

A single Hypocras-bag, or Manica Hippocratis.
When you would have this or any other Liquor to be very clear, you may use the triple Hypocras bag, for what seces palfeth the first will stay in the second, and what in the second will stay in the last.

Note that these bags must be made of white Cotton.

A triple Hypocras bag is only one hanging above another after this manner.

To make excellent Hypocras Wine in an instant.

Take of Cinnamon two ounces, Nutmegs, Ginger, of each half an ounce, Cloves two drams, bruise these small, then mix them with as much spirit of Wine as will make them into a paste, let them stand close covered in a Glass the space of six days in a cold place, then press out the Liquor, and keep it in a Glass.

A few drops of this Liquor put into any Wine giveth it a gallant relish, and odour, and maketh it as good as any Hypocras whatsoever, and that in an instant.

Note; that if the Wine be of itself harsh, it will not be amiss to sweeten it with Sugar, for thereby it is made far more grateful.
Another way to make Hypocras, or to make any Wine to taste of any Vegetable in an instant.

Take what wine you please, and according as you would have it taste of this or that spice, or any other vegetable, of one or more together, you may drop a few drops of the distilled Oyl of the said spices, or vegetables into the Wine, and brew them well together, and you may make, in an instant all sorts of Hypocras or other Wines: as for example, if you would have Wormwood wine, two or three drops of Oyl of Wormwood put into good Rhenish wine, being well brewed together, will make a Wormwood wine exceeding any that you shall meet withal in the Rhenish wine houses.

To make good Raspberry wine.

Take a gallon of Sack, in which let two gallons of Raspberries stand steeping the space of twenty four hours, then strain them, and put to the Liquor three pound of Raisins of the sun molten; let them stand together four or five days, being sometimes stirred together. Then pour off the clearest, and put it up in bottles, and set it in a cold place. If it be not sweet enough, you may add some Sugar to it.

Two other ways to make it all the year at an instant.

Take of the juice of Raspberries, put it into a bottle, which you must stop close, and set in a cellar, and it will become clear, and keep all the year, and become very fragrant.

A few spoonfuls of this put into a pint of wine sweetened well with Sugar gives it an excellent and full taste of the Raspes.

If you put two or three ounces of the Syrup of Raspes to a pint of Vine it will do as well, but then you need use no other sugar, for that will sweeten it sufficiently.
To make Mead or Metherglin that it shall tast stale, and quick, within a fortnight, and be fit to drink.

To every three gallons of water, put one gallon of the purest Honey, put what herbs and spices you please, boil it, and skim it well, now and then putting in some water: when it is sufficiently boiled, take it off, and when it is almost cold, put it into a wooden vessel, and set it by the fire side, cover it over with bread spread thick with the strongest Mustard, the Mustard side being downwards, and so let it stand three days, and it will work, only put a cloth over it: Then turn it up, and after a week, draw it forth into bottles, and set it into a cellar; and after a week more you may drink of it, for it will last as quick as bottle beer that is a fortnight old, and indeed as stale as other Mead will in half a year.

To make a Spirit of Amber-griese, that a few drops thereof shall perfume a pint of Wine most richly.

Take of Amber-griese two drams, of Musk a dram, cut them small, and put them into a pint of the best rectified Spirit of wine, close up the Glass hermetically, and digest them in a very gentle heat till you perceive they are dissolved: Then you may make use of it.

Two or three drops or more if you please of this Spirit, put into a pint of wine, give it a rich odour.

Or if you put two or three drops round the brims of the glass, it will do as well.

Half a spoonful of it taken either of it itself, or mixed with some specifical Liquor, is a most rich Cordial.

An excellent sweet Water.

Take a quart of Orange-flower water, as much Rose-water, add thereto of Musk-willow-leeds grossely bruised four ounces, of Benjamin two ounces, of Storax an ounce, of Labdanum six drams, of Lavender flowers two pugsils, of sweet Marjoram
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as much of Calamus Aromaticus a dram, distil all these in a glass-still in Bainœ, the vessels being very well closed, that no vapour breath forth.

Note, that you may make a sweet water in an Instant, by putting a few drops of some distilled Oyls together into some Rose-water, and brewing them well together.

To purifie and to give an excellent smell, and cast unto Oyl-Olive, that they that loath it, may delight to eat it.

Take of a good sort of Oyl-Olive, though not of the best, put the same into a vessel of earth or copper, that hath a little hole in the bottom thereof, which you may stop with wax or a cork, so open at your pleasure. In this vessel for every quart of Oyl add four quarts of fair water, and with a wooden spackle, or spoon, beat them well together for a quarter of an hour space; and when you have so done, open the hole in the bottom, and let out the water, for the Oyl doth naturally float above, as being the lighter body; and as soon as the water is passed away, stop the hole, and put in other cold water, and begin a new agitation as before, and work in the like manner divers times as you did at the first, till in the end the Oyl be well cleansed, and clarified. If the last time you work it with Rose-water it will be so much the better; then hang in the midst of the Oyl a course bag full of Nutmegs sliced, and Cloves bruised, and the rinds of Oranges and Lemons cut small, and set the vessel in Bainœ for two or three hours, and I suppose he that loathes Oyl will be easily by this means drawn to a liking of it.

Another way.

Set Oyl-Olive in the sun in summer-time until there settle good frore of foul, and gros Lees, from the which by declination pour out the clear Oyl, and keep it till the next winter, and after the same hath been conjealed with some frosty weather, the Oyl will be most sweet, and delectable to the taste.
After this manner you may clarify all thick Oyls, and all kinds of grease, but then you must use warm water in stead of cold.

To purifie Butter that it shall keep fresh and sweet a long time, and be most wonderful sweet in taf.

Dissolve Butter in a clean glazed or silver vessel, and in a pan or kettle of water, with a slow and gentle fire; then pour the same so dissolved, into a basin that hath some fair water therein, and when it is cold, take away the curds, and the whey that remain in the bottom. And if you will be at the charge thereof, you may the second time (for it must be twice dissolved) dissolve the Butter in Rose-water, working them well together: the Butter thus clarified will be as sweet in taf as the marrow of any beast; by reason of the great impurity that is removed by this manner of handling, the fifth part thereof being dross, which makes the Butter many times offensive to the stomach.

To make butter taste of any vegetable without altering the colour thereof.

When the Butter is taken out of the Churn, and well worked from the serous part thereof, mix with the said Butter as much of the Oyl of that Vegetable which you like best, till the same be strong enough in taf to your liking, then temper them well together.

If you do in the mouth of May mix some Oyl of Sage with your Butter, it may excuse you from eating Sage with your butter.

If you mix the Oyl with the aforesaid clarified Butter, it will be far better, and serve for a most dainty dish, and indeed a great rarity.
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To make Cheese taff strong of any Vegetable without discolouring of it.

You may mix the distilled Oyl of what vegetable you would have the Cheese taste of, with the curd, before the whey be pressed out; but be sure you mix them very well, that all places may taste alike of it; you may make it taste stronger or weaker of it, as you please, by putting in more or less of the Oyl.

To purifie and refine Sugar.

Make a strong Lixivium of Calx-vive, wherein dissolve as much course Sugar as the Lixivium will bear, then put in the white of Eggs (two to every quart of the Liquor) being beaten into an Oyl, Stir them well together, and let them boyl a little, and there will arise a Scum, which must be taken off as long as any will arise; then pour all the Liquor through a great woollen cloth bag, and so the feces will remain behind in the bag; then boyl the Liquor again so long, till some drops of it being put upon a cold plate, will when they be cold, be congealed as hard as Salt. Then pour out the Liquor into pots, or moulds made for that purpose, having a hole in the narrower end thereof, which must be stopped for one night after, and after that night be opened, and there will a moist substance drop forth, which is called Molosses, or Treakle; then with Potters-clay cover the ends of the Pot, and as that clay sinketh down by reason of the sinking of the Sugar, fill them up with more clay, repeating the doing thereof till the Sugar shrink no more. Then take it out till it be hard, and dried, then bind it up in Papers.

To make a Vegetable grow and become more glorious than any of its species.

Reduce any Vegetable into its three first principles, and then joyn them together again, being well purified, and put the same into a rich earth, and you shall have it produce a Vegetable far more glorious, than any of its species.

X 2
Now how to make such an Essence, look into the first Book; and there you shall see the process thereof.

To make a Plant grow in two or three hours.

Take the ashes of Moss, moisten them with the juice of an old dunghill, being first pressed forth, and strained; then dry them a little, and moisten them as before: do this four or five times; put this mixture, being neither very dry, nor very moist, into some earthen, or metallic vessel; and in it set the seeds of Lettuce, Purltain, or Parsley, (because they will grow sooner than other Plants) being first impregnated with the Essence of a vegetable of its own species, (the process whereof you shall find Book I. page 32, 33.) till they begin to sprout forth: then, I say, put them in the said earth with that end upwards which sprouts forth: Then put the vessel into a gentle heat; and when it begins to be dry, moisten it with some of the said juice of dung,

Thou maist by this means have a Sallet grow whilst a supper is making ready.

To make the Idea of any Plant appear in a Glass, as if the very Plant it self were there,

The process of this thou maist see, page 32, and therefore I need not here again repeat it; only remember, that if you put the flame of a Candle to the bottom of the Glass, where the Essence is, by which it may be made hot, you will see, that thin substance, (which is like impalpable Ashes, or Salt,) send forth from the bottom of the Glass, the manifest form of a Vegetable, vegetating and growing by little and little, and putting on so fully the form of stalks, leaves, and flowers, in such perfect, and natural wise in apparent shew, that any one would believe verily the same to be naturally corporal, when as in truth it is the spiritual Idea, endued with a spiritual Essence; which serveth for no other purpose, but to be marched with its fitting earth, that so it may take unto it self a more solid body. This shadowed figure, as soon as the Vessel is taken from the fire, returns to
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to its Athes again, and vanisheth away, becoming a Chaos, and
confused matter.

To make Fire-trees appear in Turpentine.

Take as much Turpentine as you please, put it into a Retort,
distil it by degrees, when all is distilled off, keep the Retort
still in a reasonable heat, that what humidity is still remaining
may be evaporated and it become dry: Then take this off from
the fire, and hold your hand to the bottom of the Retort, and the
Turpentine that is dried (which is called Colophonia) will crack
afunder in several places, and in those cracks, or chaps, you shall
see the perfect effigies of Fire-trees which will there continue
many months.

To make Harts-horn seemingly to grow in a Glass.

Take Harts-horn broken into small pieces, and put them into
a Glass-Retort to be distilled, and you shall see the Glass to be
seemingly full of Horns, which will continue there so long till
the volatile Salt come over.

To make Golden Mountains, as it were, appear in a Glass.

Take of Adders Eggs half a pound, put them into a Glass-Rec-
tort, distil them by degrees; when all is dry, you shall see the
fesses at the bottom turgid, and puffed up, and seem to be, as it
were, Golden Mountains, being very glorious to behold.

To make the representation of the whole World in a Glass.

Take of the purest Salt-Nitre as much as you please, of
Tin half so much; mix them well together, and calcine them
Hermetically; then put them into a Retort, to which annex
a Glass-Receiver, and lute them well together, let there be
leaves of Gold put into the bottom thereof, then put fire to
the Retort, until vapours arise that will cleave to the Gold:
augment the fire till no more fumes ascend; then take away
the
the Receiver, and close it Hermetically, and make a Lamp-fire under it, and you will see represented in it the Sun, Moon, Stars, Fountains, Flowers, Trees, Fruits, and indeed, even all things, which is a glorious sight to behold.

To make the four Elements appear in a Glass.

Take of the subtle powder of Jet, an ounce and half of the Oyl of Tartar made per deliquium (in which there is not one drop of water, besides what the Tartar itself contains) two ounces, which you must colour with a light green with Verdegrense, of the purest spirit of Wine tinged with a light blew with Indigo, two ounces of the best rectified Spirit of Turpentine coloured with a light red with Middler 2. ounces. Put all these into a Glass, and shake them together, and you shall see that Jet which is heavy and black, fall to the bottom and represent the earth; next the Oyl of Tartar made green, representing the element of water, falls upon that swims the blew Spirit of Wine which will not mix with the Oyl of Tartar, and represents the Element of Air: uppermost will swim the subtle red Oyl of Turpentine, which represents the Element of Fire.

It is strange to see, how after shaking all these together, they will be distinctly separated the one from the other. If it be well done, as it is easy enough to do: it is a most glorious sight.

To make a perpetual motion in a Glass.

Take seven ounces of Quicksilver, as much Tin, grind them well together with fourteen ounces of Sublimate, dissolved in a cellar upon a Marble the space of four days, and it will become like Oyl-Olive, which distills in Sand, and there will sublime a dry substance; then put the water which distills off, back upon the earth in the bottom of the Still, and dissolve what you can, filter it, and distil it again; and this do four or five times; and then that earth will be so subtle; that being put into a Viol, the subtle atoms thereof will move up and down for ever.

Note, that the Viol, or Glass, must be close stop, and kept in a dry place.
To make a Luminous Water that shall give light by night.

Take the tails of Glo-worms, put them into a Glass-hill, and distil them in Balneo; pour the said water upon more fresh tails of Glo-worms; do this four or five times, and thou shalt have a most Luminous Water, by which thou maist see to read in the darkest night.

Some say this water may be made of the skins of Herrings; and for ought I know, it may be probable enough: for I have heard, that a hole of Herrings coming by a Ship in the night, have given a great light to all the Ship.

It were worth the while, to know the true reason, why Glo-worms, and Herrings, and some other such like things, should be luminous in the night.

To make a vapour in a chamber, that he that enters into it with a candle, shall think the room to be on fire.

Dissolve Camphire in rectified Aqua-vite, and evaporate them in a very close chamber, where no air can get in, and he that first enters the chamber with a lighted candle will be much astonished, for the chamber will seem to be full of fire, very subtle, but it will be of little continuance.

You must note, that it is the combustible vapour, with which the chamber is filled, that takes flame from the candle.

Divers such like experiments as this may be done, by putting such a combustible vapour into a Box, or Cupboard, or such like, which will as soon as any one shall open them, having a candle in his hand, take fire, and burn.

To make Powder that by spitting upon shall be inflamed.

Take a Load-stone, powder it, and put it into a strong calcining pot, cover it all over with a powder made of Calx-vite, and Colophonia, of each a like quantity; put also some of this Powder under it: when the Pot is full, cover it, and lute the closures with Potters-earth, put them into a Furnace, and there let them boil,
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boyl; then take them out and put them into another pot, and set them in the Furnace again, and this do tis they become a very white and dry Calx. Take of this Calx one part, of Salt Nitre, being very well purified, four parts, and as much Camphire, Sulphur vivum, the Oyl of Turpentine, and Tartar; grind all these to a subtle powder, and seare them, and put them into a Glass vessel; then put as much Spirit of Wine well rectified, as will cover them two fingers breadth; then close them up, and set the vessel in Horse dung three months, and in that time they will all become an uniform paste; evaporate all the humidity, until the whole mass become a very dry stone; then take it out and powder it, and keep it very dry.

If you take a little of this Powder, and spit upon it, or pour some water upon it, it will take fire presently, so that thou mayst light a match, or any such thing by it.

To fortisue a Load-stone, that it shall be able to draw a Nail out of a piece of Wood.

Take a Load-stone, and heat it very hot in coals, but so, that it be not fired, then presently quench it in the Oyl of Grecus Martius made of the best Steel, that it may imbibe as much as it can.

Thou shalt by this means make the Load-stone so very strong and powerful, that thou mayst pull our nails out of a piece of wood with it, and do so wonderful things with it, that the common Load-stone can never do.

Now the reason of this (as Paracelsus faith) is, because the Spirit of Iron is the life of the Load-stone, and this may be extracted from, or increased in the Load-stone.

To make Quick-silver Malleable in seven hours.

Take of the best Lead, and melt it, and pour it into a hole; and when it is almost congealed, make a hole in it, and presently fill up the hole with Quick-silver, and it will presently be congealed into a friable substance; then beat it into a powder, and put it again into a hole of fresh melted Lead, as before; do this
this three or four times, then boyl it, being all in a piece in Linseed-Oyl the space of six hours; then take it out and it will become malleable.

Note, that after this, it may by being melted over the fire be reduced into Quick-silver again.

A thin plate of the said Mercury laid upon an inveterate Ulcer, takes away the malignity of it in a great measure, and renders it more curable than before.

A plate of the said Mercury laid upon tumors, would be a great deal better repercussive than plates of Lead, which Chirurgeons use in such cases.

The powder of the friable substance of Mercury before it be boil'd in the Oyl, is very good to be strewed upon old ulcers, for it doth much correct the virulency of them.

To reduce Glass into its first Principles; viz. Sand, and Salt.

Take bits, or powder of Glass, as much as you please, as much of the Salt which Glass-men use in the making of Glasses: melt these together in a strong fire; then dissolve all the melted mass in warm water; then pour off the water, and you shall see no Glass, but only Sand in the bottom, which Sand is that which was in the Glass before.

This confutes the vulgar opinion, viz. that the fusion of Glass is the last fusion, and beyond all reduction.

To write or engrave upon an Egg, or Pebble, with Wax, or Grease.

Make what letters or figures you please with Wax, or Grease, upon an Egg, or Pebble; put them into the strongest Spirit of Vinegar, and there let them lye two or three days; and you shall see every place about the letters, or figures, eaten or consumed away with the same Spirit, but the place where the Wax or Grease was, not at all touched: the reason whereof is, because that the Spirit would not operate upon the said oleaginous matter.
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To make artificial Pearl as glorious as any Oriental.

Dissolve Mother of Pearl in Spirit of Vinegar; then precipitate it with Oyl of Sulphur per campanam, (and not with Oyl of Tartar, for that takes away the splendour of it) which adds lustre to it: when it is thus precipitated, dry it, and mix it with whites of Eggs, and of this mass you may make Pearls of what bigness or fashion you please: before they be dried they will not at all, or very hardly be discerned from true and natural Pearls.

To make a Mineral Perfume.

Dissolve Antimony, or Sulphur, in the Liquor or Oyl of Flints, or Pebbles, or Crystals, or Sand; coagulate the solution into a red mass, pour thereon the Spirit of Urine, and digest them till the Spirit be tinged; then pour it off, and pour more on, till all the tincture be extracted; put all the tinctures together, and evaporate the spirit of Urine in Balneo, and there will remain a blood-red Liquor at the bottom, upon which pour Spirit of Wine, and you shall extract a purer tincture, which smelleth like Garlick; digest it three or four weeks, and it will smell like Balm; digest it longer, and it will smell like Musk, or Amber-griebe.

Besides the smell that it hath, it is an excellent Sudorific, and cures all diseases that require sweat, as the Plague, putrid Feavers, Lues venerea, and such like as these.

The Oyl or Liquor of Sand, Flints, Pebbles, or Crystals, for the aforesaid preparations is thus made.

Take of the best Salt of Tartar being very well, by two or three dissolutions, and coagulations, purified, and powdered in a hot Mortar, one part; of Flints, Pebbles, or Crystals, being powdered, or small Sand well washed, the fourth part; mingle them well together; put as much of this composition as will fill an Egg-shel, into a Crucible, set in the earthen Furnace (ex pレストed
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pressed page 84.) and make red hot, and presently there will come over a thick and white Spirit, this do till you have enough; then take out the Crucible whilst it is growing hot, and that which is in it, is like transparent Glass, which keep from the air.

The Spirit may be rectified by Sand in a Glass Retort.

The Spirit is of excellent use in the Gout, Stone, Pysqlk, and indeed, in all obstructions, provoketh Sweat, and Urine, and cleanseth the Stomach, and by consequence effectual in most diseases.

It being applied externally, cleareth the skin, and makes it look very fair.

Take that which remains at the bottom in the Crucible, and beat it to powder, and lay it in a moist place, and so it dissolveth into a thick fat Oyl: And this is that which is called the Oyl of Sand, of Flints, Pebbles, or Cristals.

This Oyl is of wonderful use in medicine, as also in the preparation of all sorts of Minerals.

This Oyl being taken inwardly in some appropriated Liquor, dissolveth tartarous coagulations in the body, and so opens all obstructions.

It precipitates metals, and makes the Calx thereof more weighty than Oyl of Tartar doth,

If you put it into water, there will precipitate a most fine white earth, of which you may make as clear vessels as are China-dishes.

Note, that all Sand, Flints, and Pebbles, even the whitest have in them a golden Sulphur, or Tincture; and if prepared Lead be for a time digested into this Oyl, it will seem, as it were, gilded, because of the gold that will hang upon it, which may be washed away in water. Gold also is found in Sand and Flints, &c. And if you put Gold into this Oyl, it will become more ponderous thereby.
To make Steel grow in a Glass like a Tree.

Dissolve Steel in a rectified Spirit of Salt, so shall you have a green and sweet solution, which smells like Brimstone, filter it, and abstract all the moisture in the Sand with a gentle heat, and there will distil over a Liquor as sweet as Rain-water (for Steel by reason of its dryness detains the corrosiveness of the Spirit of Salt; which remaineth in the bottom like a blood red mass, which is as hot on the tongue as fire; dissolve this red mass in Oyl of Flints, or of Sand, and you shall see it grow up in two or three hours, like a Tree with a stem, and branches; prove this Tree at the root, and it yieldeth good Gold, which this Tree hath drawn from the aforesaid Oyl of Sand, or Flints, which hath a golden Sulphur in it.

To melt a metal in one's hand without burning of the hand.

Take a little calcining-Pot in your hand, make it in a lane or course of the powder of any metal; then upon it lay a lane of Sulphur, Salt-peter and Saw-dust, of each a like quantity, mixed together; put a coal of fire to it, and forthwith the metal will be melted into a mass.

An observation upon the beams of the Sun, and heat of the fire; how they add weight to Minerals, and Metalline Bodies.

1. Take any Mineral Liquor, and set it in an open vessel in the Sun for a good space, and it will be augmented in quantity, and weight. But some will say, that this proceedeth from the air, to the which I answer, and demand; whether the air hath not this impregnation from the Sun, and what the air hath in itself, that proceedeth not from the Sun and Stars.

2. Put this Liquor in a cold cellar, or in a moist air, and you shall find that it increaseth not in weight, as it doth in the Sun, or in the fire, (which hath in this respect some Analogie with the Sun) I do not say, but haply it might attract some little moisture which is soon exhaled by any small heat.

3. Dissolve
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3. Dissolve any sulphureous, and imperfect metal, as Iron, Copper, or Zink, in Aqua fortis, or any other acid Spirit; then abstract the Spirit from it, make it glowing hot, yet not too hot, that the Spirit may only vapour away, then weigh this metalline Calx, and set it in a crucible over the fire, but melt it not, only let it darkly gow, let it stand so three or four weeks, then take it off, and weigh it again, and you shall find it heavier than before.

4. Set any Sulphureous metal, as Iron, or Copper with sixteen or eighteen parts of Lead, on a test made with ashes of Wood, or Bones, in a probatory Furnace: First weigh the Test, Copper, and Lead, before you put them into the Furnace: let the Iron or Copper fly away with the Lead, yet not with too strong a heat; Then take the Test out, and weigh it, and you shall find it (though the metals be gone) when it is cold, to be heavier than it was, when it was put into the Furnace with the metals. The question is now, whence this heaviness of all the aforesaid Minerals and Metals proceeded, if that the heat of the Sun, and fire through the help of the Minerals and Metals be not fixed into a palpable Mineral, and Metalline Body?

5. Set a Test with Lead, or Copper in the Sun, and with a concave Glass unite the Beams of the Sun, and let them fall on the center of the Metal; hold the concave Glass in your hand, and let your test never be cold, and this will be as well done in the Sun, as in the Fire. But this concave must be two foot in a Diameter, and not two hollow or deep, but about the eighteenth or twentieth part of the circle, that it may the better cast its beams forth; and it must be very well polished.

6. Calcine Antimony with a Burning-Glass, and you shall see it smoak, and fume, and be made dryer than before; yet weigh it and it will be heavier than before.

I shall take in, for the confirmation of all this; a relation of Sir Kenelm Digby concerning the precipitating of the Sun-beams. I remember (faith he) a rare experiment; that a noble man of much sincerity, and a singular friend of mine told me he had seen, which was, that by means of Glases made in a very
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ry particular manner, and artificially placed one by another, he had seen the Sun-beams gathered together; and precipitated down into a brownish, or purplish red powder. There (faith he) could be no fallacy in this operation; for nothing whatsoever, was in the Glass, when they were placed, and disposed for this intent; and it must be in the hot time of the year, else the effect would not follow. And of this magistry he could gather some days near two ounces in a day, and it was of a strong volatile virtue, and would impress its spiritual quality into Gold itself (the heaviest and most fixed body we converse withal) in a very short time.

I leave it now to the Reader to judge, whether the beams of the Sun, and heat of the fire, adde weight to Minerals, and Metals.

To extract a white Milkie substance from the raies of the Moon.

Take a Concave-Glass, and hold it against the Moon when she is at the full in a clear evening, and let the raies thereof, being united, fall upon a Sponge, and the Sponge will be full of a cold Milkie substance, which you may press out with your hand, and gather more. De-La-Bros is of opinion, that th's substance is of the substance of the Moon: but I cannot attent to him in that; only this I say, if this experiment were well prosecuted, it might produce, for ought I know, such a discovery which might be the key to no small secrets.

To condense the Air in the heat of Summer, and in the heat of the day, into Water.

Fill an earthen Vessel unglazed, made pointed downward, and fill it with Snow-water, (which must be kept all the year,) in which is dissolved as much Nitre as the water would dissolve: Let the Vessel be close stop. Hold this Vessel against the Sun, and the Air will be so condensed, by the coldness of the Vessel, that will drop down by the sides thereof.
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How two sorts of Volatile Salts will be fixed by
joining them together.

Take a strong Lixivium made of unslaked lime, and evaporate it, and whereas you would expect to find a Salt at the bottom, there is none; for all the salt in the Lixivium is evaporated away, and the more the Liquor is evaporated, the weaker the Lixivium becomes, which is contrary to other Lixiviums: Also if you take Spirit of Vinegar, and evaporate it, you shall find no Salt at the bottom. Now, if you take the clear Lixivium of Lime, and Spirit of Vinegar, of each a like quantity, mix them together, and evaporate the humidity thereof, you shall find a good quantity of Salt at the bottom, which calls partly hot, and partly acid.

This Salt being set in a cold cellar on a Marble-stone, and dissolved into an Oyl, is as good as any Lac Virginis to clear, and smooth the face, and dry up any hot pustules in the skin, as also against the Itch, and old Ulcers to dry them up.

To make an unguent that a few grains thereof being applied outwardly, will cause vomiting or looseness, as you please.

Take Lapis Infernalis, mix therewith of distilled Oyl of Tobacco, as much as will make an Ointment: Keep it in a dry place.

If you would provoke vomiting, anoint the pit of the stomach with five or six grains thereof, and the party will presently vomit, and as much as with taking of a vomit.

If you would provoke to looseness, anoint about the navel therewith, and the patient will presently fall into a looseness.

Note, that you must give the patient, some warm suppings all the time this medicine is working.

Note also, and that especially, that you let not the Ointment lye so long, as to cauterize the part, to which it is applied.
To make a medicine that half a grain thereof being taken every morning, will keep the body soluble.

Take of the distilled Oyl of Tobacco, of which let the essential Salt of Tobacco imbibe as much as it can; Then with this composition make some Lozenges, by adding such things as are fitting for such a form of medicine; Note, that you put but such a quantity of this Oily salt, as half a grain only may be in one Lozenge.

One of these Lozenges being taken every morning, or every other morning, keepeth the body soluble, and is good for them as are apt to be very costive in their bodies.

Note, that you may put some aromatical ingredient into the Lozenges that may qualify the offensive odour of the Oyl, if there shall be any.

To make a Cordial, stomachical, and purgative tincture.

Make a tincture of Hierapica with Spirit of Wine well rectified, and aromatized with Cinnamon or Cloves.

Two or three spoonfuls of this tincture being taken in a morning twice in a week, wonderfully helps those that have weak and foul stomachs, it openeth obstructions, and purgeth viscosities of the stomach and bowels, cureth all inverete headach, killeth worms, and indeed leaveth no impurities in the body, and is very Cordial: for it exceedingly helps them that are troubled with faintings. There is nothing offensive in this medicine but the bitterness thereof, which the other extraordinary virtues will more than balance.

Another.

Dissolve Scammony in Spirit of Wine, evaporate the one moiety; then precipitate it by putting Rose-water to it; and it will become most white, for the black and fetid matter will lie...
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on the top of the precipitated matter, which you must wash away with Rose-water. Then take that white gum being very well washed, and dry it (if you please you may powder it and so use it, for indeed it hath neither smell nor taste, and purgeth without any offence, and may be given to children, or to any that disaff Phystick, in their milk or broth without any discerning of it, and indeed it doth purge without any manner of gripings. I was wont to make it up into pills with Oyl of Cinnamon or Cloves, which gave it a gallant smell, and of which I gave a scruple, which wrought moderately and without any manner of gripings; then dissolve it again in Spirit of Wine, being aromatized with what spices you please, and this keep.

This tincture is so pleasant, so gentle, so noble, a purgative, that there is scarce the like in the world, for it purgeth without any offence, is taken without any nauseating, and purgeth all manner of humours, especially choler, and melancholy, and is very Cordial.

It may be given to those that abhor any medicine, as to children, or those that are of a nauseous stomach.

The dose is from half a spoonful to two or three.

Note, it must be taken of it self, for if it be put into any other Liquor, the Scammony will precipitate and fall to the bottom.

After this manner you may prepare Jollap by extracting the gumme thereof, and then dissolving it in Spirit of Wine.

By this means Jollap would not be so offensive to the stomach, as usually it is, for it is the gumme that is purgative, and the earthines that is so nauseous.

Jollap being thus prepared, is a most excellent medicine against all hydropick diseases, for it purgeth water away without any nauseousness or griping at all.
To Reduce distilled Turpentine into its body again.

Take the Oyl of Turpentine, and the Colophania thereof (which is that substance which remains in the bottom after distillation) which you must beat to powder. Mix these together and digest them, and you shall have a Turpentine of the same constancy as before, but of a fiery subtile nature.

Pills made of this Turpentine, are of excellent use in obstructions of the breast, kidneys, and the like.

To make the distilled Oyl out of any herbc, seed or flower, in an instant, without any furnace

You must have a long pipe made of tin, which must have a bowl in the middle, with a hole in it as big as you can put your finger into it; by which you must put your matter, that you would have the Oyl of. Set this matter on fire with a candle or coal of fire, then put one end of the pipe into a basin of fair water, and blow at the other end, and the smock will come into the water, and there will an Oyl swim upon the water, which you may separate with a tunnel.
To make water, and the tincture of any Vegetable at the same time, which is an excellent way to draw out the virtue thereof.

This must be performed by these following vessels.

A, Signifies the Furnace itself.
B, The Retort which stands in water or sand, wherein the matter to be distilled is put, in stead whereof, if you please, you may put a gourd-glass with a head to it.
C, The Pipe.
D, Another vessel, wherein is more fresh matter, out of which the tincture is to be drawn, and which stands upon ashes with a fire under it.
E, The Furnace with a pan of ashes.
F, The Receiver.
G, The hole of the Furnace to put in coals, to heat the second matter.

A way to separate fresh water from salt, without a furnace or much trouble.

Take a Caldron with a great and high cover, and a beak or nofe, set it upon a trefoot, and under let this be filled with salt water, and there...
full of a good quantity of fresh water into a Receiver, which must be joined to the nose of the aforesaid cover.

This is of good use for Sea-men that want fresh water, for by this means they may distil a good quantity in 24 hours, especially if they have any considerable number of the aforesaid vessels, a figure whereof is this which follows.

A way to purge and purifie troubled and muddy waters.

Fill a great pot with puddled water, put a soft and gentle fire under it, lay some sticks across on the pot brims, and upon the sticks lay clean wooll, or a sponge well washed; Now the wooll drinks up the vapours that ascend, which then you must wring out, and lay on the wooll again, and this you may do till you have as much clean water as you desire. The manner of this distillation is described thus.
This is of use for them, that can come at no other waters, but what are troubled, as it falls out many times in some places.

Another way to purifie any thick, muddy, or seculent Liquor.

This is performed by shreds of any white woollen cloth in vessels, as you see hereafter expressed.
Note, that the shreds must be first wet in fair water, and the seculent matter be put into the uppermost vessel.

Note also, whereas here be two Receivers, that in many cases one may be sufficient.

This way serves for the purifying of decoctions, juices, or dissolutions of salts from their seculency, for that which is distilled by the shreds is as clear as Crystal, when what remains is very seculent.

To keep fire in a glass, that whilst the glass is shut will not burn, but as soon as it is open’d will be inflamed.

First extract the burning Spirit of the Salt of Tin in a Glass Retort well coated; when the Retort is cold, take it out and break it, and as soon as the matter in it, which remains in the bottom thereof after distillation, comes into the air, it will presently be inflamed. Put this matter into a glass viol, and keep it close stop'd.
This fire will keep many thousand years and not burn unless the glass be opened: but at what time soever that is opened it will burn.

It is conceived that such a kind of fire as this was found in Vaults when they were opened, which many conceived to be a perpetual burning Lamp, when as indeed it was inflamed at the opening of the Vault, and the letting in air thereby, which before it lacked, and therefore could not burn: For it is to be conceived, that there is no fire burns longer then its matter endures, and there is no combustible matter can endure for ever.

There may be many uses of such a fire as this, for any man may carry it about with him, and let it burn on a sudden, when he hath any occasion for fire.
A. Signifies the Candlestick, which must be hollow, and full of water.

B. The top of the Candlestick which must be wide to contain good store of water, for to fill up the Candlestick as the candle riseth up.

C. The Candle, which must be as long as the Candlestick.

D. The
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D. The vessel that contains either water, sand, or ashes, for any vessel to be set into; also to contain any matter itself, that is to be digested.

E. A glass vessel standing in digestion.

F. A narrow mouthed stopple to be put into the Candlestick to keep the Candle upright, and that must be made of Tin, with holes in it.

G. The Cover for the vessel D, which is to be put upon it when any thing is digested, or kept warm in it.

H. A Still head to put upon the vessel D, when you would distill any thing in it.

Note, that if you make all these vessels large, you may do many considerable things without much labour, or trouble.

In the vessel D, if it be large, you may stew meat, which if you put in at night, and cover it close, you may have it ready for your breakfast in the morning, and so according to the time you put it in, you may have it for dinner or supper. Also you may keep any thing warm in the night, and at all times, and divers such uses as these it may be used for.

Note, that the Candle will still rise up, till it be quite burned out, and an ordinary Candle will last twice as long this way as it will out of the water.

If you would have one Candle last a long time, as twelve or twenty hours, you must either make your Candlestick very long that it may contain a long Candle; or make your Candle big and the wick small, or make your Candle of such matter, as will not presently be consumed.

Note also, that if you would have a great heat, your Candle must be great, and also the wick thereof great; but if gentle, let your Candle be small.
Another Lamp-furnace,

There is another sort of Lamp-Furnace, with three Candles, after this manner.

The use of this is, when you would have a constant fire, that should give a stronger heat, than one Candle in the former Furnace. And the truth is, that if your Candles be big, (as you may make them as big as you will) you may have as strong a heat this way as by Ashes in an ordinary Furnace.

To make a Candle that shall last long.

Take unslaked Lime, powder it, and mix it with your Tallow, and so make your candle of that; or else you may make Candles of Cattle-sope, which will serve for such uses as these, viz. to burn in such a Lamp-furnace.

Note, that it is the Salt that is in the Lime, and Sope, that preserves the Tallow, from burning out so fast as otherwise it would.
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To make a lasting and durable Oyl.

Take unslaked lime, Bay-salt, Oyl Olive, of each a like quantity, mix them well together, and distil them in Sand, cohere the Oyl upon the same quantity of fresh Lime, and Salt: and this do four or five times: By this means will the Oyl be clear, and impregnated with what Salt was volatile in the lime, and salt.

Now that saline impregnation is, that which gives a durability to the Oyl.

Note, that this Oyl, whilst it is distilling, is of a most fragrant smell: I have some of it which I distilled seven times, and it is as pure, subtle, and odoriferous, as many common distilled Oyls of Vegetables.

This Oyl, besides the durbleness of it, is also good against any invertebrate ach in the limbs.

A Lamp made with this Oyl, will continue burning six times as long, as a Lamp made of other Oyl, as also it burns very sweet.

There must be a great deal of care used in making of it, or else you will quickly break your Glasses; also you must take very strong limes, such as the dyers use, and call caul.
There be here set down three figures of these kinds of Instruments, which belong to several uses.

A, Signifies that which blows a fire for the melting of any metal, or such like operation, and it blows most forcibly with a terrible noise.
B, That which blows a Candle to make the flame thereof very strong, for the melting of Glasses, and nipping them up.
C, That which any one may hold in their hand, to blow the fire strongly upon any occasion.

Now the manner of the using them is thus: you must first heat them very hot, then put the noses thereof (which must have a very small hole in them, no bigger than that a pins head may go in) into a vessel of cold water, and they will presently suck in the water, of which then being full, turn the noses thereof toward the candle, or fire, which you would have blown:
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As for the figure C, it must have a mouth drawn up round, and hanging out an inch from the face, which mouth (the whole compass of the face being heated first) you must dip in cold water, and it will suck in water, as the noes of the former did. This then you must hold close to the fire that it may be heated, and it will blow exceedingly, as otherwise it will not, viz. if it be cold.

If you put sweet water into such a vessel, you may perfume a chamber exceedingly, for a little quantity thereof will be a long time breathing forth.

Note, that these kinds of vessels must be made of Copper, and be exceeding well closed, that they may have no vent but by their noses.

An excellent invention to make a Fire.

Take three parts of the best New-cale coals beaten small, one part of loam; mix these well together into a mass with water, make thereof Balls, which you must dry very well.

This fire is durable, sweet, not offensive by reason of the smoke, or cinder, as other coal-fires are; beautiful in shape, and is not so costly as other fire, burns as well in a Chamber even as Char-coal.

This
This fire may either serve for such Distillations as require a strong, and lasting heat, or for ordinary uses, either in the Kitchen, or Chambers.

A new invention for Baths.

Seeing by bathing and sweating most diseases are cured, especially such as proceed from wind, hot, and distempered humours, or cold and congealed humors, because all these are rarified, and evaporated by transpiration in sweating, or bathing, I thought it a thing much conducing to man's health, to set down such a way of bathing and sweating that might be very effectual, and appropriated to any particular disease or distemper.

I shall therefore here commend to you, a way of bathing by distillation, the manner of which you may see by the ensuing vessels,
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A. Signifies a box still with two pipes going into two wooden vessels; in this still you may put either herbs, or spices, with water, or with spirits, and distil them by which means, they that are in the vessels will presently be forced into a sweat, by virtue of the subtlety of the vapours. And this indeed is as good and effectual a way for sweating as any can be invented: You may by this means appropriate your ingredients to the nature of the diseases.

B. A vessel wherein a man fits in the bath. Now this vessel hath in it a door, for the easier going into it, which fashion is far better and more convenient, than to be open only at the top.

C. A long vessel where a man that is weak, and not able to sit up, lies undisbathed.

Now you must note, that these vapours must not be hotter than the patient can bear: also if the vapour come forth too hot upon the body of the patient, he may by putting a pipe, upon the end of the pipe that comes into the vessel, divert the hot vapour from his body, and so it will not offend him that way.

Note, that the patient, as soon as he begins to be faint, must come forth, or else he will suffer more prejudice than good by his bathing: and also to prevent him from fainting, let him take some cordial, or cold beer, which will much revive him, and make him endure his bathing longer, as also make him sweat the more.

As soon as the patient comes forth, let him go into a warm bed, and sweat as he is able to bear it, and take some posset-drink, or broth, or such like warm suppers, as also some good cordial if he be very faint.

The patient may according as his strength will bear, and his disease require, bathe more seldom or oftner.

An artificial hot bath, made from the same principles as the natural bath is.

Before I set down the process of making an artificial hot bath, I shall premise some things concerning the true nature, and original of a hot bath. Now the clearest and best account that
that I ever heard or read, of the cause of the heat in Bathes, is that which is given by Monsieur de Rochas, and that in a demonstrative way; his words are these: As I was (faith he) with some of my companions wandering in Savoy, I found in the Valley of Luzerne between the Alps, a hot spring; I began to consider the cause of this heat, and whereas the vulgar opinion is, that the heat of Fountains is from Mountains fired within, I saw reason to think the contrary, because I saw Snow upon a Mountain from whence this hot Spring came, unmelted, which could not possibly but have been dissolved by the hot fumes of the Mountains, had they been fired. Whereupon being unsatisfied, I with my companions and other labourers (whom I could very hardly persuade to undertake such a business, by reason they were afraid that fire would thereupon, break forth out of the ground and consume us,) got tools, and set upon digging to finde out the true cause of the heat of this Fountain. After we had digged 15 days (having before perceived the water, to be hotter and hotter by degrees) as we came nearer to the source, we came to the original of the heat, where was a great ebullition: In three hours more, we digged beyond this place of ebullition, and perceived the water to be cold, yet in the same continued stream with the other that was hot; upon this I began to wonder much at the reason of these things. Then I carried to my lodging some of this hot water (which was both saltish, and acid,) and evaporated it; and of forty ounces I had in the bottom, five drams of saltish matter, which I then yet farther purified, and extracted thence, three drams of pure Nitrous Hermetic Salt, the other two ounces being a flimie Sulphurous substance: Yet with this I was not satisfied, but with my labourers went again to the place, and digged twelve days more, and then we came to a water which was insipid as ordinary Fountain Water, yet still in a continued stream with the saltish and hot water. At this I wondered much, whereupon I digged up some of the earth, where the cold, and saltish stream did run, and carried it home with me, & out of an hundred weight thereof, I extracted a good quantity of nitrous Salt, which was almost fluxile. When I had extracted as much as I could, I laid the earth aside, and in 24 hours it was all covered over.
with Salt, which I extracted, and out of a hundred weight of this Earth, which I call Virgin-earth, I had four pound of this kind of Salt, which it contracted in the aforesaid 24 hours, and so it would do constantly. Now this satisfied me concerning one doubt: For, before I was unsatisfied how there could be a constant supply, of that Salt which made the water saltish, seeing there was but a little distance betwixt the insipid water and the hot water, and the constant stream of water washed away the Salt which was in that little space: for I perceived that this kind of Earth attracts this universal Salt in the World, partly from the air in the cavities of the Earth, and partly from the vapours that constantly pass through the earth. After this, I took some of that Earth where the ebullition was, and carried it home, and proved it, and I perceived it to be a Sulphur mine, into which the former acid saltish water penetrating, caused an ebullition; so do salt of Tarent, and spirit of Vitriol being mixed together, and also water poured on unslaked Lime. After this I began to question, how it was, that this Sulphur mine was not consumed, seeing so much matter passeth from it daily: but when I began to understand, how all things in the earth did assimilate to themselves, whatsoever was of any kind of affinity to them, as Mines convert the Tools of Miners into their own substance in a little time, and such like experiments of that nature, I was satisfied. And after all this, I understood how this universal Salt of the World was to be had, and I could at any time mix it with water, and pour that Water upon Sulphur, and so make an artificial hot Bath as good as any natural Bath whatsoever. Note, that no Salt in the World but this Nitrous Salt will do it, as I often tried: and this Salt is to be found in all hot Baths, and to be prepared artificially. Thus fair Monsieur de Rochas. Something like unto this, Helmont seems to hold forth, saying that there is a Permutans Salts, or semina salism, which are all seated in waters and vapours, and give them an acidity, but as yet have no saline taste, until they meet with such principles, and be received into certain matrices in the Earth, which may make them put forth this potential saltiness into act: and according to this diversity of places, that this water or vapours, being impregnated with those seeds of Salt, go through, ariseth the diversity of Salt.
Salts, as Alum, Sea-salt, Nitre, &c. Then upon this account the Earth through which the cold, acid, saltish water above-said, doth run, did particularize that potential Salt which was both in the waters and vapours, into a nitrous salt, (by which means was that kind of salt in that place) but whether this *primum et salum* be so unspecified, or *quid Hermaphroditicum*, as he affers, or no, it matters not much to my purpose; it sufficeth, if that Earth through which that acid Nitrous Water runs, attracts and multiplies an acid Nitrous salt, with which the water being impregnated, and running through a Sulphurous Mine, causeth an ebullition. All this being premised, I shall now endeavor to illustrate, how Nature may in this be imitated, as that an artificial hot Bath may be made by such like principles, as the natural hot Bath, consists of, being artificially prepared.

Now these principles are the Sulphur-mine, and the acid nitrous salt; the former requires no further preparation (as faith Mounseur de Rosbas,) if it be pure: the latter is to be prepared two manner of ways: for either it is to be extracted, as faith the foresaid Author out of the waters of the Bath, by evaporating them away, or by condensing the nitrous air (for indeed, as many judicious Philosophers are of opinion, the air is wholly nitrous, as it appears by the condensation of it in cold places into Nitre) which his Virgin-Earth did do, into a Salt, which was acid, and almost fluxile: Now, when I say, that the nitrous salt is to be thus prepared, I do not say, that this is the full preparation thereof; for indeed, it is yet further to be prepared, and that is by giving it a greater acidity. I question much, whether or no, the salt being prepared after the aforesaid ways, do retain that acidity, which is required for that ebullition I spake of, and which the nitrous acid water had, before it came to the Mine of Sulphur: For indeed, the aforesaid Author, when he affirmed, that he could at any time make an artificial hot Bath, did not say, he used Salt prepared only after the two former ways, viz. by extracting it out of the waters of the Bath, and making it with his Virgin-Earth, which did attract, and condense the nitrousness of the air; but withal, by making it so acid, that it might cause an ebullition, when it came to be joined with a
Sulphur-Mine. Now then how to give this Nitre a sufficient aci-

dity, is the great question. For the better effecting of this, we

must consider whence that nitrous water (above mentioned) in

the earth had the greatest part of its aci.

dity. As to that, it must

be remembred, that the Virgin-earth through which the acid ni-

trous water did run, did condense the nitrous air or vapours into a

nitrous Salt; and with all it is to be considered, that before this ni-

trous air or vapour, before it be condensed, even when it is near

unto condensation is acid, and part of it before condensation is

mixed with the water; and so it renders it acid. Now that waters

have great part of their aci.

dity, from the acid vapours of acid

Minerals, both Henricus ab Heers, and Jordan, upon Mineral waters

affirm: and that Salts unbodied, are farr more acid, than when

they have assumed a body, is clearly manifested in this, viz. that

Spirits of Salts, which I call salts unbodied, because they have

lost their body, are become very acid, because unbodied; so in

spirits that have lost their bodies, why not after some proportion,

in those that have not yet assumed a body, as vapours of Nitre, or

nitrous air, being neer to congelation, and bodying, and impregn.

ant with Spirits of Nitre.

Now I say, that nitrous vapours, or nitrous air being a Salt

unbodied are not so acid, as Spirits of Nitre, because they are

more phlegmatick and crude, which phlegm they lose by be-

ing congealed into a Salt: yet for all this, they are farr more

acid than the body of Salt: and this is that which Helmont un-
derstands, when he saith, that the esurine Salt being incorpo.
rificated is farr more active, in giving taff and odour, than

when it hath received its body, by becoming a specified Salt.

Furthermore, how Nitre shall become sufficiently acid for

the aforesaid operation, is the great matter to be enquired

into. We must therefore consider, which way we may un-

body Nitre (seeing it is scarce possible to get it, before it hath

received its body) and that is done two wayes either by forcing

of it, into a most sharp Spirit, which is too acid for our intention,

or by digesting the whole substance of Nitre, into a Liquor mo-

derately acid, which indeed serves for our purpose, and the pro-

cess is this.
Take the purest Nitre you can get, dissolve it in Rain-water, so as that the Water imbibe as much of it as it can. Then put this nitrous water, into a common earthen Vessel unglazed, which you must set in a Cellar. You shall see this Vessel in a short time to be white all over on the outside, as with a hoar frost, which whiteness is partly the flower of the Nitre, being the purest part thereof, penetrating the vessel, and partly the nitrous air, condensed into Nitre by the coldness of the vessel, as also assimilated to the Nitre that penetrated the vessel. I said by the coldness of the vessel, because such is the coldness of an Earthen vessel wherein is Nitre, dissolved in water, that it will being set in Snow by the fire-side forthwith be freezed. This Nitre you must strike off with a feather, and when you have a sufficient quantity thereof, as three or four pounds, put this, or the nitrous Salt extracted from Bath-waters into a bolt-head of Glass (a pound in each Bolt-head) that two parts of three be empty, nip it up, and set it in ashes, and give it a reasonable strong fire, viz. that the upper part of the bowl of the bolt-head be as hot, as that you can but well suffer your hand upon it, and you shall see, that the Nitre will be dissolved every day a little, and in two or three months time be wholly dissolved, and become acid, but not so acid as the Spirit thereof; then put it into a Glass-gourd with a head, and distil it off, and in the bottom you shall find an acid nitrous Salt, almost fluxil, not unlike the Salt which Moufier de Rochas found in the evaporating of his water. Then pour the distilled Nitre-water upon the said Salt, and then it is for your use.

The use of these principles or ingredients is this, viz. make Fountain-water sufficiently acid with this nitrous Liquor, then pour it upon a sufficient quantity of the best Sulphur-Mine, or Sulphur vivum in a large wooden vessel where the Patient is to be bathed, and you will see the water presently heated so hot as the Patient is able to bear.

The inward use of these Bath-waters, is by reason of the Nitre in them, to dissolve gross humors, open obstructions, cleanse the Kidneys and Bladder; and by reason of the Sulphur to dry, mollifie, discourse, and glutinate, and to help all uterine defects proceeding from cold and windy humors.

Note,
Note, that they must be drunk warm, and in a good quantity, or else they will do more hurt than good.

The outward use of this is for such ill effects, as are in the habit of the body, and out of the veins, as of pulless, contractions, rheums, cold humors; affects of the skin and aches; for they resolve, dissolve, cleanse, mollify, &c.

Now for the manner of bathing I shall not prescribe any thing, but leave this to the discretion of the Physician, who is to give order and directions for all the circumstances about it: for indeed every one is not to bathe, when and how he pleases, but must apply himself to an able Physician, and submit himself to his judgment and experience, or else may receive either prejudice, or no benefit thereby.

An artificial Tunbridge, and Epsome Water.

It is granted by all, that Tunbridge Water proceeds from an Iron-mine, but how it contracts that acidity, and that ironish and vitriolated taste and odour, seeing upon evaporation thereof, there remains little or no Vitriol or Salt of Iron at the bottom, is the great question. Now for the solution of this, we must consider how many ways a subterranean mineral, or metal, may communicate its acidity to waters, and that faith Henricus ab Heers, upon Spaw-waters, doth three ways: one, when the water passing through the mines, carryeth along with it some of the dissoluble parts of the Mine, to which is consonant the saying of Aristotle: Such are waters, as is the nature of those Mines through which they pass, as also of Galen, when he said, that pure waters passing through Mineral Mines, carry with them some of the substance of the Mines. The second way is, when the vapours arising from fermented Minerals and Metals, are mixed with waters. Now that vapours retain the odour, and taste of those things, from whence they are raised. Aristotle in his fourth Book Sublimium affirmes, and also Helmont, when he said, That some parts of the Iron-Mines being by fermentation turned into a vapour, retain the odour and taste of the Mines, by virtue of the acid esurine Salt, and are not presently reduced into a body, and also artificial vapours of the Iron-Mines have more vertue, and
activity. (I mean those parts that are raised by a strong fire in a furnace from the Mine of Iron) than Iron itself when it is melted. The third is, when a great quantity of vapours arising from the aforesaid fermented Mines is elevated, and by the coldness of the ambient earth is turned into an acid water, which as it passes through the earth meeteth with some springs of water, and mixing with them, gives them a pleasant acridity. And this is the best of all acid waters being clear and very pure.

This being premised, I shall now proceed to the process of making artificial waters, like to those of Tunbridge and Epsom: of the former, viz. Tunbridge thus.

Take of the Mine, or Ore of Iron, beat it very small, and put it into the furnace expressed page 84, and there will come forth an acid Spirit, and Floures, which you must mix together till the acid Spirit extract the Salt out of the Floures; then decant off the clear Liquor, which will have a strong taste and smell of Iron.

A few drops of this Liquor put into a Glass full of Fountain-water, give it the odour and taste of Tunbridge water, and communicates the same operations to it.

It openeth all obstructions, purgeth by Urine, cleanseth the Kidneys, and Bladder, helpeth the pissing of blood, the dropping of the Urine, and difficulty of making water, it allayeth all sharp humors, cureth inward Ulcers, and Impostumes, cleanseth and strengtheneth the Stomach, and Liver, &c.

Note, that Fountain-water being made moderately acid, with this acid ironish Liquor, may be taken from a pint to six pints, but by degrees; and after the taking of it, moderate exercise is to be used, and fasting to be observed, till all the water be gone out of the body, which will be in seven or eight hours.

Epsome-water is made artificially thus. Take of the Mine of Allum, or Allum-stones, powder it very small, and distil it in the Furnace expressed page 103, and there will distil over a certain acid alluminish water, which must be mixed with a double quantity of Nitre-water, (the preparation whereof is set down in the process of making the artificial hot Bath.) Now you must know, that Epsome water hath a certain kind of acid
Of the Art of Distillation. Book V.

acid caust, which is partly alluminous and partly nitrous; which proceedeth from nitrous air, and vapours arising from the fermentation of alluminous M ses; being first mixed together, and then mixed with the Fountains passing through the Earth.

If you put a few drops of this Liquor into a Glass full of Fountain-water, it will give it the odour, and caust of Epsome water, that you shall scarce discern them asunder either by that odour, or operation.

This water is purgative, and indeed purgeth especially all sharp burning humors, cools an inflamed, and opens an obstructed body; cleanseth the Kidneys and Bladder, cureth inward Ulcers, and Impostumes, is a very good Preservative against the Consumption, 

Fountain-water made acid with this Liquor, may be taken from a pint to six or eight, but by degrees, and after it moderate exercise must be used; and fasting till the water be out of the body; only some thin warm suppings may be taken to help the working thereof. Some take this water warm.

To make artificial Precious-stones of all sorts of colours.

Take Crystalline white Pebble stones that are very white throughout, and have no mixture of any other colour, which you shall find in Fountains, and on the Sands of the Sea. Put them into a Crucible, make them glowing hot (covering the Crucible) then cast them into cold water, by which means they will crack, and be easily reduced into a powder; Take the powder thereof, and put the like quantity of pure Salt of Tartar thereto, which Salt must not be made in any metalline but Glass-vessels, that it may have no mixture of any other colour. To this mixture you may add what colour you please, which must be of a mineral or a metalline nature; then put them into a very strong Crucible, which must be but half full, and then covered, and then melt them in a strong fire, till they become like Glass. Note, that when this mixture is in melting, you must put an Iron-rod into it, and take up some of it, and if there appear no corms of gravel in it, it is enough; If otherwise, you must melt
melt it longer. The especial Minerals and Metals that give colours are these, viz. Copper, Iron, Silver, Gold, Wismuth, Magnesia, and Granats.

Commom Copper makes a Sea-green; Copper made out of Iron, a Grass-green; Granats, a Smargdine-green; Iron, yellow, or a Hyacinth colour; Silver, white, yellow, green, and granate-colour; Gold, a fine skie-colour; Wismuth, common blew; Magnesia, an amethyst colour: And if you will mix two or three of these together, they will give other colours. For Copper and Silver mixed together, give an Amethyst colour: Copper, and Silver mixed together, give an Amethyst colour: Copper, and Iron, a pale-green; Wismuth, and Magnesia, a purple colour; Silver, and Magnesia, divers colours like as an Opal. If you would have this mais not to be transparent but opaque, you may add the Calx of Tin to it, when it is in melting: as if you would make Lapis lazuli; then to your mixture coloured with Wismuth, add the Calx of Tin, and this mixture when it is almost ready to congeal cast into a mould, where some powder of gold hath been scattered, and by this means it will become full of Golden veins very like true Lapis-lazuli, which is very pleasant to behold. You may by these forefaid preparations cast what forms of figures you please, of what colour you please.

The Metals, and Minerals for the making of colours, ought to be thus prepared, viz.

Plates of Copper must be made red hot, and then quenched in cold water, of which then take five or six grains, and mix them with an ounce of the aforefaid mixture, and melt them all together, and they will colour it Sea-green.

Iron must be made into a Crocus in a Reverberatory fire, and then eight or ten grains thereof, will tinge the mixture into a yellow, or hyachinth colour.

Silver is to be dissolved in Aqua fortis, and precipitated with Oyl of Flint's, then dulcified with water, and afterward dried; of this five or six grains give a mingled colour.

Gold must be dissolved in Aqua-regis, and precipitated with the Liquor of Flints, then sweeneed, and dried, and five or six grains thereof giveth the finest Saphir colour, to an ounce of the mixture.
Of the Art of Distillation.  

If Gold be melted with regis martis nitrosus, five or six grains thereof, give to an ounce of the mass, a most incomparable rubine colour.

Magnesia may be powdered only, and then ten or twelve grains thereof, make an amethyst colour.

Wilmut must be dissolved in Aqua-regis, and precipitated with Liquor of Flints, then sweetened, and dryed; and then of this four or five grains, will turn an ounce of the mass into a Sapphir colour, but not so natural as Gold doth.

Granata may be powder only, and then ten or fifteen grains thereof, tinge an ounce of the mass into a fine green colour not unlike to the natural Smaragdine.

To prove what kind of metal there is in any Ore, although you have but a very few grains thereof, so as that you cannot make proof thereof, the ordinary way with Lead.

Take two or four grains (if you have no greater quantity) of any Ore that you have, put it to half an ounce of Venice glass, and melt them together in a Crucible, (the Crucible being covered) and according to the tinture, that the Glass receiveth from the Ore, so may you judge what kind of metal there is in the Ore; for if it be a Copper Ore, then the Glass will be tinged with a Sea-green colour.

If Copper and Iron, Grass-green.
If Iron, a dark yellow.
If Tin, a pale yellow.
If Silver, a whitish yellow.
If Gold, a fine skie-colour.
If Gold and Silver together, a Smaragdine-colour.
If Gold, Silver, Copper, and Iron together, an amethyst colour.

A pretty observation upon the melting of Copper and Tin together.

First make two Bullets of red Copper, of the same magnitude, make also two Bullets of the purest Tin in the same mould, as the others were made: weigh all four Bullets, and observe the
the weight well: then melt the Copper bullets first; upon them being melted put the Tin bullets, and melt them together, but have a care that the Tin fume not away. Then cast this molten mixture in the same moulds as before, and it will scarce make three Bullets, but yet they weigh as heavy as the four did, before they were melted together.

I suppose the Copper condenseth the body of the Tin, which before was very porous, which condensation rather adds than diminisheth the weight thereof.

A remarkable observation upon the melting of Salt-Armoniack, and Calx-vive together.

Take Salt-Armoniack, and Calx-vive, of each a like quantity, mix, and melt them together. Note, that Calx of itself, will not melt in less than eight hours, with the strongest fire that can be made; but being mixed with this Salt, melts in half an hour, and less, like a metal, with an indifferent fire.

This mixture being thus melted, becomes a hard stone, out of which you may strike fire as out of a Flint, which if you dissolve again in water, you shall have a Salt-Armoniack in the same quantity as before, but fixed.

Note, that hard things have their congelation from Salt-Armoniack, as horns, bones, and such like; for little fixed Salt can be extracted from them, only Volatile and Armoniack.

An ounce of any of these Volatile-salts, (as of Horns, Bones, Amber, and such like) reduced into an acid liquor by distillation, condenseth, and induratheth a pound of Oily-matter.

An easie and cheap Powder like unto Aurum fulminans.

Take of Salt of Tartar one part, Salt-peter three parts, Sulphur a third part; grind these well together, and dry them. A few grains of this powder being fired, will give as great a clap as a musket when it is discharged.
To make an Antimonial Cup, and to cast divers figures of Antimony.

Take of the best crude Antimony very well powdered, Nitre, of each a pound, of crude turtar finely powdered two pounds, mix them well together, and put them into a Crucible; cover the Crucible, and melt them, and the regulus will fall to the bottom, and be like a melted metal; then pour it forth into a Brass-mortar, being first smeared over with Oyl.

Or,

Take two parts of powdered Antimony, and four parts of powder of crude of Turtar, melt these as aforesaid.

This regulus you may (when you have made enough of it) melt again, and cast it into what moulds you please, you may either make Cups, or what Pictures you please, and of what figures you please. You may cast it into forms of Shilling's, or half crowns, either of which, if you put it into two or three ounces of Wine in an Earthen-glazed vessel, or Glass, and infuse it in a moderate heat all night, you may have a Liquor in the morning which will vomit: of which the dose is from two drams to two ounces and half.

Note, that in the wine you may put a little Cinnamon, to correct and give a more grateful relish to it.

It is the custom to fill the Antimonial-cup with Wine, and to put as much Wine round about, betwixt that and the little Earthen-cup where it stands, and so infuse it all night, and then drink up all that Wine; but I fear, that so much wine will be too much as being three or four ounces, when as we seldom exceed, the quantity of two ounces of the infusion of Antimony.

These Cups, or Pictures will last for ever, and be as effectual after a thousand times infusion, as at first: and if they be broken at any time, (as easily they may, being as brittle as Glass) they may be cast again into what forms you please.

Note, that he that casts them, must be skilful in making his Spawde, as also in scouring of them, and making them bright afterwards: for if they be carefully handled, they will look even as bright as silver.
The Spagirical Anatomy of Gold, and Silver, together with the Curiosities therein, and chiefest preparations thereof.

BOOK VI.

Shall first endeavour to shew whence Gold had its original, and what the matter thereof is. As Nature (faith San-divogius) is in the will of God, and God created her: so Nature made for her self a seed: (i.) her will in the elements. Now she indeed is one, yet she brings forth divers things; but she operates nothing without a Sperm: whatsoever the Sperm will, Nature operates, for she is, as it were, the instrument of any Artificers. The Sperm therefore of every thing is better, and more profitable than Nature herself: for thou shalt from Nature without a Sperm, do as much as a Goldsmith without fire, or a Husbandman without grain or seed. Now the Sperm of any thing is the Elixir, the Balsom of Sulphur, and the same as *Humidum Radicale* is in metals: but to proceed to what concerns our purpose. Four Elements generate.
rate a Sperme, by the will of God, and imagination of Nature: For as the Sperme of a man hath its center, or the vessel of its seed in the Kidneys; so the four Elements by their indecent motion (every one according to its quality) cast forth a Sperme into the center of the Earth, where it is degenerated, and by motion is sent abroad. Now the center of the Earth is a certain empty place, where nothing can rest: and the four Elements send forth their qualities, into the circumference of the center. As a man sends forth his seed into the womb of the female, which after it hath received a due portion, casts out the rest, so it happens in the center of the Earth, that the magnetick power of a part of any place, attracts something convenient to it self, for the bringing forth of something, and the rest is cast forth into stones and other excrescences: For every thing hath its original from this Fountain, and there is nothing in the world produced, but by this Fountain: as for example, let upon an even Table a vessel of water, which may be placed in the middle thereof, and round about it set divers things, and divers colours also; Salts &c. every thing by its self: then pour the water into the middle; and you shall see water to run every way, and when any stream toucheth the red colour, it will be made red by it; if the salt, it will change the taste of salt from it, and so of the rest: Now the water doth not change the places, but the diversity of places changeth the water. In like manner the seed of Sperme, being cast forth by the four Elements, from the center of the earth unto the superficies thereof, passeth through various places, and according to the nature of the place, is any thing produced: if it come to a pure place of earth, and water a pure thing is made.

The seed, and Sperme of all things is but one, and yet it generates divers things, as it appears by the former example. The Sperme, whilst it is in the center, is indifferent to all forms; but when it is comes into any determinate place, it changeth no more its form. The Sperme whilst it is in the center, can as easily produce a tree, as a metal, and an herb as a stone, and one more precious than another, according to the purity of the place. Now this Sperme is produced of Elements.
ments this. These four Elements are never quiet but by reason of their contrariety mutually act one upon another, and every one of itself lends forth its own subtility, and they agree in the center. Now in the center is the Archeas, the servant of Nature, which mixing those sperms together, lends them abroad, and by distillation sublimes them, by the heat of a continual motion, unto the superficies of the Earth: For the earth is porous; and this vapour (or wind, as the Philosophers call it) is by distilling through the pores of the earth resolved into water, of which all things are produced. Let therefore, as I said before, all sons of Art know, that the sperm of metals is not different from the sperm of all things being, viz. a humid vapour. Therefore in vain do Artificers endeavour, the reduction of metals into their first matter, which is only a vapour. Now says Bernard Trevisan, when Philosophers speak of a first matter, they did not mean this vapour, but the second matter, which is an unctuous water, which to us is the first, because we never find the former. Now the specification of this vapour into distinct metals, is thus. This vapour passeth in its distillation through the earth, through places either cold, or hot; if through hot, and pure, where the fatness of Sulphur sticks to the sides thereof; then that vapour (which Philosophers call the Mercury of Philosophers) mixeth, and joyneth itself unto that fatness, which afterwards it sublimes with itself, and then it becomes, leaving the name of a vapour, an unctuousity, which the antecedent vapour did purge, where the earth is subtile, pure, and humid, fills the pores thereof, and is joined to it; and so it becomes gold: and where it is hot, and something impure, silver. But if that fatness comes to impure places, which are cold, it is made lead: and if that place be pure, and mixed with Sulphur, it becomes Copper; for by how much more pure, and warm the place is, so much the more excellent doth it make the metals.

Now this first matter of metals is a humid, viscous, incombustible, subtile substance, incorporated with an earthy subtility, being equally, and strongly mixed per minima in the cavern, of the
the earth. But as in many things there is a twofold unctuous (whereof one is, as it were, internal, retained in the center of the thing left it should be destroyed by fire, which cannot be without the destruction of the substance itself wherein it is: the other, as it were, external, succulent, and combustible) so in all metals, except Gold, there is a twofold unctuous: the one which is external, Sulphurous, and inflammable, which is joined to it by accident, and doth not belong to the total union, with the terrestrial parts of the thing: the other is internal, and very subtle, incombustible, because it is of the substantial composition of Argent-vivæ, and therefore cannot be destroyed by fire, unless with the destruction of the whole substance, whence it appears what the cause is, that metals are more or less durable in the fire: for those which abound with that internal unctuous are less consumed, as it appears in Silver, and especially in Gold. Hence Rosarius saith, the Philosophers could never by any means find out any thing that could endure the fire; but that unctuous humidity only which is perfect, and incombustible. Qebir also affirms the same, when he saith, that imperfect bodies have superfluous humidities, and sulphurity generating a combustible blackness in them, and corrupting them: they have also an impure, succulent, and combustible terrestriality so gross, as that it hinders ingestion, and infusion: but a perfect metal, as gold, hath neither this sulphurous or terrestrial impurity; I mean, when it is fully matured, and melted, for whilst it is in concoction, it hath both joined to it, as you may see in the golden Ore, but then they do not adhere to it so, but that it may be purified from them, which other metals cannot, but are both destroyed together, if you attempt to separate the one from the other: Besides Gold hath so little of those corruptible principles mixed with it, that the inward sulphur or metallic spirit doth sometime, and in some places overcome them of itself, as we may see in the Gold which is found very pure sometimes in the superficies of the earth, and in the Sea-sands, and is many times as pure as any refined Gold.

Now this Gold which is found in Sands and Rivers, is not generated there, as saith Gregorius Agricola, in his third Book de
Book VI. Of the Art of Distillation. Re Metallica, but is washed down from the Mountains with Fountains that run from thence. There is also a flaming Gold found (as Paracelsus faith) in the tops of Mountains, which is indeed separated of it self from all impurities, and is as pure as any refined Gold whatsoever. So that you see, that Gold, although it had an extrinsical Sulphur and earth mixed with it, yet it is sometimes separated from it, of it self, viz. by that fiery Spirit that is in it. Now this pure gold (as faith Sandivogius) nature would have perfected into an elixir, but was hindered by the crude air; which crude air is indeed nothing else, but that extrinsical Sulphur which it meets with, and is joined to in the earth, and which fills with its violence the pores thereof, and hinders the activity of the Spirit thereof; and this is that Poison which the Sulphur (as faith the aforesaid Author) is locked up in, so that it cannot act upon its body, viz. Mercury, and convert it into the seed of Gold, as otherwise it would do: and this is that dark body (as faith Penitus) that is interposed between the Philosophical Sun and Moon, and keeps off the influences of the one from the other. Now if any skilful Philosopher could witly separate, this adventitious impurity from gold, whilst it is yet living, he would set Sulphur at liberty, and for this his service he should be gratified with three Kingdoms, viz. Vegetable, Animal, and Mineral; I mean, he could remove that great obstruction which hinders gold from being digested into the Elixir. For as faith Sandivogius, the Elixir, or Tincture of Philosophers, is nothing else but gold digested into the highest degree: for the gold of the vulgar is as an herb without seed; but when gold (i.e.) living gold (for common gold never can, by reason that the Spirits are bound up, and indeed as good as dead, and not possibly to be reduced to that activity, which is requisite for the producing of the Sperm of gold) is ripened, it gives a seed, which multiplies even ad infinitum. Now the reason of this barrenness of gold that it produceth not a seed, is the aforesaid crude air, viz. impurities. You may see this illustrated by this example.

We see that Orange-trees in Polonia do grow like other trees; also in Italy, and elsewhere, where their native soil is,
is, and yield fruit, because they have insufficient heat, but in the colder countries they are barren and never yield any fruit, because they are oppressed with cold: but if at any time nature be wisely and sweetly helped, then art can perfect what Nature could not. After the same manner it is in metals; for God would yield fruit, and seed, in which it might multiply itself, if it were helped by the industry of the skilful Artifex, who knew how to promote Nature (i.) to separate these Sulphurous and Earthly impurities from Gold: For there is a sufficient heat in living Gold, if it were stirred up by extrinseical heat, to digest it into a seed. By extrinseical heat, I do not mean the heat of the celestial Sun, but that heat which is in the earth and stirs up the seed, (i.) the living spirit that is in all subteranneal Sperms to multiply, and indeed makes Gold become Gold. Now this is a heat of putrefaction, occasioned by acid spirits fermenting in the earth, as you may see by this example related by Albertus Magnus; for which the reason was given by Sandius. There was, faith the former Author, certain grains of Gold found between the teeth of a dead man in the grave: wherefore he conceived there was a a power in the body of a man to make and fix gold: but the reason is far otherwise, as faith the latter Author; for, faith he, Argent vivum was by some Phystrian conveyed in the body of this man, when he was alive, either byunction, or by turbith, or some such way as the custom was; and it is the Nature of Mercury to ascend to the mouth of the patient, and through the excoriation of the mouth to be avoided with the flegm. Now then, if in such a case the sick man dyed, that mercury, not having passage out, remained betwixt the teeth in the mouth, and that carcase became the natural vessel of Mercury, and so for a long time being shut up was congealed by its proper Sulphur into Gold, by the natural heat of putrefaction, being purified by the corrosive flegm of the carcase, but if the Mineral Mercury had not been brought in this the, Gold had never been produced there: And this is a most true example, that as Mercury is by the proper Sulphur that is in itself, being stirred up and helped by an extrinseical heat, coagulated into Gold, unless it be hindered by
by any accident, or have not a requisite extrinseical heat, or a convenient place: so also that nature doth in the bowels of the earth, produce of Mercury only Gold and Silver, and other metals according to the disposition of the place; and matrix; which affection is further cleared by the rule of Reduction; for if it be true, that all things consist of that which they may be reduced into, then Gold consists of Mercury, because (as most grant, Paracelsus affirms, and many at this day profess they can do) it may be reduced into it. There is a way by which the Tincture of Gold, which is the soul thereof, and fixeth it, may be so fully extracted, that the remaining substance will be sublimed like Artisick, and may be as easily reduced into Mercury as sublimate. If so, and if all Mercury may be reduced into a transparent water, as it may (according to the process set down page 94, and as I know how another better and easier way to turn a pound of Mercury, of it self, into a clear water in half an hour, which is one of the greatest secrets I know, or care to know, together with what may be produced thence, and shall crave leave to be silent in) why may not that water, in some sense, if it be well rectified, be called a kind of living Gold, out of which you may perhaps make a medicine, and a Menstruum useful for the vulgar to know. It appears now, from what is premised, that the immediate matter of Gold is probably Mercury, and not certain Salts, and I know, not what, as many dream of; and that the extrinseical heat is from within the earth, and not the heat of the Sun, as some imagine (because in the hottest Countreys there is all, or almost all Gold generated) who if they considered, that in cold Countreys also are; and as in Scotland were Gold mines in King James his time, would be of another mind, then to think, that the celestial Sun could penetrate, so as to heat the earth so deep: as most Gold lies.

I now having, in some measure, discovered what the intrinseical, and extrinseical heat, and the matter of Gold is: I shall next endeavour to explain, what those three principles are, viz. Salt, Sulphur, and Mercury, of which Argent vivi, and Gold consist: Know therefore, that after Nature had received from the most High God, the priviledge of all things upon
the Monarchy of this world, she began to distribute places, and provinces to every thing, according to its dignity; and in the first place did constitute the four elements to be the Princes of the world, and that the will of the most High (in whose will Nature is placed) might be fulfilled, ordained that they should act upon one another incessantly. The fire therefore began to act upon the air, and produced Sulphur: The air also began to act upon the water and produced Mercury: the water also began to act upon the earth and produced Salt. Now the earth not having whereon to act, produced nothing, but became the subject of what was produced. So then there were produced three principles; but our ancient Philosophers not so strictly considering the matter, described only two acts of the elements, and so named but two principles, viz. Sulphur and Mercury: or else they were willing to be silent in the other, speaking only to the sons of Art.

The Sulphur therefore of Philosophers, (which indeed is the Sulphur of metals, and of all things) is not, as many think, that common combustible Sulphur which is sold in shops, but is another thing far differing from that, and is incombustible, not burning, nor heating, nor preserving, and restoring all things which it is in; and it is the Calidum Innatum of every thing, the fire of nature, the created light, and of the nature of the Sun, and is called the Sun; so that whatsoever in any thing is fiery, and airy, is Sulphur, not that anything is wholly sulphureous, but what in it is most thin, and subtle, having the essence of the natural fire, and the nature of the created light, which indeed is that Sulphur, which wise Philosophers have in all ages, with great diligence endeavoured to extract, and with its proper Mercury to fix, and so to perfect the great Magi- sterity of nature. Now of all things in the World, there is nothing hath more of this Sulphur in it, than Gold and Silver, but especially Gold, in so much that oftentimes it is called Sulphur, (i.) because Sulphur is the most predominant, and excellent principle in it, and being in it more than in all things besides.
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Mercury is not here taken for common Argent vive; but it is the Humidum Radicale of every thing, that pure aqueous, unctuous, and viscous humidity of the matter, and it is of the nature of the Moon, and it is called the moon, and that for this reason, viz. because it is humid; as also, because it is capable of receiving the influence and light of the Sun, viz. Sulphur.

Salt is that first permanent earth, which is in the center of every thing that is incorruptible, and inalterable, and it is the supporter and nurse of the Humidum Radicale, with which it is strongly mixt. Now this Salt hath in it a seed, viz. its Calidum Immatum, which is Sulphur, and its Humidum Radicale, which is Mercury; and yet these three are not distinct, or to be separated, but are one Homogeneous thing, having upon a different account divers names: for in respect of its heat, and fiery substance, it is called Sulphur; in respect of its humidity, it is called Mercury; and in respect of its terrestrial siccity, it is called Salt; all which are in Gold perfectly united, depurated, and fixed.

Gold therefore is most noble, and solid of all metals, of a yellow colour, compacted of principles digested to the utmost height, and therefore fixed.

Silver is in the next place of dignity to Gold, and differs from it in digestion chiefly: I said chiefly, because there is some small impurity besides adhering to Silver.

Now having given some small account of the original matter, first, and second, and manner of the growth of Gold, I shall, in the next place, set down some curiosities therein, and preparations thereof. The preparations are chiefly three, viz. Aurum Potabile, which is the mixture thereof with other Liquors: Oyl of Gold, which is Gold liquid by itself, without the mixture of any other Liquor: and the tincture, which is the extraction of the colour thereof.
Dr. Anthony's famous Aurum Porabile, and Oyl of Gold.

Dissolve pure fine Gold in Aqua-regis, according to art (the Aqua-regis being made of a pound of Aqua-rosa, and four ounces of Salt Armoniack, distilled together by Retort in Sand) which clear solution put into a large glass of a wide neck, and upon it, pour drop by drop, Oyl of Tarrar made per deliquium; until the Aqua-regis, which before was yellow, become clear, and white; for, that is a sign that all Calx of Gold is settled to the bottom; then let it stand all night, and in the morning pour off the clear Liquor, and wash the Calx four or five times, with common Spring water, being warmed, and dry it with a most gentle hear.

Note, and that well, that if the heat be too great, the Calx takes fire presently like Gun powder, and flies away to thy danger and loss; therefore it is best to dry it in the Sun, or on a stone, stirring it diligently with a wooden spattle: To this Calx add half a part of the powder of Sulphur, mix them together, and in an open Crucible, let the Sulphur burn away in the fire, putting a gentle fire to it at the first, and in the end a most strong fire for the space of an hour, that the Calx may in some manner be reverberated, and become most subtle, which keep in a viol clothe stopp for your use.

Then make a Spirit of Urine after this manner, viz. Take the Urine of a healthy man, drinking Wine moderately; put it into a gourd, which you must stop close, and set in horse-dung for the space of forty days; then distil it by Alembick in Sand, into a large Receiver, until all the humidity be distilled off: Rectifie this Spirit by cohabitation three times, that the Spirit only may rise: Then distil it in Sand, by a glass with a long neck, having a large Receiver annexed, and closed very well to it; and the spirit will be elevated into the top of the vessel like Crystal, without any aqueous humidity accompanying of it. Let this distillation be continued, until all the Spirits be risen. These Crystals must be dissolved in distilled rain-water, and be distilled as before, this must be done six times, and every time you must take fresh rain-water distilled: Then put these Crystals into a glass bolt-head,
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bott-head, which close hermetically, and set in the moderate heat of a Balneum for the space of fifteen days, that they may be reduced into a most clear Liquor. To this Liquor, add an equal weight of Spirit of Wine, very well rectified, and let them be digested in Balneo the space of twelve days, in which time they will be united: Then take the Calx of Gold abovesaid, and pour upon it, of these united Spirits, as much as will cover them three fingers breadth, and digest them in a gentle heat, until the Liquor be tinged as red as blood; decant off the Tincture, and put on more of the abovesaid Spirits, and do as before till all the Tincture be extracted; then put all the tinted Spirits together, and digest them ten or twelve days; after which time, abstract the Spirit with a gentle heat, and cohabate it once; and then the Calx will remain in the bottom like an Oyl as red as blood, and of a pleasant odour, which will be dissolved in any Liquor: Wherefore this Oyl may be the Succedaneum of true Gold. If you distil the same solution, by Retort in Sand, there will come over, after the first part of the Menstruum, the Tincture with the other part thereof, as red as blood, the earth which is left in the bottom of the vessel being black, dry, spongy and light. The Menstruum must be vapoured away, and the Oyl of gold will remain by itself, which must be kept as a great treasure; and this is Dr. Anthony's Aurum Potabile.

Four or eight grains of this Oyl taken in what manner ever, wonderfully refresheth the Spirits, and works several ways, especially by sweat.

The true Oyl of Gold.

Take an ounce of leaf-gold, dissolve it in four ounces of the rectified water of Mercury, expressed page 94. digest them in horse dung the space of two months; then evaporate the Mercurial water, and at the bottom you shall have the true Oyl of Gold which is radically dissolved.

Another process hereof you may see page 89.
A Tincture of Gold.

Dissolve pure Gold in Aqua regis, precipitate it with the Oyl of sand, into a yellow powder, which you must distill with warm water, and then dry it (this will not be fired as Aurum fulminans.) This powder is twice as heavy as the Gold that was put in, the cause of which is the Salt of the flints precipitating it itself with the Gold. Put this yellow powder into a Crucible, and make it glow a little, and it will be turned into the highest, and fairest purple that ever you saw; but if it stand longer, it will be brown: Then pour upon it the strongest Spirit of Salt; (for it will dissolve it better than any Aqua regis) on which distillation pour on the best rectified Spirit of Wine, and digest them together, and by a long digestion, some part of the Gold will fall to the bottom, like a white snow, and may with Borax, tartar, and Salt-Nitre be melted into a white metal, as heavy as Gold, and afterwards with Antimony may recover its yellow colour again; then evaporate the Spirit of Salt, and of Wine, and the Gold Tincture remaineth at the bottom, and is of great virtue.

Another Tincture of Gold.

Take of the aforesaid yellow Calx of Gold precipitated with Oyl of Sand, one part, and three or four parts of the Liquor of Sand, or of Crystals; mix them well together, and put them into a Crucible, in a gentle heat at first, that the moisture of the Oyl may vapour away (which it will not do easily, because the dryness of the Sand retains the moisture thereof, so that it flyeth away like molten Allum, or Borax) when no more will vapour away, encrease your fire, till the crucible be red hot, and the mixture cease bubbling; then put it into a Wind Furnace and cover it that no ashes fall into it, and make a strong fire about it for the space of an hour, and the mixture will be turned into a transparent Ruby: Then take it out, and beat it, and extract the tincture with Spirit of Wine, which will
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become like thin blood, and that which remains undissolved may be melted into a white metal, as the former.

Another Tincture of Gold.

Hang plates of Gold over the fume of Argentum vivum, and they will become white, friable, and fluxil as wax. This is called the Magnesia of Gold, as faith Paracelsus; in finding out of which (faith he) Philosophers, as Thomas Aquinas, and Rupecissa with their followers, took a great deal of pains, but in vain, and it is a memorable secret, and indeed very singular for the melting of metals that are not easily fluxil. Now then Gold being thus prepared, and melted together with the Mercury, is become a brittle substance, which must be powdered and out of it a tincture may be drawn for the transmuting of metals.

Another Tincture.

Take half an ounce of pure Gold, dissolve it in Aqua regis, precipitate it with Oyl of Flints, dulcisfe the Calx with warm water, and dry it, and so it is prepared for your work: Then take: Regulus Martis powdered, and mix it with three parts of Salt-Nitre, both which put into a Crucible, and make them glow gently at first, then give a strong melting fire, and then this mixture will become to be of a purple colour, which then take out, and beat to powder, and add to three parts of this, one part of the Calx of Gold prepared as before; put them into a Wind-furnace in a strong Crucible, and make them melt as metal, so will the Nitrum antimoniatum in the melting take the Calx of Gold to itself, and dissolve it, and the mixture will become to be of an Amethyst colour. Let this stand flowing in the fire till the whole mass be as transparent as a Rubine, which you may try by taking a little out and cooling of it: If the mixture do not flow well, cast in some more Salt-Nitre. When it is completely done, cast it forth, being flowing, into a brazen mortar, and it will be like to an oriental Rubine; then powder it before it be
be cold, then put it into a Vial, and with the spirit of Wine extract the tincture.

This is one of the best preparations of Gold, and of most excellent use in medicine.

Another Tincture.

First make a Furnace fit for the purpose, which must be close at the top, and have a Pipe, to which a Recipient with a flat bottom must be fitted: When this Furnace is thus fitted, put in three or four grains (not above) at once, of Aurum fulminans, which as soon as the Furnace is hot, flyeth away into the Recipient through the pipe like a purple coloured fume, and is turned into a purple coloured powder, then put in three or four grains more, and do as before, till you have enough flowers of Gold (that which flyeth not away, but remaineth at the bottom, may with Borax be melted into good Gold) then take them out, and pour upon them rectified spirit of Wine tarrarizated, and digest them in ashes till the spirit be coloured blood-red, which you must then evaporate, and at the bottom will be a blood-red Tincture of no small virtue.

Aurum fulminans.

Take the purest Gold you can get; pour on it four times as much Aqua-regia; stop your Glass with a paper, and set it in warm ashes, so will the Aqua regia in an hour or two take up the Gold, and become a yellow water, if it be strong enough: (be sure that your Gold hath no Copper in it, (for then your labour will be lost) because the Copper will be precipitated with the Gold, and hinder the finding thereof) then pour on this yellow water drop by drop, pure Oyl of Tarrar made per deliquium; so will the Gold be precipitated into a dark yellow powder, and the water be clear. Note, that you pour not on more Oyl of Tarrar than is sufficient for the precipitation, otherwise it will dissolve part of the precipitated Gold to thy prejudice. Pour off the clear Liquor by inclination, and dulcifie the Calx with distilled
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First Rain-water warmed. Then set this Caflux in the Sun, or some warm place to dry, but take great heed, and special care, that you set it not in a place too hot, for it will presently take fire, and fly away like Thunder, not without great danger to the standers by, if the quantity be great. This is the common way to make Aurum fulminans, and it hath considerable difficulties in the preparation. But the best way is to precipitate Gold dissolved in Aqua-regia by the Spirit of Salt-Aromiac, or of Urine; for by this way the Gold is made purer than by the other, and gives a far greater crack and sound. Note, that the Salt of the Spirits which is precipitated with the Gold must be washed away, and the Gold dulcified as before.

A few grains of this being fired, give a crack and sound as great as a Musket when it is discharged, & will blow up any thing more forcibly far than Gunpowder, and it is a powder that will quickly and easily be fired.

This is of use for Physick as it is in powder, but especially it is used in making the fore-going Tincture.

To make Gold grow in a Glass like a tree, which is called the Golden-tree of the Philosophers.

Take of Oyl of Sand as much as you please, pour upon it the same quantity of Oyl of Tartar, per deliquium; shake them well together that they be incorporated and become as one Liquor of a thin consistence; then is your Menstruum or Liquor prepared, Then dissolve Gold in Aqua-regia, and evaporate the Menstruum, and dry the Calx in the fire, but make it not too hot, for it will thereby lose its growing quality; then take it out and break it into little bits, not into powder; put those bits into the aforesaid Liquor (that they may lie a fingers breadth the one from the other) in a very clear glas. Keep the Liquor from the air, and you shall see that those bits of the Calx will presently begin to grow; first they will swell, then they will put forth one or two items, then divers branches and twigs so exactly, as that you cannot chuse but exceedingly to wonder. This growing is real, and not imaginary only. Note, that the glas must stand still, and not be moved.
Another way.

Calcine fine Gold in *Aqua regia*, that it become a *Calx*, which put into a *Gourd-glass*, and pour upon it good and fresh *Aqua regia*, and the water of Gradation, so that they cover the *Calx* four fingers breadth; this *Menstruum* abstract in the third degree of fire until no more will ascend. This distilled water pour on it again, and abstract it as before; and this do so often, till you see the *Gold* rise in the *Glass*, and grow in the form of a tree, having many boughs and leaves.

To make *Gold* grow and be increased in the Earth.

Take leaves of *Gold*, and bury them in the Earth which looks towards the East, and let it be often soiled with mans urine, and *doves-dung*, and you shall see that in a short time they will be increased.

The reason of this growth, I conceive, may be the *Golds* attracting that universal vapour and *Sperm* that comes from the center through the earth (as hath been spoken in the Anatomy of *Gold*) and by the heat of purifaction of the dung purifying and assimilating it to it self.

A remarkable observation upon a golden *Marcasite*.

There is found a certain stone in *Bononia*, which some call a golden *Marcasite*, some a solary *Magnes*, that receives light from the *Sun* in the day time, and gives it forth in the dark. About this there have been much reasoning amongst Philosophers, as whether light be really a body, or any kind of substance, or an accident only, and whether this stone had any *Gold* in it or no, and what it did consist of. He that first discovered it, thought that he had found a thing that would transmute mettals into *Gold*, (by which it appears that there seemed to be something of *Gold* in it, or something more glorious than *Gold*) but his hopes were frustrated by a fruitless labour, notwithstanding which, I conceive, there might be some imma-
immature or crude Gold in it; for crude gold is a subject (being there is some life in it) that is most fit to receive the influences of the Sun, according to the unanimous consent of all Philosophers, and therefore is by them not only called Solary, but Sol. (i.e.) the Sun itself.

It is prepared for the receiving of light thus: it is calcined two ways; first, it is brought into a most subtle powder with a very strong fire in a crucible; secondly, being thus brought into a powder, is made up into Cakes as big as a dollar, or a piece of eight, either with common water alone, or with a white of an egg; put those Cakes being dried by themselves, into a Wind Furnace S S S, with coals, and calcine them in a most strong fire, for the space of four or five hours. When the Furnace is cold, take them out, and if they be not sufficiently calcined the first time, (which is known by their giving but little light,) then reiterate the calcination after the same manner as before, which is sometimes to be done thrice. That is the best which is made of the choicest stones that are clean, pure, and diaphanous, and gives the best light. With this being powdered, you may make the forms of divers Animals of what shapes you please, which you must keep in boxes, and they will receiving light from the Sun in the day time, give light in the night, or in a dark place, which light will vanish by degrees.

The vertues of the aforesaid preparations of Gold.

With the aforesaid preparations the Ancients did not only preserve the health and strength of their bodies, but also prolong their lives to a very old age; and not that only, but cured thoroughly the Epilepsie, Apoplexie, Elephantiasis, Leprosie, Melancholy, Madness, the Quarrain, the Gout, Dropse, Pllumia, all manner of Feavers, the Jaundice, Lues venerea, the Wolf, Cancer, Noli me tangere, Asthma, Consumption, the Stone, dropping of Urine, inward Impothumes, and such like diseases; which most men account incurable: For there is such a potent fire lying in prepared gold, which doth not only consume deadly humors, but also renews the very marrow of the
the bones, and raiseth up the whole body of man being half dead.

They that use any of these preparations for any of the foregoing diseases, must betake themselves to their bed for the space of two or three hours, and expect sweating to ensue; for indeed it will send forth sweat plentifully, and with ease, and leave no impurity or superfluity in the whole body. Note, that they must take it for ten days together in appropriated Liquors.

Let young men that expect long life, take any of the aforesaid preparations once in a month, and in the morning, but they must abstain from meat and drink, till the evening of the same day, for in that time that matter will be digested into the radical humor, whereby the strength of the body is wonderfully increased, beauty doth flourish most wonderfully, and continues till extreme old age.

Let old men take it twice in a month, for by this means their old age be refreshed till the appointed time of death.

Let young women and maids take it once in a month after their menstrua, for by this means they will look fresh and beautiful.

Let women that are in travel take it, and it will help and strengthen them to bring forth without much pain, notwithstanding many difficulties.

Let it be given to women that have past the years of their menstrua once or twice in a month, and it will preserve them very fresh, and many times cause their menstrua to return, and make them capable again of bearing children.

It curing the Plague, and expels the matter of a Carbuncle by sweat most potently.

When I say, that this, or it will do thus or thus, I mean, any one of the forenamed preparations, viz. Aurum Potabile, Oyls, or Tincture of Gold.

The Preparations of Silver in general.

All the several preparations of Gold may, except that of Au-
Of the Art of Distillation.

rum fulminans, be applied to silver; of which being thus prepared the virtues are inferior to those of gold, yet come nearer to them than those of any other matter whatsoever, or howsoever prepared.

Note, that silver hath some peculiar preparations which neither gold or any other metals are capable of.

A green Tincture of Silver.

Take fine silver, and dissolve it in twice so much rectified Spirit of Nitre, then abstract half of the said Spirit in sand, let it stand a day or two in a cold place, and much of the silver will shoot into crystals, and in off doing, most of it.

These crystals are very bitter, yet may be made into pills, and taken inwardly from three grains to twelve; they purge very securely, and gently, and colour the lips, tongue, and mouth black. If in this dissolution of silver before it be brought to crystals, half so much mercury be dissolved and both shoot together into crystals, you shall have a stone not much unlike to allum. This purgeth sooner, and better, and is not so bitter; it coloureth the nails, hair, skin, if it be dissolved in rain-water, with a lovely brown, red, or black, according as you put more or less thereof.

Take of the aforesaid crystals of silver, mix with them a like quantity of pure salt-peter well powdered, then put this mixture into the distilling vessel expressed page 95, at the bottom of which, must be powdered coals to the thickness of two fingers breadth; then make a strong fire, that the vessel and coals be red hot, put in a dram of the aforesaid mixture, and it will presently sublime in a silver fume, into the recipient, which being settled, put in more, and so do till you have enough. Take out the flowers, and digest them in the best alkoholizated Spirit of Wine, that thereby the tincture may be extracted which will be green.
A green Oyl of Sibur.

Take of the aforesaid Crystalls of Silver one part, of Spirit of Salt-Armoniack two or three parts, digest them together in a Glass with a long neck, well stop'd, twelve or fourteen days, so will the Spirit of Salt-Armoniack be coloured with a very specious blew colour, pour it off, and filter it: then put it into a small Retort, and draw off most of the Spirit of Armoniack, and there will remain in the bottom a grays-green Liquor: Then draw off all the Spirit, and there will remain in the bottom a Salt, which may be purified with Spirit of Wine, or be put into a Retort, and then there will distil off a subtle Spirit, and a snup Oyl.

This green Liquor is of great use for the gilding of all things presently.

If you take common Rain-water distilled, and dissolve, and digest the aforesaid Crystalls of Silver for a few days; you shall after the appearance of divers colours, find an essence at the bottom, not so bitter as the former, but sweeter, and in this Liquor may all mettals in a gentle heat by long digestion be maturated, and made fit for medicine; but note, that they must first be reduced into Salts, for then they are no more dead bodies, but by this preparation have obtained a new life, and are the mettals of Philosophers.

To make Oyl of Silver per deliquium.

Take of the aforesaid Salts, or Crystalls of Silver, and reverberate them in a very gentle fire, then put them into a catter on a Marble-stone, and they will in two months time be resolved into a Liquor.
To make a Liquor of Silver, that shall make the Glass wherein it is so exceedingly cold, that no man is able for the coldness thereof, to hold it in his hand any long time.

Take the aforesaid Salt of Silver, pour upon it the Spirit of Salt Armoniack, and dissolve it thoroughly, and it will do as above said.

With a glass being full of this Liquor, you may condense the air into water, in the heat of the Summer; as also freeze water.

To make Silver as white as Snow.

Take of the calx of silver made by the dissolution of it in Aqua fortis, dulcifie it, and boil it in a Lixivium made of Sope-ashes, and it will be as white as any snow.

To make the silver tree of the Philosophers.

Take four ounces of Aqua fortis, in which dissolve an ounce of fine silver; then take two ounces of Aqua fortis, in which is dissolved half an ounce of Argent vivæ; mix these two Liquors together in a clear glass with a pint of pure water, stop the glass very close, and you shall see day after day, a tree to grow by little and little, which is wonderful pleasant to behold.

I have set down several vulgar preparations of Gold and Silver, and almost all things else, I shall now crave leave to give an account of some Philosophical preparations of the Philosophers Gold and Silver: for indeed the Art of preparing of them is the true Alchemy, in comparison of which all the Chymical discoveries are but abortives, and found out by accident, viz. by endeavouring after this. I would not have the world believe that I pretend to the understanding of them; yet I would have them know that I am not incredulous, as touching the possibility of that great Philosophical work, which many have so much laboured after, and may have found. To me there is nothing
nothing in the world seems more possible, and whosoever shall without prejudice, read over the Book, entitled *The New Light of Alchemy*, shall, almost, whether he will or no, (unless he resolves not to believe any thing though never so credible) be convinced of the possibility of it. What unworthiness God has in Gold, more than in other things, that he should deny the seed of Multiplication (which is the perfection of the creatures) to it, and give it to all things besides, seems to me to be a question, as hard to be resolved, yea, and harder, than the finding out the Elixir itself; in the discovering of which, the greatest difficulty is, not to be convinced of the easiness thereof. If the preparations were difficult, many more would find it out than do (faith Sandivogius; for they call themselves upon most difficult operations, and are very subtle in difficult discoveries, which the Philosophers never dreamed of: Nay, faith the aforesaid Author, if Hermes himself were now living, together with subtle-witted Geber, and most profound Raimund Lullie, they would be accounted, by our Chymists, not for Philosophers, but rather for learners: They were ignorant of those so many Distillations, so many Circulations, so many Calcinations, and so many other innumerable Operations of Artists now a days used; which indeed men of this age, did find out and invented, out of their books: Yet there is one thing wanting to us which they did, viz. to know how to make the Philosophers Stone, or Physical Tincture; the processes of which, according to some Philosophers, are these.
The Process of the Elixir, according to Paracelsus.

Take the mineral Electrum, being immature, and made very subtle, put it into its own sphere, that the impurities and the superfluities may be washed away then purge it, as much as possibly you can, with Stibium, after the Alchymistical way, lest by its impurity thou suffer prejudice: Then resolve it in the stomach of an Estridge, which is brought forth in the earth, and through the sharpness of the Eagle, is comfortated in its vertue.

Now when the Electrum is consumed, and hath, after its solution, received the colour of a Mary-gold, do not forget to reduce it into a spiritual transparent essence, which is like to true Amber; then add half so much as the Electrum did weigh before its preparation, of the extended Eagle, and oftentimes abstract from it the stomach of the Estridge, and by this means the Electrum will be made more spiritual: Now, when the stomach of the Estridge is wearied with labour, it will be necessary to refresh it, and always to abstract it. Lastly, when it hath again lost its sharpness, add the Tartarizated Quintessence; yet so, that it be spoyled of its redness the height of four fingers, and that pass over with it; this do so often till it be of itself white, and when it is enough, and thou felest that sign, sublime it. So will the Electrum be converted into the whiteness of an exalted Eagle, and, with a little more labour, be transmuted into a deep redness, and then it is fit for Medicine.
The Process of the Elixir, according to Divi Lescil
Genus Amo.

Take of our earth through eleven degrees, eleven grains; of our gold, and not of the vulgar, one grain; of our lune, not of the vulgar, two grains; but be thou admonished that thou take not the gold, and Silver of the vulgar for they are dead, but take ours which are living; then put them into our fire, and there will thence be made a dry Liquor: First the earth will be resolved into water, which is called the Mercury of Philosophers, and in that water it will resolve the bodies of the Sun, and Moon, and consume them, that there remain but the tenth part, with one part, and this will be the Humidum Radicale Metalli-cum. Then take the water of the Salt Nitre of our earth, in which there is a living stream, if thou diggest the pit knee deep, take therefore the water of it, but take it clear, and let over it that Humidum Radicale, and put it over the fire of putrefaction and generation, but not such as was that in the first operation. Govern all things with a great deal of discretion, until there appear colours like to the tail of a Peacock: govern it by digesting of it, and be not weary till these colours cease, and there appear throughout the whole, a green colour, and so of the rest: and when thou shalt see in the bottom, ashes of a fiery colour, and the water almost red, open the vessel, dip in a feather, and smear over some iron with it if it tinge, have in readiness that water which is the Menstruum of the world (out of the sphær of the Moon so often rectified, until it can calcine gold) put in so much of that water as was the cold air, which went in, boil it again with the former fire until in tinge again,

The
The Process of the Philosophers-Stone, according to Pontanus.

Take the matter, and grind it with a Physical contribution, as diligently as may be, then set it upon the fire, and let the proportion of fire be known, viz. that it only stir up the matter; and in a short time, that fire, without any other laying on of hands, will accomplish the whole work, because it will putrefie, corrupt, generate and perfect, and make to appear the three principal colours, black, white, and red: And by the means of our fire, the medicine will be multiplied, if it be joined with the crude matter, not only in quantity but also in virtue: Withal, they might therefore search out this fire, which is mineral, equal, continual, vapours not away, except it be too much stirred up; partakes of Sulphur, is taken from elsewhere than from the matter; putteth down all things, dissolveth, congealeth, and calcines, and is artificial to find out, and that by a compendious, and near way, without any cost, at least very small, is not transmuted with the matter, because it is not of the matter) and thou shalt attain thy wish, because it doth the whole work, and is the key of the Philosophers, which they never revealed.

The Smaragdine table of Hermes from whence all Alchymie did arise.

True, without all falsity, certain, and most true. That which is inferior, is as that which is superior; & that which is superior, is as that which is inferior, for the accomplishing of the miracles of one thing. And as all things
things were from one, by the mediation of one; so all things have proceeded from this one thing by adaptation: The Father thereof, is the Sun; and the mother thereof, the Moon; the Wind carried it in its belly; the Nurse thereof, is the Earth.

The Father of all the perfection of the whole world is this: The vertue thereof is entire, if it be turned into earth. Thou shalt separate the earth from the fire, the subtle from the thick, sweetly, with a great deal of judgement. It ascends from the earth up to heaven, and again, descends down to the earth, and receives the powers of superiors, and inferiors. So thou hast the glory of the whole world: Therefore let all obscurity fly from thee. This is the strong fortitude of the whole fortitude, because it shall overcome every thing that is subtle, and penetrate every solid thing, as the world is created: Hence shall wonderful adaptations be, whereof this is the manner; wherefore I am called Hermes Trismegistus, having three parts of the Philosophy of the whole world. It is compleat, what I have spoken of the operation of the Sun.
Of Sublimation.

Book VII.

What Sublimation is.

1. Sublimation is the extraction of the pure, subtile, dry parts, (from the impure, gross, and feculent matter) which, by the virtue of the fire, is elevated on high, sticking to the sides of the vessels, dry like Atoms; and therein it differs from Distillation.

2. Sublimation is an operation, whereby the vaporous body, or matter, is forced to rise by the strength of the fire, and then condensed by the Ambient cold.

It is called Sublimation, from the manner of the Operation, being opposite to Precipitation.

What Furnaces are necessary in this Work.

As to the variety of Furnaces useful in this Art, you have them more generally described in the former part; two thereof are particularly useful in Sublimation, viz.

An Iron Vessel in form of either Pot or Kettle (as to the Artist shall seem good) well placed in a Furnace of brick or stone, with convenient Registers; for the regular increase or decrease of
Of the Art of Distillation. Book VII.

of the fire, being very necessary in this Operation; in which vessel you may either use Sand or Ashes to place your Sublimatory in, according as your matter requires.

Also, a Naked fire; that is, when the Vessel or Sublimatory containing the matter to be sublimed standeth in the naked fire, without either Sand or Ashes.

For in Sublimation are required various degrees of fire, according to the diversity of Spirits to be Sublimed: as saith Geber, Some Sublimations are performed by a very strong fire, as Marseilles, Magnesia, Turcia, Antimony, &c. Some by a more moderate fire, as Mercury, Arsenick, &c. Some by a more gentle heat, as Sulphur, &c.

Also, there are several Sublimations performed, by casting the matter to be sublimed into the naked fire: Thus are made the flowers of Metals, and Rubborn robust Minerals, as hereafter appeareth.

What Vessels are to be used in Sublimation.

They are made either of Glass or Earth; earthen vessels are most commonly used, by reason that they are cheaper and endure the fire better, and serve very well for common operations; for in Sublimation, usually, there is no necessity of glass or such vessels that retain the spirit, but it is sufficient that they be strong and made of good earth, that will endure the fire well, they may be either glazed within, or not, according as the matter to be sublimed is either Liquefiable or not.

But in select operations, where the matter is either precious, or very subtle and spiritual, the glass Sublimatories are to be preferred, and are much more used by good Artists, and in choice preparations, than the other.

The form of the Vessels also vary, according to the matter to be Sublimed, they are sometimes high, and sometimes low, as the matter is more or less volatile; for if it be more Volatile, the higher Sublimatories are to be used; if less Volatile, then lower. Sometimes many Vessels are to be used in Sublimation, the one set over the other, and all of them open at the top, save only the uppermost, which must be closed, and
and hath a pipe at the side, that if any moisture do arise, it may distil.

Many Vesels are used to this end, that the more pure and volatile may ascend into the highest, the less pure into the lower, and that the gross and impure may remain in the bottom.

Sometimes there is only a bare Sublimatory used, with only a piece of Lute at the top, with a small vent to preserve the Sublimatory from breaking; sometimes there is a blind-head added to receive the more volatile part of the matter sublimed. Sometimes an Alembick-head with its Receiver is added at the top of the Sublimatory, not only to preserve the Spirits that distil before the sublimation, but to receive in the neck of the head the matter sublimed, because it cannot easily stick to the sides of the vessel, as in Sulphur, &c.

Sublimation is thus performed.

First prepare the matter that is to be sublimed, either by washing, calcining, burning, boiling, or the like, as the matter requires; then either by itself, or mixed with other materials, put it in your sublimatory made round or flat in the bottom, that one third part thereof only may be full, which place, either in your Sand-Furnace, that the sand may be three fingers thick, in the bottom and sides of the sublimatory, or in the naked fire; then fasten with good lute the head or blind-head, (with a hole on the side): and so lute it that no spirits may breath out, save only at the hole for that purpose.

Then give fire by degrees, and when you perceive that all the moisture is vapoured forth at the hole in the head (which may be known by holding thereto, either a piece of Glass, or polished Steel, to see whether it moistens the same or not;) then lute fast the same hole, that the dry Spirits exhale not; then increase the fire until you have elevated all the Spirits, and perfected the Sublimation.
Of Sublimation.

How Sulphur is sublimed.

Take the best and clearest yellow Sulphur 3½} of common Salt and Hungarian Vitriol, a little calcined, of each half a pound; powder them all a part, and mix them well together; then put them into your Sublimatory, and put on its head; add to it fire of the first degree, until all its moisture be vapoured away; then close the pipe above, and proceed with the fire by degrees, until all the Sulphur be sublimed very subtle. This Sulphur (Chimically called the Flowers of Sulphur) take out of the Alembick, and reiterate the said sublimation, the second or third time, every time adding a fourth part of Salt and Vitriol, calcined as before, and then have you very fine flowers of Sulphur, restoring many diseases. Rhenanus.

Another way thus.

Mix equal parts of Sulphur and Colcothar of Vitriol perfectly rubified and dried, put it to sublime (which operation is performed in eight hours, neither is need of any very great fire; then take the flowers sublimed, and sublimate them again with Sugar-Candie only, to the end that it may the better cure the Asthma, and other diseases of the Lungs: Neither need you fear here, that the melting of the Sulphur, will hinder the sublimation; for whatsoever way Sulphur is sublimed, either by itself, or with addition, it alwayes melteth.

Another way to sublimate Sulphur.

Take Sulphur one part, and common Salt two parts; and put it to sublime in a sublimatory well luted in the naked fire, but with a moderate heat: this way are sublimed the fairest flowers of Sulphur, without the reiteration of sublimation.
Another way thus.

Take the yellowest S 1phu lb j. of common S: It melted in a Crucible, then cast it into a Mortar, and when it is cold powdered, half a pound; of Hungarian Vitriol purified and calcined, half a pound; powder them and mix them together, and let them to sublime in Sand, put thereon a large head with its Receiver, but let not the sand be too high, lest the heat thereof melt the flowers in the head; give at first gentle fire, after three hours the flegm begins to distil, and that lasts about four or five hours; Then increase the fire, until the bottom of the Vessel containing the Sand be red hot: The flowers are at several times to be taken out of the head, but you must always fit a Paper to preserve them from falling into the Sand, whilst you remove the head, and also stop the mouth of the Sublimatory, lest the Sulphur take fire from the Air, which otherwise would happen; then put on the head again and proceed, and let the fire continue ten hours; then let it cool, and add the flowers in the head to the former. The Caput Mortuum is porous and brittle, if you lay it on hot coals, and it will not burn, then is all that is good sublimed.

Mix these flowers again with other Salt and Vitriol in the same proportion, and proceed as before; so do the third time: the oftner you reiterate the same, the Flowers do acquire the greater tenity, and are the more pure; but then you will have the fewer flowers, for of three pounds, three times sublimed, you have at last but 20. ounces.

To Sublime the Flowers of Benjamin,

Take Benjamin and bruise it grossly, and put it into a Sublimatory; then close the top thereof with a double Paper, rolled about like Hypocrates his sleeve, and afterwards give fire by degrees, till it sublimeth; then have you the pure snow white flowers, which are no other than the sweet essential Salt, which oftentimes collect.
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Their Use.

They are effectual against the Asthma, and all diseases of the Lungs; the dose is half a scruple in Liquors, or fit Syrups: But they are a Topick remedy against the Pimples and redness of the face.

To Sublime Sal-Armoniack:

Take common Salt as much as you think fit, and fill a Calcining Pot therewith, and cover it, lest coals and ashes fall thereinto; set the pot on the ground, and cover the same with coals not burning; then kindle the coals, till they be all on fire, and the pot be red hot; when it is cold, then have you the Salt calcined and prepared.

Then take Sal-Armoniack beaten to powder one pound, scales or filings of Iron one pound; (or ten ounces:) mix them and sublime them with a strong fire; then take that which is sublimed, (and if you please, sublime it again per se) and it is now fit to be sublimed with the salt prepared.

Therefore take what Sal-Armoniack you have sublimed, and twelve ounces of the salt calcined; mix them well together, and put them to sublime; which till sublimation repeat five or seven times, every time adding new salt calcined and prepared, and then have you Sal Armoniack sublimed, fit for any use where it is to be used.

Its Use.

Sal-Armoniack thus prepared is of infinite virtues, as well that it belongeth to the preparation of other Medicines, as that it hath its singular virtues in several diseases.

1. With this salt is extracted the Sulphur of Mars, Venus, Antimony and other Metals, Stones and Minerals.

2. A Water is made thereof on a Marble-stone in a cellar useful for the Restoration of Metals.
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3. This salt sublimed is of great use in reducing Metals into Mercury-vive.

4. In all Feavers it is a principal Medicine, for it radically expelleth Feavers, and is a singular good sudorifick: if it be not sufficient at first, it is to be often repeated, and the sick shall be freed from the Feaver; the dose is from 9. grains to 16. grains.

5. For a weak stomach, appetite lost, loathing of food, give to Children 3. grains, to a weak constitution 5. grains, to those that are of full age 7. or 9. grains; every day for nine days, and it will a little provoke sweat, and the sick shall be perfectly cured.

The Sublimation of Mercury.

Take Mercury, (purged with salt prepared, and Vinegar, and pressed through Leather) Vitriol calcined till it be red, salt prepared of each of them one pound; Salt-peter four ounces; grind them and mingle them together in a stone-mortar with a little Vinegar, so long until the Mercury appear no more alive; when they are all well mixed, put them in a sublimatory well luted; on which place an Alembick-head with a short Pipe; give fire by degrees, according to Art, for 8. or 10. hours; the Aqua fortis that distills over, let that be kept for the second sublimation; to one pound of Mercury sublimed, add of the salt prepared twelve ounces, and of the calcined Vitriol four ounces; for the third sublimation, let it be done with salt alone.

A more perfect way of Subliming Mercury.

Take Mercury of Cinnabar, revived according to Art one pound; dissolve it in common Aqua fortis; then draw off the Aqua fortis by Distillation, or evaporate it till it be dry; then take the Mercury precipitated, and pound it very well in a stone mortar, (not in a metalline) with an equal quantity of salt decrepitated, and of Vitriol calcined till it be white; then when all are well mingled together, put then into a Glais-sublimatory, with an Alembick-head thereon, or else into a G 3 very
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very strong body with a large neck, that the first Fumes may the better go out (otherwise the body may be in danger, if the Regiment of the fire be not cautiously and prudently observed;) give fire by degrees until the neck of the body begin to be white; then close up the mouth thereof, with Paper and increase the fire for five, or six hours; and by this means have you a very beautiful Crystalline fulminated Mercury, which being cold, you may separate from the glass, and it is much more fit for Medicine than the former.

To make Mercurius Dulcis.

Take purified Mercury, or the Mercury of Cinnaber revived, six ounces, Mercury sublimed as before, powdered in a Mable Mortar 8. ounces: Grind them together, adding by little and little the crude Mercury to the Mercury sublimate, mixing there- with a little distilled Vinegar, until no live grains of Mercury appear, and it become of a blackish colour; then put it to sublime in a Sublimatory in ashes or sand (the ashes or sand being but a little above the matter) for five or six hours: when the Sublimatory is cold, cut the Glass about the place between the matter sublimed, and the secreatas with an Iron ring red hot, & take out the matter sublimed, and powder it; and sublime it again without addition, (often sublimation addeth much to its purification) so have you it sufficiently prepared for its happy aswell internal as external effects.

Its verthe.

This Sublimate is the Panchymagogen or Panacea of Querci- taniane, which he reduced into Pills, and were then called the Pills of Mounseur de la Violette, and were very much in use, especially in the French-Pox. It is given in all diseases: and also to prevent diseases at all times.

Its dose is from 12. grains to 20. or 30. grains, made up with 4. or 5. grains, of Scammony rightly prepared, or it may be mixed with any other purging medicine; and formed into one or more Pills.
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The best way to prepare Mercury from Metals for the forefained Process.

Take Crude Antimony 2. pound, Tin and Lead, of each three ounces; first melt the metals together, they being melted, add the Antimony by degrees, and so let all flow together; then add pulverised Tartar 12. ounces, of Salt Peter 8. ounces; mix these together, and cast this mixture by little and little upon the melted matter; when done, take it out of the fire, and you shall find in the bottom 8. or 10. ounces of Regulus, which melt again by itself, and you shall have a Regulus impregnated with the qualities of Saturn and Jupiter; you may also instead of Tin and Lead, add Silver, Copper, and a little Sol: To which Regulus add of Mercury sublimare 2. parts, and you shall distil by Retort a Quick Mercury, for the Panacea aforesaid: here will also come forth a certain buttery matter, very fit to make Mercuvius vite thereof.

Another way.

Make Regulus the common way with Iron, whereof take one pound and a half; melt it in a crucible, and add thereto six drams of Copper, 2. ounces of Tin, 2. ounces and a half of Lead, Silver and Gold of each one ounce, and so make an Elecrum.

Take one part of that Elecrum and two parts of Mercury sublimed; distil it by Retort according to Art, and so have you a great quantity of quick Mercury to make the forefained Panacea, and Universal Medicine; out of the Butter much whereof alio is distilled, you make a very excellent Mercuvius vite, as in the former part of this Book is described.

To prepare the Manna of Mercury, or the white Eagle.

Take purified Mercury, and dissolve it in Aqua fortis then precipitate it with Sea (or Sea-Salt) water, which precipitate distil in a body in Sand, increasing the fire, till at last the Mercury sublime
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to the sides of the Vessel; when it is cold, throw away the scum in the bottom, and take that which is sublimed, and dilute it and dilute it as before, and then have you the Celestial Eagle whiter than Snow, which you may wash in Rose water, or other Cordial water; it is of very great use in Venereal disempers.

Its dose is from 10, to 15 grains, and purgeth only downwards.

Mercurius Sublimatus Ejectified.

Melt an ounce of Gold (purified by solution in Aqua regia,) with a like quantity of Regulus Martis Stellatus; then when they are cold, powder them very subtilly in an Iron-Mortar, and make an Amalgama with six ounces of Mercury, seven times sublimed, and so often revived, which put in a little Retort, and set it in sand, and give a moderate fire between the second and third degree for three days; which being ended, fill it with a gentle fire of suppression, and add thereto a Receiver, half full of water, so the Mercury bringeth over with it part of the Gold, and is animated by the Tincture of the Stellate Regulus, which Mercury vivus is then to be ground with Mercury seven times sublimed, and sublimed into the Celestial Eagle as aforesaid; whose effects so far exceed the effects of the ordinary preparation, as the Philosophical operation is more laborious than the ordinary.

The Imperial Eagle.

Take Mercury seven times sublimed, Mercury or Cinnabar revived of each four ounces; mix them and grind them together, until none of the Mercury appear quick; then put it in a large vessel, and pour on it two pounds of common water, or thereabouts, which stir often together, and after it hath stood 12 hours, decant the water from the matter, and keep it by it itself, and pour thereon more water 12 times, observing the same method as before; then dry the powder in the bottom of the vessel, and sublimate it three or four times, to wit, until no
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no grain of the Mercury ascend quick, which in every sublimation ought to be separated.

Its dose is to 10 grains, it purgeth very easily, yea the next day after the taking thereof: Its effectual in all venereal diseases.

The Diaphoretick Ruby of Auripigmentum.

Take of the best and clearest Auripigmentum one ounce, grind it into a very subtle powder, and sublime it in a Sublimatory with a strong fire, until the bottom of the vessel be red hot, and you shall have in half an hour most beautiful Rubies sublimed about the neck of the Vessel.

Its Use.

They are given from six grains to eight grains in broth or Conserve of Ginger, to provoke sweat in Venereal Diseases, the Scab, and such like.

The same Rubies, ground with an equal weight of Flowers of Sulphur, and digested in a boat-head in sand or ashes, in a fire of the second degree for 18 or 20, do wonderfully dry up Rheumes.

Its dose is from 8, to 12, grain, in the diseases of the Lungs given in Conserve of Roses.

The same powder also moveth sweat.

Another Diaphoretick Ruby of Arsenick.

Sublime Arsenick in a body, twice or thrice in sand, for five or six hours, until it arise purely Crystaline, alwayes casting away the light powder, that sticks like flowers about the neck of the body, for that is the poisonous part of the Arsenick; then powder the Crystaline part, and well mix it with as much of the flowers of Sulphur, and sublime them together into a red mass, which is a specifick Remedy in the diseases of the Lungs.
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Its Use.

Within the body it is given from six grains to eight grains to move sweat: Outwardly used it cureth all Ulcers, malignant and difficult to be cured.

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 the Salt of Tartar, and afterward edulcorating, and drying them; and being so prepared, they have called them their flowers: but by which flowers I understand the same matter which is by the help of fire without the addition of any other thing sublimed, and turned into a most subtle powder, not to be perceived by the teeth or eyes, which indeed is (in my judgment) to be accounted for the true flowers; when as the flowers which others make are more corporeal, and cannot be so well edulcorated, but retain some saltness 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 saltness, but are also so subtle, that being taken inwardly presently operate, and put forth their powers, viz. according to the pleasure of the Phylistian. Neither is their preparation so costly as the others are.

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 witnesseth: how these kind of flowers are to be made I shall now reach, and indeed, of each metal by it self, whereby the Artist in the preparation cannot err, and first thus.
A, Signifies the Ash-hole, which must be as wide as the Furnace, and always open, that the fire may burn the stronger.
B, The middle hole of the Furnace for the putting in of coals.
C, The stopple made of stone.
D, The upper hole of the Furnace with a false bottom whereof sand lyeth, which is there laid that the cover may lie the closer, and keep in the flames the better.
E, The Cover, which must presently be clapt on, as soon as the matter to be distilled is put in.
F, The pipe which goeth out of the Furnace, and to which the Receiver is fitted.
G, The first Recipient for flowers.
H, The second.
I, The third.
K, A Stool whereon the first Recipient resteth, in the midst whereof is a hole, through which goeth the neck of the Recipient, to which another glass is fitted.
L, The glass fitted to the Recipient for the uniting the Spirits that drop down.
Of Sublimation.

M, Another Recipient united to the former Glass, and into which the united Spirits do run.

N, A stop through the middle whereof goeth a screw for the raising of that glass, which is set under the first Recipient, higher, or lower.

O,

P, The Grate with two thick Iron bars, which lie fast upon which four or five thinner are laid, which may be stirred when the Furnace is made clean.

Flowers of Iron and Copper.

Take of the filings of Iron or Copper, as much as you please, cast them with an Iron ladle 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 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 are mixed with Unguents, and Emplastrers: 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 Oyl of Vitriol, edulcorated, dried and sublimed, yields flowers, which being in the air resolved into a green balsam, 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 crumbs, it is sufficient if they be cast in, piece by piece, but then 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 tell thee.

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 pulverize it, and cast it in mortar. And if you 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 judgment; but the rest of the Mercury drops into a Receiver. But here are required Glass vessels, because the aforesaid water is lost in earthen. And this water without doubt doth something in Alchymie: It is also good being applied 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 nearer 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 gallant 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 excel all other medi-
medicaments: For they are of such dryness, which hath joyned with it a consolidating vertue, as that they do even things incredible. They may be used divers wayes, as to be strewed by themselves, putting over them a tippick Plaister, 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 Plaister, and preserved from the air: Being applied 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 ophthalmicks, do refresh, and heal them.

These flowers being taken up in 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 an excoration which is contracted by lying long in any sickness, and is very painful, if they be strewed thereon.

To make Metallical Spirits and Flores by the help of Saltnitre and Linnen Cloth.

If metals be dissolved in their appropriated Menstruums, and in the solution (wherein a due proportion of Saltnitre must be dissolved) fine linen rags be dipp'd and dried, you have a prepared metal, which may be kindled, and (as it was mentioned above concerning the saw-dust) through the burning away and consumming of their superfluous Sulphur, the mercurial substance of the metal is manifested: and after the distillation is ended, you will find a singular purified Calx, which by rubbing coloureth other metals, as that of Gold doth gild Silver, that of Silver over-silvereth Copper, and Copper-Calx maketh Iron look like Copper, &c. which colouring, though it cannot bring any great profit, yet at least for to shew the possibility, I thought it not amiss to describe it: and
Of Sublimation.

and perchance something more may be hid in it, which is not given to every one to know.

To make the Flowers of Antimony according to Glauber.

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, and mixed with the coals by the force of the fire will be sublimed through the air, into 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 the flowers discoloured, and contract hence 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 smoak of 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, 5. pound of coals. It is little that goes away from the Antimony, viz. the combustible 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 and free flame of the fire, for they do not provoke vomit so vehemently; more-
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Book VII.

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 vomitive, 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 are for Plasters or Butter, or Oyl, 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 Mineralis, 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 affection that requires sweat, as in the Plague, Morbus Gallicus, Scorbute, Leprosie, Fleavers, &c. 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 humors: 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 flowers in a Crucible covered (without luting) left anything 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

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contrasted some yellowness or ash-colour, yet by this means
they are made white and gallant, fixed, and diaphoretical: Also
their flowers are used in hiptick Plaisters, 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 sub-
limed, and being sublimed is melted into Glass.

This sublimation serves instead of Calcination, by the help
whereof 20 pounds are more easily sublimed, than by the help
of the other one pound is brought into Calx.

Neither is there here any danger of the ascending fumes, be-
cause when the Antimony is cast into the fire you may be gone,
which is a safe, and easie Calcination, whereas the common way
requires the continual presence of the Artist flitting 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 calcination and agitation. I suppose therefore,
that I have shewed to him that will make Glass of Antimony.
the best and hishe: to 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 Physitian, most easily be able to prepare for him-
self vomitive and diaphoretical flowers, and also Glass of Anti-
mony per se.

Of those flowers may be made Oyls both sweet and corrosive,
and other medicaments, as hath been abovè said of the Spirit of
Salt, and shall afterwards be spoken in the second part.

Let him that will make flowers of the regular, saucer than those
which are made of crude Antimony, cast it being powdered, into
the fire, and in all proceed as hath been said, and he shall have
them, &c. for they are easily sublimed. The story also are sub-
limed, 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 fine vegetable Salt, and he shall have
flowers that will be dissolved in any Liquor: but he that will

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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 Plaisters and Unguents; for they dry, and astringe potently, especially those that are made of Lapis Calaminaris. Neither are they to be lighted that are made of the golden, and silver marcasite. Those that are made of Arsenick and Auripigmentum are poysinous, but are useful for Painters. Arsenick and Auripigmentum being calcined with Nitre, and then sublimed, yield flowers that are safely to be taken inwardly, expelling all poysons 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 Antimony was poysinous before the preparation thereof: For by how much the greater poyson it was before preparation, so much the greater medicine afterwards.

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.
Of Calcination.

BOOK VIII.

What Calcination is, and the several ways thereof.

1. Calcination is the reducing of a Body into a Calx.

2. By Geber, it is thus defined, It is the reducing of a thing into powder by fire, through the deprivation of the humidity of the solid parts, in burning of it.

3. By Calx, Chymists understand, anything made into a fine powder, by taking away its superfluous humidity, (especially in Minerals:) Also, when the powder or Calx is plainly made impalpable, very subtle to the sense, like fine meal, then it is called Alcohol; which word also they use for the very subtil spirit of Wine, rectified with often reiterated Distillations, calling of it the Alcohol of Wine.

Calcination is either by Corrosion, or by heat of Fire only.

Corrosion is the Calcination of the matter by Corrosives, and is done divers ways, but especially four; viz. by Amalgamation, Precipitation, Stratification, and Fumigation.

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1. Amalga.
1. **Amalgamation**, is the Corrosion of a Metal by Mercury or Quicksilver; and is when any metal (except Iron) is made into thin plates, and mixed with eight parts, more or less, of Mercury, and made into a mass, alike throughout, that the metal be perfectly dissolved; and when the Mercury is evaporated, away over the fire, the Metal is left behind like a thin Calx.

2. **Precipitation**, is the corroding of the matter by *Aqua fortis*, and other acrid Spirits, and is when Mineral and Metalline bodies are infused in a corrosive or other acid water, and thereby corroded and dissolved, either by abstraction of the water, or after some other way are reduced into a Calx.

3. **Stratification**, is the Corrosion of Metals by corrosive powders:

   And is performed thus: By filling the Crucible, Box, or Calcinage pot, with the laminated Metal and corrosive powders, *Stratum super stratum*; that is, by laying some of the powder in the Pot, and then some of the thin laminated Metal, and so proceed till the vessel be full: Afterwards put coals round about it and give it a reverberatory fire, increasing of it by degrees, as the matter requires.

   Sometimes you may call it *Cementation*, there being but little difference between them.

  Commixtion is also when the matter to be corroded is mixed with the corrosive powders, and afterwards, in the fire, is reduced into Calx.

4. **Fumigation** is the Corrosion of a Metal by Fume or Vapour.

   And is done divers ways: In general this shall suffice, that the Metalline body be reduced into thin plates, and that it be hanged to be calcined, over the fume of *Aqua fortis*, Vinegar, or the vapour of melted Lead, or of Mercury, or any other sharp matter, as usually they prepare Ceruse.

   Ignition or Calcination by the fire only, is either by *Cinquefaction*, or by *Reverberation*.

   1. **Cinquefaction**, is the reducing of Vegetable or Animal bodies into ashes, by the violence of fire.

   2. **Reverberation**, is the Calcinage of bodies in the naked fire, in a Reverberatory Furnace.
To this also belongs, the Desiccation of the humidity that is usually in Vitriol, Salt, Allom, &c.

As for the Furnaces and Vessels to be used in Calcination, you shall finde them mentioned and described in each following process, to which they properly belong.

**The Calcination of Common Salt.**

Put common Salt in a Crucible, or other Earthen Vessel, and when it is almost full, cover it, and set it on burning coals, and there let it stand until it be throughout red hot, and no more crackle; then let it cool, and it is fit to dissolve, &c.

**The Calcination of Saltpeter.**

Dissolve Saltpeter in common water, and filter it through Paper, to cleanse it from its filth; then boyl it in a glazed vessel, and before it coagulate, scum it; when it is dry, grind it; then put it in a pot, and in a fire of coals, by degrees, melt it; when it is melted, to one pound of Nitre, cast in one ounce of the flowers of Sulphur, by little and little, as long as it will flame, (the blew flame is to be avoided.) This Solution, Filtration, Decoction, Despumation, Coagulation, Liquefaction, and Deflagration of the Saltpeter, if it be three times repeated, it is sufficiently prepared for Physick, it is hereby made more airy, penetrative, diureticky, and less corrosive.

**The Calcination of Vitriol.**

Let the Vitriol be Calcined till it be white, in an earthen vessel unglazed, in a moderate fire, alwayes stirring the same; then increase the fire till it be red: and then it is called the Colochar of Vitriol.
Of Calcination.

The Calcination of Pumex-stone.

Take Pumex-stone, and heat it, and quench it four or five times in Wine Vinegar, the last time only heat it without quenching; so is it very easily made into Calx, and is then useful for the extraction of the tinctures of Metals and Minerals.

The Calcination of Crystal.

Set Crystal six hours in a Crucible in the naked fire, then grind it to a fine powder, and mix with it a like quantity of Salt-Peter, and then Reverberate it, in a strong fire, 18 hours; when it is melted, cast it into rainwater, or May dew, and that which remaineth undissolved, dry and reduce it into Alcohol; then, with the same water, boil it until it be as thick as honey, and lay it in the cold, upon glass, till it be dry; then again reduce it into Alcohol; and, if you will, you may set it in a moist place to dissolve; and if any remain undissolved, repeat the said Calcination with Nitre, &c. as above said, until it be made Soluble.

Its dose is three or four drops, with the like quantity of oil of Jupiter, in some specifick water, against the Stone of the Reins and Bladder.

Another way to Calcine Crystal.

Take clear and ponderous Crystal, heat it, and quench it in distilled Vinegar, so often until, with the least touch, it fall into powder; then mix it with the like quantity of Salt-Peter, and reverberate it for 18 hours, even till it be ready to melt; then, with often washing, extract the six Salt of the Nitre, and dry the remaining Crystal, and reduce it into Alcohol.

Its dose is from half a scruple, to a scruple and a half: It is good in the Stone, Falling-sickness, Dysentery, and want of Milk.
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But if you will make this yet more subtle, digest it in spirit of Wine 24 hours, and Distill it by Resert, and that which remaineth fixe, reverberate it, as before; Digest it and Distill it so often, until the greater part ascend with the spirit of Wine; then Distill off the Spirit of Wine, and that which remaineth in the Vessel, set in a moist place to dissolve into Water or Oyl.

Another and better way to Calcine Crystal.

Heat the Crystal red hot in a Crucible, and quench it in cold water, that it may easily be reduced into powder; or (being powdered) burn it in an open Crucible per Ignem Rota, with a like quantity of common Sulphur, until all the Sulphur, by a gradual fire, be burnt away; then wash the Calx with water, and dry it, and mix with it a like quantity of purified Salt-Peter; then Calcine that in Iguem Rota till it melt, when it is cold, powder it and boil it in Rain-water, and proceed as before.

The Calcination of the Silver Marcasite or Wismuth.

Reduce the Silver Marcasite into subtle powder, and wash away its blackness, with water so often, until the water flow away clearer; then dry it and dissolve it in Aqua fortis, Distilled from Salt-Peter and Allom: when the solution is clear, pour thereon Spirit of Wine; so, in a moment, will it be precipitated into an Alcohol as white as snow, which ought to be cleared from its Acrimony and dried; and again for half an hour ground with common Salt prepared; then washed and dried in the shade on paper.

Its use is against the Deformities of the skin, as freckles, Sun-burn, &c.

To Calcine Allom.

Take Allom, put it in an unglazed earthen pan, and set it on a gentle fire that it melt; and so increase the fire by degrees, till all
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all the humidity be evaporated, and the Allom remain a white, dry, spongy, light Calx.

To Calcine Antimony with Salt prepared.

Take of the best Antimony four pounds, of Salt prepared five pounds, powder them and mix them together, and in a broad earthen pan with a flat bottom upon the fire; stir them well together continually with an Iron Spatula for five or six hours or more, until it leave fuming, and the Antimony remain white and yellowish (but be careful that it melt not, and also of the flame;) then grind it to powder, and wash away the Salt, first with hot water, then with cold, that which remains dry, which powder sublime per se in a Sublimatory for ten or twelve hours or more: Reserve the flowers, and grind the Cupre Mortuum, and reverberate it forty days till it be red, in a close Vessel that the fire be not hindered in the operation; After which calcination, extract the tincture with Radicated Vinegar; then finish it by Filtration, Separation of the Menstruum, and Circulation with Cordial waters.

To Calcine Antimony per se.

Take the best and choicest Antimony, powder it very fine, and set it in a broad earthen pan unglaized, over a gentle fire of Char-cole, and there continually stir it with an Iron Spatula, increasing the fire by degrees, till it burn no more bleat, nor sume no more, but remains of a pale ash-colour; let the fire be so moderate that it melt not, or if it should happen to melt, take it off and powder it, and so proceed as before: To make this into a Vitrum, put it in a Crucible in a melting Furnace, and there let it stand melted until it be converted into a pure red Vitrum (which you may prove with an Iron Rod dipping in therein, and quickly retracting the same again, lest it melt in the Antimony, and so a Regulus precipitate) then cast it forth into a Brass or Copper Pan flat in the bottom; and there you have the Vitrum Antimoni made without additions, according to Basilius Valentinus, mentioned also by Zwelferus, Schrodernus, and others.
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Out of which is extracted the true Tincture of Antimony.

Crocus Metallorum, or, the Liver of Antimony.

Take Crude Antimony and Salt-Peter, of each a like quantity, beat them small, mix them, and put them into an Iron Mortar, inclining sideway; then kindle the powder with a quick Charcoal, or red hot Iron rod; and so will the Antimony be fixed, and deprived of its Arsenical Sulphur; then separate the Salt-Peter, and edulcorate the Hepar or Crocus Metallorum.

Its use.

From 12 to 20 grains thereof are given, being infused in the water of Cardus Benedictus, or other convenient Liquor, or in some Conierves; in all Feavers, and Pestilences and such like effects, wherein you would have it gently purge.

To Calcine Antimony, that it shall purge only per Secessum.

Take of the best and choicest Antimony, and of Salt decrepitated, of each one pound, grind and mix them together, and reverberate them in a Crucible, well luted and closed, for 12 hours, increasing the fire by degrees; then wash away the Salt with water, so often, until all the Acrimony be taken away; then dry it and grind it.

The dose is from 25 grains to 35 grains: or, from a scruple and a half, to a scruple.
The Calcination of Metals.

To Calcine Gold by Amalgamation.

Take Gold purified by Cementation, and Amalgamate it with six parts of Mercury, thus: Take laminated Gold, and cut it into small pieces, and put it into a clean Crucible in the fire, that the Gold may be red hot; then heat the Mercury in another Crucible, and pour it on the Gold, and mix them with a stick that they may unite together; then cast it into cold water, and wash it very well, and press out the superfluous Mercury through Leather, that it may remain as a hard mass, which must be ground well with half its weight of prepared Salt, in a Glass Mortar, that nothing of the Amalgama appear: This put in a Crucible covered and luted, with only a small hole on the top, and reverberate it a natural day, but let not the Gold melt; this done, you shall find the Gold Calcined, but the Mercury and Salt fumed away, if the Salt were rightly prepared, and the degrees of the fire rightly observed; otherwise some of the Salt remains, which must be washed away, and the Calx dried: Then Amalgama the Gold again, and press it through the Leather, as before; and mix therewith half its weight of Sulphur viva, or flowers of Sulphur, grind them very well together, and put them in a glazed earthen Pan, and puor theron the best Spirit of Wine without Phlegm, and burn it; after the Spirit of Wine and Sulphur are burnt away, you shall find the Gold very spongy & light, especially if you twice or thrice repeat the operation. Some grind the Amalgama with flowers of Sulphur, and put it in the fire in a Crucible, continually stirring it with an Iron
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Iron-rod, until the Mercury be fumed away: and this is the Calcination of Gold, which may very well serve in the preparing of Aurum potabile, and such like Chymical operations.

The Calcination of Gold by Cementation.

Before the Gold be amalgamed and calcined as aforesaid, it ought to be cemented, either with the Common or Royal Cementation.

The Common Cementation.

Take the powder of Tylers eight ounces, Salt prepared four ounces, white Vitriol two ounces, Salt-peter and Verdigrise of each half an ounce; mix them.

The Royal Cement.

Take the powder of Tylers four parts, Sal-Armoniac, Sal-gemme, and common Salt prepared, of each one part; mix them well altogether, and moisten it with urine (some seal the Plates of Go'd in the fire before they use them with the cement, that whatsoever filth thiekest to it be burnt off, that the Cement may have the better impression.) All things being rightly prepared, equally lay a part of the powder of the Cementing-pot or box, about a fingers thickness, then lay the Plates moistened with Urine, in that order and manner that they neither touch one the other, nor the sides of the Vessel: Having thus laid the first order of Plates, lay more of the Cementing powder about half a fingers thickness, and then more plates, and more powder, and so proceed till the Box be either full, or all your Plates used; and at last let there be of the powder a fingers thickness at the top; then lute on a cover if it be a common Cement, without leaving any vent or hole; but if it be Cementum Regale, then let there be a small hole in the cover, give fire for 24 hours, so that the Cementing pot or box be always red-hot; when the work is ended, take the Plates and wipe off the Powder sticking to them, with a Hares foot, and wash them with Urine, and dry them.
The most perfect Cementation of Gold is that which follows.

Melt Gold with twice its weight of the best Copper, reduce it into plates as thin as Paper, which cement for 40. or 50. hours in a strong fire, by laying Stratum Super Stratum (as before is said) with the Powder of Tyls, common Salt, Collo-thon, Verdigreece, and a little Sal-Armoniack, all mixt with strong Vinegar; in this Examen, all the Copper is consumed, its incombustible Sulphur, and tincture remaining in the Substance of the Gold, as Geber testifieth in his 18. Chapter of Furnaces, that out of Copper is extracted a most pure tinging and fixt Sulphur.

The Calcination of Gold by Aqua Regis.

That your labour be not too tedious, and that your Gold be most perfectly purified, disolve an ounce of Hungarian, or other choice Gold in Aqua Regia, made of pure Nitre and Sal-armoniack, of each a like quantity, according to Art; then gently decant what is disolved, that the white earth which remains in the bottom undissolved may be separated (which reduce with Borax, and it is a white metal, that will be dissolved in common Aqua-fortis) then put your Gold dissolved into a large Glass with a short neck, and add thereto five or six times so much common water, and heat the same in Sand till it boil; then add there two ounces of Mercury first made hot; and in two hours the Aqua Regia wherein the Gold is dissolved, be not strong enough to disolve the Mercury, add of common Aqua-fortis as much as is sufficient to disolve the same; then add other two ounces of Mercury, which likewise disolve, until you see all the Gold precipitated into a spongy mass in the bottom of the Vessel, and the Mercury dissolved into a clear and transparent water, which you must decant whilst it is hot, and gently wash the Gold with warm water, until it be deprived of its acidity, which will be much more purified, and with less labour and cost, than with Cement or Antimony: I have sometimes purified Gold by Antimony, which was very beautiful and
and exceeding splendid, yet when I dissolved it, I separated from it a little white earth; whence it appears, that this Examen is much more exact, than that which is made either by Cement, or by Antimony.

The Calcination of Silver by Aqua-fortis.

Dissolve Silver in Aqua-fortis, pour thereon Salt-water, and the Silver will precipitate to the bottom of the body, into a pure white Calx, which must be edulcorated by often washing the same with common water, and then dried: if to one ounce of this Calx, you add of Salt prepared two ounces, and Sal-ammoniac two drams; mix them well together in a Glass mortar, and reverberate them 8. days; you may extract the Tincture with the Alcohol of Wine, and circulate it: It is good against Madnes and other diseases of the Brain.

To Calcine Silver by Fumigation.

Lay the Plates of Silver over a Crucible wherein Sulphur is burning; let them be often turned, and that which is burned and calcined, separate with a Spatula, till all be calcined, then reverberate the Calx.

The Calcination of Copper by Aqua-fortis.

Dissolve Copper in Aqua-fortis, and add thereto warm water, with a little Iron or Silver, and it will be precipitated to the bottom; then abstract again the Aqua-fortis by Distillation.

Another way to Calcine Copper.

Take the plates of Copper, and reverberate them in a Potters Furnace, where they are easily reduced into a Calx.

Or,

Take the Plates of Copper, and lay them in a Crucible Stratum super Stratum, with an equal part of the powder of Sulphur, and let them be reverberated three or four hours into a Crocus veneris.
Another way to make Crocus Veneris.

Take the thin plates of Copper, and lay them Stratum super Stratum in a firm Earthen or Iron-pot with prepared Salt, and by little and little heat the Pot of a gentle red heat; then cast them into a vessel full of cold water, and cleanse the Plates from their blackness, and the Salt very well with Iron Spatulaes; then when they are dry, calcine them with Salt as before, and cast them into cold water, and so proceed as you did with the other; then let the Water (where in the Plates were quenched) be mixed with hot-Water, to take away all its saltiness, and the Crocus Veneris will be left in the bottom very red, like unto blood, which being carefully cleansed by washing away its saltiness, dried and ground; Skillful Chyrurges diligently preserve it to make their Stipick Emplastrums withal, which they call Opodeldoch.

The Calcination of Iron.

Take the thin Plates or filings of Steel, very well cleansed from their filth, take thereof two pounds, of Salt prepared three pounds; mix them well together, and reverberate them in an Earthen vessel, for a natural day; take out the Mass, and grind it, dissolve it in hot water, and wash it so often, until it be freed from all its saltiness and earthliness; then let it be dried and reduced into a subtile powder by grinding and furring it; then reverberate for it eight or ten days, until the superficies thereof, be elevated into a very red impalpable Crocus, which take of, and reverberate the rest so often, until the whole be reduced into a Crocus: Let the earthen vessel containing the matter have a Cover, lest ashes fall on the Crocus, yet high-enough, that the flame may have its free passage between the vessel and cover.

But the best Crocus Martis, and that which is most excellent for Physical use is, when only the filings of Steel, without the addition of Salt, or any other heterogeneal thing,
thing, is converted into a fine flower, by only a Reverberatory fire, and afterward cleansed from its impurities, by washing off it in water; for that which is made with Corrosives, as Salt, &c. is not without some hurtful quality; but the operation by Reverberation is better and speedily performed, if before it be put in the Reverberatory, the steel filings be sometimes sprinkled with boies Urine; for, by this means, as it Reverberateth, it daily ariseth into a very fine red flower, which is daily to be taken off, lest you loose it by the swiftness of the reverberating flame, or lest it lose its red colour, and change it into a blackish.

The use of Crocus Martis, is usually internal, to stop the flux of the belly, Diarrhea, and Diuretary, but must be cautiously used; for oftentimes such astringents not discreetly administered, bring greater evils; wherefore, they that use it, ought first to be purged by medicines attenuating and cleansing the belly. Its external uses, in drying up Ulcers and Wounds.

To make Crocus Martis by Aqua Fortis.

Dissolve the filings of Steel one ounce, in eight ounces of Aqua Fortis, digest it for a night; then distil off the Aqua fortis in sand, and you have an ounce and half of very red Crocus; which, that it may acquire its astringent vertue, it must be Reverberated three hours of four hours, so may it safely be used, as well within, as without the body.

To make Crocus Martis by Cementation.

Take fresh Calx vive, as much as you need, and moisten the same with man's urine, until it be like pap; then cover the bottom of the Cementing-pot therewith about a finger thick; then lay thereon the filings of Steel, and so, Stratum super Stratum, fill the Vessel, and firmly close it; when all is ready, place it in the Cementing-Furnace, and administer thereto a continual fire, from the third to the fourth degree, for 24 hours; then take out the Vessel, and beat the matter well in a Mortar, and scarce it, that it be made a very subtile powder; and when you have washed away all the Calx vive from the Steel, with hot water,
water, and dried the remaining matter, then have you a most excellent Crocus Martis.

After the same manner may be made Crocus Veneris, which may serve for many operations.

Another way.

Take filings of Steel and Sulphur, of each equal parts, grind them together, and sprinkle them with water, until it be a soft mass, then dry the same; afterwards put it in a large Crucible, in a moderate fire, continually stirring the same with an Iron rod, until all the Sulphur be consumed; then abstract the red Crocus with rain water.

Its dose is one dram.

The Calcination of Saturn or Lead.

Melt Lead in an Earthen or Iron Vessel, and cleanse it from its Scoria or filth arising thereon; then increase the fire that the Vessel be red hot, and by continual stirring it with an Iron Spatula, reduce it into a Calx, which afterwards searce: But if you will then reverberate it, it will be converted into Minium.

The Calcination of Tin.

Take of English Tin, not sophificated (which is known by the weight and malleableness thereof) four pounds, melt it in a Pan of a flat bottom, and purge it from its Scoria; then cast therein a little Salt armoniack, and increase the fire that the Pan be red hot; then add thereto one pound and a half of prepared Salt, and stir it so long with an Iron Spatula, till it be reduced into a Calx: which, by a strong fire, you may reduce again into a body, where by it is cleansed from its impurity and blackness: Then Calcine it as aforesaid again, with one pound of prepared Salt, and wash the Calx from its saltiness, and reverberate it eight days; and it will be converted into Alcohol.
Of Calcination.

It may also be Calcined without the addition of Salt as before is said of Lead, which seemeth to be the better way.

The Calcination of Mercury.

Dissolve Mercury in **Aqua Fortis**, and by the adding thereto of Salt-water, it will precipitate into a white powder; the dissolvent pour off by inclination, and that which is precipitated, cleanse it from all its saltiness and acrimony, by many ablutions and by digestion; then dry it, and wash it with Rose water, and dry it again.

Its inward Dose is from 8 grains to 10, especially in Venereal distempers. It purgeth only downwards.

Red Precipitate of Mercury.

Dissolve Mercury in **Aqua fortis**, and after the dissolution, evaporate the **Aqua fortis** in a strong fire, till it be dry, and in the bottom of the Vessel will remain the Precipitate in a red powder.

It is generally used in outward administrations, but seldom or never used inwardly.

The best way to Precipitate Mercury.

Take purified Mercury 4 ounces, Oyl of Sulphur rectified 8 ounces, mix and digest them two days in sand; then distil it by Retort, with three cohabitions; at last, with a very strong fire, that the Retort may be red hot; take out the white mass, and grind it, and wash it oftentimes with hot distilled water, until the Precipitate turn to a very yellow powder; upon which burn Spirit of Wine three times.

This may be safely given within the body, from 3 or 4 grains to 6, in purging extracts or conserves of Roses. It is good in a Vinctent Gonorrhea, French-Pox, &c.
To Precipitate Mercury in a moment.

Put Emery powdered into a Crucible, in a very strong fire, for four hours, until it begin to vitrifie and stick to the sides of the Crucible; then take it off from the fire, and grind it to a very subtil powder, and put it into a glass body; to which pour Aqua regis rectified, and digest it in heat for 24 hours; then pour off the tinged water, and add more until you have extracted all the tincture; then distil off the tinged waters to an oylinæs; of which Oyl take one ounce, and pour it upon 4 ounces of crude Mercury, and so the Mercury will in a moment be Precipitated, and not adhere to the Oyl. Then if you distil it with a strong fire, after the exhalation of the Oyl, some of the Mercury will sublime, but the greatest part will remain fixed.

Its use is in the Augmentation of Sol, and to make red Vitrum.

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FINIS.
THE
London-Distiller,
Exactly and truly shewing
The way (in words at length, and not
in mysterious CHARACTERS and
FIGURES) to draw all Sorts of
SPIRITS
AND
Strong-Waters:
To which is added
Their Vertues, with Additions of many Excellent
WATERS.

LONDON,
Printed by E. Cotes, for Thomas Williams, at
the Sign of the Bible in Little-Britain, 1667.
THE

LONDON - DISTILLER:

OR,

Rules and Directions for extracting

and drawing of LOW Wines and Spirits,

to be Re-distilled into Rich Spirits,

Strong Waters, or Aqua-vite.

Heresof some of the Professors of Distillation, in and
about London, have heretofore usually drawn strong-
waters, and Aqua-vite, &c. out of Wines, Low wines
and small Spirits, &c. by one alone immediate extrac-
tion, operation, or distillation; (contrary to the
most approved form of working in this our Art) and have been
so opinionated of their own hereditary erroneous ways, that they
have esteemed the manner and order here taught, to be alto-
gether unnecessary and improvident, in that there is here required
Re-Distillation, which they have ever thought to be superfluous:
Not considering, that what they spare by their seeming thrift, they
lose double in the excellency of their Wares, and otherwise.
Wherefore that such may not only acquit themselves of an asser-
tion of ignorance (not undeservedly cast upon them) but also
vindicate both their own, and the Companies reputation, for
time to come: The directions following are henceforth by them
and every member of the Company, and their Successors, duly
and exactly to be observed and practiced from time to time for
ever hereafter.
That all Wines, Lees of Wines, Low-Wines, and Spirits, under proof whatsoever (intended for making of rich or high Spirits, Strong-Waters, or Aquavitæ, &c.) be first distilled extracted, or drawn into Strong Proof-Spirit, whereby they may be corrected and cured of their natural, harsh, distasteful, unavoury, or evil qualities, before they be compounded with ingredients, or extracted and drawn into rich or high Spirits, Strong-waters, or Aquavitæ; according to Art, and as is required in the ensuing Rules.

And because many gross absurdities have been frequently practised in adulterating some, and abusing others, of the materials used in Distillation, and otherwise by Distillers, by such as only respect their own particular gain; regarding neither the profit or credit of Distillers that have been necessitated to make use of such ill-conditioned Wares: Wherefore that these grievances may be removed for time to come, the Directions following are strictly to be observed and practised, by all the Members of this Company and their Successors from time to time forever.

That no After-worts or Wash (made by Brewers, &c.) called Blew John, nor musty, unavoury, or unwholesome Tints, or Dregs of Beer or Ale; nor unwholesome or adulterated VVines, or Lees of VVines; nor unwholesome Gar-waters; musty, unavoury, or unwholesome returned Beer or Ale; nor rotten, corrupt, or unavoury Fruits, Drugs, Spices, Hearbs, Seeds, nor any other ill-conditioned materials of what kind soever, shall henceforth be distilled, extracted or drawn into Small-Spirits, or Low-wines, or be any other ways used, directly or indirectly, by any the Members of this Company, or their Successors, at any time hereafter forever.

And whereas of late times the Small-Spirits or Low-wines, made and sold, as well in and about London, as elsewhere in this Commonwealth, have been generally complained of, for their mean, weak, and poor condition; whereby many inconveniences have fallen upon most of the Distillers in general; and that not through the alone practices of such, as have no just title to, or interest in this corporation; but even by some of the Distillers themselves, who (notwithstanding their pretences of being necessitated
The London Distiller.

Severated thereunto) have justly deserved reproof, for yielding to be Actors in a thing of such ill consequence to Distillers in general. Wherefore, that those abuses and disorders may now be taken away, and the like prevented for time to come, the ensuing Rule is duly to be observed and practised.

That no Small-spirits, or Low-wines, shall henceforth be distilled, extracted, or made, and be allowed to be sold, put to sale, or used by any of the members of the Company, or their Successors: but such only, as out of which, by one alone re-distillation, extraction or operation, may be produced in quantity, at least one third part thereof, of good strong Proof-spirit, such as is required in the Rules ensuing, for making rich, or high Spirits, Strong-waters, or Aqua-vite, &c. under such pains, penalties, and punishments, as by the Laws of the Common wealth, Ordinances, or Orders of the Company, or otherwise, may be imposed or inflicted on the contemners, neglecters, or opposers of these Directions.

Rules and Directions for the Company of Distillers of London, in general:

But more especially for such of them, as now do, or hereafter shall make Vinegars, &c.

Whereas upon due examination it hath plainly appeared, That many insufferable inconveniences have of late fallen upon this Company, and their Trade, in general; by reason of the disorderly and abusive expense and implantation of Brewers After-worts (called Wash:) Insomuch, that thereby not only those of this Company that have had no hand therein, but even the Distillers themselves, that have been the Delinquents, have intolerably suffered both in their Reputation and great decay of their Trades, by these their alone inconsiderate practices. For Reformation of the present disorders and abuses, and future prevention.
vention of the like, these ensuing Admonitions and Directions
are strictly to be observed and practised, viz.

That no Member or Members of this Company, or their suc-
cessors, nor any of them, at any time hereafter, for ever, by any
way or means whatsoever (directly or indirectly) shall or may,
use, dispose, convert or employ, any After-words (or wash, made
by the Brewers or others) into Vinegar, Beer-eager, or Ale-ea-
ger, or either of them; or to or for any other use or employ-
ment whatsoever, except only to distil the same into Low-wines,
or Spirits, to be redistilled into Proof-Spirit for the uses aforesaid,
according to the true intent and meaning of these Directions,
as they and every of them respect their Oaths by them taken
(when they were made free, and received into this Incorpora-
tion; ) And will undergo the penalties provided, or to be pro-
vided, by the ordinances of this company, or otherwise, to be
imposed or inflicted on the Contemners, Neglecters, or Opposers
hereof.

**Rule I.**

Provide three sweet Tuns (or smaller Casks) place them or-
derly on standlings; provide good sound white Rape, and such
well conditioned liquid Materials as are proper for this use, what
sufficeth (not musty in any case.) Then number your Tuns, 1, 2, 3.
Fill Tun 1. with Rape within six inches of the Bungue, stop the
Bungue with Cork or Wood very close, and let it stand, and in
few days it will gather heat, then being conveniently hot, fill up
the vessel within three inches of top full, with your liquid ma-
terials without Dregs; stop it close again. And at that instant,
in like manner as before, fill Tun 2, with Rape, after a few days,
that will be hot as the former was; then finding it conveniently
hot, draw off Tun 1; and put it into Tun 2, and stop both close:
At the present fill Tun 3. with Rape, and order it in every re-
spect, as you did the former. And when Tuns, 1 and 3, have
gathered heat sufficient, fill up Tuns 1, with fresh liquor (as at
first) and draw off Tun 2, and put it into Tun 3, and so let Tun 2,
gather sufficient heat again; then draw off Tun 1, and put it in-
to Tun 2. And at that present, you may draw off Tun 3, and
put it into a Store-Cask: for having passed three times through
the
The London Distiller.

the Rape, it is thereby become to be good merchantable VVare.

And so in like order, supply one vessel from another, till you have finished your work according to Art.

When all your liquid Materials are spent, so that you have no more to continue your work; then be sure your Tuns (stand near full), till you are provided of more Liquor, to put upon your Rape; for if your Rape (standing dry) should wax hot, you having nothing proper to supply the same, your Rape will soon decay, and be utterly spoild.

In Summer or warm weather, the Rape will gather sufficient heat in two or three dayes; but in Winter it will require more time.

Rule II.

Take 20 Quarters of good sound Mault, convert it into 100 Barrels of good serviceable VVare; (at the most) you must allow to this quantitie, good sweet Hops at least 56 pound. And being well wrought according to Art, put it into sweet Casks, (sweet Oyl-Burs are best) fill them within 8 inches of the Bungues, (being laid upon Scantlings in the Sun) let not the head work over at the Bungues, and it will sink to the bottom; Prepare little covers of wood fit to cover the Bungues, and larger covers to lay over them, to defend it from Rain falling into the Cask. Let the Bungues stand open only, when the Sun shines hot upon the Cask; but in close or wet weather, and nights, let both covers be always kept on.

When the first Head of the Liquor is fallen, then draw it from the Lee, into another clean sweet Cask; and so afterward from Cask to Cask, as there shall be cause, till it come to perfection: Then draw it off into another sound Cask, and so house it for use.

The largest Cask are the fittest to house, and keep VVares in store.

If your VVares grow long and ropy, then put a fit quantity of Allom into it, work it well together according to Art and it will grow short again.
THE LONDON-DISTILLER: OR,
Rules and Directions for Preparing, Composing, Distilling, Extracting, and making of rich Spirits, Strong-Waters, Aqua-vitas, &c.

CHAP. I. Of Aqua-vitas, the first sort.

The greater quantity.
Take strong Proof-spirit 10 Gallons, Anniseeds bruised one pound, distil them into strong Proof-spirit according to Art.

The lesser quantity.
Take strong Proof-spirit 1 gallon, Anniseeds bruised 1 ounce 4 drams; distil them into strong Proof-spirit according to Art.

CHAP. II. Aqua-vitas, the second part.

The greater quantity.
Take strong Proof-spirit what sufficeth, Anniseeds 2 pound, Carraway-seeds, Coriander-seeds, and 4 ounces; distil them into strong Proof-spirit according to Art.

The lesser quantity.
Take strong Proof-spirit 1 gallon, Anniseeds 3 ounces and a quarter, Carraway-seeds, Coriander-seeds, three drams; distil them into strong Proof-spirit according to Art.

CHAP.
CHAP. III. Of Aniseed Water.

The greater quantity.

Take strong Proof-spirit 10 gallons, Aniseeds the best bruised five pound, distil them into strong Proof-spirit; dulcisce it according to Art with five pound of white Sugar.

The lesser quantity.

Take strong Proof-spirit what sufficeth, Aniseeds the best bruised 8 ounces, distil them into strong Proof-spirit; dulcisce it according to Art with 8 ounces of white Sugar.

Aniseed water strengtheneth the stomach, breaketh flegm, and helpeth digestion.

It is also excellent against the Tisick, and shortness of breath, and against wind in the stomach and body.

CHAP. IV. Of Angelica Water.

The greater quantity.

Take strong Proof-spirit what sufficeth, Angelica roots a pound and a half, or Angelica herb green 7 pound and a half, Aniseeds 16 ounces; slice the roots thin, or bruise them and the seeds, distil them into strong Proof-spirits; dulcisce with five pound of white Sugar.

The lesser quantity.

Take strong Proof-spirit 8 pound, Angelica roots 2 ounces and a quarter, or Angelica herb green 12 ounces, Aniseeds 1 ounce 5 drams; slice the roots thin, or bruise them and the seeds, distil them into strong Proof-spirits; dulcisce with 8 ounces of Sugar.

Angelica water is very cordial, strengtheneth the stomach and inward parts; and is a good preservative against the Plague and other infections.

CHAP. V. Of Wormwood Water.

The greater quantity.

Take strong Proof-spirit 10 gallons, Aniseeds bruised one pound, Wormwood common, leaves and seeds, stript, and dry 2 pound; distil them into strong Proof-spirit according to Art; dulcisce with white Sugar 5 pound.
The London Distiller.

The lesser quantity.

Take strong Proof-spirit what sufficeth, Anniseeds bruised 1 ounce and 5 drams, Wormwood common, leaves and seeds stript, and dry 3 ounces and an half, distil them into strong Proof-spirit according to Art; dulcisie with white Sugar half a pound.

Wormwood water consumeth and breaketh Wind killeth Worms, hindereth Vomiting, provoketh appetite, and strengtheneth the stomach.

It is also a great Cordial, and is very good against pains of the head proceeding of a cold cause.

CHAP. VI. Of Balm Water.

The greater quantity.

Take strong Proof-spirit what sufficeth, Hears-balm dry 3 pound, Anniseeds 1 pound; distil them into strong Proof-spirit according to Art; dulcisie with white Sugar what sufficeth.

The lesser quantity.

Take strong Proof-spirit 8 pound, Hears-balm dry 4 ounces and an half, Anniseeds 1 ounce 5 drams; distil them into strong Proof-spirit according to Art; dulcisie with white Sugar eight ounces.

Balm water is good against the infirmities of the Mother, and is very comfortable for women in the time of their pains, to take a little of it, for the sooner and safer provoking of a speedy delivery.

It is also a Cordial and strengtheneth the heart.

CHAP. VII. Of Mint Water.

The greater quantity.

Take strong Proof-spirit 10 gallons, Spear-Mint dry 3 pound, Anniseeds best 1 pound, distil them into strong Proof-spirit; dulcisie with white Sugar 5 pound.

The lesser quantity.

Take strong Proof-spirit what sufficeth, Spear-Mint dry four ounces and three quarters, Anniseed 1 ounce and 5 drams; distil them into strong Proof-spirit; dulcisie with white Sugar what sufficeth.

Mint water comforteth and strengtheneth the Stomach, Heart, Liver, and Spleen, helpeth concoction, and is good against vomiting.
CHAP. VIII. Of Rosemary Water.

The greater quantity.

Take strong Proof-spirit what sufficeth, Rosemary Stript and dry 30 ounces, Anniseeds of the belt 16 ounces; distil them into strong Proof-spirit; dulcitie with white Sugar what sufficeth.

The lesser quantiety.

Take strong Proof-spirit 8 pound, Rosemary Stript and dry 3 ounces, Anniseeds of the belt 1 ounce 5 drams; distil them into strong Proof-spirit; dulcitie with white Sugar 8 ounces.

Rosemary water is very good against Disenterie or Blandy flux proceeding of a cold cause, either drunk, or three spoonfuls thereof administered in a convenient Glass.

It also preserveth from vomiting, strengtheneth the Stomach, quickeneth the sight, and comforteth the Brain.

CHAP. IX. Of Limon, or Orange Water.

The greater quantity.

Take strong Proof-spirit what sufficeth, Limon or Orange pills dry 30 ounces; Anniseeds of the belt 16 ounces; bruise the pills and seeds; distil them into strong Proof-spirit according to Art; dulcitie with white Sugar 5 pound.

The lesser quantity.

Take strong Proof-spirit 1 gallon, Limon or Orange pills dry 3 ounces, Anniseeds of the belt 1 ounce 5 drams; bruise the pills and seeds; distil them into strong Proof-spirit according to Art; dulcitie with white Sugar 8 ounces.

Limon water strengtheneth and reviveth the feeble spirits aromatizeth the stomach, and is a great Cordial.

It also openeth obstructions exceedingly breaketh wind in the stomach, is as an healing Balsam to all the inward parts, and is a great restorative to mans Nature.

CHAP. X. Stomach Water the last.

The greater quantity.

Take strong Proof-spirit what sufficeth, Spear-Mint dry, Lavage roots dry, Anniseeds of each 1 pound, Calamus Aromaticus, Ginger, sweet Fennel seeds, Imperatoria roots, Wormwood dry
and slice, of each 8 ounces; Caraway seeds; Coriander seeds, of each 6 ounces; Cummin seeds; Cloves, of each three ounces; bruise them that are to be bruised; distil them into strong Proof-spirit according to Art; dulcisce with white Sugar 5 pound.

The lesser quantity.

Take strong Proof-spirit 8 pound, Spear-Mint dry, Lovage roots dry, Aniseeds of each 1 ounce, 5 drams; Calamus Aromaticus; Ginger, sweet Fennel seeds, Imperatoria roots, Wormwood dry and slice, of each 7 drams; Caraway seeds, Coriander seeds, of each 5 drams; Cummin seeds; Cloves, of each 2 drams and a half; bruise them that are to be bruised; distil them into strong Proof-spirit according to Art; dulcisce with white Sugar 8 ounces.

CHAP. XI. Stomach Water the greater.

The greater quantity.

Take strong Proof-spirit 10 gallons, Calamus Aromaticus six ounces; Guaiacum green Bark, Aven roots dry, Galingale of each 4 ounces; Citron Pills dry, Orange pils dry, white Cinnamon, of each three ounces; Wormwood Common dry, Wormwood Roman dry, Spear-Mint, Rosemary tops, Costmary, Sweet Marjoram, Wild Thyme, all dry, of each 2 ounces; Nutmegs, Cinnamon, of each 2 ounces and a half; Cubebs, Cardamums, of each 1 ounce and an half; sweet Fennel seeds, Coriander seeds, of each 5 ounces; Aniseeds a pound and half; bruise them all that are to be bruised; distil them into strong Proof-spirit; dulcisce with white Sugar ten pound according to Art.

The lesser quantity.

Take strong Proof-spirit what sufficeth, Calamus Aromaticus 5 drams, Guaiacum, green Bark, Aven roots dry, Galingale, of each 4 ounces; Citron pils dry, Orange pils dry, white Cinnamon, of each 3 drams and a quarter; Wormwood Common dry, Wormwood Roman dry, Spear-Mint, Rosemary tops, Costmary, sweet Marjoram, Wild Thyme, all dry, of each a dram and half; Nutmegs, Cinnamon, of each 2 drams; Cubebs, Cardamums, of each 2 dram and a quarter; sweet Fennel seeds, Coriander seeds, of each half an ounce; Aniseed 2 ounces three drams: Bruise them all that are to be bruised, distil them into strong Proof-spirit; dulcisce with white Sugar 16 ounces according to Art.
The London Distiller.

CHAP. XII. Marjoram Water.

The greater quantity.

Take strong Proof-spirit what sufficeth, sweet Marjoram dry 2 pound, Anniseeds 16 ounces, Caraway 4 ounces, Calamus Aromaticus 6 ounces; bruise them, distil and dulcisie with white Sugar what sufficeth according to Art.

The lesser quantity.

Take strong Proof-spirit 1 gallon, sweet Marjoram dry five ounces, Anniseeds 1 ounce 5 drams, Caraway 3 drams and a quarter, Calamus Aromaticus 5 drams, bruise them, distil and dulcisie with white Sugar 8 ounces according to Art.

Marjoram water is good against the infirmities in the Liver and Spleen, causeth freeness of breathing, and strengtheneth the Stomach and inward parts.

CHAP. XIII. Usquebach.

The greater quantity.

Take strong Proof-spirit 10 gallons, Anniseeds 1 pound, Cloves 2 ounces, Nutmeg, Ginger, Caraway seeds, of each four ounces; distil them into strong Proof-spirit according to Art; then add to the distilled water Licorice Spanifh, Raisins folis of each 2 pound; bruise the Licorice and Raisins; dulcisie with brown Sugar 5 pound; stir them well together, and so let it stand ten dayes, and then (being fine) draw it off and keep it for use.

The lesser quantity.

Take strong Proof-spirit what sufficeth, Anniseeds 1 ounce 5 drams, Cloves a dram and half, Nutmeg, Ginger, Caraway seeds, of each 3 drams, distil them into strong Proof-spirit according to Art; then add to the distilled water Licorice Spanifh, Raisins folis, of each 3 ounces a dram and a half; bruise the Licorice and Raisins; dulcisie with brown Sugar 8 ounces, stir them well together, and so let it stand ten dayes, and then (being fine) draw it off and keep it for use.

Usquebach cureth the infirmities of the Lungs, warmeth the Stomach, and causeth expectoration.

CHAP. XIV. Balsamint Water.

The greater quantity.

Take strong Proof-spirit what sufficeth, Balsamint dry two B b b 3 pound,
The London Distiller.

Pound, Anniseeds best 1 pound, Carraway seeds 4 ounces, Limon pils dry 8 ounces; bruise them that are to be bruised, distil them into Proof-spirit; dulcisie with white Sugar 5 pound according to Art.

The lesser quantity.

Take strong Proof-spirit 1 gallon, Balsamint dry 3 ounces a dram and half, Anniseeds best one ounce 5 drams, Carraway seeds 3 drams, Limon pils dry six drams and an half; bruise them that are to be bruised; distil them into Proof-spirit, dulcisie with white Sugar 8 ounces according to Art.

Balsamint water comforteth the Stomach and expelleth Wind.

CHAP. XV. Rosa folis.

The greater quantity.

Take strong Proof-spirit 10 gallons, Cinnamon of the best 8 ounces, Cloves 2 ounces, Nutmegs, Ginger, Carraway seeds, of each 4 ounces, Marigold flowers, Anniseeds, of each 16 ounces; bruise them, distil them into strong Proof-spirit according to Art; then add to the distilled water Licorice Spanish 1 pound, Raisins folis, Brown Sugar, of each 5 pound, Red Sanders four ounces; bruise the Licorice and Raisins, stir them well together, and let them stand 12 dayes, then being clear it may be drawn for use.

The lesser quantity.

Take strong Proof-spirit what sufficeth, Cinnamon of the best 6 drams and a half, Cloves a dram and half, Nutmegs, Ginger, Carraway seeds of each 3 drams, Marigold flowers, Anniseeds, of each 1 ounce and 5 drams, bruise them, distil them into strong Proof-spirit according to Art; then add to the distilled water Licorice Spanish an ounce 5 drams, Raisins folis, Brown Sugar, of each 8 ounces, Red Sanders 3 drams; bruise the Licorice and Raisins, stir them well together, and let them stand twelve dayes, then being clear it may be drawn for use.

This Rosa folis is good against cold infirmities of the Stomach, helpeth digestion and expelleth wind.

CHAP. XVI. Clove Water.

The greater quantity.

Take strong Proof-spirit what sufficeth, Cloves of the best 10 ounces.
The London Distiller.

10 ounces, Annis seeds 16 ounces, distil them into strong Proof-spirit, dulcisie with white Sugar 5 pound.

The lesser quantity.

Take strong Proof-spirit 1 gallon; Cloves of the best 1 ounce, Annis seeds 1 ounce and 5 drams; distil them into strong Proof-spirit, dulcisie with white Sugar 8 ounces.

Clove water helpeth digestion breaketh wind, provoketh Urine, comforteth the Heart, and strengtheneth the stomach, Liver and all the inward parts.

CHAP. XVII. Cinnamon water Common.

The greater quantity.

Take strong Proof-spirit 10 gallons, Cinnamon of the best 5 pound, Annis seeds 10 ounces; distil them into Proof-spirit according to Art, dulcisie with white Sugar 7 pound and an half.

The lesser quantity.

Take strong Proof-spirit what sufficeth, Cinnamon of the best 8 ounces, Annis seeds 1 ounce; distil them into Proof-spirit according to Art, dulcisie with white Sugar 12 ounces.

CHAP. XVIII. Cinnamon water Proper.

The greater quantity.

Take strong Proof-spirit what sufficeth, Cinnamon best large ten pounds; distil them into Proof-spirit according to Art, take white Sugar 12 pound and a half; Rose-water four pound; make them into a Syrup, and dulcisie therewith according to Art.

The lesser quantity.

Take strong Proof-spirit 1 gallon, Cinnamon best large 16 ounces; distil them into Proof-spirit according to Art, take white Sugar 20 ounces, Rose water 6 ounces 3 drams, make them into Syrup, and dulcisie therewith according to Art.

Cinnamon water is good against loathing of the stomach, and stinking breath.

It also strengtheneth the Heart, Liver, Lungs; and Spleen, and comforteth the Brain and Sinews.

CHAP. XIX. Sweet Fennel seed Water.

The greater quantity.

Take strong Proof-spirit 10 gallons, Sweet Fennel seeds five pound.
The London Distiller.

pound, Carraway seeds 4 ounces, Anniseeds 16 ounces; distil them into Proof-spirit, dulcisie with white Sugar 5 pound.

The lesser quantity.

Take strong Proof-spirit what sufficeth, sweet Fennel seeds 8 ounces, Carraway seeds 3 drams, Anniseeds an ounce and five drams; distil them into Proof-spirit, dulcisie with white Sugar 8 ounces.

Fennel water is good against the nauseousness of the Stomach, and causeth the pain thereof; digests Flegm and expelleth Wind.

CHAP. XX. Marigold Water.

The greater quantity.

Take strong Proof-spirit what sufficeth, Marigold flowers new gathered, pickt clean, 2 pecks heaped; bruise them, sweet Fennel seeds, Anniseeds, of each 10 ounces; distil them into strong Proof-spirit, dulcisie with white Sugar five pound.

The lesser quantity.

Take strong Proof-spirit 1 gallon, Marigold flowers new gathered, pickt clean, what sufficeth, bruise them, sweet Fennel seeds, Anniseeds of each 1 ounce; distil them into strong Proof-spirit, dulcisie with white Sugar 8 ounces.

Marigold water comforteth the inward parts, and is good against infection.

CHAP. XXI. Carraway Water.

The greater quantity.

Take strong Proof-spirit 10 gallons, Carraway seeds 30 ounces, Anniseeds 10 ounces, Rosemary dry 4 ounces, Limon pills dry, Cloves of each 3 ounces; distil them into strong Proof-spirit according to Art, dulcisie with white Sugar five pound.

The lesser quantity.

Take strong Proof-spirit what sufficeth, Carraway seeds three ounces, Anniseeds 1 ounce, Rosemary dry 3 drams, Limon pills dry, Cloves of each 2 drams and an half; distil them into Proof-spirit according to Art, dulcisie with white Sugar 8 ounces.

Carraway water is profitable against the cold grief of the Stomach and Bowels, comforteth them and breaketh Wind.
CHAP. XXII. Nutmeg Water.

The greater quantity.

Take strong Proof-spirit what sufficeth, Nutmegs 20 ounces, Aniseeds 10 ounces, bruise them, distil them into Proof-spirit according to Art, dulcisife with white sugar's pound.

The lesser quantity.

Take strong Proof-spirit 1 gallon, Nutmegs best 2 ounces, Aniseeds 1 ounce; bruise them, distil them into Proof-spirit according to Art, dulcisfe with white Sugar 8 ounces.

Nutmeg water comforteth the spirits, discueth the wind, Aromatiseth the stomach, causeth a sweet breath, and provoketh Urine.

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CHAP. XXIII. Precious water.

The greater quantity.

Take strong Proof-spirit 10 gallons, the roots of Enula Campana Cyprus, Avens Calamus Aromaticus, Angelica Saffrares of each 5 ounces: Zedoary, Galangale, of each four ounces: Cassia lignea, Lignum Rhodium, Yellow Sanders of each 3 ounces, Citron pils dry, Orange pils dry, of each 6 ounces, Cinnamon White, Nutmegs, Mace, Ginger, of each five ounces, Cinnamon best 20 ounces, Cloves, Cardamums, Cubebs, of each 2 ounces and a half; sweet Chervile seeds, Basil seeds, of each 3 ounces and an half, Coriander seeds, sweet Fennel seeds of each ten ounces, Aniseeds 20 ounces; bruise them, distil them into Proof-spirit, and dulcisfe with fine Sugar 15 pound according to Art: Let it stand till it be fine, then draw it off, and add Musk one dram: Ambergrisse 4 drams; then let it clear and draw it for use.

The lesser quantity.

Take strong Proof-spirit what sufficeth, the roots of Enula Campana Cyprus, Avens Calamus Aromaticus, Angelica Saffrares, of each half an ounce; Zedoary, Galangale, of each 3 drams, Cassia lignea, Lignum Rhodium, Yellow Sanders, of each 2 drams and half, Citron pils dry, Orange pils dry, of each 4 drams and 3 quarters; Cinnamon White, Nutmegs, Mace, Ginger, of each half an ounce; Cin-
Cinnamon 2 ounces, Cloves, Cardamums, Cubebs, of each 2 drams, sweet Chervile seeds, Basil seeds, of each three drams, Coriander seeds, sweet Fennel seeds, of each 1 ounce, Annis seeds 2 ounces; bruise them, distill them into Proof-spirit, and dulsifie with fine Sugar 24 ounces according to Art, let it stand till it be fine, then draw it off, and add Mask six grains, Ambergris five 24 grains; then let it clear and draw it for use.

Precious water is good against the Plague and Malignant Feavers: It also comforteth the Spirit, strengtheneth the Heart, preserveth the Senses, and relieveth languishing Nature.

CHAP. XXIV. Wind Water.

The greater quantity.

Take strong Proof-spirit what sufficeth, Enula Campana roots dry, Annis seeds of each 1 pound, Cyprus roots, Bark of the roots of Bay-tree, or as much leaves, Sassafras with the Bark, Cinnamon white, of each 6 ounces, Calamus Aromaticus, Orange pils dry, of each 4 ounces, Clary, Red Mints, Calamint, Elder flowers, Camomile flowers of each 5 ounces, sweet Fennel seeds, Caraway seeds, Angelica seeds of each 3 ounces and an half, Coriander seeds, Cardamums, Cubebs, Grains of Paradise, Cloves, Ginger, of each 1 ounces and a half, Pepper long and white of each 10 drams; bruise them all grossely, distill them into strong Proof-spirit according to Art, dulsifie with white Sugar 10 pound, draw it for use when it is perfectly clear.

The lesser quantity.

Take strong Proof-spirit 1 gallon, Enula Campana roots dry, Annis seeds, of each 1 ounce 5 drams, Cyprus roots, Barks of the root of Bay-tree, or as much leaves, Sassafras with the Bark, Cinnamon white, of each 4 drams 3 quarters, Calamus Aromaticus, Orange pils dry, of each 3 drams, Clary, Red Mints, Calamint, Elder flowers, Camomile flowers, of each half an ounce, sweet Fennel seeds, Caraway seeds, Angelica seeds, of each 3 drams, Coriander seeds, Cardamums, Cubebs, Grains of Paradise, Cloves, Ginger, of each 2 drams, Pepper long and white, of each 1 dram, bruise them all grossely; distill them into strong Proof-spirit according to Art, dulsifie with white Sugar 16 ounces, draw it for use when it is perfectly clear.
The London Distiller.

CHAP. XXV. Water to procure Sweat.

The greater quantity.

Take strong Proof-spirit 10 gallons, Butter-bur-roots dry, 2 pound, Valerian, (common) roots, Anniseeds, of each one pound, Vincetoxicum roots, Saffras roots, with the Bark of each 8 ounces, Angelica herb dry, Carduus Benedictus, Great Valerian Herb and Roots, all dry; Scordium, of each twelve ounces, Cowslip flowers, Marigold flowers, of each 10 ounces, Juniper Berries 20 ounces; bruise them all, distill them into Proof-spirit according to Art; dulcisie with white Sugar ten pound.

The lesser quantity.

Take strong Proof-spirit what sufficeth, Butter-bur-roots dry, 3 ounces a dram and half, Valerian (common) roots, Anniseeds, of each 1 ounce 5 drams, Vincetoxicum roots, Saffras roots with the Bark, of each 6 drams and a half; Angelica herb dry, Carduus Benedictus, Great Valerian herb and Roots, all dry, Scordium, of each 1 ounce a dram and half; Cowslip flowers, Marigold flowers, of each one ounce, Juniper Berries 2 ounces; bruise them all, distill them into Proof spirit according to Art; dulcisie with white Sugar 16 ounces.

CHAP. XXVI. Surfet Water.

The greater quantity.

Take strong Proof-spirit what sufficeth, Juniper Berries two pound, Enula Campana roots dry 1 pound, Calamus Aromaticus, Galangal, of each 4 ounces, Wormwood, Spear Mint, Red Mint all dry, of each 2 ounces and an half, Carraway seeds, Angelica seeds, of each 3 ounces, Nutmegs, Mace, Cloves, Ginger, of each 1 ounce, Red Poppy flower 4 pound, Anniseeds 2 pound and an half, bruise them all, distill them into strong Proof-spirit, dulcisie with white Sugar 10 pound.

The lesser quantity.

Take strong Proof spirit 1 gallon, Juniper berries 3 ounces a dram and half, Enula Campana roots dry 1 ounce 5 drams, Calamus Aromaticus, Galangal of each 3 drams, Wormwood, Spear Mint, Red Mint, all dry, of each 2 drams, Carraway seeds; Angelica
Angelica seeds, of each a dram and a half, Sassafras Roots with the Bark, White Cinnamon, of each two drams and a half, Nutmegs, Mace, Ginger, Cloves of each 3 quarters of a dram, Red Poppy flowers 6 ounces and a half, Aniseeds 4 ounces; bruise them all, distil them into strong Proof-spirit, dulcisif with white Sugar 16 ounces.

CHAP. XXVII. Scorbuticall water.

The greater quantity.

Take strong Proof-spirit 10 gallons, Horse Raddish roots dry 2 pound, Enula Campana roots dry, Aniseeds of each 1 pound, Water

Winter

Cresses

Garden


tarragon, Balsamint, Scurvygrass (Garden) Wormwood, Brook-lime, Trefoil (Water) Sweet Chervile, of each six ounces, Arsmart 8 ounces,

Mustard

Banc Creles

Rocket

Raddish

Citron

Orange

Cinnamon White, Mace, of each 4 ounces: bruise them all, distil them into strong Proof-spirit according to Art, dulcisif with white Sugar what sufficeth for use; take 7 parts of this spirit, and 1 part of juice of Limons (or more) mingle them together, and dulcisif with white Sugar what sufficeth.

The lesser quantity.

Take strong Proof-spirit what sufficeth, Horse Raddish roots dry, 3 ounces a dram and half, Enula Campana roots dry, Ani-seeds, of each 1 ounce 5 drams,

Water

Winter

Cresses

Garden


tarragon, Balsamint, Scurvygrass (Garden) Wormwood, Brook-lime, Trefoil (Water) Sweet Chervile, of each half an ounce and three quarters of a dram, Arsmart three quarters of an ounce and half a dram,
The London Distiller.

Mustard
Bank-cress
Rocket
Raddish
Citron
Orange

Cinnamon, White, Mace, of each 3 drams and a quarter; bruise them all, distill them into strong proof-spirit according to Art, dulcisifie with white Sugar 1 pound for use; take 7 parts of this spirit, and 1 part of juice of Limons (or more) mingle them together, and dulcisifie with white Sugar what sufficeth.

CHAP. XXVIII. Plague Water.

The greater quantity.

Take strong Proof-spirit what sufficeth, Butter-bur-roots dry 1 pound, Garden Valerian roots dry, commom Valerian roots dry, Angelica roots, Imperatoria, Gentian, Enula Campana, Snake-grass roots, of each six ounces, Contra Yerva, Zedoary, Galangale, of each 4 ounces, Rue leaves dry, White Horehound, Scordium, Carduus Benedictus, of each 5 ounces, Elder flowers, Lavender, Mace of each 3 ounces, Citron pills dry, Juniper berries, of each 8 ounces, Green Walnuts with the husks 1 pound, Venus Triacle, Mithridate, of each 2 ounces, Aniseeds belt a pound and half, Camphire 1 ounce; distill them into strong Proof-spirit according to Art; dulcisifie with white Sugar 10 pounds; for use; let the party infected take of this water 1 ounce, mingled with warm Pottage, or any water proper in that case) and be kept very warm and sweat well thereon.

The lesser quantity.

Take strong Proof-spirit 1 gallon, Butter-bur-roots dry one ounce and 5 drams, Garden Valerian roots dry, Common Valerian roots dry, Angelica roots, Imperatoria, Gentian, Enula Campana, Snake-grass roots, of each half an ounce and three quarters of a dram, Contra Yerva, Zedoary, Galangale, of each 3 drams and a quarter, Rue leaves dry, White Horehound, Scordium, Carduus Benedictus, of each half an ounce, Elder flowers, Lavender, Mace, of each two drams and an half, Citron pills dry, Juniper berries, of each 6 drams and a half, Green Walnuts
The London Distiller.

Walnuts with the husks 1 ounce 5 drams, Venus Treacle, Mithridate, of each a dram and half, Aniseed dry 3 ounces 3 drams and an half, Camphire 3 quarters of a dram; distil into strong Proof-spirit according to Art; dulcisie with white Sugar what sufficeth; for use; let the party infected take of this water one ounce mingled with warm Posset drink, (or any water proper in that case) and be kept very warm, and sweat well thereon.

CHAP. XXIX. Lavender Water.

The greater quantity.

Take strong Proof-spirit 10 gallons, Lavender leaves dry three pound, Lavender flowers dry 2 pound, Mace half a pound, or Nutmegs 1 pound, Lavender Cotten dry 2 pound, Stoechados half a pound; bruise them that are to be bruised, distil them into Proof-spirit according to Art, dulcisie with white Sugar what sufficeth.

The lesser quantity.

Take strong Proof-spirit what sufficeth, Lavender leaves dry 4 ounces 3 quarters and half a dram, Lavender flowers dry, three ounces a dram and half, Mace 6 drams and a half, Nutmeg one ounce 5 drams, Lavender Cotten dry 3 ounces a dram and half, Stoechados 6 drams, and a half, bruise them that are to be bruised, distil them into Proof-spirit according to Art, dulcisie with white Sugar 16 ounces.

Lavender water helpeth the passims of the Heart, Palsies, Cramps, Apoplexies, and restoreth the speech lost.

CHAP. XXX. Sage Water.

The greater quantity.

Take strong Proof-spirit what sufficeth, Great Sage dry three pound, Red Sage dry 2 pound, Lavender flowers, Sage flowers, of each 1 pound, Lavender Cotten dry, Southernwood dry, of each 8 ounces, Nutmegs ten ounces; bruise or beat them as is most proper; distil them into Proof-spirit according to Art, dulcisie with white Sugar what sufficeth.

The lesser quantity.

Take strong Proof-spirit 1 gallon, Great Sage dry 4 ounces 3 quarters and half a dram, Red Sage dry 3 ounces a dram and a half,
half, Lavender flowers, Sage flowers, of each 1 ounce a half and 1 dram, Lavender Cotton dry, Southern wood dry, of each six drams and a half, Nutmegs what sufficeth: Bruise or beat them as is most proper; distil them into Proof-spirit according to Art, dulcisfie with white Sugar 16 ounces.

Sage Water is good for such as are of a cold and sanguinique constitution, and for such as are heavy and dull of spirits.

CHAP. XXXI. Ros folis proper.

The greater quantity.

Take strong Proof-spirit 10 gallons, Ros solis gathered in due season, and clean pickt 4 pound, Juniper berries 3 pound, Sassafras root with the Bark, Caraway seeds, of each four ounces, Marigold flowers 1 pound, Anniseeds 1 pound and an half; bruise them that are to be bruised; distil them into strong Proof-spirit according to Art; Take hereof 7 pound; and thereto one pound of water treated of in the 23 Chapter, dulcisfie, Licorice bruised one pound, dulcisfie with white Sugar ten pound: If you add none of the aforesaid water, then in stead thereof take Musk 1 dram, Ambergrisse 3 drams, colour it with the tincture of July flowers, or Roses what sufficeth, according to Art.

The lesser quantity.

Take strong Proof-spirit what sufficeth, Ros solis gathered in due season, and clean pickt, six ounces 3 drams and a quarter, Juniper berries 4 ounces 6 drams and a half, Sassafras roots with the Bark, Caraway seeds, of each 3 drams and a quarter, Marigold flowers 1 ounce a half and 1 dram, Anniseeds 2 ounces 3 drams and a half; bruise them that are to be bruised, distil them into strong Proof-spirit according to Art; Take hereof ten ounces 1 dram and a half; add thereto 1 ounce 5 drams of the water treated of in the 23 Chapter, dulcisfie, Licorice bruised 1 ounce 5 drams; dulcisfie with white Sugar what sufficeth; If you add none of the aforesaid water, then in stead thereof, take Musk six grains, Ambergrisse 8 grains; colour it with the tincture of July flowers, or Roses what sufficeth, according to Art.

Ros solis proper, openeth obstrucion, relieveth decaying Nature, comforteth the stomach, quickeneth Appetite, and is good against the Falling sickness.
The London Distiller.

CHAP. XXXII. Water of Flowers.

The greater quantity.

Take strong Proof-spirit what sufficeth, and put it into a wide mouthed pot, (or other vessel) stopp very close. Take those several flowers following in their seasons, and being clean pickt, put them to the spirit in the pot, viz. Cow-slips, Wood-bind, Stock Gilly flowers of all three sorts,

Damask Roses,

Musk  

Sweet Briar flowers, Clove Jilly-flowers, Lilium Convallium, Jasmine, Citron  

Orange  

Tillia flowers,  

Garden  

Limon  

Thyme flowers,  

Wild  

Lavender  

Marigold  

Chamomile Flowers, of each half a pound;  

Mellilot  

Elder  

Being furnished with all your flowers as above, when you would distil them, add to them Annis seeds 2 pound, Coriander 1 pound; bruise the seeds; it were best to bruise all the flowers; as you put them up into the spirit, for their more orderly working; distil them into strong Proof-spirit according to Art; then add to the distilled water, Roses, Jilly flowers, Elder flowers, of each 1 pound; after twelve dayes infusion it may be drawn off; then dulcifie it with white Sugar 10 pound, and being fine, it may be drawn for use.

The lesser quantity.

Take strong Proof-spirit 1 gallon, and put it into a wide mouthed pot (or other vessel) stopp very close; take those several flowers following in their seasons, and being clean pickt, put them to the spirit in the pot: viz. Cow-slips, Wood-bind, Stock Gilly flowers of the 3 sorts,

Damask Roses,

Musk  

Sweet
The London Distiller.

Sweet Brier flowers, Clove Jilly flowers, Lilium Convallium, Jasmine, Citron flowers, or pils dry,
Orange flowers,
Tillia flowers,
Garden Thyme flowers.
Limon Thyme flowers.
Wild Lavender
Marigold
Chamomile, flowers, of each 6 drams and a half,
Melli'ot
Elder

Being furnished with all your flowers as above, when you would distil them, add to them Annifeed 3 ounces a dram and half, Coriander 1 ounce 5 drams: bruise the seeds; it were best to bruise all the flowers, as you put them up into the Spirit, for their more orderly working, distil them into strong Proof-spirit according to Art; then add to the distilled water Roses, Jilly flowers, Elder-flowers, of each 1 ounce 5 drams: after 2 days infusion it may be drawn off; then dulcifie it with white Sugar 1 pound, and being fine it may be drawn for use.

CHAP. XXXIII. Water of Fruits.

The greater quantity.

Take strong Proof-spirit 10 gallons, Juniper-berries 4 pound, Quince parings dry, Pippin parings dry, of each 2 pounds, Limon pils, Orange pils dry, of each 1 pound; Nutmegs four ounces, Annifeed 2 pounds, Cloves 2 ounces; distil them into Proof-spirit according to Art; to the spirit add Straw-berries, Raspices bruised, of each 5 pound; stir them well together, and after ten dayes it being clear, may be drawn off; then dulcifie with syrup made as is hereafter taught, and so let it stand till it be clear, and then draw it off for use.

The lesser quantity.

Take strong Proof-spirit 1 gallon, Juniper-berries 6 ounces 3 drams and a quarter, Quince parings dry, Pippin parings dry, of each 3 ounces a dram and a half, Limon pils, Orange pils dry, of each 1 ounce 5 drams, Nutmegs 3 drams and a quarter, Annifeed.
seeds 3 ounces a dram and half; Cloves a dram and half; distil them into Proof-spirit according to Art; to the spirit add Strawberries, Raspices bruised, of each 8 ounces, stir them well together; and after 10 days, it being clear, may be drawn off; then dulcifie it with syrup made as is hereafter taught, and so let it stand till it be clear, and then draw it off for use.

CHAP. XXXIV. Aven Water.

The greater quantity.

Take strong Proof-spirit what sufficeth, Aven roots 4 pound, Orris roots, Nutmeg, Yellow Sanders, Mace, of each 2 ounces, Lignum Rhodium, Saffron, Storax, Benjamin, of each 1 ounce, Angelica roots 3 ounces, Limon pils green half a pound, Sweet Fennel seeds, Anniseeds, of each 1 pound; Cloves 10 drams, Roman Wormwood, Mint dry, of each 3 handfuls; Red Roses, Stoechas flowers, of each 4 handfuls, Sweet Marjoram, Balm, Burnet, Thyme, all dry, of each 6 handfuls, Alkermes berries 2 ounces; bruise them all that are to be bruised, distil them into Proof-spirit according to Art, dulcifie with syrups thus made; Take Rose water 4 pound, white Sugar 10 pound, boil it to a syrup height; then strain it, and put it to the fire again; add thereto confection of Alkermes 4 ounces, Syrup of Gilly flowers 1 pound, Ambergrisfe (dissolved in Rose water) 1 dram; and so let these boil a little, till they be incorporated with the Syrups, and so keep it for use.

The lesser quantity.

Take strong Proof-spirit 1 gallon, Aven roots 6 ounces 3 drams and a quarter, Orris roots, Nutmeg, Yellow Sanders, Mace of each a dram and half, Lignum Rhodium, Saffron, Storax, Benjamin of each 3 quarters of a dram, Angelica roots 2 drams and a half; Limon pils green 6 drams and a half, Sweet Fennel seeds, Anniseeds, of each 1 ounce 5 drams, Cloves 1 dram, Roman Wormwood, Mint dry, of each what sufficeth, Red Roses Stoechas flowers, of each what sufficeth, Sweet Marjoram, Balm, Burnet, Thyme, all dry, of each what sufficeth, Alkermes berries a dram and half; bruise them all that are to be bruised; distil them into Proof-spirit according to Art, dulcifie with syrups thus made, Take Rose water 6 ounces 3 drams and a quarter, White Sugar
The London Distiller.

Sugar 1 pound; boil it to a Syrup height, then strain it, and put it to the fire again; add thereto Confection Alkermes 3 drams and a half, Syrup of Gilly flowers 1 ounce, 5 drams, Ambergrise (dissolved in Rose water) 6 grains; and to let these boil a little, till they be incorporated with the Syrup, and so keep it for use.

Aurem water is a great Cordial, strengtheneth the Spirit, comforteth all the inward parts, and preserveth from Consumptions, and Melancholy Sickness.

Additions to enrich these precedent Chapters, to which (by Numbers) these are referred.

Additions to the first and second Chapters.

Ake Jilly flowers, Roses, Poppy and Sanders, or any of them severally, what sufficeth; and infuse them in Aqua-viteæ, or Proof-spirit, till the tincture be drawn out; then draw off the spirit, and reserve it (clofe stopr) for use: When you have occasion to use it, take 8 ounces thereof to 7 pound and a half of this VVater, and you will give it a sufficient colour; or you may take more at pleasure without inconvenience.

Additions to the third Chapter.

The greater quantity.

Take Anniseeds, White Sugar, of each 5 pound, or what sufficeth according to Art.

The lesser quantity.

Take Anniseeds, White Sugar, 8 ounces, according to Art.

Additions to the fourth Chapter.

The greater quantity.

Take Carraway seeds, Coriander seeds, of each 3 ounces, Calamus Aromaticus, Zedoary, of each 4 ounces, Annisee's, Cafia 2 etc. of each 8 ounces, Angelica Roots 8 ounces, (or Hearb Angelica 2 pound) white Sugar 2 pound and half, or what sufficeth.
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The lesser quantity.
Take Carraway seeds, Coriander seeds, of each 2 drams and a half, Calamus Aromaticus, Zedoary, of each 3 drams and 3 quarters, Anniseeds, Cassia lignea, of each 6 drams and a half, Angelica roots 6 drams and a half, or Herb Angelica 3 ounces a dram and half, White Sugar 4 ounces, or what sufficeth.

Additions to the fifth Chapter.
The greater quantity.
Take Cinnamon, Cubebs of each 4 ounces, sweet Fennel seeds, Anniseeds of each 8 ounces, Cloves, Carraway seeds, Nutmegs, of each 3 ounces, Wormwood dry 10 ounces, White Sugar 2 pounds and a half, (or what sufficeth.)
The lesser quantity.
Take Cinnamon, Cubebs, of each 3 drams and a quarter, sweet Fennel seeds, Anniseeds, of each 6 drams and a half, Olaves, Carraway seeds, Nutmegs, of each 2 drams and a half, Wormwood dry 1 ounce, white Sugar 4 ounces, (or what sufficeth.)

Additions to the sixth Chapter.
The greater quantity.
Take Garden Thyme, Penny-royal of each 3 handfuls, Cardamums 2 ounces, sweet Fennel seeds, Anniseeds, of each eight ounces, Balm dry 1 pound, Nutmeg, Ginger, Calamus Aromaticus, Galangale, Cinnamon, of each 4 ounces.
The lesser quantity.
Take Garden Thyme, Penny-royal of each what sufficeth; Cardamums a dram and half, sweet Fennel seeds, Anniseeds, of each 6 drams and an half, Balm dry 1 ounce 4 drams, Nutmegs, Ginger, Calamus Aromaticus, Galangale, Cinnamon of each 3 drams and a quarter.

Additions to the seventh Chapter.
The greater quantity.
Take Spear Mint dry, Anniseeds, of each one pound, Calamus Aromaticus 4 ounces, White Sugar 2 pound and a half.
The lesser quantity.
Take Spear Mint dry, Anniseeds, of each 1 ounce 5 drams, Calamus
Calamus Aromaticus 3 drams and a quartar, White Sugar four ounces.

Additions to the eighth Chapter.

The greater quantity.

Take sweet Fennel seeds, Cinnamon of each 8 ounces, Anniseeds, Rosemary dry of each 1 pound, Carraway 2 ounces, Spear Mint dry 2 handfuls, White Sugar 2 pound and a half.

The lesser quantity.

Take sweet Fennel seeds, Cinnamon of each 6 drams and a half, Anniseeds, Rosemary dry, of each 1 ounce five drams, Carraway 1 dram and a half, Spear Mint dry what sufficeth, White Sugar 4 ounces.

Additions to the ninth Chapter.

The greater quantity.

Take Carraway seeds 4 ounces, Anniseeds, Limon pils dry, of each 1 pound, White Sugar 2 pound and a half; in like manner and quantity make your Composition, with Orange pils dry according to Arr.

The lesser quantity.

Take Carraway seeds 3 drams and 3 quarters, Anniseeds, Limon pils dry, of each 1 ounce 5 drams, white Sugar 4 ounces; In like manner and quantity make your Composition with Orange pils dry, according to Arr.

Additions to the twelfth Chapter.

The greater quantity.

Take Cinnamon 5 ounces, Cloves 2 ounces, Limon pils dry 3 ounces, Sugar 2 pound and a half.

The lesser quantity.

Take Cinnamon half an ounce, Cloves a dram and half, Limon pils dry, 2 drams and a half, Sugar 4 ounces.

Additions to the fourteenth Chapter.

The greater quantity.

Take sweet Fennel, Cinnamon of each 5 ounces, Nutmeg 3 ounces, Sugar 2 pound and a half.
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The lesser quantity.

Take sweet Fennel, Cinnamon of each 4 drams, Nutmeg 2 drams and a half, Sugar 4 ounces.

Additions to the fifteenth Chapter.

Take and add to the spirit half as much as the rule of every particular ingredient therein expressed, and instead of Sanderson give it the tincture of Roses, Jilly flowers, or Poppy, what sufficeth according to Art.

Additions to the eighteenth Chapter.

The greater quantity.

Take Musk, Ambergrisle, of each half a dram, White Sugar Candy instead of common white Sugar, what sufficeth according to Art. In respect that Musk in some case, may give offence to the receiver; it is requisite to omit the use thereof, in some of your waters of this kind, to serve for such special uses.

The lesser quantity.

Take Musk, Ambergrisle of each 3 grains, White Sugar Candy instead of common white Sugar, what sufficeth according to Art, in respect that Musk for some cause may give offence to the receiver; it is requisite to omit the use thereof in some of your waters of this kind to serve for such special uses.

Additions to the nineteenth Chapter.

The greater quantity.

Take sweet Fennel seeds 5 pounds, Carraway seeds 4 ounces, Annis seeds 1 pound, Cinnamon 8 ounces, Cloves 2 ounces, Sugar 2 pounds and a half.

The lesser quantity.

Take sweet Fennel seeds 8 ounces, Carraway seeds 3 drams and a quarter, Annis seeds 1 ounce 5 drams, Cinnamon 6 drams and a half, Cloves a dram and half, Sugar 4 ounces.

Additions to the twentieth Chapter.

The greater quantity.

Take Cinnamon, sweet Fennel of each 5 ounces, Carraway, Cloves of each 2 ounces, Marigolds 2 gallons, Sugar 2 pounds and a half.
The London Distiller.

The lesser quantity:

Take Cinnamon, sweet Fennel of each 4 drams, Carraway, Gloves of each a dram and half, Marigolds what sufficeth, Sugar 4 ounces.

Additions to the twenty-third Chapter.

The Syrup for distilling the water is thus to be made.

Take Apricocks, Quinces, Cherries, English Currants, of each what sufficeth, all full ripe, and of equal weight, when they are thus prepared as followeth.

Prepare the Quinces and Apricocks, and take out the stones, and kernels, and slice them very thin, stone the Cherries and bruise them and the Currants; then lay them into a flat Basin, or Pan thus: a lane of fruit of a fingers thickness: and then a lane of white powder Sugar of the like thickness: and so proceed in order lane upon lane till all be laid into the Basin: then pour on good Aquavitæ gently, till all be covered therewith; and so let it stand 2 hours; then bruise or posh them all together, and press out the juice as dry as possibly you can through a thick linen bag: Then take the juice, and let it stand till it be settled clear, which juice by a gentle evaporation in a hot bath, boil up to a syrup height according to Art, and keep it for use. To every eight pound of the spirit, put a pound of this Syrup, and when it is clear draw it off for use.
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The Furnace used in the drawing off the preceding Spirits and Waters.

A, Sheath the bottom which ought to be of Copper.
B, The barrel filled with cold water, to refrigerate & condensate the water and Oyl that run through it.
C, A pipe of brass or pewter, or rather a worm of Tin running through the barrel.
D, The Alembick set in the furnace with the fire under it.
Excellent Waters for several Uses.

**CHAP. I. A water to cause Hair fallen to grow again.**

Take Mountain Hysop, Mountain Calamint, leaves of Southernwood, of each two handfuls, Canary Wine, Urine, Honey, Milk, of each two pound, Mustard seed half a pound; bruise what is so bruised, macerate them three days, then distil them in Balneo.

**CHAP. II. A water to cause Hair taken off never to grow again.**

Take seeds of Henbane bruised 2 pound, lay it a while in some moist place; then add great Stone-crop half a pound; distil it according to Art.

Another.

Take blood of Frogs, Terræ Sigillaræ, Sumach, Roses, Sorrel Houfleek, what is sufficient; macerate them together 24 hours, then distil them in Balneo.

**CHAP. III. A water to take away Spots in the Face.**

Take Asses Milk 4 pounds, white Wine 1 pound, the inside of two new loaves, 12 Eggs with the shells, Sugar Candy 3 drams; mix them well together and distil them.

**CHAP. IV. A water against Scabs.**

Take Sorrell water 2 pounds, Juice of Plantain’s Rose water, of each 4 ounces, Juice of Limons 2 ounces, Lytharge 6 ounces, Ceruse, Sublimate, of each half an ounce, Sulphur-vive 2 drams; bruise them that are to be bruised; then
Excellent Waters for several Uses.
infuse them 24 hours; and after distil them according to Art.

CHAP. V. A water to preserve the sight.
Take Fennel, Vervaine, Eye-bright, Endive, Betonie, Red Roses, Venus Hair, of each three handfuls; bruise the Herbs, and macerate them 24 hours in White Wine, (as much as is sufficient) then distil them in a limbeck in Balneo.

Another.
Take Fennel, Celandine, Sage, Rosemary, Vervaine, Rue of each equal parts: Prepare it as before.

CHAP. VI. A water to restore the sight decayed.
Take Fennel, Celandine, Vervaine, Rue, Leaves of Enula, Fullers Teasel, Milfoil, of each one handful, Camphire half a dram; bruise them and distil them in an Alembick.

CHAP. VII. A water against the Gout.
Take Licorice half a pound, Annis seeds 1 pound, Cinnamon three ounces, Galingale, Ginger, Roots of Icoos, Enula Campana, seeds of Fennel, Caraway, Amomum, Ammi Pioni, Basil, Salyory, Marjoram, of each one ounce; Juniper Berries 2 ounces, Ground Ivy half a handful, Long Pepper, Calamus, Spikenard, Mace, of each 3 drams, Valerian 1 dram, Roots of Angelica half an ounce, Cypress 4 ounces, Lignum Aloes half an ounce, Sugar 4 ounces, Malaga wine, or strong Ale 32 pounds; prepare and distil them according to Art.

This water taken inwardly strengthens cold and weak stomachs and breaks the stone.
Outwardly applied it easeth the Gout, enlargeth Sinews that are shrunk, and is good against all aches and passions proceeding from melancholy and cold.

CHAP. VIII. A water for the Web and Spots in the Eyes.
Take Rue, Plantain, Red Roses, Red Poppies, Vervaine, Celandine leaves, of each 1 ounce; Red Rose water 1 pound, Rich white Wine 1 pound and an half, Tincture prepared 1 dram, Aloes Hepatick an ounce and an half, Cloves 1 ounce, Powder, prepare and distil them according to Art; Drop the water into the Eyes morning and evening.
CHAP. IX. A water for Tetter, Fistulae, Cankers, &c.
Take strong white Wine Vinegar 8 pounds, Wood Ashes one pound, Infuse them 3 days natural, and stir them twice a day; then put thereto unflaked Lime 1 pound, let it stand other three days, and stir it as before, when it is well settled, Filter off the clear Lee, and put thereto Sal Gemme, Salt Alkali, Salt Armoniack, Salt of Tartar, of each one dram; Calx of Egg-shells, Calx-vive, of each 1 dram; grind all these together, and temper them with the said Lee; put them into a Glass limbeck, and distil them in Balneo; give it the first 24 hours no more heat than will make it, and keep it warm; after that distil it off according to Art.

CHAP. X. A water against redness of the Face, and to beautify the Skin.
Take Wild Purslane, Mallows, Nightshade, Plaintain with the seeds, of each three handfuls; the Whites of 12 Eggs, Limons number 12, Roch Allum 4 ounces; prepare and distil them according to art.

Another.
Take Calx of Egg-shells, white Coral pulverized, of each 2 ounces, Salt calcinated, and Borax of each 6 ounces, Gum Tragant 5 ounces, Roots of white Lillies number 6, White Sopo 8 pounds, Styx, Calamita, Belzoin, of each 4 ounces; mix and distil them by Alembick.

Another of the same virtue.
Take Wine Vinegar half a pound, Lytharge of gold 1 ounce and a half, Ceruse 1 ounce, Sal Gem 6 drams, Roch Allum half an ounce, Borax, Sulphur vive, Salt Nitre of each 3 drams, Camphire half a dram; prepare and distil them according to Art.

CHAP. XI. A water against the inordinate Flux of Tears.
Take ripe Strawberries as many as you please, set them to digest in Horse-dung 15 days; then distil them in Balneo.

Or
Excellent Waters for several Uses.

Or thus.

Take flowers of the white Thorn, Leaves or tops of the Willow, Eye-bright, of each what sufficeth, distil them as before.

CHAP. XII. A water against the Redness of the Eyes.
Take juyc of Celandine, Rue, Vervain, Fennel, of each three ounces; tops and leaves of Roses of each what sufficeth, Sugar Candy 3 ounces, of the best Tutia, Sanguis Draconis, of each four ounces; bruise them that are to be bruised, and distil them according to Art.

CHAP. XIII. A water to cleanse and dry a sharp Ulcer.
Take Crude Allum 2 ounces, whites of eggs, number 15. Juice of Purslain, Plantain, Nightshade, Nicotian, Housleek, Water of Meadsewe, Trinity Gras, Roses, of each 4 ounces; Labour them well together, and draw off the Water by an Alemmbick of Glass in Balneo.

CHAP. XIV. A water to make the teeth white.
Take Allum 6 ounces, Common Salt 3 ounces, Myrrhe, Maftick, Cloves, of each 6 drams; mix, bruise and distil them according to Art.

CHAP. XV. A Water to take away the marks of the Small Pox.
Take Maftick, Myrrhe, Aloes Hepatick, Nard, Sanguis Draconis, Olbanum, Opopanax, Bdelium, Carpobalsamum, Saffron, Gum Arabick, Liquid Storax, of each 2 drams and a half; Beat what is to be beaten; then add thereto of clear Turpentine equal weight: distil them according to Art.

CHAP. XVI. A Water to Cicatrize Ulcers.
Take red Wine 2 pound, Plantain water half a pound, Rose water 4 ounces, Juice of Plantain, Vervain, Shepheards Purse, Knotgras, Centaury the less, Comfrey the greater and lesser, of each 2 ounces; Crude Allum 1 pound, Cypreff Nuts 3 ounces, Pommegrate flowers half an ounce, Pomgranate pils ounces, Gals.
Excellent Waters for several Uses.

Gals half an ounce, Bark of the Oak, Sumach, of each 5 dram, Turpentine 3 ounces, Crude Honey half a pound, Mastick, Olibanum, of each 10 dram, Sarcocol two ounces, Burnt Vitriol, Burnt Lead of each 1 dram, Bole Armoniack 3 ounces, Caffialigne half an ounce, Round Birthwort 3 ounces: Powder what is to be powdered, then mix and distil them.

Another.

Take Mastick, Myrthe, Olibanum, Sarcocol, Mummie, of each 3 dram, Frankincense 1 ounce, Nutmegs, Cinnamon, Cloves, Cubbebs, of each 1 dram, Cyprus Nuts half an ounce, Flowers of Pomegranates, Barks of Pomegranates, of each 1 dram; Bole Armoniack 1 ounce, Red Roses 3 dram, Roch Allum 1 pound, Vitriol 7 dram, Clarified Honey 1 ounce, Aqua vitæ a pound and half, white Wine 1 pound, Juyce of Plantain, Nightshade, Comfrey of the greater and lesser, of each 4 ounces, Water where n Iron hath been quenched 4 pounds; powder what is to be powdered, and infuse them all night in Aqua vitæ, in the morning draw forth the water by Alemrick.

CHAP. XVII. A Water for Ulcers.

Take white Wine 4 pounds, Plantain water 2 pounds, Allum half a pound, white Copperas 5 ounces, Crude Honey 1 pound, Licorice Raiped 1 pound, Bole Armoniack 5 ounces, Camphire an ounce and half, Mercury sublimated 2 dram; Bruise what is to be bruised, and distil them by Alemwick.

CHAP. XVIII. A Water for hollow Ulcers.

Take Fountain water, Red wine, of each 2 pounds and a half, red Roses four ounces; Flowers & Rinds of Pomegranates, of each two ounces and a half, Sumach 2 ounces, Sage a handful, Comfrey the greater and lesser of each half a handful, Sarcocol 3 ounces, Mastick 2 ounces, Olibanum 1 ounce, Honey 1 pound, water of Turpentine a pound and a half; bruise what is to be bruised, and distil them through a Lembick of Glass with a gentle fire.

CHAP. XIX. A Cicatrizing Water.

Take water wherein Iron hath been quenched four pounds, Aqua Balsami veri four pounds, Turpentine a pound and half, Crude

Ex. 3
Excellent waters for several Uses.

Crude Honey 1 pound, Allum 10 ounces, white Copperas five ounces, Bole Armoniack 7 ounces, Mercury sublimated half a dram, leaves of Plantain, Comfrey, the greater, middle and lesser, Teasell, Knotgrass, St. John's Wort, of each a handful and a half, Frankincense 2 ounces, Olibanum, White Sanders, of each half an ounce, Red Roses a handful and a half, Caffia Lignea, Cinnamon, of each 3 drams; for the first distillation: then take Turpentine 1 pound, Mastic 3 drams, pure Rozen 6 ounces, Cinnamon, Cloves, of each 2 drams; Pomegranate rinds half an ounce, Cyprus Nuts 1 ounce and a half, white Copperas two ounces, Allum 3 ounces, Olibanum 4 ounces, Sanguis Draconis an ounce and a half, Aqua Balsam, ver 1 pound for the second distillation: Afterwards,

Take Flowers of St. John's Wort, Sage, Rosemary, Carduus Benedictus, Centaury, of each 1 ounce, Mastic, Red Sanders, of each 3 drams, Wood of Aloes 2 scruples, Cubaeb 1 dram, A-vita half a pound, Burnt Allum, white Tartar, of each an ounce and a half, Myrrhe half an ounce, Earth Worms in powder 1 dram, the middle bark of the Oak 6 ounces, Caffia lignea, 3 drams, white Copperas 1 ounce, Rinde of Pomegranates half an ounce, Cinnamon 2 drams, Flowers of Pomegranates 1 dram, Guaiacum 4 ounces, Carpobalsamum, Xylobalsamum of each 1 dram, Myrrhes, Mummie, of each 2 drams, Borax half an ounce, Cloves two drams, Tormentil, Gentian, Round Birth-wort of each two drams and a half: This is for the last distillation; afterwards add Burnt Allum half an ounce, white Copperas 2 drams, Mastic 1 ounce in fine powder, and then keep it for use.

CHAP. XX. A water for hollow wounds.

Take Fountain water, Red VVine, of each 2 ounces and a half, Red Roses 4 ounces, Pomegranate flowers, Pomegranate rindes, of each 2 ounces and a half, Sumach, 2 ounces, Sage 1 handful, both the Comberries of each a handful, Allum half a pound, Sarcococ 3 ounces, Mastic 2 ounces, Olibanum 1 ounce, Honey 1 pound water of Turpentine a pound and a half. Prepare the ingredients according to Art, and then distil them all together in a Glass limbeck with a gentle fire.
CHAP. XXI. A Water for Wounds and Ulcers.

Take Calx viva excreta in fountain water 8 pounds, Plantain water 4 ounces, Rose water 2 pounds. Hear all these together, afterward let them stand and clear, pour forth all the clear to the Limbeck, and put to it Honey 2 pounds, Allum 1 ounce, Borax, Mastick, of each 3 ounces, Olibanum 4 ounces, the middle Bark of the Oak dried 3 ounces, powder what is to be powdered and distil them according to Art.

CHAP. XXII. A Water to make the teeth white.

Take the first distilled water of Honey which is white, one pound, Allum half a pound, Sal Nitre, white Salt, of each one ounce, water of Lentisk leaves 1 pound, Mastick 2 ounces, white Vinegar, white Wine, of each 2 ounces. Mix and distil them according to Art, and reserve the water.

CHAP. XXIII. A water against the Collick.

Take Muscadel, or Malmsey four pound, Nutmegs, Galls, of each 1 dram, Cinnamon, Cloves, Grains, of each 2 drams. Powder the ingredients gossely, and infuse them in the Wine 24 hours, then with a soft fire draw off the water according to Art.

CHAP. XXIV. A water for a cold Stomach.

Take Citron and Orange pils dried, of each 2 ounces, Rosemary, Mints, of each one handful, Cinnamon, Cloves, Cubebs, Cardamums, Nutmegs, Ginger, of each a dram and a half, Sage, Pennyroyal, Thyme, of each one handful, Caraway seeds, Annis seeds, Fennel seeds, of each 4 drams. Bruise what is to be bruised, and infuse them all the space of 24 hours in Canary wine four pints; then distil them in Balneo according to Art.

CHAP. XXV. Water of Sage Compound.

Take Sage, Marjoram, Thyme, Lavender, Epithymum, Betteony, of each 1 ounce, Cinnamon half an ounce, Iris, roots of Cyprus, Calamus Aromaticus, of each 1 ounce, Storax, Benjamin, of each a dram and a half; infuse them four dayes in four pounds of spirit of Wine; then distil them in Balneo.
CHAPTER XXVI. Lavender Water Compound.

Take flowers of Lavender, Lilly of the Valley, of each 24 handfuls, Piony, Tillia, Flowers of Rosemary, Sage, of each half a handful, Cinnamon, Ginger, Cloves, Cubebs, Galangal, Calamus Aromaticus, Mace Meffelco of the Oak, of each a dram and a half, Piony roots 1 ounce and a half, of the best Wine what sufficeth, infuse them in Wine two days; then distil them in Bâneo Maria.

The water is good against the Falling-sickness, Convulsion fits, and the infirmities of the Brain.

CHAPTER XXVII. A Pectoral Water.

Take Liver of a Calf, the Lungs of a Fox, of each number 7, Liverwort, Longwort, Sage, Rue, Hyssop, of each one handful, Roots of Enula, Gladiol, of each half an ounce, Seeds of Annise, Caraway, Fennel, of each half an ounce, Flowers of Borage and Bugloss, of each 2 drams; infuse them the space of 24 hours in rich old Wine what sufficeth. Water of Scabius, Carduus Bénédictus, of each 4 ounces, Hyssop 2 ounces; then distil it in Balneo Maria.

Another.

Take leaves of Scabius, Veronica, of each two handfuls, Venus Hair, Sage, Hyssop, Horeshound, Liverwort, Licorice, of each one handful; Flowers of Borage, Bugloss, Violets, of each half a handful, Roots of Enula Campana, Licorice, Flowers of Iris, of each half an ounce, Anniseeds, Fennel seeds, of each 1 dram, Choyce Cinnamon, Oriental Saffron, of each half a dram; let them be bruised and cut, let them be digested two days in water of Scabius Veronica, of each 1 pound, water of Hyssop half a pound; white Wine 3 pounds, and be distilled in Balneo Maria, and Sugar Candy what sufficeth.

This water openteth the obstructions of Liver and Lungs, and strengtheneth them.

CHAPTER XXVIII. Aqua Splenetic.

Take roots of Fern 2 ounces, roots of Parsley, Polypody, of each an ounce and a half, roots of round Birthwort, Lovage, Calamus...
excellent Waters for several Uses.

mus Aromaticus, Acorns of the water, of each r ounce, chosen Rhubarb, banks of Tamarisk, Copperas, Ash, of each half an ounce, Lovage, Seeds of Caraway, Cummin, Anise, of each two drams, Scolopendra, tops of Wormwood, Fumitory, Dodder, leaves of Agrimony, Celery, of each a handful and a half. Rich Wine 8 pounds; let them be digested two days, and then distill them in Balneo Maria.

This water strengtheneth the Spleen, openeth and provoketh Urine.

CHAP. XXIX. Aqua Febrífuga.

Take roots of Vipers grass, Cinquefoil, Tormentil, Dictamnunm, of each 6 drams, Seeds of Citron, exorcistated, Cardus Benedictus, Carduus Marœ, Sorrel, of each half an ounce, of all the Sinders of each dram, of the Cordial flowers of each one handful, Goats Rue 1 handful, Harts-horn Raspéd half an ounce, pour upon them bruised, water of Tormentil, Cychorie, Cardus Benedictus, Carduus Marœ, Wild Poppy, of each what sufficeth; let them be macerated three days in a glass close shut, afterward add Citrons bruised number six, Juice of Endive, Cardus Benedictus, Plantain of each 1 pound, Borage, Scordium, of each half a pound; let them be distilled in Balneo Maria.

This water is convenient in Feavers, especially malignant Feavers; because it driveth away the malignity, and resistent putrefaction.

CHAP. XXX. Aqua Damascena Odorifera.

Take Treos Flowers, Cloves, Cubeb, Cinnamon, Grains of Paradise, Calamus Aromaticus, of each 1 ounce, Marjoram, Thyme, Bay-leaves Rosemary Flowers, Red Roses, of each a handful, Lavender flowers three drams; of the best Wine 3 measures; let them be macerated and distilled: to the distilled liquor add Musk half a scruple, Civet 6 grains.

This water besteth dryeth, cuteth, discouseth, and chiefly strengtheneth the Heart and Head.

CHAP. XXXI. Aqua Hysterica.

Take roots of Dictamnunm seeds of Daucus, of each 1 ounce, Cinnamon, Caffi lignea, Balm, of each two scruples, Oriental Saffron 1 scruple, New Castorium 1 scruple and a half, of all these mix.
Excellent Waters for several Uses.

Mixt make a powder, to which let be poured water of Rue two pounds and a half; let them stand in infusion four days, and then distil them in Balneo Maria.

CHAP. XXXII. Aqua Nephretica.

Take roots of Emula Campana, Cammock, Pimpernel, Radish, of each one ounce, Parsley, Lovage, of each 7 dram, leaves of Lovage, Parsley, of each one handful, Saxifrage, cum roto two ounces, Flowers of Broom, Balm, Rosemary, of each half a handful. Elder one handful, Berries of Juniper, Myrtle, Alcaken-gie, Anniseeds, of each 2 ounces; cut them and infuse them the space of 8 days in 12 pounds of the best white Wine, then let them be distilled.

This water openeth and provoketh Urine: the dose is one spoonful.

CHAP. XXXIII. Aqua Aperitiva.

Take roots of Eringo, Vipers-grass, Fern, the greater Centaury, of each half an ounce, roots of Fennel, Barks of Capparis, Tamarisk, Ash, of each three drams, Barks of Citrons two drams and a half: Seeds of Carduus Benedictus, Cichorie, of each half an ounce: Seeds of Endive, Cresses, Citrons, Scariol, of each two drams, Polytricon, Adianthum, Ceterach, Dodder, Scolopendria, Betony, Endive, of each a handful and a half, Tops of Thyme, Epithymum, Hops, Flowers of St. Johns Wort, Broom, Borage, Balm, of each 1 handful, Small Railins 1 ounce: Cinnamon 1 dram, and a half, Spec. Dialacc 1 half a dram, Carduus Benedictus, Water of Hops, Scolopendria, Paul's Betony, of each one pound, Rhenish Wine two pounds and a half; let them stand two days in a warm place in a vessel close stopped: afterward distil them in Balneo.

This water openeth the obstructions of the whole body, but especially of the Liver, Spleen, and Mesentery.

A Catalogue
A Catalogue of the Materials and Ingredients used in the precedent Rules.

**ROOTS**

Angelica
Avens
Butter-Bur
Calamus Aromaticus
Cyperus, long
Contra jervsa
Enula-campana
Galingal
Gentian
Ginger
Horse Radish
Imperatoria
Lico rico
Lovage
Orris
Sassafras
Scordium
Snake-grass

**WOODS**

Ignium Rhodium
Red Sanders
Yellow

**BARKS and PILS**

Ay-tree Roots
Cassia Lignea
Cinnamon
Common
Cinnamon
White

Citron
Guaiacum
Limon
Orange
Pippins
Quinces
Sassafras

**HEARBS**

Angelica
Arsmart
Bay-leaves
Balm or Balm
Burnet
Brooklime

**Others**

Balsamint
A Catalogue.

FLOWERS.

C

Ow-slip

C

Citron

Camomile

Elder

Gillyflowers, Clove

Gillyflowers, Stock, three forts

Jasmine

Lavender

Lilium Convallium

Marigold

Melilot

Orange

Poppy, Red

Red

Roses

Damask

Musk

Bryer

Saffron

Sage

Stoehadas

Tillia or Linden tree

Garden

Thyme

Limon

Wilde

Woodbine (or Honey-suckle.)

SEEDS.

A

Nife

Angelica

Angelica

Basil

Caraway

Cardamums

Cress, Bank

Chervile, Sweet

Coriander

Cummin
A Catalogue.

Cummin
Fennel, sweet
Grains of Paradise
Mustard
Radish
Rocket
Scurvy-grass, Garden
Wormwood, common

FRUITS.

Apricots
Alkermes Berries
Barley, Manilia
Cardamums
Cherries
Currants
Cubeb
Cloves
Grapes
Hops
Juniper Berries
Mace
Pepper
Quinces
Raisins, Red
Raisins, sob.
Strawberries
Saffron
Walnuts green with husks
Zedoary

JUICES.

Lemons
Walnuts green with Husks
Others of divers kinds.

Amercigrease
Allum
Benjamin
Camphire
Confection of Alkermes
Mithridate
Musk
Treacle, Venice
Syrup of Gilliflowers
Storax
Sugar of divers sorts

Liquid Materials.

Wines of all kinds
Beer and Ale
After-Worts, or VVafe
Sugar waters
Tills, Dregs, Lees, or Grounds of
Beer or Ale
Lees of VVines
Spirits of VVine
Rose-water.
An Alphabetical Table of the Waters and Spirits treated of in the London Distiller.

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<td>Aqua Aperitiva</td>
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<td>Avenæ water</td>
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<td>Carraway water</td>
<td>Marjoram water</td>
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<td>Cicatrizing water</td>
<td>Marigold water</td>
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<td>S. Sweet to cause a water</td>
<td>ibid.</td>
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### An Alphabetical Table of the Diseaues for which Cures or Remedies are prescribed in the foregoing Treatise.

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**FINIS.**
French, John