



THE COMPLETE WORKS
OF

RUDOLPH
GLAUER

trans: Chris. Packe



EXPLICATION OF
MIRACULUM MUNDI



THE
 E X P L I C A T I O N
 O F
 M I R A C U L U M M U N D I .

Set forth

In Testimony of the truth of that Matter, and for the Advantage of the
 Lovers and Followers of ARTS.

Reader,

In the first place, before I prove and verifie the powers and virtues of the aforesaid Universal Subject, which I have attributed to it, in every point, it will be necessary to make known after what manner the mentioned Salt of the Earth performeth its Operations, that the benevolent Reader may not be confounded, nor imagine that it exerciseth all its Operations in one only manner and way, to wit, crude, as it is of it self; for it doth not so, but it exerciseth its power in three manners, forms, or figures. For Example sake; Its first Use is in many Businesses and Arts, as it is simply drawn from the Earth, being purified, and is known to all men. It is applied to another use, being first calcined by fire, and changed and exalted into a more fixed substance. Again, for another use, it is first distilled into a volatile Spirit, and AQUA-FORTIS. And so that subject performeth its Operations in Figures, simple, as it is in it self, in form of a Sun; secondly, as a fixed fiery Liquor; thirdly, in the figure of a volatile Spirit, or corrosive AQUA-FORTIS; as shall be demonstrated below, from point to point, in order.

Point I.

In the first place all Fossiles, by the mediation of this Subject, may be perfectly examined, what Metals they properly contain, how many, and how much of each.

For the verifying and demonstration of this first point, I will begin to shew, that Minerals may be most commodiously proved by the Mediation of the Salt of the Earth, and in what manner this is to be done. First, The Mineral is to be finely powdered, whether it be GOLD, SILVER, COPPER or LEAD. To a hundred weight of this, add three or four hundred weight of Calcined or fixed Nitre, (Note, That the small Say weight is here meant) mix all very well together, put the mixture into a very strong Pot, which is to be shut with its Cover, set it upon a small foot in such a melting Furnace, as is described in the fourth part of my Furnaces, kindle the fire by degrees, and let the minera, or Ore flow well with its liquor in the Pot, like water, then pour it into a Vessel fit for this purpose, suffer it to cool, then take out the Regulus; if it be GOLD, SILVER, COPPER, or LEAD, weigh it in a Probatory Ballance, and you shall find how much GOLD, SILVER, COPPER, or LEAD, there is in the Ore. N.B. That Iron and Tin cannot be proved in this manner, for Iron is not fusible in such a fire, and Tin is reduced into SCORIA by Combustion, by reason of the Salt. N.B. That if the Regulus of GOLD OR SILVER come not pure, or contain any COPPER or LEAD, suffer it to run upon a Test or Cupel, with a little LEAD, till it sparkle and shine, and you shall have the Metal fine, which is a proof that may be

securely trusted, and according to that a Computation may be made, without any fear of fraud or Sophistication; the Regulus of Copper or Lead, need no other trial, but are judged good. N.B. That if the Ore be stubborn, and yields no Regulus in the first melting, let the Pot be again set into the Furnace, (if it be yet whole, putting to the Ore, giving no Regulus, a piece or two of Iron) being covered, least the Coals fall into it, suffer it to flow, then the iron entereth into that untameable Sulphur, existing in the Ore, and hindering it from passing into Regulus, and suffereth the Gold, Silver, Copper, or Lead, contained in that Mineral, to fall down, which is to be poured out into a fit vessel, and the Regulus will settle to the bottom, which being cold is to be separated from the Scoria, but if you will prove whether or no the Gold containeth any Silver, or the Silver any Gold or Copper, or the Lead any Silver or Gold, then suffer the Regulus to flow upon a Cupel, till it sparkle with a Splendour, and afterwards make separation by AQUA FORTIS, and you shall find how much of every Metal is permixed with the other. There is no need to describe this separation at large, because it is every where known, and now very perspicuously taught by LAZARUS ERKER, so that it needs no reputation: I have here shewed, and proved, that by the Mediation of Nitre, Minerals may easily and speedily be examined. Therefore, this first Point being now proved and verified, I give thanks to God, who I trust, will further assist me.

Point II.

The Marcasites of Gold and Silver, being melted by the Mediation of this, by a singular Compedium, hitherto unknown, do afford more Metal than by the common way.

That which is contained in this second point is not the least amongst my Lucriferosus Secrets, but one of the best, which I have always reserved most secret within my own breast. Many Men have often allured me with fair Speeches, to demonstrate it, but hitherto have I not been prevailed with to do it, not out of envy, or that my self alone should have that art at command, but because Faith is hardly any where to be found, it is now reputed an honour to promise many things, and perform few, but a disparagement to keep Promises; for I have often learned to my loss, that when through fair Words, and Promises oftentimes more than I required, I have been perswaded to Communicate this, or that Secret; as soon as it hath been out of my hands, I have found the quite contrary, for instead of a Reward, they have either derided me, or began to quarrel and contend, and in this manner, the Benefits which I have conferred upon them, have been recompensed with great Impiety.

The Process followeth.

Let there be a Furnace built of good Stone, which is able to endure the Fire, small or great, as you please, or according to the necessity and commodity of your Labour, in the following manner. First build

an Arch about a Cubit high from the ground, the which cover and make level above with Iron Plates, or Stone that will hold the Fire, which shall be the foot of the Furnace, the length of which ought to exceed the breadth four times, that is, it ought to be four times as long as broad, by this Arch or foot of the Furnace there is yet another Furnace to be erected, whose bigness within must be half the breadth of the long Furnace, and about two Cubits high from the wind holes, into which the Wood is to be put, and in that Furnace, on that side which adjoineth to the melting Furnace, is to be a hole, through which the flame of the lighted Wood may strike upon the Hearths of the Furnace, and heat them; above, let there be an Iron Cover, to that end that when the wood is put in, the Furnace may be covered with it, and the flame may be forced to enter by the side into the Melting Furnace, and let the Melting Furnace, the Hearth being now perfect, be divided according to its length, into three Chambers or parts, so that every Chamber be square, that is, as long as broad, and between every Chamber let there be a Wall, with a hole in the lower part, that the flame may pass freely into the second and third Chamber, between which two let there be also the like Partition or Wall, with its hole at bottom, and let the third or last Chamber be close, saving its little door, let it have one only hole, by which the flame may pass out, also on one side of the Furnace, there is to be a hole in every Chamber, by which the Hearths may be discerned, and the Minerals and Metals taken out and put in, but the Chambers are not to exceed a Foot, or a Foot and a half, in height; in the upper part of which, let there be a Cover or Cap of good Earth, well luted and

accommodated to it in such manner, as whensoever need shall require it may be removed with a pair of Tongs, and put on again. All these things being thus rightly prepared, let a Hearth be made in the first Chamber of good Earth, which can sustain the fire, let the Earth not be too fat, or too lean, but of a middle condition; in the second let there be a Test made of Argill, or Wood Ashes, but in the third Chamber, let there be a Hearth of Good Earth, and in the Name of the Lord, let the fire be kindled in the side Furnace, that the Furnace with its Hearths may be thoroughly dried. Which being done, let the Ore of SOL or LUNA being rightly prepared, be put into the last Chamber, that it may be made hot by degrees, and burn, but not melt, which may be hindered by the help of the little door, and the fire may be governed at a beck, according as it shall be necessary, and the Mineral requireth, or shall be able to suffer; the Minerals are sometimes to be stirred and turned well about in all parts, with an Iron Hook or Ladle, that they may be well Calcined. In the first Chamber let there be put so much Lead as the Hearth will hold, and when it moveth well, put upon it, spoonful after spoonful of the Calcined Mineral in the last Chamber, stirring it with the Lead, and turning it with an iron Ladle, and let it be so long upon it, till the Lead shall have attracted all the Metal, then the Scoria are to be taken out with an Iron Ladle fit for this work, and to be kept by themselves; then again more of the Calcined Mineral is to be put upon the Lead, and so the melting, turning, and taking out of the Scoria, is to be continued as long as there is any of the Mineral at hand, or as much as is sufficient for the Hearth; and if during this

labour, the Lead should be impregnated with a sufficient quantity of Gold or Silver, by the Mineral, (which may be perceived by taking a little out in a Spoon, and examining it upon a Cupel) then let Nitre be burned upon it, and let it be repeated two or three times, for so the Lead will be purified, grow white, and be rendered ductile, and passeth freely in the Test, without waste, which yet would not be if it had not been first depurated by Nitre; the Lead into which the Gold and Silver hath passed, is to be taken from the Hearth with a Ladle; and the Hearth made of Ashes, in the middle Chamber is to be filled with it, and the Bellows to be planted against it, to blow the Coals to the other side, and according to the common manner, the Lead is to be deduced into Salt, and the Cake of Gold or Silver is to be taken out, and afterwards to be thoroughly depurated in good Tests: And so in that Furnace may be performed three Labours, and more of the Gold and Silver is retained then by any other way, for blowing with Bellows wastes and destroys much of a Metal, and reduceth it by burning into Scoria, which the sweet flame of wood doth not do, the Scoria being taken out, suffer them to pass through a high Furnace, that if there be yet any Lead among them, it may be saved, to be used again in the former Labours, (to wit for attracting Gold and Silver, in the first Chamber, from the Minerals Calcined in the last) in this manner nothing will be lost, and not only more Gold and Silver obtained, but also without so great a charge of Coals as is used in the ordinary way. You should have always two of those Furnaces, or more (if you have a great quantity of the Mineral) in your Elaboratory, that whilst you work in one, the other may be repaired, and when there is need, furnished with new Hearths.

This is the best and most profitable manner of melting the Ores of Gold, Silver, and Lead, containing in themselves Lune, and this without Coals, and strong blowing, but by the flame of wood only. A. the foot of the Furnace, B. C. D. the three Chambers, E. F. G. the three little doors of the Chambers, by which the Minerals and Metals are put in and taken out, H. the Cover or Cap of the Furnace, I. the Wind holes, or Registers by which the flame is governed, K. three holes in the Walls, or Partitions of the Chambers, through which the flame passeth, for the heating of the Chambers and Hearths, L. the Furnace on the side, into which is put dry wood, M. the Ash hole, N. its Cover or Stopper, O. the hole in the side, by which the flame is conveyed into the Chambers, P. the Iron Rods, with which the Minerals are turned, whilst they are in torrefying and the Scoria are taken away from the Lead, Q. a Spoon or Ladle, by which the torrefied Mineral is put upon the flowing Lead, and the Lead which is impregnated with Gold and Silver, is removed from the first Melting Hearth to the other, R. the Tongs with which the Cakes of Gold and Silver, are taken from the second Hearth, S. the Furnace in which the Cakes of Gold and Silver are perfectly depurated, T. the Tests, V. the Cineritia. N. B. That the Works coming from the first Hearth, may also be perfectly finished in the second Chamber, but it is better to do it on Tests fit for this purpose. (The figures of this Furnace is not printed in the Latin Copy, nor to be found among the other Originals.) N. B. That what concerns this Point, is of greater moment than many will beleive, because in our Country, there are found in many places rich Mines, abounding with Gold and Silver, which

nevertheless are not rightly depurated by the common way of Melting, so that they afford so little, that it will not pay the charge of the Coals; and therefore it is yet unknown how much good Metal they contain, but it lies hid in obscurity, which nevertheless might be very well perfected in this manner, with great profit. I know Mines of this sort in various places, which I have found very poor, according to the common way of proving, but according to my Method very rich. What Treasures doth HUNGARY, BOHEMIA, CARINTHIA, STIRIA, and SALTSBERG possess in their Regions, unknown to them, and yet after an easie manner to be obtained? What Treasures hath MISNIA, THURINGIA, BRANSWICK, and FICHTELBURGH, hid in them, and do no good? There is no Man of a sound mind, but may easily by labour and observation discern what a great difference there is between the common way of Melting, and mine, if he seriously consider the matter. A Mine of Lead doth not want an exquisite Art of melting, because it is of small price, nor will the loss be great, if some of it be burnt in melting, or remain in the Earth. In like manner the vulgar way of melting Copper, by high Furnaces, and strong blowing, is sufficient. But the Mines of Gold and Silver, are not to be treated so grossly, but after a more subtile and profitable manner, that nothing of them may be lost, but may be of a greater use and profit, than hitherto hath been done. For the Mineral of Gold, although it is not in some great Rocky Mountains, yet for the most part, it is found in Flints, and Stones containing Iron, or in any crude Mineral in which ofttimes Antimony, red Sulphur, and Arsenick, is mixed together with the Minera of Gold. As may be seen in CARINTHIA and its Confines. But how should such a

Mine, if melted with Coals after the common manner, yield its fruit without loss; for whether it be torrefied, or not, if it be cast upon Coals, and agitated with the strong blast of Bellows, that which is immature flieth away, carrying with it self that which is good; that which remaineth passeth into Scoria. For although it should be mixed with Lead, the Minera of Lead, or Salt of Lead, yet they would not remain conjoined, but the Lead is easily melted, floweth, and leaveth the Ore, which by strong blowing is reduced into Scoria, retaining much gold, which so is lost, as well as the other which flew away in smoke, and at the best but a very little saved, which hath entred the Lead.

N. B. But, in my way, it is necessary that the Ore should be broken and subdued, and thereby forced to yield its Gold, if it be well incorporated with the lead, and the volatile is preserved with the fixt; add, that the flame lightly striking or playing upon the matter, destroyeth nothing, and by this way, there is no metal lost. That the thing is so, I will prove by a certain similitude or comparison; make proof in what manner you please, of gold or silver Ore, and observe how much good metal that contains, afterwards prove the same in a great quantity upon Coals, and you shall find much less in that, than in your small proof; when nevertheless the contrary ought to be, because a great fire hath a greater force of acting upon the Ore, than a small one; and this is the only cause, because a great quantity requireth a more violent fire than a small one; which is averse to all crude and volatile Minerals. But by my way, there is found as much, if not more, in a large quantity, as in a small proof. Therefore I will here shew yet by another manner of

probation, that by the common and usual way of melting Minerals, all the metal cannot be obtained, and sometimes scarcely half of a third part. To an hundred pounds of the Mineral, reduced into a small powder, add 8, 12, 16, or 18 pound of granulated Lead, or as much as the Mineral shall need, mix the Mineral and the powder of Lead, which with a little Spoon are to be committed to a fiery hot Cupel, placed under a Cinerithum or Muffle, give a strong heat, and the Lead will attract all the metal from the Ore, and cast out the Scoria or dross, which will rest upon the moving Lead; which being done, you must have at hand a hot Iron Rod, with which you may move and stir the Scoria every way well, up and down upon the Lead, to the end, that if any good metal should as yet remain in them, the Lead by that moving may lay hold on it, and catch it to it self; afterwards suffer the Scoria for a little while to heat and burn upon the Lead, that it may flow well; then let the heat of the fire somewhat abate, and the Scoria will become thicker and fit to be drawn out with an Iron rod, which is to be broad at the point, round, and sharp, that the Scoria may be every where clean and wholly drawn away from the Cupel, which are diligently to be kept, that nothing be lost, and lest the future essay should be false. This being done, drive the Lead remaining in the Cupel with an indifferent heat, then there will remain the gold or silver, which that hundred pounds of Ore did contain; that grain or portion is to be taken out and reserved. N. B. That whilst you are proving the Mineral, you may also impose another Cupel, of the same magnitude and weight, and as much Lead upon it as was mixed with the mineral, without it, suffer it to flow

alone by it self. The grain or portion which comes to be obtained from the mineral upon the other Cupel, will be what that mineral did contain. Afterwards the two Cupels are to be weighed apart, and as much as this, in which the Ore was wrought, shall be heavier than that in which only the Lead flowed, so much of Lead or Copper that hundred weight of Ore did contain; and so much gold or silver as the grain or portion remaining in the Cupel weigheth, and so much Scoria or dross as was removed and drawn out with the Iron Rod.

N. B. Some man may object, That the SCORIA cannot be so accurately and purely removed from the Cupel, but somewhat will be left behind. I answer, That although the removing of the SCORIA should not be exactly done, which notwithstanding may be done, if diligence be used, because the SCORIA to be removed are not pure SCORIA, but as yet contain somewhat of the Lead, which may be easily as heavy, yea, heavier than the SCORIA remaining in the Cupel, and which cannot be removed, nevertheless the proof will be just and good. But if by a melting made in a good quantity, you shall find as much LUNA or SOL, VENUS or JUPITER, (n. B. that Iron and Tin cannot be proved in this manner) as the small proof demonstrated, (I think it should be, if you shall not find & etc. and the character JUPITER should be SATURN.) believe that you have not rightly proceeded, and that that which is lost is gone in fume, or by combustion, into SCORIA. Seeing therefore that this proof is of a great weight, and accordingly is to be made by a great melting Work, I will declare that labour more copiously. FOR EXAMPLE SAKE, I take two Cupels, accomodated to one and the same form, I weigh them singly, if one be

heavier than the other, then with a knife I pare or scrape it a little above or below, so that they may be of equal weight, afterwards I put them side by side conjunctly, or one before, and the other behind, under a Cineritum; when they are duly hot, I put upon one the Mineral, mixed with the granulated Lead, and upon the other, the granulated Lead only; then I suffer them to flow together, seasonably abstracting the SCORIA from that where the Mineral is; then I cause both to cease. Now supposing that I have added to the Hundred weight of Ore, 1200 pounds of Lead, and also wrought 1200 pounds of Lead in the other Cupel alone, and each Cupel to have weighed three Lothones, according to the weight of the City, and that I find in that Cupel in which the Mineral was wrought, a portion of Gold or Silver, weighing (according to the probatory weight) nine Lothones, and in the other Cupel, a portion of Silver weighing three Lothones, which the 1200 pounds of Lead yielded; But in regard that I also added to the Mineral 1200 pounds of Lead, which also have yielded three Lothones, which I subtract from the nine Lothones, and there remaineth six Lothones of Gold and Silver, which the Hundred weight of Ore hath yielded. N. B. If you would know whether the Mineral also containeth Lead and Copper, and how much, then I weigh both the Cupels apart, observing how much that in which the Mineral was wrought is heavier than that in which the Lead was wrought alone, and so much Lead or Copper I may affirm to have been, together with the Gold and Silver, in that Mineral; suppose the Cupel in which the Mineral was wrought to weigh 30 pounds, according to the probatory weight, more than that in which the Lead was agitated alone, then I am sure that there

was so much Lead or Copper in that Mineral, together with the gold and silver (for iron and tin do not enter the Cupel, but pass into SCORIA, but the Gold and Silver remain on the Cypel) and the remaining weight, to wit, seventy pounds, I find all in SCORIA, for a little flyeth away in fume: in this manner it may be observed what quantity a hundred pounds of the Ore of Lead or Copper containeth of good Metal, and whether it have any gold or silver or not; according to which a computation may be made, whether it will pay the Charge in a great quantity, or not, and what gain may be had from it. This is a most desireable proof, invented for the use of gold and silver, which are necessarily by this way yielded in great quantity; if it happen otherwise, the errour is to be ascribed to the working; for the Mines of copper and lead, this proof doth not succeed in great quantity, although by it may be certainly known how much of either of them is contained in an hundred weight of Ore, for both these metals are easily burnt by the fire, and reduced into SCORIA, which happeneth not to gold and silver, if they be rightly handled; only here it is made appear what quantity of SATURN or VENUS is contained in an hundred pounds of Ore of SATURN or VENUS, which is impossible to exhort in great quantity, by the common and known way: for soft and sulphureous metals of this sort lose much, because part is driven away by strong blowing; another part is reduced into SCORIA: but by my way nothing is lost thus, and but very little remaineth behind. I know yet another way, and that better too, of perfecting the Minerals of gold, silver, copper, and lead, with a certain compendious profit; but seeing that in my MIRACULUM MUNDI I have made no mention of a Work

of this sort; I shall here say nothing of it. I also know a way of extracting from very poor Copper Mines, all the Copper contained in them, without great labour and cost; which Mines are everywhere in great quantity to be found, but are not sufficient to pay the Charge of melting in the common way; but this my secret way will yield great profit, for scarcely one pound of Copper will remain behind, and be lost in an hundred pounds of SCORIA.

Point III.

The volatile and immature Marcasites of SOL and LUNA are fixed in the space of three hours, so that they render a double quantity of Metal, to what they could have done before fixation, & etc.

This fixation is a singular secret, in perfecting Antimonial and Arsenical Minerals, which are wholly crude, which commonly yield a little Gold: For when Minerals contain much Antimony, Arsenick, or Orpiment, and are torrefied in the common way, then the Arsenick or Orpiment destroyeth much of the Gold, carrying it away in fume; but if they be melted without torrefaction, then the blowing forceth away more; if from a Mineral of this sort, the yellow or red Sulphur, Arsenick, or other rapacious substances, be diminished or consumed, by closing it in Earthen Vessels, as many do, then by this means the Mineral is burnt, loseth its flux and ingress into Lead, so that much of the gold is destroyed, and reduced into SCORIA; to prevent which, this following way is the

best: With one part of the mineral mix half a part of Nitre, let it be kindled with a Coal, and fixed, then the Nitre burneth away the greatest part of the rapacious Sulphur, and fixeth the rest, so that there is but little of the Gold lost, and it keepeth its flux and ingress into Lead; if it be put into the foregoing Furnace, and there wrought, it yieldeth all the gold and silver which it containeth, and nothing is lost. Here some may say, and object, That although in this manner, more gold may be obtained; yet the Nitre maketh the work dear, which I indeed confess to be true, if the Nitre be bought at a dear rate, but if by an artificial Culture, it may always be had at hand, it will cost little, and this torrefaction and fixation, may be perfected with great profit.

Point IV.

All Gold and Silver not purely melted from its Marcasite, may be swiftly purged from every Additament, the silver separated from the Gold, by fusion only, with a small labour and cost, but in great weight.

This way of purifying GOLD and SILVER from all addition quickly, and in an easy manner, is a thing most profitable, and an Art highly necessary to be known by those who handle metals: for it is sooner done, than by the way of cupellating or blowing off with Lead, but is dearer, by reason of the Nitre; nevertheless, the labour is easie and pleasant, and it is done in this manner: Let a Crucible of impure gold or silver

be placed in such a Furnace as is described and depicted in the Fourth Part of our Furnaces, let it be melted, then cast in some Regulus of Antimony, more or less, according to the greater or lesser impurity of the Gold, and according as it hath more or less need of cleansing for its purification. When all shall flow and be clear in the Crucible, cast into the Crucible upon the metal, at several times, about so much Nitre, as there is of addition to the Gold; let it flow, then the Nitre attracteth the Regulus of Antimony, together with the impurity contained in the Gold, which passeth into Scoria. And this Process doth not serve only for impure Sol and Luna, but also for such Sol and Luna which contain Copper, Iron, Lead, Tin, Chalcitis, Aurichalcum, and other metallick and mineral matters, Tin especially, which is difficult to be separated from Sol and Luna by Lead, without loss. But in this manner it may be quickly and easily done. But that my meaning may be the more rightly understood and the less error be committed in working, I will here institute the Process clearly, and in express words. Suppose to 1 lb. of gold or silver, there be two lothones of Copper, and three lothones of Tin (a lothone is half an ounce) which I would separate, and if it be done by the known way of blowing off with Lead, there will need at the least thirty or forty lothones of Lead, and nevertheless one part of the SOL or LUNA will be lost; but by my way two lothones of Copper, and three lothones of Tin, adjoin five lothones of Regulus of Antimony, then abstract the Regulus, together with the addition of Copper and Tin, by the mediation of Nitre, which may be done in the Crucible in the space of one hour, which by torrefaction and agitation in the common

way, could scarcely have been done in 10 or 12 hours; besides nothing of the Additaments is lost, all remaineth in the Scoria, from which, afterwards; as well the TIN as the COPPER and Regulus of Antimony may be recovered, to wit, if the Scoria, in which the TIN, COPPER, and Regulus of Antimony is, be put into a Crucible, a live Coal cast in, and then the Crucible covered with a tyle, let them flow a quarter of an hour, pour all out, and you shall find in the bottom of the Cone a little Regulus, in which will be the remaining SOL or LUNA, which the Scoria did prey upon; let them be depurated on a Cupel, if they be not already pure enough: The Scoria being again melted, cast in a live Coal, suffer all to flow well together, again there will fall another Regulus from the Copper, the TIN and IRON remaineth, and neither by Coals nor any other art, can be brought into Regulus; but if these Scoria be driven through a probatory Furnace, then they also yield the Tin again, and that better than it was before. This Process is not only pleasant, artificial, swift and easie, by which gold and silver is quickly and purely separated from all addition, but there is also hidden in it a great mystery; But because I have only proposed to prove those things to be true and natural, of which I have made mention in my MIRACULUM MUNDI, let what I have now said suffice, and what is here desired may be found perspicuously and satisfactorily declared in the following Processes.

Point V.

Gold and Silver are easily drawn out of Old Tin or Pewter Vessels, the Tin being preserved almost in the same weight, and being made better than it was before, may serve for the same uses which it is wont to be put.

This Process also is very well performed by the mediation of Nitre, viz. in this manner. Let the Tin, in which is GOLD or SILVER, be reduced into Ashes, even as Lead is wont to be prepared, for the working of Minerals, and let there be mixed with it as much powder of Nitre, let the mixture be put in a strong Pot which will endure the fire, upon which put subliming Pots, let the mixture be kindled in the lower Pot (which is under the Subliming Pots, and must have a little hole in the side for that purpose) with an Iron Rod, red hot, then the Mass beginneth to burn, and sendeth many Flowers into the Subliming Pots, the Tin and Salt-peter remaining in the Pot, take out, and melt in a Crucible, if there be much Lead, then that falleth together with the GOLD and SILVER, to the bottom of the Crucible, but the Tin with the Nitre passeth into Scoria, which if the melted Mass be poured out into a Cone, they are separated from the Regulus of Lead, and after cooling may be taken out, which Regulus of Lead, by the addition of other Lead, may again be wrought, and in a strong Crucible be reduced into Scoria with Nitre; then there will remain a little Regulus of Lead, which containeth the GOLD and SILVER, which was in the TIN. The first and last Scoria may be reduced by a strong blast in a Probatory Furnace, then the Tin will

be again obtained, better, harder, and whiter than it was before; the reason is, because the Nitre hath consumed part of the combustible Sulphur, and also separated the Lead. Although this Process is not done with any great profit, yet nevertheless it shews the possibility; but he that knoweth how to handle the matter, will suffer no loss, for those sublimed Flowers are of greater worth than Salt-peter and Tin, because they may be prepared into a good Medicine; they are also very available in those curious Colours for Cloth (Scarlet, or Bowdy) exalting them in a wonderful manner, and firmly abiding in the Cloth, shining, and giving it a fiery ground.

Point VI.

Much Silver may be separated from Bismuth, the Bismuth preserved, A Secret agreeing to those places which abound with that Mineral.

This Secret is not of so little weight as perhaps it will seem to some; for no Man even to this day hath proved this in the matter it self and with effect, yet seeing that it may be done, viz. in this manner, melt Chalcitis in a Crucible, and cast upon it successively so much Nitre, until all the Chalcitis shall pass into Scoria, or green Glass, pour out the Mass into a Cone, then the Silver will settle to the bottom in form of a Regulus, which was contained in the Chalcitis, then put the Scoria of the Chalcitis into a Crucible and melt them well for the space of an hour, so all the Chalcitis will be revived, rendered Corporeal, and a little will be lost. He therefore that can make the

Salt-peter himself, and needs not to buy it at a dear rate, will hence reap great profit, otherwise not; however it proveth that the Salt of the Earth can perform what is here attributed to it.

Point VII.

From old Copper much Silver is separated, the Copper preserved unhurt, by which Artifice Regions abounding with this Metal, may reap no small profit.

That this extraction of Silver from Copper by means of the Salt of the Earth, may be verified, you are to proceed in this manner: Mix with the Copper its own weight of Regulus of Antimony, then melt both together, upon which cast so much Salt-Nitre successively or at times, until the Copper together with the Regulus of Antimony into green Scoria, then make the fire stronger, and cause these Scoria to flow like water, and emit a Regulus, which although it be not sufficiently pure, it may be depurated upon a Cupel with a little Lead, and it yieldeth the Silver which the Copper contained. N. B. This process is most true, and will never deceive any Man, but I do not say that he shall obtain Riches by this means, but only prove to be true, what I have ascribed to it in my MIRACULUM MUNDI. N. B. But he that knoweth how to fix the Scoria, that is the Copper and Regulus of Antimony with Salt, and to melt them into Artificial Stones, or Enamel, so that nothing be lost, he shall be sure not to undergo the Labour in vain; otherwise he may cast in a live Coal upon the Scoria, from which the Silver is separated, when they are in

Flux, and let them flow half an hour, then it leaveth the Regulus of Antimony together with the Copper, which the Nitre hath reduced into Scoria, and afterwards another Regulus, to be applied to use, which if all things be well handled, from both, viz. from the Regulus of Antimony and Copper, (after their Edulcoration) a green colour for Painting may be extracted, and so the Labours will be compensated, and the gain will be so much the greater.

Point VIII.

Every common Silver may in the space of a few hours be exalted into the nature of Gold.

This Gradation of Silver is performed by the help of a certain Mineral Sulphur, to wit, of IRON and Antimony, in this manner. Adjoin to Silver as much Regulus Martis, and again let it be separated from it by Nitre, which labour is performed in the space of an hour, to the remaining Silver adjoin again as much Regulus, which is again to be abstracted; and let this labour be reiterated five, six, eight, or ten times, which may be done in one day, afterwards let the Silver be dissolved in Aqua-fortis, then the Gold, which the Nitre by the help of the Silver hath obtained from the Regulus, will remain in the bottom, which is to be edulcorated, and corporified with Borax, the Gold will be good in an excellent degree, but the value thereof is scarce enough to pay for the Regulus, and Nitre. But he that knoweth how to make his own Nitre, or can obtain it without price, may reap a considerable

profit: Especially if he know how to transfer the detracted Scoria into further use, which is not here sought, but is only proved that SILVER may be exalted into GOLD by the help of Regulus ANTIMONII MARTIALIS.

Point IX.

Gold may be separated by fusion from every addition of Copper, Tin, Iron, Orpiment, Antimony, Arsenick, or the like, without Cupels, each being kept apart.

This manner of separating of Metals, from one another, and of depurating GOLD without Cupels, is a most pleasing, fair, and profitable Secret, by which in the separation of Metals, much time and expence is saved, and no detriment to be feared, which no man, even to this day could effect, my self excepted: You are to proceed in this manner.

First, the mixt Metal, whether it consist of few or many, is to be granulated, the grains are to be conjoined with a fourth part of powdered Sulphur, somewhat moistened, and to be set on fire in a Crucible luted according to art, which being done, the cover of the Crucible is to be taken off, and the enkindled Metal to be covered with the fourth part of its weight of Antimony. N. B. That if there be much Iron, Copper, or Tin in the mixture, then the more Antimony is to be adjoined, that it may draw to it self the imperfect Metals. Therefore when the Mass flows with the Antimony, inject a little well purified Nitre, dried and pulverized, and when it flows well, the Mass is to be poured out into a Cone, and the Regulus, if there be any, to be shaken out, which will

contain the greatest part of the GOLD which was in that Mass. N. B. If there shall be no Regulus, that is a sign that there was not Nitre enough to suffice the crudity, which is to be remedied thus: Return the Mass into the Crucible, and permit it to flow, which being done, throw in as much filings of Iron, as you judge there is Gold in the Mass, and mix it with the Mass with a red hot Iron, cover the Crucible, and give a melting fire for a quarter of an hour, pour it into a Cone, when it is cold separate the Regulus from the Scoria, which will be about the same weight with the filings of Iron, which you used in the precipitation, purifie the Regulus in a small new Crucible, by the injection of Nitre, if it yieldeth Gold without Silver, then it is a sign there is Gold yet in the Mass, therefore it is necessary to flux the Mass again, and precipitate with Iron, if the Regulus be yet golden, then it is to be deperated apart by Nitre, and to be kept; but if it hath more SILVER than GOLD, it is a sign that all the Gold is precipitated, afterwards suffer the Mass to flow again, and inject as much filings of Iron, stirring them well with the Mass, with a red hot iron, permit them to flow well together, then it rendereth as much Regulus of Silver, as there was Iron put in, afterwards also the COPPER will be precipitated, and last of all, the Scoria are again to be fluxed well being mixed with Nitre, that it may appear whether there be yet any Metal in them. The Regulus of SILVER is also deperated in the same manner as the Regulus of GOLD, Venus, JUPITER, and other Additaments, are melted by Bellows, so that nothing is lost. This separation of GOLD and SILVER from the viler Metals, by melting, hath been sought by many, but found by few.

LAZARUS ERKER, in his Writings hath taught by what means GOLD may be separated from SILVER by fusion, but that separation is unlike to this which I have mentioned; because here it is not only shewed how GOLD may be separated from SILVER, but also from other Metals.

Point X.

Every imperfect Metal, without the mixture of other Metals, may be ripened by this Secret alone in the fire, in an hours space, so that it will yield Gold and Silver, but without profit; an indication that the viler Metals, may by Art be promoted into the Nature of the perfect, to the great profit of Metallurgists.

This is done only by the power and virtue of Salt Nitre, whereby the Metal is penetrated, depurated, and fixed into more perfect or exalted in maturity, but cannot be performed with much profit in a great quantity, but it proveth that Nitre hath a virtue of transmuting every imperfect Metal into perfect, which is done in this manner. Let the Metal be laminated into very thin plates, whether it be COPPER, LEAD, or TIN, IRON is indeed corrected by this way, but melteth not in any Crucible, and MERCURY also is transmuted into other forms, but not into GOLD or SILVER. Make in a Crucible STRATUM SUPER STRATUM with Saw-dust, Sulphur, and Nitre, as also with the laminated Metal, of which mention is made in the second part of Furnaces; kindle the mixture at the top, then a great and sudden flaming fire will arise, by which the laminated metal is penetrated, partly fixed, and amended, so that if it be wrought

on a Cupel with Lead, it leaveth some SILVER or GOLD, which nevertheless before, would have yielded neither, whence it is manifest, that the flame excited by the Nitre hath corrected the Metal. N. B. That MERCURY is first to be coagulated, and Chalcitis to be pulverized, before they be commixed with the sudden fire of Nitre, and enkindled. In these Labours, although they may be esteemed of small moment, a great Mystery is hidden, which nevertheless will be valued by no man, although it should be discovered in plain and open words, because the process is mean, costeth little, and may be performed in the space of a quarter of an hour.

Point XI.

Metals also grow up in this subject, in the form of Vegetables, before the eye, in the space of two or three hours, to the length of a Finger, or hands breadth, into many branches and twiggs, without Fruit indeed, but is a demonstration that even Metals themselves do germinate in its like Vegetables.

This Point is mentioned only for this end, to shew that Nitre hath a power of making Metals to grow after the manner of Vegetables. Which thing the Liquor of Flints also performeth, of which mention is made in the Second Part of our Furnaces; but the Liquor of fixed Nitre is better; which is prepared by fixing it with powder of Coals and Flints, which is also taught in the Second Part of our Furnaces, so that there is no need here to repeat it. If therefore the metals being prepared

in little bits, be put into this liquor, they will grow and encrease after the manner of Herbs, and so quickly, that in a few hours space they will grow to the height of a hands breadth, which is very delightful to the eye, and worthy of a singular meditation, whence so sudden an encrease should proceed. Certainly many things might be written concerning this matter, but because in this place I have promised no more, but to verifie what I have attributed to the salt of the earth in my MIRACULUM MUNDI; let what is said suffice.

Point XII.

There is another augmentation or encrease of the Perfect Metals, very gainful, by the Imperfect, answering to the germination or growth of Vegetables, & etc.

As for this augmentation, it is done by a way far distant from the foregoing, viz. in this SOL and LUNA are joined with Lead, Tin, and VENUS, or with Tin alone, where it is to be left for a convenient time, then the Sol attracteth from the Lead or other imperfect metals, a golden Essence, is encreased and made heavier. The Process is this: Take one lothone (or half an ounce) of Gold, eight or ten lothones (which is four or five ounces) of Lead, let them be melted together; if you please, you may add Tin or Copper; put the Crucible, together with the Lead or other imperfect metals, into a strong Crucible, give a temperate and constant Fire, that the Lead with the Gold may only flow, but not be white hot; cast into the Crucible upon it half an ounce of the best

Nitre, cover the Crucible well, that no Coals fall in, and keep it in a constant easie fire, then in such a time the Lead, together with the other metals, which were mixed with it, will be turned into Glass, but the Gold being pure, is separated from the Glass by it self, and will adhere to the bottom of the Crucible, which when the Crucible is broken take out and weigh, and you shall find your Gold encreased, and that it hath taken weight from the other metals. Although this labour affords no profit, yet it sheweth how the nature of metals are to be known. There is yet another way of trying this thing, thus, viz. Take half an ounce of Gold, join with it 5 or 6 ounces of Lead, and drive away the Lead again upon a good Test, till the Gold sparkle and shine, and you shall find your Gold to be made much heavier than it was before, which weight it has drawn from the Lead only.

Point XIII.

By the mediation of this from all Imperfect Metals and Minerals, yielding nothing in the usual Examin of Cupels, Gold and Silver is produced in a manifold manner, being an Argument that the Imperfect Metals have somewhat of the Perfect reconded in them, when they are inverted, and shew themselves to our sight.

If we would obtain Gold and Silver from the Imperfect Metals, by the help of Nitre, an equil weight of Regulus of Antimony is to be added to them; that they may be rendered frangible, and fit to be pulverized, so that they may be commixed and fixed with Nitre in this manner: Take

an ounce, or an ounce and a half of Copper, Lead, Tin, or Chalcitis, melt it with as much Regulus of Antimony; pulverize the mixture, and mix with it its equal weight of the best Nitre, put the mixture into a crucible, kindle it with a live coal, then the mixture will be reduced by the Nitre into Scoria, which must be melted by a very strong fire, in a Wind Furnace, then the Metal will pass into a Regulus, but the Regulus will remain in the Scoria, which by the casting in of a live coal may be precipitated and brought to Regulus again: but weigh the metallick Regulus according to the Hundred weight, and drive it (if it be Lead) upon a Test, then you shall find it to contain gold and silver, which the metal had not before. If the metal be Copper or Chalcitis, a due proportion of Lead is to be added to it, that it may be wrought upon a cupel, then it leaveth gold and silver, which without this Operation it would not have done. This Work may also be effected by another way, viz. Mix LEAD or COPPER with its own weight of Regulus of Antimony, suffer it to flow well with the metal in a melting Furnace, inject successively by a little at a time, so much Nitre as both the Metal and the Regulus did weigh, then let the Regulus and the Metal be fired by the Nitre, that some of the superfluous sulphur may be burnt and the mixture reduced to SCORIA, afterwards give a strong fire, that the Scoria may be well melted, then the Metal will be separated from the Regulus, which may be tested, and the correction of the metal, made by the benefit of the Nitre, will be manifest.

As for these 13 Metallick Labours, they are in themselves very good, and profitable to be known by every one handling Metals, some of which,

if they be accurately managed, and by a skillful Artist, will afford great Gain, and they are all done by the help of the Salt of the Earth. But I will not deny, but that those Labours may also be performed by another way, which needeth no Nitre. But I do not now intend to say any thing of that, but only to prove that all those Secrets and Transmutations may be effectually performed by the contemptible salt of the Earth.

In Mechanicks.

Point I.

They who Engrave or Etch upon Copper, may of this subject prepare a good corrosive Water, by which (the Copper Plates being first smeared over with a Covering fit to defend them, and what Images or Lines they please, drawn upon them, with a stile or stift) by an easie and compendious manner, they will be corroded or eaten, which otherwise would require a long time to be engraven.

That a corrosive and graduating AQUA-FORTIS may be prepared of Nitre by distillation, needs no proof, the way of making it being every where known, as a thing common, only here it is proved that this shortning of the Engraver's Work may be performed by the Salt of the Earth.

Point II.

Painters by the help of this, may prepare for themselves most excellent

Colours, as ULTRA-MARINE, blue Smalt, fine red or Scarlet LACCA, VENICE Ceruse, and others necessary for their Uses, which otherwise they must have from far, as ITALY, HOLLAND, FRANCE, & etc. and at a dear rate.

That excellent colours for Painting, may be made by the salt of the Earth, I will prove: Blue Smalt is otherwise prepared of flowing Sand, Chalcitis, and Potters-ashes: But if instead of those ashes, you take the fixed salt of the Earth, the smalt will not be only rendered more open, loose, and fine, but also purer, by reason the salt of the earth is purer than those ashes. LACCA for the most part is made of Flocks shorn from crimson or scarlet cloth in the dressing, and by a singular LIXIVIUM (instead of which Nitre may be taken) the colour is extracted, Which is to be precipitated,edulcorated, and dried upon clean Boards in the sun, or by a stove. Verdigrease and Ceruse are commonly prepared by the help of Vinegar, in Iron Vessels put in Horse-dung; but if the Copper or Lead be dissolved in spirit of Nitre, and the Copper precipitated by a LIXIVIUM of salt of Tartar, but the Lead by salt water, thenedulcorated and dried, the Copper will exhibit a green colour, which may be used in all Paintings, and will not corrode and destroy other colours, as the common Verdigrease is wont to do: And the Ceruse is rendered more delicate white, and pure than that which is prepared by Vinegar, with which oftentimes much Chalk is mixed to augment it, and is not so conducive to Painting, nor to the shops, as that which is made PER SE, without any mixture.

Point III.

Engravers and Statuaries may so harden their Tools, that they may hold their points long, if they be to cut stones.

That Iron may be hardened by Cementation with Salts, so that it may serve instead of Steel, is now openly known; but the iron or steel is to be kept in cementation as long as need shall be, not with common salt alone, but mixed with the powder of coals and salt of ashes, then the Iron grows as hard as steel, but steel is rendered harder than it was before.

Point IV.

Embroiderers may put any durable Colour they please upon the Silk with which they work.

It may be known, that Nitre, as being a depurated salt, will easily induce colours, and constantly preserve them, yea, exalt them, which many know, especially who dye cloth with rich grain colours, as Scarlet, Crimson, & etc. when they add the spirit of Nitre in the boiling, to aluminate it (as the Dyers call it) the colour is wonderfully exalted, and made much more fiery, so that it may be sold dearer than common Crimson or Scarlet. This spirit of Nitre also tingeth Ashes, Nails, or Hoofs, Quills, or Feathers, with a golden colour, but if the Nitre be fixed by calcination, then it also equally exalteth, but not into a red, but a Purple, Dyers use Potters ashes for these Works, but fixed Niter is much purer, and rendereth the Work more beautiful than those impure ashes.

Point V.

They who Paint Glass, by an easie Work, may thence prepare all Colours or Enamels for Glass, so that there will be no need to have them from Venice.

The Painters of Glass sometimes complain, that their fusory Glass or Enamel will not readily flow, and that the Glass which they are to colour is melted first; the Salt of the Earth being fixed, remedieth this, if the colouring Glass be mixed with it in a due proportion, and again melted, for by this means they will be rendered fluxible at pleasure.

Point VI.

They who work in Wax, by the benefit of this, may whiten it exceedingly, and colour it as they please.

That Salts with Water do whiten yellow Wax, being melted thin, and exposed to the Air, and often sprinkled with the Salt Water, is sufficiently known, and wants no proof, but not better than salt Nitre it self.

Point VII.

Printers also may add this subject to their Ink, which will cause it to adhere very firmly to the Paper, and render the Letters very fair.

That fixed Salts will readily conjoin Ink with Water, is not unknown,

and none better than fixed Nitre, which also excelleth all sharp LIX-
IVIUMS, having a power of cleansing Lead, Tin, Copper, or other Vessels.

Point VIII.

It is convenient for Clock-makers, or Watch-makers, if a Water be dis-
tilled from it, which soldereth Iron or Steel, without fire, if a drop
of that AQUA-FORTIS be dropped upon it, whence the Iron growing hot,
it presently waxeth soft, as if it had been soldered in the Fire by the
help of Copper.

If an AQUA-FORTIS be distilled from Niter and calcined Vitriol (N. B.
that there must be no Water or Phlegm in the Spirit) and two little
pieces of Iron be melted with it, (between which there must be little
filings of Iron) then the Iron groweth hot by the AQUA-FORTIS, which
acteth upon it, and the one will be joined to the other by melting, as
if it had been done by the Fire. But he that will use that water, must
know how to prepare it himself, because such is no where to be found
to sell.

Point XI.

All Smiths may by it harden their Files, and other Iron Tools, as dur-
able, as if they had been made of the hardest Steel.

Fixed Salts being mixed with ashes and powder of coals or sand,
after that they have remained 24 hours in a close Fire, do harden iron
like Steel; as is proved, before in the third point.

Point X.

Pewterers may harden their Tin or Pewter, and give to it an elegant whiteness, so that it will resemble Silver both in colour and sound; neither will it easily tarnish, and by reason of its hardness, will last longer than common Pewter.

If Tin be often melted, and extinguished in a LIXIVIUM of fixt Nitre, it is made harder than it was before; but if it be put to Nitre in Flux, and suffered to melt in it; then also will be more hard. N. B. But if the Tin be reduced into Scoria by Nitre, and the Scoria again reduced, it will be rendered harder and fairer, than by the two former ways.

Point XI, XII, XIII.

Cabinet-makers may strike an excellent Black upon Pear-tree, Box, Walnut-tree, and other hard Woods, which may be used for curious Works instead of Ebony. Skinners or Furriers may dye their Ermins, Foxskins, Wolfskins, and the like Furs, with a scarlet, crimson, or deep black colour, far exceeding the natural. In like manner Feather-dyers may swiftly give any lasting colour to their Plumes.

If an AQUA-FORTIS be distilled from Nitre and Vitriol, and a little silver dissolved in it, and Rain water poured thereon (for the weakening of the AQUA-FORTIS) then not only all hard Woods, are blacked by it, so that they represent Ebony, but also skins and feathers are made black as a coal, a ground being first laid upon the feathers, skins, or woods,

Point XIV.

Taylor's may take out Spots or Stains, out of Woolen, Linen, or silk Garments, and restore their Beauty.

Of fixed Nitre is made a Soap, so subtile and pure, that by it all Spots may be taken out of Garments.

Point XV.

If Shoemakers put old Iron to this subject, they may therewith adorn their Leather with an excellent Black.

If Nitre be dissolved in Vinegar, and old Iron lie some time in it, it will make an Ink with which Hides may be blackened with an excellent Black. But there is no need of Nitre for this use, for if Iron be put to Aqua Calcis, it effecteth the same thing; only mention is made of this in MIRACULUM MUNDI, that it might be manifest, that this Universal Subject may be of use, to all and singular Artificers.

Point XVI.

Weavers may render their Linen Threads so fine and soft, that they will emulate silk.

All Men know that the boiling of Thread in a strong Lixivium renders it soft and delicate, but seeing that fixed Nitre is better than a strong Lixivium, it will also perform this work better than any common Lixivium.

Point XVII.

Dyers by this may give so firm and unchangeable a ground, to their Cloth, that the superinduced Colours shall not be corrupted, or spoiled by any Wine, Vinegar, Urine, Pickles, Air, or Sun.

If the spirit of Nitre be put into the first boiling with the Alum and Tartar, for the aluminating the Cloths, it will give a permanent ground, as is already proved in the fourth point.

Point XVIII.

Potters may thence prepare a Glassy Colour, not unlike to the INDIAN PORCELLANE, of which Vessels may be made having the aspect of Gold, Silver, or Copper, a singular Ornament for Noblemens Tables, hitherto unknown to the World.

The Glasing of Earthen Vessels, that they may appear like a natural Metal, is an egregious art, but it doth not always succeed, for the Colours are easily burnt and destroyed by too much heat, so that no Metallick Vitrification can be discerned. Vessels therefore, ought to be glazed not in a common Potters Furnace, but in a peculiar Furnace, that the fire may be often observed. If the Vitrification be to represent Gold, or Silver, or Copper, then Gold, and Silver, and Copper is also to be taken in this manner: Take one part of Gold and Silver, or Copper, Regulus of Antimony two or four parts, melt the Regulus and the Metal, pulverise them in an Iron Morter, and mix them with an equil

portion of Nitre, suffer the mixture to be fixed in a Crucible, with which mixture the earthen vessel is to be rubbed over or gilded, afterwards to be committed to a Furnace fit for this purpose, if you proceed right, you will obtain a very beautiful Vitrification, as if the Vessel was gilt with Gold, Silver, or Copper, which will not vanish or decay, and will far exceed in beauty and splendour the Vessels which are gilt with those Metals, for those in process of time lose their splendour, but these do not as long as the least bit remains.

Point XIX, and XX.

Soldiers, Merchants, Travellers, Carriers, Fishermen, and others, who are much in the open Air, may of this prepare a Varnish in which they may dip linen Cloth, which will not permit either Air or Water to pass through it, with which they may defend their Boots or Cloths, so that they may travel dry in the rain. They who make Tapestry, may restore their fain and faded Colour, so that they shall be strong and beautiful.

Here mention is made of a certain mixture in which if Linen Cloth be dipped and dried will not permit water to pass through, and it is done in this manner. There is nothing wanting in Linseed Oil, but that the humidity be taken from it, which always hindereth its drying; now to effect that, there is no better way, than to boil the Linseed Oil gently and gradually with the Flowers of LAPIS CALAMINARIS or Saturn, (which are sublimed by Nitre) so long till the Oil be tenacious, and groweth hard enough for this use. N. B. That a Linen Cloth immersed

in this mixture, and shining Talk being finely laid upon it, may be coloured of any colour, which will very strongly adhere to it, and may serve for the making of Tapestry. Therefore in this manner the nineteenth and twentieth Points are confirmed.

Point XXI, and XXII.

Mistresses of Families, may of it prepare fine Soap or Wash-balls, far exceeding the VENETIAN. Household Maids, may with it scour their Metalline Vessels, so as to render them neat and beautiful.

That fixed Nitre will wash and purifie Linen cloth beyond all Soap, no Man will deny, who comprehendeth the matter, concerning which thing, the Ancients have written much, and not in vain, calling Nitre the Soap of the wise, but not for the washing of Womens Linen, but for the intrinsecal purifying of the imperfect Metals: Their External Purgation may also be performed by help thereof, so that the twenty second Point is also verified.

Point XXIII.

Women may change the Yellow, Pale, or Brown Colour of their Face, and hands, into a beautiful whiteness.

That an Egregious Cosmetick may be made of Nitre, calcined with white Talk (by which ill coloured skins may be whitened) is not to be doubted. For if Nitre fixed by the Regulus of Antimony alone, performeth

that, why should it not yet do it better, if it be conjoined with some white Mineral Talk in the Calcination?

Point XXIV.

Old Women may by an easie way, take away the Wrinkles of their Face and Hands, as also the Corns of their Feet, and boil their Linen to such a softness, that it shall come but little short of Silk.

It is easie to verifie this, to wit if Nitre be fixed with Regulus of Antimony, and set in a moist Cellar to run into an Oil, which Liquor will be so fiery, that if any hard Skin, or Corn, be often anointed with it, it will so soften it, that it may be cut away with a Pen knife, and afterwards other smooth and soft skin will grow in its room.

Point XXV.

Gardeners by this subject may destroy all Insects, by mixing it with warm water, and pouring it into those places where they breed, for they will either die in their holes, or run out to die, because they are not able to abide that fire. It also ripeneth Fruits, if a little of this Menstruum be applied to their Roots, at the entrance of the Spring; and if a large quantity of Apples be well covered over with it, they may thence prepare a lasting Wine, Vinegar, or burning Spirit.

It is not to be doubted, but that fixed Nitre will kill all Worms in the Earth; I have often tried it with good advantage, and found it

true, in this manner: Many years ago, I had a Garden, in which was a Bed of Asparagus, which I covered all over in the Winter with Horse-dung, to defend it from the Frost, which occasioned the breeding of many small Worms like Threads, sticking to the Roots of the Asparagus, so that they could by no means grow or increase, only by reason of the great quantity of Worms, which took away the nutriment of the Vegetable for themselves. And once by chance throwing some fixed Nitre exposed to the Air, and turned into a Liquor, out a Window into the Garden, it fell upon that place where these Worms were, the fixed Nitre was dissolved by the following Rain, and penetrated the earth; which done, the Worms in great numbers crept out of the earth, because they could not abide that fiery Liquor, the Asparagus grew up in the same place more plentifully and perfectly than before, which moved me also to apply this Liquor in other places; by this means the whole Garden was in a very short time freed from Worms.

Point XXVI.

Bakers may use it in stead of Ferment or Yeast, if they dissolve a few hops therein.

If pure Nitre with flower be thoroughly moistened with warm water and set in a warm place, then, by its own proper power and virtue, it beginneth to ferment, especially if some fresh Hops be put to the water, by which also other things are promoted to fermentation.

Point XXVII.

Brewers by its help may have very strong Beer, if they extract their Hops therewith.

In the like manner, also warm Beer may be excited to fermentation.

Point XXVIII.

Mead, and Metheglin, as also Beer, and Canary wine, which are upon the turn, and growing sowre, may be by this rendered drinkable.

Any kind of Drink, whether it be Canary, Metheglin, or Beer, which easily sowre in Summer, if you would amend them, to a Tun of the Liquor put about two or three Ounces of fixed Nitre put up in a Linen Rag into the Bung-hole at the top of the Cask, and let it hang down into the Liquor, then in a short time the sowre Liquor will be rendered drinkable.

Point XXIX.

Comb-makers, and others who work in Horn, may by this so soften their Horns, that they may imprint upon them what Images they please.

That every Horn, or Bone may be softened, if it be sufficiently boiled in a Lixivium of Nitre, may easily be apprehended; which thing another strong Lixivium, not so fiery as that of Nitre, will also perform.

Point XXX.

Keepers of Armories may preserve their polished Arms, or Harness free from rust, by anointing them over with this subject.

It is credible, that fixed Nitre will preserve Iron from Rust, seeing that it is equally contrary to Corrosives, with a simple Aqua-Calcis which performeth the same.

Point XXXI.

Bird-catchers, may by the help of this prepare such a Birdlime, as will not be altered by Cold or Heat.

If a Spirit be distilled from Nitre, and Lapis Calaminaris dissolved in it, and the Spirit again drawn off, there will remain a thick and heavy Oil, with which the Glue for Wood being thoroughly humected and dissolved, it becometh tenacious and viscous, which will not be dried by the heat of the Sun, but keepeth its unctuousity in all Seasons. N. B. That Spirit of Salt, or Vitriol, also performeth the same thing, if any Glue be dissolved therein.

Point XXXII.

Soldiers may by help of this prepare a fulminating powder from Gold, of which the magnitude of a Pea, put upon a red hot Iron Plate, will give a greater Clap, than half a pound, yea a whole pound of Gun-powder; the same may also be prepared without Gold, by the addition of Salt of Tartar and Sulphur, as it is described in the second part of Furnaces.

As for this point, it needeth no proof; for it is sufficiently known, that of GOLD dissolved in Spirit of Nitre (in which also was dissolved Sal Armoniack) and precipitated with Salt of Tartar (or Spirit of Urine, which is better) thenedulcorated and dried, such a powder will be made, which being put upon an Iron, Copper, or Silver Plate, and enkindled by a light heat; fulminateth more strongly than half a pound of common Gun-powder, concerning which, I have treated at large in other of my Writings.

Point XXXIII.

Engineers, and makers of Fire-works, may perform many wonderful things, by the help of this subject.

That common Nitre is used in the making of Gun-powder, and other Fire-works, wants no Testimony, being a thing every where known.

Point XXXIV.

Many new Works belonging to the Weavers, and Smiths Art, may be made thence, which may be Communicated to Neighbouring Countries, in lieu of which, money may be brought into a Country impoverished by War.

As for this point, it is most certain, that by the mentioned Subject, various Manufactures may be perfected, which thing let no Man doubt; but there is no need here to particularize; let it suffice that I have verified (by the assistance of God) those things which I have named, and proposed to explain in that place.

Point XXXV.

If Keepers of Vineyards, pour a little of this Subject to the Roots of their Vines, they will have ripe Grapes, and new Wine sooner than the rest of their Neighbours, of which they may make a good advantage.

Plebeians, Country-men, Gardeners, Vine-dressers, and the like, who are conversant about the propagation of Vegetables; do say, and believe, that Dung causeth Fertility, and the increase of things: But a Philosopher, penetrating farther into Nature, and who is a most diligent Searcher of her Works, attributeth that to the Salt which is hidden in the Dung, and the matter it self is no otherwise, for by digestion in the Stomachs of Men and Beasts, the essential Salt, as well of Animals, as of Vegetables, is transmuted into a Nitrious Salt, which together with the Excrements passeth out by the Belly, and is used by Men for the propagating of Vegetables of all kinds, but another Salt which doth not participate with that, is separated by another way, to wit, by Urine, the greatest part of which Salt is acid, and contrary to the growth of Vegetables, (although it carrieth along with it some volatile Salt) it destroyeth, mortifieth, and taketh away from them the power of growing, yea, Life it self, if they be often moistened with it; but the Nitrious Salt reconded in Excrements, on the contrary, vivifieth all Vegetables, and maketh them to encrease, grow strong, and bear Fruit, which all men know. Therefore if it be probable that it is not the Dung, but the Salt which is hidden in the Dung, that causeth fertility and encrease, it will be possible, that an encrease by such a Salt may be procured

in all Vegetables equally as with Dung it self, and indeed better, for there is Urine also conjoined with the Dung; which if it be not for some time exposed to the Air and the Rain, for the washing away that sharp Salt, the Dung would avail nothing to the fattening of the Earth, which Country-men know, and therefore they do not presently use their fresh Dung, but lay it in the Fields before Winter; Vine-dressers in their Vineyards; and leave it there all the Winter, to that end, that the Rain may wash out that sharp and hurtful Salt; and this being done, then at length they mix it with their Earth; and the event teacheth them that this fattens more than Dung carried fresh out of Stables, and full of Urine. Therefore if I know how to make a Nitrous Salt, which is recorded not only in the Excrements of Men and Brutes, but also in Rain-water and common Earth, I may use this instead of Dung, (being first purged from its contrary acid) one pound of which will perform more than an hundred weight of Dung; yet in the mean time it conduceth to that purpose, if a little Sheeps-dung be dissolved together with the purified Nitre, in Water, with which the Roots of the Trees are to be moistened or Seeds throughly wetted with the same. And this I have proved more than once, and found, that by the help of Nitre well depurated, an encrease is most powerfully and swiftly promoted, yea, more than can be believed. N. B. That I would have none understand me, as if common Nitre were to be taken, which is not at all profitable in these matters.

Point XXXVI.

Nevertheless Must and Wine may be ripened after another manner in the Hogshead, without this Art, so that they who understand the way may have always good Wine, when others have it sower, & etc.

This is a very fair and profitable Secret in those places, where Wines, by reason of cold, cannot come to maturity, but are forced to remain crude and impotent, which by this Remedy may be brought to maturity in the Hogshead; so that Wine which is eager and sower, may be made delicate, friendly, generous, and durable. And although I here write nothing but the truth, and what I have often effectually proved, yet I very well know, that but a very few will apprehend or believe it, which matters little to me, I am satisfied, that I have verified what I have written in this point.

Point XXXVII.

There remains yet another thing very profitable to Country-men. The juice of Apples or Pears being pressed out, by the help of this subject, such an effervesency or working is promoted, as Wine may be thence made; having the relish of the natural, and but little inferiour in durability and strength, & etc.

In this point mention is made how the juice of Apples, and Pears, may be corrected, that it may be like to Wine, keeping many years uncorrupted: which certainly is a Secret of great moment and profit.

Apples, when ripe, of their own accord fall from the Trees, every thing hath its period; what advantage may be made by this Art in those places, where a great quantity of Fruit groweth; whether is it not better to make this use of them, than to leave them to rot and be lost? I will do what lies in me, and not bury my Talent, that I may be rendered excuseable before God and the World, although that which I teach may not be recieved, as becometh it to be used. At length, after my Decease, it will be observed, what is hidden in my Writings, but the PHERYGIANS were wise too late. Therefore I again affirm, that all things contained in this point, are purely true, and may be perfectly effected. (See Apology against Farnner.)

Point XXXVIII.

If Husband-men moisten their Seed with this MENSTRUUM, it will sooner be ripe, and have larger and fatter Grains than ordinary: which being done, I will shew by what means they may make great profit of their Grain, & etc.

The 35th. Point confirms the truth of this, That Grain will grow the more plentifully, if it shall be humected with the Nitrous Water above mentioned, before it be sown, but common Nitre is not here to be understood. The other is also consentaneous to Truth, which is written about the most profitable use of Grain, which none need doubt; for as yet more may be done in that than I have here spoken, for without much labour and cost, by that water, every good and kernelly substance, as I may so speak, of Grain, is extracted, which Extract may be kept for

many years, as a Treasure of great moment, of which afterwards, at any time or place, (by the addition of Water of Hops) good Beer may be made, and Vinegar, and burning Spirit; it is also of such a very Nutritive substance, that in case of necessity it may be used instead of Bread, one pound of which will afford more nourishment than two or three pound of Bread made after the common manner. It may also be kept in Garrisons with great commodity: Also it may be used at Sea, by those who sail to the INDIES, and trade about in Ships, when they want Bread; of which by the addition of warm water of Hops, may be made very good Beer, at any time of the year, for it is easily and wholly dissolved in warm water. For this reason also it may be most commodiously carried from place to place by Armies in time of War, which in the Field, at any time, Winter or Summer, with the water of Hops, it may be boiled into Beer, and there is no need to carry the water far, because it is to be found in all places; neither are Hops of any great burden; therefore in one only Ton there may be carried of this Extract as much as sufficeth for the brewing of six or eight Ton of Beer; and which is more, by this means, wholesome Beer may be made in the DOG-DAYS, as well in Camps, as in Cities and Ships, without any fear of impediment or future sourness; at which time good Beer is not otherwise made, because then it is wont presently to grow sowre; and many other Commodities are procured by this means, all which to declare, would be superfluous. Let what hath been said suffice.

Point XXXIX.

I have yet one thing to add among my Wine-Arts, concerning Grain, and the Fruits of Trees, and Shrubs, which is to be received with Thankfulness, as a great Gift of God to Mankind, viz. It is found by industry and manifold experience, that from Rye, Wheat, Oats, Rice, Millet; also from Apples, Pears, Peaches, Cherries, Plumbs, Sloes, Damscens, Quinces, Figgs; as also from Gooseberries, Mulberries, Blackberries, Elderberries, and other like Fruits of Trees and Shrubs; from all these, I say, may be prepared with little labour and cost, a Drink very like to Wine, both in taste, smell, and strength, being grateful, wholesome, and durable, & etc.

In this point mention is made, That of the Fruit of Trees and other Bushes and Shrubs, a clear Drink may be made, which is also grateful and durable, being like to Wine in taste, colour, and virtue; which thing although it may seem strange to those who are ignorant of the matter, nevertheless it is most true; so that those things which are contained in this point, may be boldly credited. For what should it profit me to write those things which I am not able to prove, it would only turn to my disgrace and detriment. For this reason I have determined to have such a Laboratory prepared, in which not only the owners of Metallick Mines (if they desire it of me) may learn the manner by me newly invented, for the compendious melting of Minerals, so that they shall yield more Metal, than by the known and common manner; but will also shew other Secrets, that the MAGNALIA and wonders of God may be made manifest, and

We stirred up to give Thanks to the Giver of all Good: Which Elaboratory shall continue open for one whole year, which being past, it shall again be shut up and cease; for I purpose not to render the whole course of my life obnoxious to those great Labours, but at length to enjoy a quiet tranquility; which thing I am willing that all men should know, that they may spare me with their Letters, which it is impossible for me to answer, much less that I should see the Persons, seeing that the burden of journeying is to me altogether insupportable; but whatsoever I may perform at home, I will not refuse.

(See for this point Apology against Farnner.)

Here thou hast, benevolent Reader, a fundamental Explication of my MIRACULUM MUNDI, (as for those last points, to wit, 36, 37, and 39, they might indeed have been very commodiously explained here, but because this is done at large, in a peculiar Treatise, entitled, THE PROSPERITY OF GERMANY; there is no need to explain them in this place; therefore what the benevolent Reader finds wanting here, there he shall find it at large, to which I remit him) whereby it will appear to all men, unless to those who are wilfully blind, that I have not ascribed too much to the Salt of the Earth, as a universal subject, but that I have proved to the whole World, that every thing which I have attributed to it, is possible, and plainly agreeable to Truth. But that these Secrets which I have proved, may be performed by the benefit of the Salt of the Earth, may not be done by other ways, and perhaps nearer, I go not about to deny, but do necessarily affirm, that the mentioned Metallicks, as well as the Mechanicks, may be performed after other manners. Only here it

is verified. That the Salt of the Earth is deservedly esteemed a universal subject, which no man will deny, nor will be able to refute by Arguments, supported by truth, how wise soever he may seem to himself. Therefore let its vileness offend no man, for the best of things is oftentimes hidden in things of small price. Wherefore all men err, who attribute good to outward splendor, in which yet it is not, but is only to be sought, found, and obtained in things vile, and of low esteem. NOTE THIS, BELIEVE THIS, OTHERWISE THOU WILT NEVER ATTAIN TO ANY GOOD.

But here some Man may object in this manner: If Nitre be a Universal Menstruum according to my praises of it, it will thence necessarily follow, that the stone of Philosophers should be made by it, of which nevertheless I have here made no mention. To obviate this Objection, I do indeed readily confess, that I have not proceeded in this subject, any further than those things which I have now proved; but without doubt it containeth in it self greater things, than are manifested to me and others. I have made a beginning, I have strowed the way, let others follow me, and prosecute the thing further, if God shall grant it to them; as for me I am content with small things, and do not anxiously, or sollicitously aspire after the highest. Yet in the mean time, this I freely confess, if I were not so old as I am, I should not leave this Matter unessayed. It is not to be doubted, but many men have sought the Universal stone in Nitre, but what they have found, that themselves know; and of this I am the more assured, because there Matter in the end of the Work taking fire, hath vanished like a Clap of Thunder; hence the ancient Philosophers have performed their work in Winter, lest they

should be hurt by Corruscations; it is most true, and void of all error, that a most noble essence of this sort, obtaining a power of expelling all the Natural Diseases of Mortals, and of transmuting all the imperfect Metals into Gold cannot be prepared from an impure Metal, or Mineral, nor also of Gold it self. Much less of viler and more unlikely things in which Fools are miserably Occupied, prodigally, and unprofitably wasting their Goods; but in my judgement, it should be no other thing than a Concentrated Astral fire, exalted by Art, into the form of a stone, without any other Adventitious matter. For in the nature of things, no purer Essence can be found, than fire, exercising a very great power in all things, especially in Metals: For if we had not fire (I pray consider it) all Arts, and Mechanicks would grow cold, and be involved in the dark silence of Cessation. Arts were invented, and draw their Original from the fire, otherwise how should Metals be got out of their Minerals, and prepared for use? Truly they would be of no use at all. Therefore the fire containeth more than can be believed. He that doth not know fire to be a most powerful Element, knoweth nothing, nor without this, can he find out any thing, neither by any just right can he assume the Name of a Philosopher. The fire alone, without the addition of other things, is sufficient to make Metals of stones, and particularly, the best Metals out of the vilest stones, provided we know how to use it; but universally, being concentrated into a stoney matter, which last although I have not experienced, nevertheless I have observed, if (by the favour of the Almighty) a man could exalt the fire into a Corporeal fixed substance, he would certainly have a Tincture,

for men, and the imperfect Metals. But some man may object, by what way is this Crown to be obtained? Truly by no other than by Divine Revelation. For the Secrets of God of this sort, are not so easily to be found out, nor will they be manifested to Impious men, although the whole World is infected with a foolish madness, who doatingly think by force to extract Gold from things in which it is not, and one that hath understanding of the fire and Metals, cannot sufficiently admire those foolish and doltish Labours, which they who are Captivated by the hunger of Gold, undertake for the making the stone of Philosophers; many being willing to ascend the Ladder, are presently solicitous about the uppermost Round, when notwithstanding they are as yet far from the lowermost step: But this is a matter of a higher and more diligent search. In the fire, I say, are contained Secrets of great moment, yea, inso-much that some Philosophers (among whom PLATO is the chief) write that God is most clearly discerned and apprehended in Fire and Salt. Fire, and the Immortal God alone can make light of darkness, which is granted to no Mortal to do; without fire is darkness and death: Without fire nothing can live, nothing groweth or encreaseth.

In sum, Fire is the most Noble, and most Potent Work of God in the whole Universe, he that knoweth how to use it rightly, will have need of no Art. Let the Benevolent Reader also take with him my small judgement concerning the great stone of the wise; let every man believe what he will, and is able to comprehend. Such a work is purely the gift of God, and cannot be learned by the most acute powers of an humane mind, if it be not assisted by the benign help of a Divine Inspiration.

And of this I assure my self, that in those last times, God will raise up some, to whom he will open the Cabinet of Natures Secrets, that they shall be able to do wonderful things in the World, to his glory, the which I indeed heartily wish to Posterity, that they may enjoy, and use to the Praise and Honour of God, AMEN.

The Epilogue.

I Doubt not but many Men considering the great good that may be effected by the benefit of Nitre, will be desirous of knowing how they may attain it in great quantity, that so they may not be forced to buy it at a dear rate; which certainly would be a great help not to a few who labour in the fire, and I could wish from my Soul, that all honest and pious Chymists might be able to recover some compensation for the Coals they have consumed without fruit. But seeing that I have made mention of the production or preparation of Nitre, in a peculiar Treatise entituled, THE PROSPERITY OF GERMANY: it is needless here to repeat it. But this I will say by way of prediction, that Nitre, being thoroughly known by my Writings, true Alchemy, or the Transmutation of the imperfect Metals into better, will in a short time be as common, as it was in EGYPT long since in the time of the Emperour DIOCLESIAN, who could not overcome or subdue the EGYPTIANS, until he had by many Cruelties extorted their Books from them, which he burnt, and so brought them under the yoke of servitude. N. B. That it is no wonder that the Transmutation of Metals should have been so common with the EGYPTIANS only, seeing

that Nitre is found in all places of the land of EGYPT, and the famous River NILE is impregnated with Nitre, which only by its overflowing (which it doth twice in a year) so fateneth the whole Country, that it is made very rich and fruitful in all things without dung; for the NILE aboundeth with Nitre, as the Sea doth with common Salt. For at certain times of the overflowing, viz. in the beginning, the inhabitants are wont to dig deep Pits, that they may remain full of the water, which being afterwards dried up by the Sun, Nitre is very Copiously prepared, as common Salt is made in SPAIN, and other hot Regions. This therefore I was willing to discover for the information of the Reader; if he be wise, and God be propitious to him, he will believe that I have said enough; but if not, an Explication ten times clearer will not help him. Therefore let it suffice, that what is here desired, shall be had in those Treatises which are entitled, THE PROSPERITY OF GERMANY, whereby a man filled with the Love of God, will be greatly delighted.



THE COMPLETE WORKS
OF

RODOLPH
GLAUZER

trans: Chris. Packe



MIRACULUM MUNDI
(CONTINUED)



T H E
C O N T I N U A T I O N
O F
M I R A C U L U M M U N D I .

In which Nature is clearly laid open to the Eyes of the whole World; demonstrating, that the chief Medicine of Vegetables, Animals, and Minerals, may be prepared of Salt-petre, and that Salt-petre truly merits the Name of an Universal Menstruum.

The Preface, to the Reader.

This Treatise, to which I have given the Title of the Continuation of Miraculum Mundi, containeth four excellent Arcanums, which I doubt not, but will prove very profitable to the publick. The first of these I offer to Country-men, as Husbundmen, Wine-dressers, Gardeners, and all such who are occupied in Tilling and manuring the Earth, that they may learn a new Method of fattening and enriching their Fields and Gardens, without the usual and customary way of dunging, and thence yearly acquire a greater profit.

The Second, I give to all Citizens, Merchants and others who have time and leasure, and abounding in riches, know not by what means to augment or improve their Gold and Silver. Which way I will shew them, and how to effect it after a much better and honester manner than putting it to Usury, or incommoding or oppressing their Neighbours.

The Third, I present to all Conscientious Physicans that they may learn to prepare Saluifereous and Efficacious Medicines with small charge, little labour, and in a short time; that (as becomes Christians) they may help and Succour the Miseries of the sick, and acquire to themselves an honest livelihood.

The Fourth, I dedicate to all persons of great Name and Authority, by the benefit of which, they may preserve their Health entire, and recover it when lost.

The Omnipotent God give us his Divine Grace, that we may make use of his fatherly bounty, as may tend to the promoting of his Honour, and the Love of our Neighbour. Amen.

Arcanum I.

Being a Gift given to Husbandmen, keepers of Vineyards, Gardeners, & etc.

Although I had determined with my self to reserve the Press, mentioned in the first part of The Prosperity of Germany, (by which the juice might be pressed out of great Trees, the searching after which hath wearied many Mens Brains) for the third part of the same work; nevertheless, it seems good to me to describe it in this Treatise for the good of the publick. And that chiefly for this reason, because the Omnipotent God hath now revealed to me other manners of extracting Salt-petre, in plenty, out of all Wood, and that without a Press; and not only from Wood, but also from all Vegetables, Animals, and Minerals, so that by an easie business, and in a short time, without a Press and

putrefaction, Wood, and Salt may be converted into Salt-petre: Yea, in the space of three or four hours, every Vegetable, or Animal, as also Salts of every kind, may be so transmuted, as that they pass into a Fatt, fervid and sulphureous Salt, which afterwards by the benefit of the Air is animated, and converted into Salt-petre. Such a Salt, although it doth not presently conceive flame, and burn like Salt-petre, yet it is now brought to that pass, that in the manuring or dunging of poor and barren ground, it doth the same thing as the dung of any Cattle is wont to effect. Hence by the same Salt every pure Sand destitute of all fatness, is quickly so fatted, that it is rendered fit for the sowing and bringing forth Corn. Few will believe what Salt can perform, when spoiled of its Corrosive force. Therefore Christ saith not in vain to his Disciples, YE ARE THE SALT OF THE EARTH. That Earth which wanteth Salt is dead; nor can it bring forth Fruit: For this inverted Salt serveth not only for sandy and plainly barren Fields, but also for those which are fruitful, that they may be sowed every year, and bring forth Fruit. Truly it is a great Gift of God, of which this ungrateful World is not worthy. It often happens, that a Husbandman, through want of Dung, is forced to let his Fields lie unsown, till he can have an opportunity to sow them; but what a loss is this to those who in the meantime must pay the Magistrates, Taxes, or Duties, for them, and yet make no benefit of them. Were it not better for such to possess only the Third or Fourth part of what they have of such Land as would yield him every year an encrease. Certainly by this means, that Land which otherwise is scarce able to maintain one Country-man, would be sufficient

for the keeping of ten, if it were fattened after this manner by an inverted wood or salt. In like manner also Vineyards (and Hopyards) might be so fattened, that the Labour bestowed upon them might not be in vain, but that they might abound in Fruits.

So also Fruit-trees, and Meadows, and Pastures, which bear but little Grass, may be by the same Salt be so amended, as to bring forth better Fruit and richer Crops of Grass. But let this suffice, concerning those things in this place, more shall follow (God willing) in the Third Part of The Prosperity of Germany. In the mean time the Plenty of Corn and Wine will be in part consumed. But I doubt not but that this excellent Gift of God will be sought into by good Masters of Families, be had in esteem, and even from this time to the World's end, be put to use for the promoting of the Divine Honour, and the well being of many Thousands of men.

But the manner of expressing of Wood by its proper Fire, and again of coagulating this acid juice, by the benefit of the fixed Salt remaining in the burnt Coals or Ashes, into a Salt fattening of barren ground, or of reducing it into SALT-PETRE by the benefit of the Air, is indeed an excellent and singular Artifice, which rendereth all unprofitable Wood highly profitable and beneficial; yea, these are inventions so profitable, as the like hath been yet published by no man. And this Invention is much better than that of reducing Wood into Pot-ashes, in which all the acid juice passing away in smoke, wholly perisheth, and is lost, and from a great quantity of Wood a very few ashes remain, and out of them there is found but a little Salt (scarcely the Tenth Part)

fit for the fattening of ground, or to be turned into SALT-PETRE. For it is not the ashes, but the salt contained in them, that serves to both those purposes. Therefore this my method of extracting the juice of wood, and converting it into a good salt, is far to be preferred to the making of Pot-ashes of Wood. Nor doth this press serve only for the pressing out the juice of Wood, where Wood is plenty, but it may be also used with great profit in Moorish places where Wood is wanting, and which abound with Turf, which may be used instead of Wood. For the juice of Turf is equally fit with the juice of Wood for enriching of Land; so that no Country hath cause to complain that the Creator of all things hath not plentifully provided it with some part of that MUNDANE Treasure. Countries that lie high abound with Wood, and the low afford abundance of Turf. Therefore, as in Regions of an higher situation, an unspeakable quantity of Wood perisheth by putrefaction, and growing, and again rotting, serveth for no use or benefit; so also it is in places lower situated, with Turf, in which very often vast Tracts yield not the least profit to any man, although in their inward Penetrals are hidden great Treasures. Seeing that it is so in Moorish and Marshy places, if they are overgrown with Grass, and Beasts should be sent to feed upon that Grass, what profit will thence accrue to men? But if they shall be invironed with too much wet or plashiness, (too boggy) so that they are impassible by men, they are of no utility at all.

There are Marshy tracts which are covered over (or swarded only with Moss) which neither afford Turf, or nourishment for Cattle, inasmuch as the growth of Grass, and Turf fit for burning, is hindered, either

by too much Sand, or large Moss. And yet those very tracts being pressed by Fire, yield a fertile juice, by which the neighbouring Fields (especially the Sandy) may be rendered fruitful. For those Moors or Marshes contain nothing but that fatness which the Rain-water hath collected from the neighbouring, high, and sandy grounds, and washed down with it self into the Valleys, where it concreteth into Moss; whence of right it should be restored to those barren sandy grounds, to fatten them. And by this means it may be brought to pass, that great fruitfulness may be conferred on much desert and waste Land, which brings no profit at all to Mankind. What I say, is agreeable to the Truth it self, and perhaps in Process of time, will be found most true, and come into use in very many places. But at this time, these things seem to Country-men, meer Dreams, and far exceed the Capacity of their maulted Brains. But as every fat Marsh is able to fatten the adjacent, barren, high, sandy grounds; so the Ocean is the Universal Medicine, and nutriment of all high and barren Regions, through which it passeth, and by the salt contained in it, bestows upon them fruitfulness. (Vid. Nat. Salium.) Whence the incredible Providence of the Divine Goodness manifestly appeareth, for which uncessant Thanks are to be given to the Almighty by all men, for His Fatherly Care, and great benefits never to be forgotten. But how the Sea salt fatteneth, and maketh fruitful sandy-ground, which is destitute of all fatness, shall afterwards be exactly demonstrated. Here, by the way, in the Description of my Press, for the pressing of wood, I was willing to mention this thing. How much better therefore is this my Art and Invention of preserving the

juice, and almost the whole PONDUS or weight of the wood (the unprofitable Phlegm only excepted) in that transmutation, than the invention of reducing it to Pot-ashes? For any man of understanding may easily see, That in that open burning of the wood the noble Sulphur is consumed by the Fire, and can be of no benefit. But if the business may be so ordered, that the wood shall burn, and not consume it self in burning, but be converted into a sulphureous Salt, it will be a thing of great moment. He that knoweth how to perform this, hath indeed attained the scope, and arrived to the desired end. Although a Coal be deprived of its juice, nevertheless it retains almost the same quantity that the wood had, whereof it was made. One pound of such Coals being burnt, scarce yields an ounce and an half of ashes, which ashes afford but a third or fourth part of Salt, fit to be changed into SALT-PETRE, or to fatten the Earth. Therefore it is no small Art to preserve the Sulphur of the Coals (whose Virtues are great) and to convert it into so noble a Salt.

For the acid juice of wood being pressed out, and reduced to sweetness, will effect far more in the manureing and fattening of Fields, than any one can easily believe. Hereafter, if I shall see it necessary, I shall publish yet more and greater things; but I shall yet for some time suspend the publication of the Third Part of THE PROSPERITY OF GERMANY, till I see how things will prove; being assured that my Writings for time to come will be more grateful, than to this present Age. I will now enter upon the description and use of the Press so often mentioned, for the expressing and again coagulating of the juice of Wood.

Of the Figure, Use, and Utility of the Press, by whose help the Juice is plentifully pressed out of Wood, without great labour, fit for the making of SALT-PETRE.

The Form or Figure.

First, let a round Furnace be built with Bricks of the same form with that in the first Figure, noted with the Letter A. It must be like a Glass-makers Furnace, large at the bottom, and rising round by degrees to a small point at the top; in the top must be a round hole, opening about a foot broad, by which the Wood may be put into the Furnace. To the hole is to be fitted a Cover or Stopper, made of the same matter, with the Bricks, and burnt as they are, to shut up the hole. On one side of the lower part of the Furnace, is to be a door, by which the Coals may be taken out. On the other side is to be a little hole, to which an earthen Channel or Pipe of about three or four cubits long, is to be fitted, in which the smoke or fume of the wood, forced out by the fire, may be condensed into an acid juice, and may distill into a wooden Vessel or Barrel, which is to be fitted to the Pipe, to receive the distilling acid juice. See the first Figure noted with Page 13. at the beginning of this Treatise.

A. is the Furnace or Oven wherein the Wood is charred.

B. The Cover of the Furnace.

C. The Door at which the Coals are taken out.

D. The Canes or Pipes wherein the Sap or juice of the Wood is condensed, and from thence runs into the Receiver.

E. is the Vessel or Receiver into which the Vinegar of Wood runs.

All things being prepared in the manner aforesaid, let the Furnace be filled with wood up to the top, and if the wood be not dry enough, intermix with it, in the putting in from the bottom to the top, some dry Shrubs or Bushes, or small Faggot-like sticks, by whose help the wood may be the more easily kindled. After the wood is kindled, and burns well, the hole in the top of the Furnace is to be close shut with its Stopper, that there may be no exit for the smoke, but that it may be forced to descend and seek its passage through the lower hole, by the Channel or Pipe. Therefore when the wood begins to burn, and yet can emit no flame, the heat presseth out all the juice, and forceth it into the pipe, in which, from the smoke, it is changed into an acid Juice or Liquor, which destilleth by the Pipe into the appointed receiving Barrel. All the wood being turned into Coals, and emitting no more fume, the whole Furnace, wheresoever it may admit the air; and also the hole to which the Pipe is fitted, is to be smeared over with wet ashes, that the Coals in the Furnace being suffocated or choaked, may remain entire. The Coals being taken out, may be put to necessary uses, being equil in goodness to other Charcoal which Colliers make in Woods. N. B. I would have this understood, of such wood as is of a pretty good thickness, and suffers it self to be reduced into Coals: for if you cast into the Furnace Bushes or small Brushy wood, to press out the juice, you will obtain only a Powder of Coals, which after the juice is pressed out, is to be left in the Furnace open (not smeared over, as we taught

above) till it pass into ashes, which is required for the coagulating the expressed juice; as shall appear by and by, when we come to speak of its coagulation. N. B. When you have no occasion for Coals, or cannot sell them, it is necessary, that letting the Furnace be open, you suffer them to burn to ashes. If this operation be instituted in a place where there are stones fit to make Lime of, it would be worth the while to fill the Furnace with a layer of Wood, and another of Stones, from the bottom to the top, which Chymists call STRATUM SUPER STRATUM, and after the juice is pressed out to open the Furnace, that the wood may be turned into ashes, by doing of which at the same time the stones will be calcined, and changed into Lime, which being exposed to the air, (yet so that the Rain cannot come to it) will fall to pieces into a fine powder. To this Powder, being mixed with wood ashes, the acid juice is to be poured, which was pressed out of the wood, that those two contrary natures may mutually work upon each other, and well unite: in which operation the sharp spirit of the wood loseth its Acrimony, and the fixed Salt of the wood and stones is altered, so that from both there proceedeth a contrary middle nature, and a sweeter salt; which being long exposed to the air, draweth from thence a Life, and is transmuted into the best Salt-Petre. N. B. This mixture is so to be exposed to the air, that lying under a Covering or Roof, and being on the sides, it may be defended from the Rain, and nevertheless attract the air. If it shall be dried by the air, it must be moistened again with the Urine of Men or Beasts, that it may never be thoroughly dry. If these things be rightly performed, you shall have plenty of the best Salt-petre,

from this matter, in the space of a year and a half, or two years at the most; which being extracted, purified, and boiled up, shooteth into very pure Crystals. The rest of the matter being again laid in its former place, under the covering or shed, and being ordered in the same manner, as before, will in the space of two years produce new Salt-Petre, which may be extracted and boiled up as before; for that mixture still remaineth good, provided it be moistened with Urine when dry, as was said. N. B. He that desireth to acquire Salt-petre sooner, after the conjunction of the acid spirit with the ashes, and the precipitation and mortification of both, from that conjoined matter, by the pouring on of water, he may extract and boil up the Salt, and then dissolve the Salt in Urine, and digest it by Circulatory Vessels; by which means he may obtain the best salt-petre in the space of one year. This labour of pressing the juice out of wood, and at the same time of making Stones into Lime, may be used in all those Cities and Places where wood and stones are plenty. But if this operation were to be instituted in a Wood, there would be no need of a Furnace built with stone, seeing that the Pile of Wood might be covered all over with green Turfs, after the same manner which Colliers use in making their Charcoal, only with this difference, that here must be a hole in the side, to which the duct or pipe is to be adjoined. The juice being pressed out, the pile or stack is to be every where well closed, that the Air may have no passage, if you would preserve the Coals. All being cooled, the Coals may be taken out and sold, or put to necessary uses, so that the expressed juice, which being received in no Vessels, would have vanished in smoke, plainly

costs nothing; but if you do not desire Coals, let them be burnt into ashes, that they may serve for the coagulating the spirit into salt, and afterwards by the help of the air, in a certain space of time transmute it into good Salt-Petre.

N. B. It is here also to be noted, that the expressed juice carries along with it a sharp hot Oil of a dark reddish colour, which is not to be cast away, but is to be poured upon the Ashes together with the acid Spirit, that putrefying with the Salts, it may with the rest put on the nature of Salt-petre. But he that will may apply the same to other uses; forasmuch as it is profitable for other things. Any Wood exposed to the Rain, or standing in the Water, easily rotting, being anointed with this Oil, will be preserved, so that it will not so easily rot, seeing that the water cannot adhere to the Wood, but is forced to slide off, or is hindered from penetrating the Wood. Carters, or Waggoners may use the same instead of Grease to their Wheels and Axle-trees, especially when it is a little thickened with Suet or Rosen. But the best use of it that I yet know (if you except Salt-petre) is to dissolve and boil it with a sharp Lixivium made of Lime and Ashes, by which it becometh a very hot and penetrant Soap, procuring fertility; if a poor sandy ground be sprinkled with the same and moistened: For it rendereth it very fruitful; which thing it doth not only to fields, but also in Trees and Vines, insomuch, that one Ton of it avails more in the fattening of Fields, then ten Cart Loads of Horse-dung or Cow-dung: And a Hogshead, or Ton of this Soap may be carried into Fields and Vineyards, far remote, more easily than ten Loads of Dung, which is carried to

Vineyards situate in Rocky places with great labour, and no small charge.

N. B. If this Soap be used for the fattening of Vines, too much of it is not to be used at a time, least the Vines grow too fat and luxuriant; therefore its moderate use is required, which needs not that exactness in the dunging of Arable Land: Although in that an excess brings damage, and indeed it is the excess of good things that doth harm. A Tree, or Vine being made too fat by dunging, grows luxuriant, and putteth forth more fruit than it can bear and bring to Maturity. The Wood it self becomes too fat and soft, so that in the Winter it is easily injured by the cold. Whence in all things a Mediocrity ought to be observed. This Black Soap made of the Oil of Wood, is truly a very great gift of God, in those places where Sand renders the ground barren. Hence the admirable Wisdom of our Creator appeareth, as it were thus speaking to us: YE RUDE, AND UNSKILLFUL MEN, WHEREFORE DO YOU LEAVE THIS PLACE UNCULTIVATED? BECAUSE YOU CANNOT SOW IT WITH ANY KIND OF GRAIN, I WILL THAT IT SHALL PRODUCE WOOD, AND AFFORD YOU A MATTER, WITH WHICH, IF YOU WILL, YOU MAY RENDER IT FAT. For it is sufficiently known, that Animals, and Vegetables rotting, dung the earth, and render it fat; which thing even the Rusticks have now learned, that they do the same without putrefying or rotting, when they cut down, and burn the Trees and Bushes, which had grown up in the Fields, during the long time of the War, and spread the Ashes on the ground, by which it is fattened. But that they know not how to save, invert, and use with the Ashes for dunging, the acid Spirit, and hot Oil, which vanish in the burning, ought to seem strange to none, seeing that no man hath

hitherto declared it to them. Nevertheless, I perswade my self that this way of dunging of Land, will come into use, in process of time, but I believe not quickly (here in Germany) by reason of that great quantity of grain which every place affordeth in this time of Peace. But if hereafter, a new War should happen (which God avert) and the Fields should lie many years untilled, through the want of Men, Horses, and other necessaries, then I believe, and not before, this necessary Art will be sought after.

But what other things the said juice of Wood is able to effect, we cannot here declare, by reason of our intended brevity: Yet this I will add, that if this acid Spirit be rectified, it may be used in the preparation of good Medicines, in Mechanick Arts, in the making of many fair Colours, from the extraction of Metals, Minerals, and Stones, and for all things for which common Vinegar is used; yea, far more commodiously, because it much exceedeth the common Wine, and Beer Vinegar in Sharpness. And even it self alone is a Medicine which cureth many incurable Diseases; being mixed with warm water, and used in a Bath for washing the Body, is far more efficacious than those Baths which issue out of the Earth; especially in all Scabs, in Members relaxed by the FRENCH PALSE, PARALYSIS GALLICA (I suppose he means the Venereal Lues) in Fistulous and stinking Ulcers in the Legs and other parts of the Body. Also in the Gout, Stone, Cramp, Sciatica, Palsie, Diseases of the Womb, and all sorts of sickness otherwise to be cured by the help of Baths, which this Vinegar pressed out of Wood, far exceedeth in Salubrious Virtues.

The same doth also the hot Oil which is expelled by expression with the Spirit, which exerteth wonderful Virtues in curing those Ulcers and external effects. For which certainly, as a great gift, and to be easily found in all places, none of those who are burdened with grievous Diseases, can render sufficient thanks to the Almighty: But especially the Poor, who have not Money to buy Physick.

N. B. Here also it ought to be observed, that those who use the Bath tempered with the juice of Wood, should before they enter into it drink some spoonfuls of this Vinegar. For this Vinegar by penetrating the whole Body, casteth out all things superfluous and noxious to nature by sweat, and openeth all Obstructions of the Liver, Spleen, and Lungs: And especially when the Vinegar is elicted from a Wood, or Herb, which is endowed with peculiar Virtues for the eradicating of those Diseases. As for Example: The acid Spirit of the Vine, Beech, Birch, and the like, taketh away the Obstructions of the Internal Bowels. That of the Oak, and other hard Woods, cureth the Corruption of the Blood, and all Diseases proceeding thence, as the Pox, Leprosie, external Ulcers of all sorts, Scabs, Fistula, and all open Sores. Also all Contractures or Cramps, Falling-sickness, Apoplexy, and Palsie. So the Vinegar of Ash, Cherry-tree, Plumb-tree, Sloe, or Bullace-tree, Medlar-tree, Arbut-tree, and the like Trees, which bear Fruits having Stones or Kernals, cure the Gout, and the Stone of the Reins and Bladder. That of Balsamick Herbs, as ST. JOHN'S WORT, SAGE, PAUL'S BETONY, or Fleuellin, Sanicle, Betony, Lung-wort, Saxifrage, and other like, taketh away the internal Hurts of the Liver and Lungs, and all inward affects arising from Blows,

Falls, & etc. So efficacious a Medicine is this juice of Wood, that the most costly Galenical Compositions are forced to give it place. In making the Bath one Pound of the acid Spirit is to be added to ten pints of water, and this quantity to be augmented, or deminished, according to the condition of the Patient and the Disease.

Before the use of the Bath, some drops of the Oil may be adjoined to the spoonfulls of Spirit, which so fortifieth the Spirit, that it more readily penetrateth the body, more forcibly accosteth the Disease, and the sooner expelleth it. In Gouty Pains, and in the stone of the Kidneys, the same Oil being rubbed upon the part with the Spirit, gives a relief not to be contemned. In brief, this juice of Woods and Herbs, if it be duly prepared and used, is able to shame and confound all the Apothecaries Shops of Galenical Medicines, notwithstanding their proud Furniture of Painted and Gilded Glasses and Boxes.

And I do not doubt but in process of time, that Physicans out of a good Conscience, will explode those unprofitable Concoctions, and in their room institute better preparations, that God may have his due praise, and the miseries of the sick receive succour.

For although this acid water doth not contain the Virtues of the whole Herb, nevertheless it is to be reputed and used as an efficacious water of Herbs, in Medicine, seeing that that which is used in the Shops hath very little virtue, as daily experience witnesseth: It being nothing but the pure Phlegm of the Herb, the chief Virtues and Essence of the Herb remaining in the supposed foeces, although the water hath carried along with it something of the Smell and Taste. Look upon any dry Herb,

which the heat of the Sun or Air hath deprived of all its Phlegm and Humidity, and see whether it be also deprived of its Smell, Taste, and Efficacy. And although in length of time it will lose all its Taste and Smell, nevertheless its chief Virtues yet lie hid in it. Yea, although its ACETUM be drawn from it by distillation, that an unskillful man would think that there remained no virtue at all in the remaining black Coals of Wood or Herbs, yet the most efficacious Virtues yet lie hid in the best Sulphur and Salt. And that great Virtue doth yet remain in the Coals, is not unknown to Rusticks, who in the Winter burn them to warm themselves, and boil their food, which thing they could never do by the Phlegm separated by distillation. Those black and contemptible Coals are so great in Virtue, that they emulate the powers and properties of the most Noble Creature the Sun, for which cause they merit the name of Terrestrial Suns. For whatsoever the Astral and Sideral Sun effecteth in the superiour Firmament, the same doth the Terrestrial Suns, viz. Coals, which are its Vicars, also effect. The superiour rendereth all things partakers of Life and Growth, the same doth also the inferiour Suns. In the Winter time when the Sun is far distant from us, all the Vegetables of the Earth are as dead: In the Spring upon his return, all things revive, grow, move, increase, and are nourished.

Insects themselves which have hid themselves in Holes and Caverns of the Earth to fly from Cold, and have lain as dead, do again come forth into the light. All which effects are produced by the superiour Sun. The same things also the inferiour Sun can effect. For when Flies, Spiders, and other like Insects in any Parlour or Chamber, to shun the

cold, betake themselves to Holes and Chinks, and there lie as it were dead; the first heat they perceive by the making of a fire in that room, recover their former life, and again creep out of their hiding places, as upon the Suns approaching us in the Spring. Yea, if in such a Room made hot, there had been before repositied great Insects, as Frogs, Snakes, Lizards, and the like, as also Herbs killed by the cold, they would revive, recover strength and grow equally as if they had been illustrated by the Rays of the great Elementary Sun. Therefore if this Contemptible Coal, which in the judgement of the unskillful is deprived of all its Juice and Virtue, can perform these things; what a Medicine think you may be prepared by the help of Art of such a Coal?

But some Putatious Physican may here ask; who can prepare any Medicine from so dry and insipid a Coal? It can neither be dissolved by the strongest Corrosive Liquor, nor by the most intense fire, if no air come to it: of which, if the least Portion shall touch it, it presently conceiveth flame, and is consumed, so that nothing of it remains but a few ashes mixt with a little Salt. And those Virtues which refresh all things living, and revive the dead, all perish by Combustion, and vanish in smoke, which could they be taken and preserved, might doubtless afford a Medicine of great moment. To this I answer: wherefore cannot so great an efficacy be preserved, and used for the making of a good Medicine, before that it vanisheth by burning and flyeth into the air? Whatsoever Philosopher is ignorant of the manner of effecting this, truly he is a weak Philosopher, who ought to blush in that he setteth himself before others, and contemneth them who exceed himself

in Learning and Science. He that knoweth not how to use any palpable and coagulated matter, before it be consumed by burning, and vanisheth away, by what means will he elicit the same out of its Chaos, and concentrate it? But that the way of freeing this Noble Sulphur from its Bonds and Keepers, is not known to every one, is no wonder. For it will not come at every call. Of all the Philosophers, there is none who more clearly and openly teacheth by what means it may be delivered from its Bonds, than SENDIVOGIUS, who expressly saith, THAT THIS SULPHUR LIES HID AND IS HELD CAPTIVE IN AN OBSCURE OR DARK PRISON, AND KEPT BY VERY STRONG KEEPERS. BUT THAT SALT ONLY IN THE CONFLICT OR FIGHT, GAVE HIM A DEADLY WOUND. No Man hath spoken more clearly than this worthy Author. Therefore he that knoweth not how to extricate that Vital virtue from its bonds, and how to use it in Medicine, let him read the above cited SENDIVOGIUS, who will clearly instruct him. If he cannot learn of him, there is no reason why any one should labour to help him.

I will propose the matter by a similitude; a Man is compounded of three things, viz. Body, Soul, and Spirit; The BODY is visible, immovable, gross, earthly, and corruptible: The SPIRIT is invisible, moveable, living, and nevertheless mortal; But the SOUL of Man, which is his most noble part, is immortal.

In like manner, there is also a certain ANIMA or Vital Principle in Vegetables and Minerals, although there are few who know how to extract it. Therefore as in a Man the Soul is the most noble part; to which the Spirit is inferiour, and the Body the lowest or vilest; so

it is also with Vegetables and Minerals. To acquire the ANIMA or Vital Principle of any Vegetable or Mineral, that fixed and constant ANIMA is to be separated by the help of Art, from the gross, unprofitable, and dead body. For as long as the gross body adhereth to this noble Principle, so long it cannot move it self in a due manner, nor demonstrate its nobility, but is held Captive by its gross body, till it be set at liberty, by some body who knows how to dissolve its bonds. Being freed from its bonds, and the gross body laid aside, it can presently exert its power. Therefore let this be the principal care of Physicans, that instead of a body dead, and destitute of Virtue, they labour to attain the fixed and living ANIMA of Vegetables, that using that in the cure of diseases they may perform far greater things than now they do.

I have here inserted this discourse, only for this cause, that I might shew that a whole or intire body is of very little moment, and that that thing whereby any good is to be effected in Medicine, is to be found only in the most noble part, to wit, the ANIMA.

And even, as in Minerals, besides a fixed and incombustible Sulphur, there is also found another, combustibile and fugacious: so also there is found a twofold Sulphur in Vegetables, in the distilling of which, by a Retort, an Oil is expelled, together with the acid Spirit and Phlegm, which indeed hath its virtues, but can in no wise perform those things which that part remaining in the black Coals is wont to effect. For by how much a Medicine shall be more fixed and constant, by so much the more do they enter and encounter long and fixed diseases; so on the contrary, fugacious medicines are found less efficacious in eradicating the same.

What I have said concerning Vegetables, viz. That there is in them a volatile and fugacious spirit, and a constant fixed ANIMA; the same also to be understood of Minerals, which besides a combustible Sulphur, possess also a fixed and constant ANIMA.

But whosoever knoweth how to conjoin the ANIMA of Vegetables with the ANIMA of Minerals, hath obtained a Medicine which is able, after a wonderful manner, to corroborate the Vital Spirit in Man. For the ANIMA of Vegetables and Minerals, are the Rays of the Sun coagulated, which necessarily contain a vivifying or enlivening power, seeing that the sun maketh all things partakers of Life.

And a man, if he only beholds the sun, or its Vicar the fire, the earthly sun, although he be in some very deep and cold place under ground, where he cannot feel its warming and enlivening power; yet he shall perceive his Heart to be recreated and strengthened by the bare aspect of it: But how much the greater a recreation and corroboration would he perceive, if he should take the ANIMA of Wine, or of some other Herb conjoined with the ANIMA of Gold, for the curing of his body, with both which it hath a great familiarity; for like rejoiceth in like, and desireth to be joined to it: And therefore it ought to seem strange to no man, that I assert, the HUMIDUM RADICALE of the humane body may be augmented by the ANIMA of Vegetables and of Gold: For the ANIMA of Vegetables is nothing else but an essential universal salt, which is found in all things.

Seeing therefore that Philosophers confess, that the redness of gold and whiteness of silver may be increased by its own universal salt,

it is reasonable for us to acquiesc in the same opinion, and to maintain it against those that ere. A visible and palpable demonstration is to be credited. Nevertheless I easily perswade my self, that this discourse of mine will not be credited by many, which I cannot help. It contenteth me, that I have written the Truth, and lighted a Candle to my Neighbour.

After one and the same manner, of Wood of little or no worth, I have shewed the making of SALT-PETRE, for SOLDIERS, GARDENERS, VINTNERS, and HUSBANDMEN, fit for the dunging of Orchards, Vineyards, Fields, and Meadows; of commodious Baths, for the Sick; of a good Vinegar for Chymists and Apothecaries, necessary for many extractions. It now remains, that I also offer a Gift to the Owners of Metallick Mines. If they shall humect or moisten the CALX VIVE, or Lime made of stones, in the Press, as we have taught, with the ACETUM or Vinegar of Wood, they shall obtain a cheap Flux, by which those hard and untractable stones digged out of metallick Veins, may easily be melted; for the acid spirit of Wood is fixed by the Lime, and converted into a salt, causing an easie Flux. Nevertheless, this salt will be of greater profit to Husband-men, for the dunging and fattening their Fields (for whose sake I also describe it) than in the melting of Mineral bodies. Physicans may use the noble and efficacious juice of Wood, for the happy cure of many incurable diseases, and to their own honour and profit. This Vinegar of Wood being exposed in Hogsheads to the cold in Winter, that it may be frozen to Ice, the Phlegm only freezeth, but the sharp spirit, with the Oil, is not turned into Ice, but remaineth in the middle of the Hogshead so sharp, that it corrodeth metals like AQUA-FORTIS. If Princes

and Great men would be pleased to take care that the Wood in their Dominions (otherwise rotting in the Woods) might be turned into SALT-PETRE, they would do well, and it would not repent them of their labour, seeing there is a time at hand, in which SALT-PETRE will be much wanted.

There is yet another secret, which for the sake of Country-men I ought to discover, which will yield them no small profit; which is this: If Hop-poles be burnt at the ends which are to go into the Earth, and those burnt ends dipt in the Oil of Wood, that they may imbibe or suck in the fatness, and afterwards set into the earth, they admit no humidity or moisture, which otherwise they are wont to do, being every year diminished in that part which standeth in the earth. It also cometh to pass, that they communicate their fatness to the vines and stalks of the Hops to which they are joined, and render them more fat and fruitful, by this means affording a twofold profit, first in preserving the Hops-poles from rotting a longer time than they are wont to last. The other is, That the Roots of the Vines and Hops, drawing fatness and nourishment from the bottoms of the poles grow the faster, and are more fruitful. Moreover, those ends of the poles, in length of time growing rotten, yet there is no loss of the Oil, but still the same profit remaineth, seeing that those rotten ends of the poles being taken up and planted again in the earth with the Roots of Hops, they will afford them nourishment for some years, better than if they had been dunged with dung. In like manner, by the help of this Oil of Wood, strong and durable quick-hedges may be made for the fencing in of Vineyards, Orchards, Gardens, and Hop-yards, by which Beasts and Theives may be kept out.

For this purpose the sharp end of the stakes fit for the Hedges, are to be put into the Fire till they grow black, and then whilst they are hot, be dipped into the Oil, that they may well imbibe the same.

With these, being drove into the ground after the usual manner, an Hedge may be made by planting a young shoot or set of Thorn, Crab-tree, & etc. all along between the Stakes. Those sets or sprigs, which otherwise, growing but slowly, are many years before they come to a requisite height and thickness, their roots now obtaining fatness and nourishment from this Oil, arrive to maturity in less than half the usual time, and become a thick and strong Quick-hedge before the Stakes are rotten. Moreover, there is no danger of wild Beasts coming into those places where the Hedge stakes are imbrewed with this Oil, seeing that wild Beasts shun all strong odours, and dare not approach them. If you shall imbibe Hempen-Cords, or such as are made of the Bark of Trees twisted together with Grass; with the said Oil, and then bind them about Fruit-trees, it will hinder the creeping up of Spiders, Ants, or Pismires, Palmer or Canker-Worms, and other like insects, which are wont to damnify Fruit; inasmuch as those Insects plainly abhor such hot Oils. BY THIS MEANS ALSO MAY RATS AND MICE BE HINDERED FROM CREEPING UP HOVEL-POSTS, AND DEVOURING THE GRAIN.

There is yet another manner of promoting the dunging of Fields, and the happy growth of Seeds, and not only those Fields which are lean and sandy, to which Cow-dung may be used, but also those which are hard and craggy, in which neither sand nor any dust of Earth is found.

But in making manifest this Artifice to the whole World, my intention

is not that the World should thereby be enriched with great profits, as I have endeavoured by describing the manner of Dinging poor Sandy Land, by the acid juice of Wood. My Scope or end is only this, That every man may see and consider how many wonderful things may be effected with wood and shrubs, which are every where found in great quantity, and nevertheless, are of no use or profit.

Who would credit any man, affirming, that it might be effected, that not only Grain, but all sorts of Trees, and excellent Vines should grow in any hard and naked Rock, without the addition of any Earth or Dung? Truly, I believe that there is no man in the World, to whom this will seem likely. This will more amaze FARNNER, with his whole Crew, than my MIRACULUM MUNDI did. Yet because the thing may be done, I cannot forbear to divulge the Artifice, only to this end, that I may subject the Divine Wonders to the eyes of the blinded World. But yet it cannot be, but that it will be profitable in many places, in those especially which lie near Rivers, and afford Wine; such are those which lie upon the MAENE, MOSELL, NECKER, RHINE, DANUBE, and other the like Rivers, where great and craggy Mountains frequently occur; in which having the heat of the Sun all the day, Vines might be commodiously planted, if Earth and Dung could be carried thither. Certainly Vines grow no where better than in Rocks and Craggs, into whose clefts and cracks they insinuate their roots, that they may thence attract to themselves nourishment, which few other Plants are wont to do: And because for the most part much Wood grows about such Rocks, it would be worth while to press out its juice, by which the hard Rocks might be reduced into a soft Dust,

fit for the Reception of Vines, which might be performed by this operation; which nevertheless would not be necessary to undertake, but for the manifesting of the wonders of God to the unskillful, and shewing that such things may be done. If any desireth to plant in a place of this sort, in which Vines or Trees growing freely in rocky and stony places, as Cherry-trees, Plumb-trees, Service-trees, and others, bearing Fruits which have Stones; at the beginning, a little hole is to be cut in the Rock by the help of Masons Tools, which is to be filled with the Vinegar of Wood: which being done, the hole is to be covered to keep off the Rain. After some days, let him see whether the Vinegar hath insinuated it self into the Rock, and again fill up the hole with fresh Vinegar, and cover it with a Stone, as before. And this Labour is to be repeated in the Summer time so often, till the Rock hath drunk up much Vinegar, and be thereby so softned for the space of an Ell in length, breadth, and depth, that it may be easily dug up with a sharp Instrument, and become a great hole; the matter digged out is again to be cast into the hole, and to be again filled with the Vinegar of Wood, and covered with stones, and so left till all the matter grows so soft, that it may be crumbled to pieces with the fingers. And in the AUTUMN, when Trees have lost their Leaves, or in the SPRING, before the Leaves come forth, viz. in the Month of MARCH, Vines or Trees are to be planted in the matter contained in the hole, and the matter to be trampled close down about their Roots, then all to be wetted by the pouring on of Water, and the event to be committed to God. So the Vines or Trees grow as well as if they had been planted in other manured ground. The reason

is this; Because the Rocks consisting not of Sand, but of stones, fit for the making of Lime, do contain much SALT-PETRE, as also the acid juice of Wood, partaketh of the same nature, this, by corroding the Rock, dissolveth the SALT-PETRE in the stone, and setteth it free, and at the same time loseth its own corrosive Acrimony, so that it cannot hurt the Roots of Vegetables, but is like to Cow-dung or rather better, for it fatteneth and nourisheth the Roots better. Therefore a Tree or Vine planted after this manner in a Rock, if it shall once put forth, afterwards dieth not, but the Roots insinuating themselves into the Clefts of the Rock, seek their own nourishment. Nevertheless every Winter when the Leaves are fallen off, some of that acid juice is to be poured to the Trunk of the Tree or Vine, that during the Winter, it may again soften some Portion of the stone, which will afford new matter of nourishment to the Roots. And by thus affusing of fresh juice every year, there will be no need of Earth or Dung, seeing that the Stone is changed into earth and dung by the juice of the wood.

Although this ARCANUM will seem a thing impossible to many, yet it is most true, of which, if any will make trial, he may easily do it in this manner: Let him get a stone which doth not consist of sand, but of such of which Lime is made, which being exposed to the Sun, let him pour upon it the acid Liquor of Wood; which when the stone shall have well imbibed or drank in, let him pour on more, and repeat this labour so often, till the stone be rendered so soft, as it may be rubbed to powder between the fingers. In this manner, rubbed or ground small, let him sow any Seed, which will sprout forth thence, as if it had been

sowed in any good earth: The reason we have already declared, viz. because the stone is converted into earth, having its own SALT-PETRE, or proper Dung in it self, and moreover, changing the juice of wood into SALT-PETRE. He who rightly understandeth and followeth my Doctrine, and shall set about the Work with diligence, will without doubt attain his end. But if he tries with a sandy stone, he will effect nothing. For stones of this sort want a nourishing salt, and they wholly refuse solution by the Liquor of Wood, so far are they from imbibing, coagulating, and changing it into a Dungy Salt. But after the following manner any one may prove, that natural Salt-Petre may be made of the stones of which Lime is made, and the juice of Wood. Let him take some pieces of this sort of Lime-stone, not yet burnt (for when burnt, it is much more facile, as I have taught) and immerge or dip them all over in the Vinegar of Wood, and dry them in the heat of the Sun, or some other warm place, and let him repeat this labour so often until they be so soft that they may be rubbed or ground to pieces like Earth. From this ground matter extract the Salt with Rain-water, which will be plainly like to Salt-Petre. So of the Stone is made Earth; of the Salt of that Stone, and the Vinegar of Wood, Salt-Petre; or a salt equally serving with the Dung of Cows or Sheep, for the dunging of all Vegetables.

Nevertheless we have not written these things to that end, as if it were necessary to plant Rocks with Vines, by the help of the Vinegar of Wood. Our purpose is only to set forth how the great efficacy of the juice of Wood may be known, and how by its help, fertility may be procured even to the hardest Rocks, which being hitherto unknown and

unheard of, my diligent search and enquiry hath now brought to light. Let it not seem absurd to any, that I ascribe so great power to the Vinegar of Wood; for common Vinegar doth the same thing in softening of hard Rocks: Why then should not this acid juice of Wood do it, which far exceeds the common in strength and sharpness? It is said, that HANNIBAL made a passage through the ALPS, for himself and his Army, softening the Rocks by the benefit of Vinegar; what Vinegar that was, Histories do not mention. Perhaps it was the Vinegar of Wine; but if he had had the Vinegar of Wood, he might sooner have attained his desire.

This ARCANUM, without doubt, will give occasion of finding out many other profitable things, by the help of this Vinegar. I have opened the way, let another come, who by searching further may enlarge it, that thereby some perfection may be the sooner be acquired. There are many things lie hidden in Nature, which through our sloth and negligence not being sought after, yield no profit to Mankind. But I doubt not but time will produce sedulous men, who will make a further progress in this Vinegar, so that much profit may redound from it.

There is found another kind of stones, which for the most part is used for the building of Houses, which being soft, is easily cut, so that steps or stairs, and Window-frames are made of it. It is to be reduced by the help of Fire into a Calx of a white, ashy, and reddish colour; it also refuseth to be melted; nor is it like to Sandy stones, but is Partaker of both natures, and contains much Salt-Petre. But neither by its reduction into a Calx, nor by the pouring on of water, can it be exhorted from them, except it be first prepared after a

singular manner, for then it yields to water; concerning which thing I have written a peculiar Treatise, which God willing shall shortly come forth. There are whole Mountains of this sort of stone, containing a great Treasure of Salt-Petre, which hath hitherto been known to none.

These few things I was willing to offer to Country-men, concerning the pressing of wood, and the utility thereof. The Circulatory Vessels in which the juice of the wood, and all the salts of the Air are animated by an uncessant motion, and converted, into Salt-Petre, I will not divulge at this time, but reserve them for my self and my Friends. (THESE ARE DESCRIBED IN THE THIRD PART OF THE PROSPERITY OF GERMANY.)

In the mean time this excellent Art will not sleep, but will be exercised in many places. Now whosoever shall need the same, he will know what is to be done. For I have determined to bestow the same for the good of my Neighbour, lest it should be buried with me in oblivion.

I have also an Artificial Invention (which is taught in the Prosperity of Germany) of turning common salt in the space of a few hours, so that it shall be plainly like Salt-Petre, for the enriching of poor, lean fields; and yet an hundred weight of it will scarce cost a Dollar (which is about 4s. 6d.) Which is indeed a singular Gift of God in these last times, which will be highly profitable both to the Rich and Poor, in all places of the World. For if the Culture of Wine and Corn shall every where become better, and more profitable, by the help of this Art, it cannot be, but that all men will receive profit, and obtain a more commodious way of living.

For by this Art, not only all Fields, whether they have lately brought

forth Fruit, or whether they have lain fallow, and for some time brought forth nothing, are brought to that condition, that they may bear Fruit every year: but also barren places, which would never bring forth any Fruit, are rendered fertile, and fit to bear Fruit; so that no place can be found in the world, how barren soever it be, which by this MEDIUM may not be rendered fertile. Moreover, this Art is to be greatly esteemed, because by it ground may be fattened in those places, where no Cattle are found, and therefore afford no dung; seeing that hitherto no other than the ordinary way of dunging hath been known.

So also in places far remote from the Dwellings of men, to which Dung cannot be carried, this Art may be exercised with great profit; especially when Dung is difficult to be procured, or costs dear, and is not carried to those remote places without great charge, for which reason they cannot be tilled, but are forced to lie uncultivated.

Seeing that one Hogshhead of my fattening Salt can effect more than some Cart-loads of common Dung. Nevertheless this is to be noted, That when any Field dunged with the said salt, is to be sowed with Corn, the seed is first to be macerated or steeped for one night in water, in which that salt is dissolved. For being so prepared, it will grow faster than if it had been committed to the Earth, without any foregoing maceration.

Consider, when the Soldiers have taken away the Horses and Carts, carried away the Oxen, devoured the Cows and Sheep, and wasted the whole Country, by what means shall the wasted Fields be dunged and restored to the Husband-man, that returning to their former fruitfulness, he may reap from them the expected Fruit.

Indeed, in time of Peace, when Horses and Oxen abound both for the ploughing of the ground, and making of Dung, Dung is always of worth, there never being too much of it, and therefore this my Invention may bring not a little profit. Whence it may be of a far greater advantage in those places, where (by the Divine permission) those Locusts have eaten up all things. Ought we not then to receive so excellent a Gift of God with all Thankfulness?

The Omnipotent God give to us all His Grace, that we may shun all temporeal and carnal Security, as the deceitful snare of the Devil, and seek after that which is eternal, constant, and perpetual. Amen.

Arcanum II.

Being a Gift presented to rich Merchants, & etc. that they may improve their Money and Estates without Usury.

Although I had determined to treat of this ARCANUM, with other excellent uses of SALT-PETRE in the emendation of Metals, in the Third Part of The Prosperity of Germany; yet for certain reasons I have deferred the publishing of that Book for some time; but considering my profitable Inventions of making SALT-PETRE, and not doubting but that there will be found men who will put SALT-PETRE to better uses than that of making Gun-powder, I could not forbear here to describe one good and profitable use of the said salt in the emendation of Metals, which is free for any boldly to experience, seeing that I have written the very Truth. He that shall follow the sence of my words, and hath

some skill in metallick Labours, will not lose his pains, but will thence reap no contemptible profit. But if any man would perswade himself that such works is to be done without labour and trouble, and great Masses of Gold to be obtained with idleness, he will be greatly deceived, not considering that this requires his putting his hand to the plough, and using great diligence.

I have described the following Operation openly and clearly; affirming, that it will succeed to the Operator, according to my description. If any shall err in the performance, let him blame himself and his own ignorance, and not me. For in this process all things are plain, and to be understood according to the Letter, and may also be performed by an easie imitation.

The manner of the Operation.

R. of Copper one part, of Gold or Silver two parts, and of REGULUS MARTIS three parts, all which melt together in a good and well covered Crucible, taking great heed that no Coals shall fall into the Crucible and corrupt the Work. All being melted, and the cover taken off, yet warily that no Coals fall into the Crucible, cast in as much SALT-PETRE, well dried and powdered, as there is of Copper and REGULUS in the Crucible, to the melted matter, and again cover the Crucible, with the same caution about the Coals, which so put about the Crucible, that they may not lie upon its Cover, but it may be at liberty, to be commodiously lifted up with the Tongs for the inspecting the Mass in the

Crucible. For if the Fire should be too great, the SALT-PETRE would boil over the Crucible, and infer loss. And this may easily happen, seeing that the SALT-PETRE entering and working upon the REGULUS and Copper, swelleth and riseth up. Wherefore it is necessary, that this Work should be done in such a Furnace, as I have described in the Fourth Part of my Furnaces, having its doors, by which the Fire may be governed, and rendered stronger or weaker.

After that the SALT-PETRE hath imbibed the REGULUS and Copper, and turned them into a reddish SCORIA, which is wont to be done in the space of a quarter or half an hour, the lower door being opened, the upper one must be shut, that the Fire becoming stronger, may melt the SCORIA, till they flow like water; which when you see, by lifting up the Cover a little, remove the Coals about the upper part of the Crucible, and take off the Cover, and having taken good hold of the Crucible with your Tongs, lift it out of the Furnace, and pour out the melted matter into a melting Cup or Cone, (Such a one is described by its Figure in the Fourth Part of Furnaces.) being first heated, and well smeared within with Wax; in the bottom of which, when cold, there will be a REGULUS of pure Gold, which being freed from the Scoria, will be so much increased in weight, as it hath attracted from the Copper and REGULUS MARTIS, which will be the fiftieth part of the weight of the Gold.

The red Scoria, which have a fiery taste upon the Tongue, contain the Salt-Petre, Copper, and REGULUS reduced into a Scoria; which if you would separate from the Salt-Petre, as soon as you have parted it from the REGULUS, put it again into the Crucible in the Furnace, put a Coal

to it in the Crucible, which being well covered, let it again flow well for a quarter of an hour. In this Operation, the Coal or Coals put to the Metals, viz. the Copper and REGULUS of Antimony, will separate them by precipitation from the Salt-Petre, so that they will become a REGULUS together, and the fixed Salt-Petre will be separated, and rest upon the REGULUS, from which being cooled, it may be removed by knocking it off. If the operation be rightly performed, you will recover almost all the REGULUS and Copper: but little also of the Salt-Petre is lost, which hath now put on another nature, becomes fixt, and answereth in virtue to the salt of Tartar. N. B. Because those Scoria cannot be so perfectly removed from the Salt-Petre by the Coals, but it still retaineth somewhat of the Copper and REGULUS, which the Coals could not precipitate; they may be kept in some warm place, lest they be dissolved by the air, till you have a quantity of them; which being reduced by burning Coals, may yield their Metal. Of which more shall be said anon.

This Labour, although it squares not with the capacity of the rude and unskillful, nevertheless it is easie to be done by those who have any knowledge in the melting of Metals. But all the manners of operating cannot be so accurately delivered, that every unskillful man should presently be rendered capable of understanding them; I write the Truth openly, and he that well understandeth me, may rejoice with profit. I write not to unskillful TYRO'S, but only to those who know how to handle Metals in the Fire. It may be here asked, Whether this augmentation of the Gold, ariseth from the Copper, or from the REGULUS of Antimony? I answer, from both, but more from the Copper than from the REGULUS.

For there is no Copper or Antimony found, from which Gold is not elicited after the aforesaid manner, seeing that there is in both an invisible and spiritual Gold, nevertheless one containeth more than another; and being melted with Gold, give forth to the same, which also attracteth it. Therefore as often as Copper, and Regulus of Antimony, and Salt-Petre shall be melted together with Gold, so often will the Gold receive an encrease; so that this Labour being repeated eight or ten times every day, there will be an augmentation of the Gold not to be contemned, for besides all the Cost, it will afford the daily Gain of one Floren out of an hundred. (A Floren is 2 S. in Germany, about two and twenty pence in our Money.) This is certainly a profit to those who will put their Money to Usury, much more honourable and safe than their trusting it in the hands of others.

But seeing that this Labour is to be performed in Crucibles, (and that too in large ones, if the gain aforesaid be expected) it doth not want its trouble and difficulties; for if a man will use great Crucibles, he can hardly perform the Operation above three or four times a day; and if he use small ones; although it be ten or eleven times repeated in a day, yet the profit will be very small. I will therefore here appoint a way to do it without Crucibles, upon Hearths instead of Crucibles, which neither let out the melted matter by running over, or by their cracking or breaking, as Crucibles are wont to do, but always remaining in the Oven or Furnace, save the trouble of putting in and taking out of the Fire. For Crucibles, how good soever they be, being exposed to the cold Air, by taking out, and thence being suddenly again put into a

great heat, are very easily broken. From whence it is manifest, that great danger of losing some of the Gold attends the use of great Crucibles, so that their use is to be abstained from, altho' the Work it self be of great profit. But good strong Hearths may be used for this Labour, without all danger; for as long as they are left in the Furnace, so long they are good, and the melted Mass doth not flow out. If I had not found out this way of working with Hearths, I should not have divulged this operation, which is as followeth.

The manner of preparing the Hearths or Tests.

An Iron Ring or Hoop is to be made, either square or round, of the thickness of one finger, and four fingers high (or deep) one side being a little narrower or lesser in compass than the other, being well smoothed or polished on its inside, having two ears or handles, whose magnitude and space will be known by the quantity of the matter which is to be handled. To prepare the Focus or Hearth, place your Ring or Hoop upon some smooth stone, and then put into it, so standing, your Earth, being first rightly prepared, (for this purpose our Staffordshire Clay is excellent, as also for making of Crucibles to abide the Fire) so that it may a little exceed the upper superficies of your Hoop, force it down strongly with a broad Iron Hammer, by beating or knocking it in, and what riseth above the top of the Hoop, cut off with a Knife, that it may be even with the Ring; then remove it with the Ring, and strew upon the stone some fine sand, or rather the fine powder of broken

Crucibles, upon which set the Ring, with the bottom upwards, that the other side, which before lay upon the stone, may be wrought in with the Hammer, as the first, so that the Ring or Mould may be exactly filled with the Earth. The Focus or Hearth being prepared in this manner, the larger side thereof is to be so excavated or hollowed away by a bowed or crooked Knife, having two handles, so that the rotundity declining from the Superficies of the Ring, even to its middle, where inclining it self, it may keep the thickness almost of a finger at the top or superficies of the Ring, and so it will become like a Vessel or Pan, having a round or spherical Cavity, such Hearths or Tests are wont to be prepared of Ashes, for the bringing of Gold and Silver to a purity in Metallick Mines, & etc. at length that hollowed roundness is every where to be smoothed with a smooth and round Hammer or Mallet, and after the smoothing, the whole Test being inverted with the Hoop, is to be set upon a Board, without stirring it; if the middle of the Hoop or Ring were before besmeared well with Oil, it will the easier come off of the Test, which being exposed to the Air, and dried a little, is then to be set in the heat of the Sun or warm Furnace, that all the humidity being taken away, it may obtain its requisite dryness, before it be put into the Furnace to endure the Fire; for except it be very well dried, it will crack or chap in the Furnace, and be wholly unprofitable for this Work.

The Test being taken out of the Ring, and set by, the inside of the Ring is again to be anointed with Oil or Grease, for the making of another Test, of which so many are to be made as need requires, or the

quantity of the prepared Earth will allow. The earth that was left in the hollowing of the first being mixed with the rest, whilst it is yet moist, serveth again, so that there is no waste or loss of the Earth. The same earth also serves for the making of the Covers or arched Roofs with which the Tests are to be covered, to keep the Coals from falling into the melted matter. N. B. There is no need of having two Hammers, seeing that one sufficeth, having one end of a hands breadth, and smooth, and the other end round.

The way of making the Covers of the Tests, which are called MUFFLES.

First, a Type or Mold is to be made of Wood, answering to the bigness of the Test, but not with one Handle, as those are made for the purifying of silver, but with two oblong Necks, and without Chaps or Chinks, which otherwise are wont to happen, that so the Cover may remain entire. Then to this Wooden Mould the Earth is to be applied, and the Cover to be wrought in the usual manner.

Of the Figure of the Furnace.

The Furnace is so to be built, that it may have within-side the space of an hands breadth all round the Test from its Walls, for Coals, the Test standing in the middle; so that the magnitude of the Furnace is to be proportionable to that of the Test, and may be either round or square, provided it be built with good Bricks, or fit stones, and

Lute, or Earth rightly prepared. There ought to be at least a span between the bottom and the grate, which also ought not to be fastened to the Furnace, but standing upon four Feet, that it may be taken in and out by the foreside of the Furnace (when need requires) being always open. Let the Furnace rise above the Grate the height of a span, being every way close, having no door. Upon this height of a span a hole is to be left of an hands breadth and height, by which the Test may be inspected, and the mixed Metals put in and taken out, and the Fire may have its passage. N. B. But if the Test should be above a span over, which would also cause the Furnace to be the greater; then that hole being too little, would not allow a sufficient passage for the Fire; therefore the hole is to bear a due proportion to them. From this hole, nourishing the Fire by its ventilation, the Furnace is yet to be carried up the height of two spans, to its upper hole or top, where the Coals are to be put in. Moreover, an Iron Cover is to be made with hollow Superficies, with Iron Buttons, or little Knobs infixed, by which the Lute being put in, may stick fast; the Convex or upper part of the Cover must have a Handle, by which it may be lifted up when the Coals are to be put in, and afterwards put down again to shut the Furnace.

See the Figure of this Furnace in all its parts, at the beginning of this CONTINUATION of MARACULUM MUNDI, noted at the top with Page 62.

- A. The Furnace, as it is working.
- B. The lower part of the Furnace open.
- C. The upper part of the same.

- D. The Grate.
- E. The Hearth or Test.
- F. The Muffle, that belongs to the Hearth.
- G. The Cover of the Furnace, with which it is to be covered when the Coals are in and at work.
- H. The Vent for the Smoke.

When you will work with the Furnace, first put in the Grate, and upon it the foot or prop made of firm Lute, and upon it the prepared Test, and upon the Test its Cover or Muffle, the foremost neck of which ought to come close to the hole on the foreside of the Furnace, and the hindmost neck to touch the back of the same. The foot also which supports the Test, ought to touch the fore-part of the Furnace, that the space between the Test and the Wall of the Furnace, may be well stopt or closed. Also, if the neck of the Cover or Muffle doth not fit close enough to the foremost Wall, the joints are to be well closed with Lute mixed with Hair, that the Fire may have no passage by them, but may pass through the hindmost neck of the said Cover, and under the Cover it self into the Test, and thence out of the foremost neck. If the Fire shall have any other passage by the foremost neck, the heat will not be sufficient to melt the Metal. Therefore the chief Artifice concerning this thing, is the building of the Furnace in due form and proportion. An Iron door is to be fitted to the Furnace under the Grate, for the governing the Fire, by which it may be encreased or diminished, as need shall require. And the other hole in the superiour and fore-part of the

Furnace, by which the Metals are put in and taken out of the Test, is also to have a door, that necessity requiring, the fire may be governed, and if too great, it may, be restrained. To this also a little Chimney or Funnel is to be fitted, which may receive and carry away the noxious fumes of the Metals and Coals, that they may not hurt the Operator. All these things being rightly prepared, the Furnace being well dried, is to be filled with Coals, and to be covered with its Cover, a lighted Coal or two being put next the Grate, the doors are to be shut, that the Fire may kindle by degrees, by which the danger of breaking the Test, and its Cover, the Muffle, by a sudden heat, may be avoided. The Furnace, Test, and Muffle, being all red hot, the Metals (viz. the Gold which is to be augmented, and the Copper and REGULUS of Antimony, from which the augmentation is expected) are to be put upon the Test with an Iron Ladle, the great door below, and the little one above, are to be opened, that the Fire growing more powerful, may forthwith melt the Metals on the Test, which being rightly melted, a little dry Salt-petre in powder is to be cast in upon them with an Iron Ladle, which will presently change a portion of the melted matter into a Scoria: When it flows no longer, but ceaseth from operating on the Metals, lying upon them like Dross, a little more Salt-petre is to be cast upon the melted Metals, which will again change part of them into Scoria. This Injection of Salt-Petre is to be continued so long, until the Scoria shall be no longer hard, but remains liquid like Water, which is a sign that the Salt-petre hath abstracted the Copper and REGULUS of Antimony from the Gold, and its operation is finished. And so much REGULUS of

Antimony and Copper is not to be put upon the Test, (I believe the word NOT is an error of the Printer, in the Copy, and ought to be left out) that it, when a due portion of Salt-Petre shall be added, may be full to the brim, and the Coals not to be burnt out in vain, in the empty Test, which is well to be noted. The fluid Scoria of the Salt-Petre, Copper, and REGULUS of Antimony, are so long to be kept in Flux upon the Gold, as you think the Test can suffer it; for by how much the longer the Gold shall remain in its flux, under these Scoria, so much the more of spiritual Gold it will attract from them, and render it corporeal; and the Gain will be so much the greater. Nevertheless, for the greater certainty sake, after the Scoria have lain ten or twelve hours in Flux upon the Gold, they may be taken out of the Test, to see whether the Test be yet strong enough to sustain them longer in flux, because in a continual flux they are wont to attenuate and perforate the Test with holes, especially if they were not prepared of good Earth, which is able to endure the Fire. Therefore, if you find the test yet strong and thick, and not perforated with holes, you may again add the Scoria to the Gold lying in the test, and keep them so long in flux, as you think the test will hold good. When the Scoria condense themselves, and flow with difficulty, a little fresh Salt-petre is to be added, by which being reduced to a thinner flux, they may give nourishment and increase to the Gold, which in this operation hath the place of a seed, as the Copper and REGULUS of Antimony supply the place of the earth, by affording aliment and augmentation to the Gold; the Salt-petre is in the stead of Rain, which moisteneth the Earth, and rendereth it fruitful; therefore

flux upon the Gold, seeing that presently after the Copper and Regulus of Antimony shall be turned into Scoria by the Salt-petre, they may be removed from the Gold with an Iron Hook, and new Metals forthwith added, and again reduced into Scoria by the Salt-petre. This labour of removing the Scoria, and adding fresh Metals, being long continued, will add the greater encrease to the Gold, because Copper, Iron, and Antimony contain much corporeal Gold, which in their reduction into Scoria, associateth it self with the Gold. Therefore when those Scoria are withdrawn, and new Metals added, it cannot be, but the encrease of the Gold must be greater than proceedeth from the first Scoria, in which only the spiritual Gold is rendered corporeal. The addition of fresh Metals, and the abstraction of the Scoria repeated 10, 15, yea 20 times a day, must necessarily give a great encrease to the Gold, if the Metals contain both a corporeal and spiritual Gold. The abstracted Scoria may be reduced in a Test of the same Furnace (of which Tests there ought to be many in readiness) and the Copper and Regulus precipitated from them, and put to other uses, of which my other Writings every where make mention. And they are precipitated by the Powder of Coals, or Antimony. The way of precipitation is this; the Salt-petre hath absorbed the Sulphureous Metals, viz. the Copper and REGULUS MARTIS, and changed them into Scoria. Now, if to these Scoria some other Sulphur be injected, which the Salt-petre covereth more than the Copper and Regulus of Antimony, it layeth hold on that, by which those Metals which it had first absorbed, are dismissed, and fall to the bottom. But the Regulus and Copper cannot be so separated by precipitation, but that

by how much the longer the Gold lieth and groweth in this Earth, so much the more encrease it obtaineth. After the test is no longer fit to bear the fire, or you would leave working, open the lower door of the Furnace, and take off the Cover from the top, that the heat of the fire may be diverted from the test, and the Scoria grow thick, and the Gold under them hard, draw out the Scoria by degrees with an Iron Hook, from the Gold, that it may remain in the test intire, and in one compact Mass, and not be mixed with the Scoria, like Grains, and occasion loss. All the Scoria being taken out, the Gold is to be freed from the test with a thin sharp-pointed Iron, then taken out with the tongs, and weighed, to see what encrease it hath got.

N. B. That as long as the Test keeps firm and good, it were better not to take out the mass, but to be left upon the Gold in continual flux. This is a Labour not to be despised, seeing that the first Coals being burnt out, more are to be added only; so that this operation may be continued for some days, without intermission, provided the Tests be well made, which also ought to be done if you expect any profit; of which you need in no wise doubt, if the operation be rightly instituted; especially if the Antimony and Iron, of which the Regulus is made, be good: For the more Gold the Antimony, Iron, and Copper shall contain, the more volatile Gold the fixed Gold which is melted under them, will attract to it self. But if you want such Metals as are rich in Gold, and are forced to be content with the common, the Gold will nevertheless get an encrease in the Operation. N. B. When Metals containing Gold are to be had, there is no need to keep the first SCORIA in so long a

somewhat of them will yet adhere to the Salt-petre. These may be fixed together, that they may render Gold again in fusion, or the fixt Nitre may be extracted from the Scoria, with Rain-water, to be used for other Labours; as shall be taught hereafter. The residue of the Scoria will be yet of use to Potters, to glaze their Earthen Vessels. But if the Scoria and Salt-petre be not separated, but left together, they may be used with greater profit for the making of Salt-petre, or for the dunging of Land (of which we shall presently speak) than if they be separated. The manner of doing these things shall be described in their order. But first it seems good to me to exhibit a proof, by which every one may know the certainty of this matter, viz. that this work doth not only afford a profit to the Operator, not to be contemned, but also that Gold doth obtain a true and certain encrease from the Copper and Regulus of Antimony, whereby the Work may be undertaken with the greater boldness and confidence; which I thus demonstrate. Take a small piece of silver, freed from its gold by AQUA-FORTIS, that you may be sure there is no Gold in it: to which, in fusion, adjoin so much Copper and Antimonial Regulus, as being reduced into Scoria by Salt-petre, and again separated from the silver, may leave it malleable and ductile. This being dissolved in AQUA-FORTIS, will leave at the bottom undissolved a reddish powder of gold, which it hath attracted to it self from the Copper and Regulus of Antimony. Now, so much as there shall be of this Gold, so much and no more corporeal Gold did the Copper and Regulus contain, which the silver hath absorbed. The Scoria possess no more corporeal Gold, but yet abound with spiritual, which you may find by

the following Experiment. Cover those Scoria put into a new Crucible with Powder of Coals, and set the Crucible into a small Wind-Furnace, that they may melt. In this melting, the Nitre will rather enter the Sulphur of the Coals, than that of the Metals; and associating it self to that, dismisseth the Copper and Regulus. Which being done, pour out the melted Mass into a Cone, and when it is cold, separate the Regulus separated to the bottom, which will be the same Copper and Regulus of Antimony which the silver hath deprived of their corporeal gold; which is demonstrated as followeth: Take a bit of Silver, cleared from its Gold, which join with the said Regulus by melting, and reduce the melted mass by Salt-petre into Scoria, as before, pour the mass into a Cone, and being cold, separate the Silver. This being dissolved in AQUA-FORTIS, leaves at the bottom no reddish powder, as the first silver did. By which it clearly appears, that the Copper and Regulus of Antimony had yielded all their corporeal Gold to the Silver in fusion, which nevertheless can afford no gain, except the Labour be many times repeated with fresh Copper and Regulus. But because this repetition is wont to require no small quantity of Copper, Regulus of Antimony, and Salt-petre, to bring the silver to a golden nature; and moreover, every one knoweth not how to make profit of the Copper and Regulus, deprived of their Gold, or to put them to other uses, and that Salt-petre is not seldom sold at a great price, no great profit can accrue by this Labour to such. Nevertheless, they will obtain no small gain, who after the extraction of the gold, know how to use Copper, and the Antimonial Regulus, and Salt-petre, which I have shewed in many places of my Writings. But

those Metals being melted with Gold, and turned into Scoria by salt-petre, bring far greater profit than when wrought with silver. For somewhat of the silver is consumed, as well as somewhat acquired by it; but nothing of the gold is lost, if the Crucible be firm, that nothing run out. N. B. If any gain be expected from silver, such Iron, Antimony, and Copper are to be used, as are pregnant with Gold, and to be often abstracted from the silver, and the metals themselves afterwards to be put to other uses, bringing profit, to say nothing of the Salt-petre, which may be made at a far cheaper rate (that it can be bought) by those who seek profit from Silver. I have instanced these Experiments, to demonstrate that every Copper, and every REGULUS MARTIS contain somewhat of corporeal Gold, and being reduced into Scoria, do yield it to the adjoined Gold and Silver; and that nothing more can be extorted from them, except being reduced into Scoria by Nitre, they be for some time kept in Flux upon the silver, or Gold which is better, that their spiritual Gold may insinuate it self into the corporeal, and augment it, which the following Experiment sheweth.

Take of Copper, and Regulus of Antimony, deprived of all corporeal gold, by the addition of other gold, what quantity you will, melt them with gold, and convert the Copper and Regulus into Scoria, after the usual manner, with SALT-PETRE, which keep in Flux upon the Gold for 6, 8, or 10 hours, and then pour all out into a Cone; the gold being separated from the scoria, and weighed, will shew what it hath gained in this operation. This encrease from the twofold matter added, viz. the COPPER and REGULUS MARTIS, is profit; which notwithstanding proceeds

more from the one than the other, as this Experiment will prove. Take one part of silver, which holds no gold, and one part of REGULUS MARTIS, being melted in a Crucible, reduce them, as hath been often said, by salt-petre, into scoria, and being well melted, pour them out into a small Ingot; which when cold, separate the scoria from the silver with a Hammer; the silver will be pure white, and of very easie fusion, but will contain nothing of gold. N. B. If to the silver and Regulus of Antimony, you shall also add Copper, and then turn all into Scoria by the help of salt-petre, and when well melted, pour them into an Ingot, so that the scoria flow upon the silver. This silver being separated from the scoria with a Hammer, or by lying a while in water, you shall find that part which was covered by the melted scoria, to be all over so gilt, that you can scarce rub it off with your fingers, which Gold hath adjoined it self to the Silver, chiefly from the Copper. For if more Gold had proceeded from the Regulus, the melted Silver would also necessarily have been gilded by that, which yet without the addition of Copper is not wont to be. Nevertheless, let no man perswade himself that the Regulus of Antimony being omitted, the same augmentation would happen, because the greatest part of the Gold proceeds from the Copper. For without the Regulus, the Copper would not suffer it self to be reduced into Scoria by the Salt-petre; so that necessity requireth, that all those matters should be conjoined in the said manner, to acquire any profit.

Here thou hast, benevolent Reader, Specimens sufficient for the trying the truth and certainty of this thing: It's free for every man

to enter upon the prescribed way with greater and longer Operations, that he may attain the desired profit.

What I have many times said, I say again, That this Operation is true, and brings great profit, provided it be instituted in a due manner. The Salt-Petre is the chief thing required in this Operation, which he that knows how to prepare with small cost, and understanding what I have written, may boldly undertake the Work; but he that must buy it at a dear rate, I will not advise to meddle with it. He that cannot understand what I write, 'tis better for him to spare his labour and charge, and employ himself in those things which do not exceed his capacity.

It behoveth me now to shew the use and benefit which the scoria which are left in this Operation are of, that there may be no waste or loss. But the quantity of scoria in this Operation will be more or less, according as it shall be exercised. If good Antimony, Copper, and Iron, which contain corporeal Gold, may be had in plenty, and Salt-petre also cheap, the loss will not be great, if the scoria should not be altogether put to the best advantage. For if there be enough of the Copper, REGULUS MARTIS, and Salt-petre to be had, they are to be reduced into scoria, flowing upon the Gold, that with it they may leave the Gold contained in them. But here no regard is had to the spiritual or fugacious Gold which they contain, which is laid aside with the scoria, and new Copper and Regulus is put to the Gold, and the scoria again laid aside for other uses, so that in one and the same day, this labour of adding new matter, and as oft separating the scoria, may be repeated

ten or twelve times. Whence it comes to pass, that the Gold is every time enriched, and attracteth more corporeal Gold from those matters in one day, than it could do in fourteen days, if they contained only spiritual Gold. But on the contrary, a great quantity of Copper, Regulus, and Salt-petre are required for this labour, which if they cannot be had cheap, the charge will be the greater, seeing that those Metals which are pregnant with corporeal Gold, will abundantly compensate the charge, especially if benefit be made of the scoria, which we will presently shew. But if a quantity of the said matters be wanting, and vulgar Antimony and Copper be used for the extracting the spiritual Gold only, there will not be so many SCORIA; but it sufficeth, that the first scoria be left so long in flux upon the gold or silver, until they have yielded some augmentation to the same. And in the mean time, the addition of no other thing is required, but Salt-petre, of which a little is to be injected to the hardened scoria, to render them more fusile, and to cover the Gold the better with their flux. This way will not cost so much, besides a good quantity of Coals: Nor will the Work it self be so troublesome, seeing that it need be inspected only once in two or three hours, and any Boy may govern the fire. Or if the Furnace be so built, that (like a dull HENRY) the Coals constantly sliding down, the fire may feed it self, the Operation may be continued night and day without any looking after. In the working the other way with Metals containing corporeal Gold, there is more labour and care, seeing that every hour the scoria ought to be removed, and new metals to be added. Therefore every man may chuse that which is most convenient for him.

Moreover, where neither Antimony, Copper, or Iron abounding with corporeal Gold, are to be had, the Operation may be instituted in another way, and applied to the making of salt-petre in abundance, and with small costs. For after the Regulus and Copper, in flux upon the gold, are reduced to scoria, they are not to be removed, as otherwise they are wont, but the Copper, with the Regulus must be precipitated from the Nitre, by the Powder of Coals, in which precipitation the gold taketh to it self the metal reduced into scoria, so that the first Nitre only is to be removed, which is afterwards to be put to other uses: And the Copper and Regulus, by the addition of new salt-petre, are again to be reduced to scoria, and to be precipitated from the Nitre by the Powder of Coals, and the Nitre again removed: So the Copper and Regulus will always remain in flux upon the gold in the Test, and nothing but the added Nitre will be every time separated.

N. B. This Labour doth not indeed draw forth so much gold as that which hath new metals added every time to the gold; but yet it excelleth that in which the metals are kept in a continual flux upon the gold, without the addition of new; for as often as the Copper, with the Regulus, are burnt by the Nitre, so often the Nitre burneth and consumeth somewhat of their superfluous sulphur, and by how much the more the combustible sulphur is burnt and consumed, by so much the more the spiritual gold in it is dissolved, and adjoineth it self to the corporeal gold, to get it self a body.

And this is the difference of those Operations, of which a man may chuse which he pleaseth, or rather that which fits the matters, he hath

at hand. Whichsoever he shall undertake, it will afford a profit not to be slighted, especially if he pay not too dear for his Nitre, or can make it himself at a cheap rate.

How Profit may be made of the SCORIA which remains after this Operation.

It behoveth the studious of Art to know, that there is a difference in the scoria removed from the gold by the forementioned Operations. Those which are removed from the gold only remaining in the test, and in which the Nitre, Antimony, and Copper remain mixt, are metallick, from which the Copper and Regulus may be precipitated and separated, by the casting in of crude Antimony or Powder of Coals. The scoria from which the Metals are already precipitated in the test, are nothing but fixt Nitre. The scoria also differ, in which the Metals are precipitated by Antimony, from those which are precipitated by Coals; those partake more of sulphur, these less; for the sulphur of coals differs in its nature from the sulphur of antimony, and requireth that a difference be observed, and that either scoria being put to its due use, it may bring the desired profit. And this is the difference: When the Copper, with the REGULUS MARTIS, is precipitated by coals, that the Copper, with the Regulus of Antimony, is precipitated, but the Iron which was in the Regulus admitteth not of precipitation, but remaineth in the scoria; whence it comes to pass, that the Regulus, after precipitation, is found to be lighter than when it was put into the Crucible. Therefore what the precipitated Regulus hath lost, necessarily remaineth

in the scoria; for which cause those scoria are of more hard and difficult fusion than those which remain after the precipitation with Antimony: For when the metals are precipitated by the casting in of Antimony, to one pound of scoria, an ounce, and sometimes more, of Antimony is cast in, which precipitateth all the Copper and the Regulus attracted by the Nitre, and giveth a more ready fusion to the scoria. But nothing more plainly sheweth the difference, than the pouring on of water upon the scoria, to make a LIXIVIUM. The scoria upon which the coals were cast, yield a clearer and sharper LIXIVIUM than those on which Antimony was cast. On the contrary, the Antimonial scoria, by reason of the Antimonial combustible sulphur, are of a dryer nature and property.

The best thing in both the scoria, is the fixt Nitre, which is to be drawn out of them by Water, and may be put to various uses, with no small profit.

In the first place, from those scoria a good Medicinal Tincture may be drawn by the affusion of spirit of Wine, of which mention is made in divers places of my writings. Those scoria far excell all Dung, and also common salt-petre it self, in promoting of vegetation. Nevertheless, they are first to be made more temperate, because they are too fiery to be used alone. They also effectually promotethe augmentation of Gold, and also the health of the humane body, by their most pure Essence extracted by the spirit of Wine.

They may without injury be called THE PHILOSOPHICK DUNG, because they augment the growing power in Vegetables, Animals, and Minerals, neither in Operations of this kind is there any Equal in the world.

Their smell is like that of humane Excrements; nor are they unlike to them in Aspect, but most efficacious in their use. There are many things of great moment yet lie hid in them, all which it is not for me to describe. Those things which I have hitherto written, I have often done with my own hands, and proved by many Experiments. What I deliver is not from hear-say, or the reading of others Books, being resolved to publish those things only, which an infallible Experience hath taught me, so that every man may boldly, and without any doubting, give credit to them.

Moreover, this fixed Nitre is endowed with the same virtue with other strong LIXIVIUMS: Nevertheless, it is more efficacious than that of any common Wood, inasmuch as Nitre exceedeth the fixed salt of Wood in its maturity. The residue of the scoria from which the LIXIVIUM is extracted, serveth for the glazing of earthen Vessels.

He that desireth to know more of fixed Nitre, may find it in my FURNACES, as also in my PHARMAC. SPAGYRIC. and especially in THE EXPLICATION OF MIRACULUM MUNDI; where he will meet with many things worthy of admiration. For the Philosophick Dung, see the 35 th. Article of THE EXPLICATION OF MIRACULUM MUNDI, my Apology against FARRNER, and the Description of my Press for Wood, in this Treatise; in which places he may find those things which will abundantly satisfie him. Concerning this Universal (tho' contemptible) subject Nitre, we will treat more; God willing, in the following second part of MIRACULUM MUNDI.

Here we have shewed the well-minded Reader, how by this one only Operation, he may encrease or augment his Gold, inrich his Fields with

a fruitful soil, and preserve his health; so that there will be none who may not receive profit from it.

I cannot but here commemorate what some time happened to me in this Operation. When the Copper and REGULUS MARTIS were mixed by melting together, and reduced into scoria by Nitre, the matter thence proceeding was wonderful, appearing in variety of fair Colours, emulating a Peacocks Tail. Therefore when I saw such various colours, I presently thought with my self, whether that matter might not be fit for making a Tincture, which might change the imperfect Metals into Gold; seeing that I had read in some Philosophers, that there is more Tincture in Iron and Copper than in Gold; which gave me an occasion of considering whether this conjunction of MARS and VENUS, might not be the Adultery spoken of by the Poets, or rather the Vitriol of the Philosophers; for this matter retaineth a very fair greenness, not only in the fire, but also out of it, as well wet as dry. Whence I began to perswade my self, that Iron was the Gold of Philosophers, Copper their LUNA, and Antimony their ARGENT-VIVE, and Nitre to perform the Office of a SOLVENT or Bath, in which they are dissolved and digested. Being moved with all these things, that I might make trial, according to my simplicity, I put all the said matters into a Glass, and committed it to VULCAN, (or the Fire) which being administered by degrees, all the matter passed together into a black colour; to which a very fair greenness, with variegated colours resembling the Tail of a Peacock, succeeded, which continued in the Fire for some weeks. But seeing that it would not at all be changed, I being wearied with the tediousness, took the fair matter out of the glass,

and put it into a Crucible, which I set in a Glass-makers Furnace, that I might perform this Operation with the less Labour: And after three days I again took it out, and I found all the matter changed into a glass of a bloody colour, but not transparent. The Crucible being broken, I found in the bottom a little Regulus of an Iron-like colour, which being tested with Lead, yielded white Silver, which being dissolved in AQUA-FORTIS, left no Gold at the bottom. Being struck with admiration, I began to think whence that Silver should proceed, seeing that I did not expect Silver, but Gold; at length being satisfied in that, I was of opinion, that from this subject by one and the same labour, might be made both a red and a white Tincture; but I have not hitherto had time and opportunity to try the truth of the matter experimentally. Whatsoever I have here written, is only that I might afford matter to others who are desirous of seeking, by whose diligent searches some good may be obtained. This Admonition I also think necessary, That they who endeavour to bring any subject to a constancy in the Fire, by fixing, as the Chymists call it, that they lute and close well their Vessels, lest the Air (which is a great impediment to the Operation) should hinder the Work.

For Example. A Wood-coal, for the greatest part, consisteth of a fugacious and immature Sulphur, mixt with a few faeces, being put into an open Crucible, and set in a small Fire, it is presently burnt, and being all consumed, leaveth nothing in the Crucible, but a few Salt-ashes; but being put into a Crucible well closed and defended from the Air, and committed to a great Fire, and therein kept for many years,

yet would lose nothing of its weight, colour and body, but would remain a black Coal, without any alteration. But on the contrary, if any Mercurial salt be added to the Coal in a due weight, and be enclosed with it in a crucible but one day, and kept in the fire, the coal will be changed into a red, fiery, heavy stone, more Metallick than Vegetable, whose admirable Virtues the Tongue cannot declare. Seeing therefore that from any fugacious and volatile Vegetable in so short a time, a constant Fixed thing may be made by Art, Why should not the same be made much better of some Mineral or Metal, which is much nearer to Fixity? And although these coals black the hand, nevertheless they contain much good, which he that knows how to come at, will by the same easily make his hands white again, and draw that from it which is more conducive to the health of Man's Body, than from all the costly and fading things in the whole World. A WORD IS ENOUGH TO THE WISE. Although I have here shewed, that sulphurated Nitre is a true Medicine for Animals, Vegetables, and Minerals, yet I would not be understood as if I affirmed there was no other, which is not my intention, seeing that if this Medicine were to be generally used for Vegetables, it would be too costly, (AND THERE ARE OTHER THINGS DESCRIBED IN THIS BOOK FOR THAT PURPOSE, WHICH ARE FAR CHEAPER) and I have shewed it only to the end that the wonderful Works of GOD might be manifest to those who are willing to try. For if any man will macerate the seed of any Vegetable in the Tincture drawn from sulphurated Nitre, by the Spirit of Wine, in a warm Bath, he may from that macerated seed produce a growing Herb, in a few hours space.

A Tincture of this sort will effect more in curing of Diseases, than a whole Apothecary's Shop. But he that knoweth how to join some spiritual Gold with this Tincture, that the Gold may thence attract to it self nourishment and encrease, as a Vegetable doth from the Earth, will easily obtain a Universal Medicine. But if any think that I mean such a Medicine as changeth the imperfect Metals into Gold, in flux, he is mistaken, for that is to be attributed to the Stone of Philosophers only. But I call it Universal, as it is the chief Medicine of Animals, Vegetables, and Metals, which I intend always to keep by me, ready prepared, that I may render others partakers thereof. I intend also this Winter to prepare a great quantity of the Universal Medicine for Vegetables, by the benefit whereof Grain may be made to grow in meer Sand, that so this Invention may become profitable to many men, provided they will but undertake the work: Not that I intend to prepare this of Nitre, which is too costly for the Dunging of Fields. For common Salt, which is abundantly cheaper, in a few hours, may be so changed, that losing its corrosive Nature and Property, it becomes plainly like Nitre in taste, figure, and virtue, but not inflamable, and excelleth the Dung of Cattle for dunging of Land. Neither let any may fear that this Preparation of common Salt requireth much labour or trouble, or is difficult to be done; for he that shall see the Operation but once, will easily be able to understand and imitate the same.

Hence, seeing that in all places there are many barren Fields to be found, it cannot be, but that great profit may be acquired by it.

Arcanum III.

A Gift offered to all diligent Physicans.

The profitable use of SALT-PETRE, in the Concentration of METALS, and Preparation of Excellent MEDICINES.

Although in the first Part of MIRACULUM MUNDI I have described divers concentrations and emendations of Metals; nevertheless in those there is nothing common with that ARCANUM, which I intend here to describe. For those ARCANA concern only the emendation of the imperfect Metals; but this also treateth of the Preparation of many excellent Medicines.

The manner of concentrating and amending of Metals by NITRE.

First, a Man is to be made of Iron, having two noses on his head, and on his crown a mouth, which may be opened, and again close shut. This, if it be used for the concentration of Metals, is to be so inserted into another man, made of Iron or Stone, that the inward head only may come forth of the outward man, but the rest of his body or belly may remain hidden in the belly of the exterior man. And to each nose of the head, glass receivers are to be applied, to receive the vapours ascending from the hot stomach. When you use this man, you must render him bloody with fire, to make him hungry and greedy of Food. When he grows extreemly hungry, he is to be fed with a white Swan: When that Food shall be given to this Iron man, an admirable Water will ascend

from his fiery stomach into his head, and thence by his two noses flow into the appointed Receivers; a Water, I say, which will be a true and efficacious AQUA-VITAE; for the Iron man consumeth the whole swan by digesting it, and changeth it into a most excellent and profitable Food for the King and Queen, by which they are corroborated, augmented, and grow. But before the Swan yieldeth up her spirit, she singeth her Swan-like song, which being ended, her breath expireth with a strong wind, and leaveth her roasted body for meat for the King, but her ANIMA or spirit she consecrateth to the gods, that thence may be made a SALAMANDER, a wholesome Medicament for men and metals.

This manner of operating, by which metals are wont to be concentrated, I was willing to describe in this Enigma, that it may be known to be no Fable, but that the same manner hath been described by other Philosophers before me. This appears from the sixth Key of BASIL, where he delivers the like manner. BASILIUS writeth concerning SALT-PETRE speaking of it self; WHEN MY END IS THREATENED, & etc. From which words it is manifest, that he used the same way for the particular and universal emendation of Metals, as also for the preparing of excellent Medicines. But because this Enigma is a little too obscure for the unskillful, I think good to interpret it word by word.

The Iron man is the distilling Vessel, which I have described in the Second Part of my Furnaces. This is put into another Iron or Stone Furnace, and the fire under it. To the noses or pipes of the upper part, some Receivers are to be so applied, that at least three Glass-Receivers may be applied to one nose, the first of which is to be firmly

luted to the nose; the second must enter the perforated belly of the first Glass, by a Pipe; and in like manner the third must be inserted into the belly of the second; the Pipe of the second Glass, which entereth the belly of the first, is to be well luted; the third is not to be luted to the belly of the second, but to remain open, that the expiring gass may go out of the second into the third. To the other nose also three or four Receivers are to be applied after the same manner, but so that the last may remain unluted. The white Swan is the AMALGAMA of Tin and ARGENT-VIVE, to which Nitre is added; and it is done as presently you shall hear. (See the Figure of this Furnace, before the beginning of this Treatise, noted with page 96.)

A is the Furnace.

B The Vessel in the Furnace.

C The Hole with an Hollow Verge, through which the Swan is conveyed into the Vessel.

D The Tongs holding the Cover with which the Vessel is to be covered as soon as the Swan is put in.

E An Iron Ladle, wherewith the Swan is put into the Vessel.

F The Receiver.

G. The Bench that supports the Receivers.

H The Laborator.

R. one part of Tin, melt it in a Crucible, when it is melted, take the Crucible out of the Fire, and pour out the melted Tin into another

earthen Vessel, and mix therewith one part of ARGENT-VIVE, which will presently be absorbed by the Tin, but the Tin will become so brittle and friable, that it may be ground upon a stone to fine powder. With this fine powder mix two parts of good and pure SALT-PETRE, by grinding them well together, till the AMALGAMA cannot be known from the SALT-PETRE, but one white powder be made of both. This powder is The SWAN OF BASILIUS, of which he prepareth Meat for the King; but I call it THE FULMEN OF JOVE, by which all Metals are destroyed and reduced into nothing. And from this nothing, Metals much better and more noble are generated DE NOVO. Concerning this destruction and regeneration of Metals, consult PARACELSUS'S Book, THE VEXATION OF ALCHEMISTS, and the Third Part of my MINERAL WORK, and you shall find, that PARACELSUS hath involved this Operation in obscure words, as also BASILIUS, who delivereth the same in his sixth Key, with the same obscurity, which here, without any covering, I have openly and clearly made manifest.

N. B. I would have the studious of this Noble Science know, that JUPITER alone, or Tin mixt with Glass only, in this artificial distillation by the fiery man, yields that medicinal spirit, without the addition of ARGENT-VIVE, and leaveth the meat or augment of SOL and LUNA in the bottom. But that our Ancestors have adjoined MERCURY or ARGENT-VIVE, I also by experience have found it profitable. But it is chiefly done for this end, that the Tin being rendered friable and fit for grinding, may be the better be mixed with the Nitre; for it would be laborious and troublesome to file the Tin to mix and destill with the Nitre, as BAPTISTA PORTA teacheth in his Natural Magick. This reduction into

Powder by Mercury, is performed in a very short time, and wonderfully promoteth the Labour, whilst the Mercury acting upon the porous Jupiter, penetrateth him, and rendereth him compact. On the contrary, THE FULMEN OF JOVE burneth the wings of Mercury, and maketh him remain stable; so Jupiter is an help to Mercury, and Mercury to Jupiter, and both become more noble by the power and efficacy of Salt-petre; for Jupiter possesseth much combustible sulphur, which nevertheless burneth not PER SE, without some help; in the effecting of which SALT-PETRE is a Master, having neither superiour nor equal. Well doth BASIL say, that sulphur only is Nitre's best friend, and also its worst Enemy, which we have found to be most true, in this operation.

When the Tin and Nitre grow hot together, they take Flame like Gunpowder; the purer part, like some subtile spirit, vanisheth into the Air, and the more fixed, stable, and better remaineth at the bottom; for the noxious and superfluous Sulphur of the Tin is burnt by the Salt-petre, which being separated, the rest of the Tin acquireth a more compact and better body. The Mercury also adjoined in this operation, yieldeth whatsoever good he hath, offering his Spirit for Medicine, and his Body for the encrease of Gold or Silver; so that more profit accrues by the addition of Mercury, than if Jupiter were fulminated by Nitre alone. Very few will believe how noble a Sulphur there is hid in Jupiter, which can be made manifest by Nitre only. Truly, Mercury can by no way be better deceived and overcome, than by the Fulmen of JOVE, which casts a terrour upon all the gods. Therefore they are very wary, lest they be touched with that Thunder, and slain with sudden death.

If Jupiter were destitute of his most efficacious Thunder, neither his father, SATURN, nor SOL nor LUNA, with the rest of the gods, would be subject to him. Mars, Venus, and Mercury would only sport themselves with him. Mars would shew him his Sword, VENUS would intangle him with her amorous Net, and MERCURY, the deluder of all dreaming Alchymists, would fly away, and laugh at him. VOLENS NOLENS they all fear Jupiter, and must allow him the Empire; the conversation of JOVE is perilous to all the Metals, even as it often brings subjects into no small danger, to converse with their Prince. Hence the vulgar Proverb, PROCUL A JOVE, PROCUL A FULMINE; He that keeps from the fire, is not in danger of being burnt.

But leaving those things, we will now address our selves to the operation it self, and plainly shew how it is to be performed. And first, let the studious know that this Work requires a diligent and skillful Operator; but he who knows not how with skill to handle the Fire, I advise him to abstain from this Work. The Art is true and excellent, so that he that understands but a little, may see the whole Work to stand upon a firm foundation drawn from Nature. He that knows the nature of Metals and Minerals, knows that the goodness and perfection of Gold and Silver, the best of Metals, consists in a stable, fixed and incombustible matter, and on the contrary, that the imperfection of the imperfect Metals, proceedeth from a combustibile and stinking Sulphur only; which superfluous Sulphur, if it shall be any way separated from them, that which remaineth, ought necessarily to be purer, more fusible, and constant in the fire. There are many ways by which

that superfluous and combustible Sulphur is separated from Metals; of which mention is made in the Mineral Work, and the fourth part of Furnaces. In this operation, the manner of separating it by combustion, is performed by Nitre. In this Treatise also other ways are indicated, yet Nitre is to be used in them all.

But the studious of Art ought to know that in this Operation, not only the superfluous Sulphur of Jupiter and MERCURY may be separated and consumed by burning and each Metal concentrated and amended, but also to both, or to JUPITER alone other Metals may be added, and by the help of Salt-petre may be fulminated and concentrated; for the Fulmen of JOVE doth not only concenter and amend his own proper body, but also other Metals adjoined to him. Nor do I know a nearer way of destroying Gold and Silver quickly, than the Fulmen of JOVE, which so destroyeth all the Metals, that afterwards without the addition of other things, they cannot by any force of fire be reduced to their former fusile bodies, inasmuch as in melting PER SE, they always pass into Glass, every one being tinged with that colour which is proper to the metal. Gold is changed into a very elegant glass, like to a RUBY; the glass of Silver hath the colour of a CHRYSOLYTE; the glass of Copper hath a green and red colour like a Jasper; the glass of Mars differs not much from it; the glasses of Tin and Lead remain white. These Glasses being (by artificial reduction) reduced into their bodies, are much better and nobler than they were before. This sudden fire also clippeth the wings of Mercury, so that part of him is constrained with the JUPITER to abide the fire. That swift fluxing powder which is compounded of Nitre,

Tartar, and Sulphur, mentioned in the second part of my Furnaces, is also not to be contemned; for when that mass is mixed with MERCURY, and kindled by a live Coal, the MERCURY is altered, as when it is to suffer the fire, it maketh a cracking noise, till it breaks through the fire, but being apprehended by the Fulmen of JOVE, it hath no time allowed it to cry out; for when it beginneth to feel the heat, it singeth a Swan-like song, but before it can break out from the Fulmen it is killed. BASILIUS calleth this THE SONG OF THE SWAN, alluding to what the Ancients have delivered concerning that Bird, viz. That when she is old, and ready to die, she sings a song, which being ended, she presently dieth. This Saying the vulgar believe of that Bird, which yet is false, seeing that I never yet heard any man say that he had heard the Song of a dying Swan. The ancient Philosophers hereby meant our Metallick Swan. But let any one enquire, whether the AMALGAMA of JUPITER and MERCURY may be compared with a Swan; because it may every way be broken, within and without, it is like to the Feathers of the said Bird, and therefore the Philosophers have not unfitly called it a Swan. As for its singing, it is thus; When the AMALGAMA is mixt with Salt-Petre, and wrapt up in Papers, and one after another of them cast into the Iron man, the MERCURY with the JUPITER beginneth to sing a Song like the fine Note of some Bird, which endureth no longer than the crowing of a Cock, seeing that the flame presently followeth, which maketh the separation.

But that any one may be more certain of this matter, I will openly and clearly expound the Operation word by word.

Rx. of Tin and MERCURY each 1 lb. make an AMALGAMA, as I have taught above; grind this with lb. 1j. of pure Salt-Petre, freed from all its faeces, reducing the whole mass into a minute powder, till the AMALGAMA can be no more felt by the fingers. This fine powder distribute into sixty equil parts, more or less, and put each part into a Paper, so that every Paper may contain about two lothones, or an ounce, wrap them up: This quantity is not to be exceeded, especially if the Iron man and the Receivers be not large; for the lesser Vessels require the less of the matter: For the matter being cast into the red-hot Vessel in Papers, when it taketh flame, giveth a crack or puff like Gun-powder, which is kindled with a Coal. The Labour is easie, which may be called THE WORK OF WOMEN, or PLAY OF BOYS. For as soon as one Paper is enkindled, the vapours ascending with smoak and wind, pass into the Receivers, which being quietly settled, another Paper is presently to be cast in, that it may sing its Swan-like Song, and pass into the Receivers in a fume. This casting in of the Papers is so long to be continued till they are all spent. You can scarcely put in above ten Papers, or fifteen at the most, in an hour, for if one Paper be cast in too soon after another, the ascending Spirits of the JUPITER and MERCURY would not settle completely, but some would fly out at the hole of the last Receiver, and be lost. By this means the Iron man is nourished by degrees with his food, viz. the white Swan, even as Infants are successively fed by their Mothers.

After all the Papers are in, the fire is to be let go out of its own accord; and when all the Spirits are condensed in the Receivers, the

Receivers are to be removed one after another, in which is the ANIMA of Tin and Mercury, and of that metal which was added, of a white or ashy colour, if Tin and Mercury only were used. But if Gold was added, it will be of a purple colour; if Silver, of a yellow; if Copper, the colour will be reddish. And this is not only to be understood of the matter which passeth into the Receiver, but also of that which remains in the bottom of the Iron man. The ANIMA hideth it self in the corporeal flowers which ascend into the Receivers, by which it is the more easily acquired, and which otherwise, perhaps, by reason of its great subtilty, would be very difficult to obtain. If you can put your hand into the Receivers, you may take out the flowers with a bent spoon, which hide the ANIMA; but if not, with an Iron Wire fitted for the scraping them off, or by washing them out with Water, which are to be handled further, as you shall presently hear.

The mass remaining in the stomach of the Iron man, being taken out when it is cold, hath a fiery nature and a white colour, if it were only of Tin and Nitre, but if any other metal was added, the colour will be varied, as above. This mass cannot be reduced to its former body by Fire alone, how vehement soever it be, seeing that when it is melted, it runneth into glass, and that too very difficultly. Nevertheless, by the following operation it may be reduced to its pristine Body: Put it into a very strong Crucible, which cover, and set in a Wind-Furnace that will give a very strong Fire (such as is my Fourth Furnace) the Fire being raised by degrees, let it be made white-hot, and when it is so, the Cover being removed, throw into the fiery mass a little Sulphur,

Antimony, or Coals in fine powder, put on the Cover again, and lastly, cover the Crucible over with Coals, that all the matter may flow well. In this operation the combustible Sulphur will enter the fixt Nitre, and separate it from the fixed Metal, and with the same, whatsoever of Sulphur, Antimony, or Coals was added, will be turned into black Scoria. The Tin, with the Mercury, and the Metal, if any were added, separateth it self from the Scoria, and returneth into a metallick body, which after it is poured out and cold, is to be separated from the Scoria. Jupiter hath the aspect of his former body, but is amended, as the proof will shew him that pleaseth to make it; the remaining Scoria are to be kept, because an excellent universal Medicine may be made of them. The REGULUS being melted again, is again to be amalgamated with its own weight of Mercury, which AMALGAMA is to be mixed with its equal weight of Nitre, and put up into Papers, and again cast into the Iron man, as we have shewed before, that the Flowers and ANIMA may be collected and added to the former. The remaining mass is to be precipitated with sulphur, as before, and the Scoria being separated from the Regulus, to be added to the former, and the Regulus to be again brought with Mercury to an AMALGAMA, that with Nitre the Flowers and ANIMA may be again elicited. This Labour is to be so often repeated, until half the Regulus be converted into scoria: That part which remains being examined by the Cupel, will shew how much gold and silver is generated by this Labour. Which profit will serve to buy other Coals and Metals to carry on the Work. The ANIMA which passed into the Receivers yieldeth a most excellent medicine; so do also the scoria which were reserved

at divers times, afford one little inferiour to that; and how they are to be handled, we will teach in order. Therefore by this only operation a universal medicine for humane and metallick bodies is acquired particularly, and from the remaining part, an amended metal paying the necessary costs which are required for the continuing the great Work.

How therefore particularly of Tin and Copper often fulminated, one may get a profit not to be contemned, I will clearly shew; forasmuch as I have not performed that labour only once, but many times; in like manner I will deliver the way and mode whereby an excellent medicine may be prepared for the curing of all curable Diseases, which also I have often done. But how a Universal medicine may be prepared of the ANIMA of metals, for humane and metallick bodies, I cannot teach; for I have not hitherto had time and opportunity of perfecting so great a Work. Nevertheless, I do not at all doubt, but that the Philosophick stone may be made of this ANIMA; But by what means I think this may be effected, (saving to every man his own judgement) I will not conceal from the studious of the Divine Wonders. What I have done with my hands, I can render others the more certain of; those things which I have done, I leave as they are. The beginning of the Labour I have clearly enough proposed; from which, if any may cannot learn more, 'tis best for him to abstain from this kind of Labour.

All the Philosophers cry out with one voice, FIX THE VOLATILE, AND VOLATILIZE THE FIXT, and you will have the true universal medicine. From which scope he will not erre, who shall take good subjects for his work. Therefore, because in this our operation, Gold (besides the rest

of the metals) being endowed with a most pure body, is rendered volatile and fugacious, and stript of its ANIMA, verily it will be credible, that of the ANIMA of Gold, if the ANIMA of Mercury shall be joined with it and digested to fixation, may be made the SALAMANDER constant in the Fire. The purple ANIMA of Gold and Mercury which hath passed into the Receivers, I free from the Flowers of Tin, by washing it out with the sweet universal Water, known to every one, filtering it through Paper, coagulate it, and then fix it into a tinging stone. And I doubt not, but some good thing will thence proceed.

From the scoria remaining after the reduction, you may easily extract a medicine. Nevertheless, those scoria are divers, and have a diverse nature; for those which remain after the operation with Tin and ARGENT-VIVE, are of another nature and property than those which proceed from the working with other Metals adjoined to those two, as Gold, Silver, Copper, or Iron. Every Metal hath its own proper powers and virtues, which in the extraction of the Scoria go forth together, and render that Extract more noble, or else diminish its virtues. Gold and Silver have a different nature and properties from Copper and Iron. Nevertheless Copper and Iron are not malignant or hurtful in the Scoria, but also possess great virtues. Nevertheless the greatest virtues which are elicited from the Scoria, are to be taken for a Tincture of Sulphur; for the Metals being destroyed by fulmination, and again reduced into a body, leave but a very small part in the Scoria, seeing that their greatest part returneth into a metallick body. Therefore the Scoria principally consist of fixt Nitre, and that Sulphur by which the destroyed

Metals are again reduced into a metallick body from the Nitre. The Scoria of the Metals destroyed and precipitated by Coals, or common Sulphur, have one and the same nature, virtues, and properties. The Scoria of that reduction made by Antimony, partake of another nature, to wit, of a grosser and stronger than those which are made by common Sulphur or Coals, for they sometimes cause vomiting, which the other do not.

And this I would note, that because Antimony as yet containeth many Arsenical qualities, common Sulphur containeth but few, and Coals none at all; that therefore also the Scoria made by these, are safer than the other; nevertheless, I confess that those are somewhat cruder, and more immature than those made with Antimony; but being extracted with Spirit of Wine, yield an excellent Tincture, which is a kind of a Universal Medicine; for it is sufficiently known, that no subjects (Gold and Silver excepted) are found fitter for Medicine, than Antimony and common Sulphur. And because Wood-Coals exactly answer to this common Sulphur in their nature, properties, powers, and virtue, therefore I commend the Scoria's made by them, and prefer them to those prepared by Mineral Sulphur and Antimony; not that there is a greater efficacy in Coals than in Antimony and common Sulphur, but because those of Coals dissolved by fixt Nitre, are rendered more apt and easie to render their virtues to spirit of Wine, are of a more easie extraction, and are somewhat more familiar to the animal nature, than common Sulphur and Antimony. But the Medicine prepared of either of those scoria, is efficacious, and differeth but little in its external species and colour.

All the difference in those Tinctures, is, That that which is extracted from the Antimonial scoria, if it be taken in a little the larger dose, before fixation, causeth vomiting, and operateth more forcibly than the other two. All three after the manner of sulphurs, gild silver, help the growth of Vegetables, by dunging, and nourish and augment Gold being made spiritual, and closed up in the moist way.

And although I do not yet know what it can perform in the transmutation of Metals, yet I am perswaded, that if it were fixed and rendered constant in the Fire, and made to have ingress into metals, that it would effect something in transmutation. It sufficeth me at this time to have indicated the way by which a universal Remedy against all curable Diseases, is to be prepared of the remaining scoria. He that desires to know more, let him set to his hand, and search farther; the way is opened to him: But if he desires somewhat better, let him set upon the Spirit of Mercury and Gold, which is forced into the Receivers, and search for it in that. As for the remaining parts, viz. the metallick flowers, and the running Argent-vive, which passed together into the Receivers, the running Argent-vive may be separated from the Flowers, and used again for the like labour, by amalgamating it with Jupiter. The Flowers are again to be reduced with the fulminated metals, that nothing of the Gold and Silver may be lost; so this labour being continued, will give a perpetual encrease of Gold and Silver, besides the tinging ANIMA, and the Expenses will be only for the Salt-Petre, which will be little to those who know how to make Salt-Petre themselves, for the making of which, I have shewed the way; so that without any great

labour, trouble, and cost, not only an honest livelihood may be gotten, but also a good medicine, for the relief and comfort of the forsaken Sick.

But before I conclude this my concentration of metals by Salt-Petre, I think fit here to adjoin some admonitions for the benefit of the studious of these Labours. When in the reduction of the metals destroyed by the Fulmen of JOVE, the scoria are left too long upon the gold, and not poured off in due time, they (after a certain magnetick manner) attract the remaining ANIMA which the Fulmen hath left in the Gold, and leave the whole pale. If Argent-vive be amalgamated afresh with this pale Gold, and this Labour sometimes repeated, the Gold will be wholly spoiled of its ANIMA, being partly driven into the Receivers, and that which is left attracted by the scoria, then the gold loseth all its colour, and the scoria put on a bloody colour. From this red scoria the Tincture is to be extracted, by a certain singular Artifice, and to be used in the known manner. The pale Gold recovereth its yellow colour by Iron, Copper, or Antimony.

Moreover, this is also to be observed, When by the Fulmen of JOVE the ANIMA of SOL and MERCURY is propelled into the Receivers, the Receivers being taken off, the Flowers which hide the ANIMA, are to be taken out, and kept in Glasses close stopt. For the said ANIMA of SOL and MERCURY is so spiritual, volatile, and fugacious, that like a Bird it presently flies away, and leaves an empty nest; the truth of which thing I have experienced. HE THAT WILL NOT BELIEVE WHAT I SAY, LET HIM TRY, AND HE WILL FIND IT TO BE TRUE.

But that I may shew the studious of the Hermetick Medicine how he may experience this matter, I will declare by what chance I my self came to know it.

At a certain time, when I had taken the ANIMA of Gold and Mercury, made by the Fulmen of JOVE, out of the Receivers, not clearing one Receiver so well, but that somewhat of the ANIMA remained therein; I put in some ounces of Water, that I might thereby the better wash out the remaining Flowers: In the mean time, some more urgent business called me away, I set the Receiver with the Water in it, upon a Table in my Laboratory, before or near a Window, and forgetting it, left it there for some days; the Cold being then very sharp, in that time had frozen all into Ice; I coming into my Laboratory, to see if some Glasses, in which were Water, were not broken by the Ice, as is usual, I found some wholly filled with Ice, and seeing this Receiver to lie there, I presently believed that Receiver to be broken by the Frost; but taking it up in my hand, I found that the Water in it was not frozen, but remained clear, therefore I rejoiced that the Glass remained unhurt, and wondered much whence it should proceed; but I could impute it to no other thing, but to the hot spirit of Gold and Mercury, of which notwithstanding there could not above three or four grains remain in the Glass, which although so very little, preserved some ounces of Water from freezing. From that time, weighing the matter more diligently, I found an incredible heat in that ANIMA. Let others enquire and search what may be performed by such a heat; this I know, that hereafter there will be sedulous Artists, who will thank me for this my faithful Institution.

For it is very likely, that this subtile and fiery Spirit of Gold and Mercury, such as it yet is before fixation, may be presently used with great profit, in the taking away many occult Diseases of the Body. Moreover, it is to be observed, That if Metals, whether Gold, Silver, or Copper be conjoined by amalgamation with Tin and Argent-vive, they ought first to be reduced into pure and shining Calces, that they may be the more readily received by the Mercury: But only a fourth or sixth part of the Calx is to be added in the Amalgamation, lest the Tin (by too great a quantity of the Calx) be hindered in fulminating, for the whole operation consisteth in a right fulmination. But lest any should err in working, he may first make trial, whether all things be well mixed and prepared, by putting half a dram of the mixture into a small Crucible, and upon that a live Coal, and beholding the Fulmen with an intent eye, that he may see what colour it gives: If it riseth so white and clear, that it dazieth the eyes, as the looking upon the Sun is wont to do, all things are rightly and orderly mixt; the smoke is tinged with the colour of the adjoined Metal, as Purple from Gold, Blue from Silver, Green from Copper, but Tin and Argent-vive only give White. Also from the Mass remaining in the Crucible, it may be seen whether the Fulmen be rightly performed, viz. if the CAPUT MORT. or residing Mass be porous, and fiery upon the Tongue, being touched therewith. The Colours also of that Mass are various, according to the added Metal; Tin and Argent-vive alone leave a fiery white matter.

Neither is this to be passed by, being of no small moment, viz. if you seek not a Medicine, but only the emendation of Metals, it is

not necessary to add Mercury with the Metals, but the Gold, Silver, or Copper may be melted with Tin, for so they become a brittle Mass, which may be powdered in a Morter, and mixed with an equal weight, or a little more, of Salt petre, and put into a strong Crucible, and covered, then put into a circular fire, so that the fire may approach it by degrees, till the Crucible and Matter be hot, and at length taking flame, may be enkindled and dispersed. In which operation many Flowers flie away, and a fiery Mass remaineth in the bottom, which is again to be reduced into a metallick body in a strong Crucible, in a Wind-Furnace, by the addition of some combustibile sulphur, and after the reduction, to be reduced again into powder, and mixed with fresh Nitre, and again treated in the same manner, by sometimes repeating the former Labour. At length that Mass being reduced in a Crucible, the Gold, Silver, or Copper will be found augmented by the Tin.

N. B. Because in this operation, not a little of the Metals flies away in fume, the Crucible may be set in some Wall, and on the Wall over it some Vessels or subliming Pots capacious enough may be fastened over it, that the Metals being kindled by the Fulmen, the elevated Flowers may be preserved and advanced to a purer Metal than they were before. This Labour doth not differ much from the Operation of BASILIUS, in which Salt-petre saith, MY LOVER IS A CHEERFUL OR PLEASANT WOMAN, & ETC.

There are only two feminine Metals, viz. LUNA and VENUS, either of which serveth to this Labour, yet this is more profitable than that, yea, and the same Labour giveth an augment to Sol, Mars, and Saturn, which are not feminine. When Tin is melted with VENUS or LUNA, these

pleasant females are elevated with joy, they sing, dance, and suffer themselves to be handled in what manner soever it shall please one to treat them, therefore they are called BRISK OR PLEASANT WOMEN. This is an Operation not to be contemned, forasmuch as it well compensateth the Labour, and requireth but small costs besides the SALT-PETRE, and also may be wrought in a great quantity, but our former with Mercury is better. There is yet more lies hid in this operation, but I think it not necessary here to recount all things. Let the Reader kindly accept of this, and shortly (God willing) more and better shall follow.

Whatsoever I have here written, is the very truth, and confirmed by many Experiments, in which every one may safely confide, and if he operates aright, will find the truth; for all things here delivered, are to be understood according to the Letter, and so to be observed in all the Labours.



THE COMPLETE WORKS
OF

RUDOLF
GLAUER

trans: Chris. Packe



AURUM POTABILE



A

T R E A T I S E
Of an Universal Medicine;
or,

A T R U E A U R U M P O T A B I L E.

Being an accurate Description of a True Universal Medicine, and of its admirable Virtue and efficacy which it sheweth upon the VEGETABLES, ANIMALS, and MINERALS. A Gift presented unto all such Noblemen as are desirous to preserve their Health, and to attain to a Long Life; it being an UNIVERSAL MEDICINE, or A TRUE AURUM POTABILE.

After that I had by GOD'S assistance described three excellent Processes in the Continuation of the MIRACULUM MUNDI, and had bestowed the same on men of several orders, that thereby they might the easier, and with a safer Conscience, provide themselves with Food and Raiment: I was also desirous of tendering some small Present to Noblemen too, and such who are of eminent power and authority, and whom I had not forgotten to present with some Gift, which may serve for the preservation of their good health for a long time, and for the restoration of it when lost.

For it is a thing of the greatest Concernment for the Nobles, and such men as are placed in the degree of Power and Authority, to have

the fruition of bodily health, whereby they may wisely rule over the subjects committed unto them by God, and may use a sound mind about the defence of the Good, and the punishment of the Ungodly. Now a sound mind inhabiting in a sound body, doth proceed (next after the Divine Grace) out of a sound Heart and Brain. And it cannot be, that a publick Government can be rightly and well administered without a good Health; and this is as clear and evident as the noon-day light is. Forasmuch therefore as the safety and preservation of all Kingdoms and Republicks is placed in the Wisdom of their Rulers and Magistrates, and that imprudence and ignorance of the Rulers is wont to ruin their Subjects, it is a thing of the highest consequence to save the Head of the whole Kingdom or Country sound, whole, cheerful, prudent and ingenious, and that he be not made unfit or uncapable for the Government, by diseases, sadness, slothfulness, and stupidity. Therefore the love of my Neighbour constrains me to publish this Universal Medicine for the sake of the Great ones of the World, seeing it is so much conducive to the perpetual felicity and happiness of a sound and good Government; for no man can be said to be a sound man, if he be not of a sound constitution of Body. What benefit, I pray, can a sick man bring to himself, or to other men? Verily none at all, but is rather an hindrance and detriment both to himself, and unto others likewise: For when the Head is ill, there are a great many Members must serve it; but if the Head be sound and well, it exerciseth the government of the whole Body very happily.

What profit has a man that is tormented with Sickneses and Dolours, of all his vast Wealth and Riches, since he can neither use them nor

enjoy them, looking upon them with a kind of nauseate, and at Last leaving them with grief behind. Certainly a sound body is to be preferred far before all the Treasures of this World, and no body will gain-say this. He is to be judged the Happiest man, that possesseth those two the greatest Gifts of God, viz. good Health and Riches. Sickness and Poverty are to be esteemed worse than even Death it self.

We sometimes see, that pious Magistrates and Governours are snatcht away, and killed with small Diseases, which otherwise might have yet Ruled very many years over their subjects, had they had but good Medicaments, by help whereof they might have been succoured.

As for the way of Conserving good Health, and recovering it when lost, this little Book doth most exactly shew the same, which I commend unto all those who are desirous of its preservation.



THE COMPLETE WORKS
OF

RUDOLF
GLAUER

trans: Chris. Packe



UNIVERSAL MEDICINE



Of a Universal Medicine,

or,

A U R U M P O T A B I L E .

The Medicine that is honoured with the Title of UNIVERSAL must be of this property, viz. to operate universally upon the three Kingdoms, viz. the Vegetable, Animal, and the Mineral, and to be able to succour each of them, as a most high Medicine should do. Whatsoever now does not abound with such excellent property, the Title of UNIVERSAL is falsely attributed unto it; nor is it worthy such a Noble Name.

Therefore it doth, in the first place, behove me really, and in very deed, to demonstrate in this Book which treats of such a Universal medicine, that this same medicine which is so intituled, doth also possess those very same virtues and properties which a Universal medicine ought to have. And farther, Such a Universal medicine ought not only to be a most friendly Auxiliary and Helper, universally, to those three Kingdoms, viz. The Vegetable, Animal, and Mineral, but it is likewise necessary that it be also preparable out of all those three Kingdoms, Vegetable, Animal, and Mineral, and that too out of each apart, without the addition of any peregrine thing, and without any great labour, for the benefit and profit as well of the Poor as of the Rich.

They therefore do extreamly err who are of such a foolish opinion, as to Dream that the matter of the universal medicine is only produced in such or such a place, and is to be fetched out of this or that Country with a great deal of Labour and Charges.

This opinion is Diametrically opposite to the common Vogue and Saying of all true Philosophers, who do unanimously confess, that their matter is évery where to be found and every one has it, and it is in the possession both of the Poor and of the Rich: And this verily is so open and evident a Saying, that nothing can be spoken more apparently.

For my part, I do affirm, that this Art is Vegetable, Animal, and Mineral, and that there is not a man to be found in the whole World, that has not the knowledge of this universal matter, and that does not use the same. Yea more, I do affirm, that even a new-born Infant cannot live without it.

I have already accurately demonstrated in many places of the Writings I have hitherto published, that Nitre is found in all things of the whole World; and so not only in all Vegetables, Animals, and Minerals, but also in the very Elements themselves, viz. in the Earth, in the Water, in the Air, in the Fire: And for this reason it both may, and deservedly ought to be called a Universal matter; for without the Elements can no man live. And now, whether any one believes this which I here mention, or does not credit it, 'tis all a case to me, what I have said I have said, nor need I say more. And thus much let suffice concerning the universal matter.

The Preparation I have openly enough treated of in many places of my Writings, but especially in my MIRACULUM MUNDI, and in other Writings thereunto appertaining; and therefore I forbear to make any more prolix declaration, and to multiply any more words about it.

But yet notwithstanding, I do here adjoin thus much, and confess,

that although I have several times prepared that universal medicine, yet the Preparation thereof has not at all times answered my desires, nor hath it as yet been ever brought by me unto the utmost perfection and fixation, because I have wanted both time and opportunity of accomplishing it, and many other Impediments have hindered me from compassing the same according to my mind. But as concerning what Progress I have therein made, and that I can as yet perform or finish the same in three days time; this, I say, I will consecrate to eternal memory, and in no case hold my peace, but speak on, for the instructions sake of Posterity.

And this I do to this end, that the omnipotence and bounty of God may be the more manifest, and that His Divine Name may be honoured the more, and that many Thousands of Sick people may be succoured with a most present and speedy Remedy.

This is the only cause that stirred me up to make this Discourse of the universal medicine; for I neither would, nor indeed ought I to burthen my Conscience by the concealment thereof, nor to hide and bury with me in my Grave, such a noble Gift of God, and the Talent which of His Gracious Benignity He hath been pleased to bestow upon me.

But yet I would not that any one should perswade himself that he shall (by his soothing words and large promises of golden mountains) squeeze out from me the Preparation of the same, whereby he may make use thereof to lead his Life in Pleasures, Pride, and Impiety, and so hurt poor mankind. No, let such an one be assured, that I will never do so, for it is not in my power to reveal to every one such a great Gift, and which is of God, and not of Man, but 'tis in the power of

God alone so to do: And as for my self I would much rather die, than to reveal and prostitute it to a wicked man. Besides, I would not have any one to suppose, that whereas I call this medicine of mine Universal, it is therefore able to transmute the Imperfect metals into Gold, so as to furnish one with such vast Treasures as the Philosophers attribute unto their universal medicine: No, for I am as yet ignorant of such a transmutation, nor indeed do I covet it, or gape thereafter, but give unto God only most great Thanks for that medicine, by which (being vouchsafed me of His meer bounty) I am able to succour the miserable, sick, tormented, and diseased ones, and celebrate the glory and benignity of the Lord. I do withal readily confess, that I have not as hitherto received any benefit at all therefrom about the bettering of the Metals thereby; nor do I at all seek after any benefits in that kind of way, being contented with that Medicine, advanced to such a pass, as whereby it may be able to suffice me to get Food and Raiment by God's help. I covet not after abundance of Riches, and do only beg of God, that He would neither afflict me with Poverty and Want, nor bestow on me too much Satiety and Fulness, lest I should be lifted up with Pride, and say, WHO IS THE LORD? Nay verily, if I could with this Medicine get my self great benefit, as to the metallick affairs, yet would I not do it, nor would I lay out such a great Gift of God, upon temporary things, thereby to rob the poor, miserable, sick people of the same, for whose sake God was pleased to bestow it.

Perhaps it may so come to pass, that this my Medicine may, by the labour of diligent searchers, be brought to such a pass, as to be capable

of exercising its power upon the lesser and imperfect metals, and that by a fruitful or profitable amending and correcting them: But this is a thing that God reserves to Himself, as posited in His alone good pleasure, whose Grace and Favour we must with a patient expectation wait for: Mean while we may lawfully enjoy this most excellent medicine, which being a most certain Argument of the verity and power, arising from such a notable Art, doth abundantly serve to stop the shameless mouths, and break the mischievous Teeth of all FARNNERIAN Asses. But notwithstanding some or other of them may haply spue out some poisonous stuff out of his shameless mouth, and say, With what right can I impose the name of UNIVERSAL MEDICINE upon this Medicine of mine, seeing that I do not in the least deny, that it is not available to bring me any benefit out of the metals, but can only heal the Diseases of the Sick: Whereas the Philosophers do on the contrary attest, that their Universal medicine hath such virtues as are wont to transmute the lesser or meaner metals into Gold, and that with most exceeding profit.

For answer to such as these, I say, that although this medicine of mine which is here treated of, hath not hitherto brought me any profit by the melioration of the metals, yet it demonstrates it self to be universal, and to be worthy that same Title; for I have been hindered through want of time and other letts, (as I said afore) from hitherto bringing it unto perfection and fixation. And I pray who can tell what God will be pleased to vouchsafe in process of time. A new-born Infant cannot well be upbraided (if wanting wit and judgement it does not attempt and effect some great matters) and be on this wise twitted. Ho!

it is not a man, 'tis beardless, it understands nothing, it lies along and cannot help it self, it has nothing but what they reach out unto it. Well, well, let the Infant but arrive unto its due age, and let its due meat and drink be administered unto it, and then in length of time it will attain to a requisite stature and strength, and will propagate and multiply its own kind. For if there be but once the humane form, there will not proceed ought else thencefrom, but a perfect man. Just so stands the case with my medicine, which is exceeding like to a new-born Infant, whereto regard being had, according to a Philosophical manner, there will be no doubt, but that it will arrive unto a due perfection.

And now, the things which it doth even already perform, do all of them sufficiently argue and testifie, that process of time both can & indeed must produce thereout of some better thing; even as a good Parent wisheth for nothing more, than that (whilst himself is living) his Children may grow up to man's estate, and be happily married, and by a new Off-spring preserve his Name and Stock, and yield their help towards the multiplication of mankind, and he himself is wondrously joyed in his Grandchildren: But yet in the mean while he cannot be at all certain that his Life shall be so long prorogued, as to have a fruition of so much happiness, and therefore must commit the whole affair to God's pleasure, and patiently wait upon him, and see what that Omnipotent Creator (who indeed shewed unto MOSES the Promised Land, but granted him not so long life as to enter thereinto) will do with him and his; even so hath the Lord shewed unto me the Promised Land, but whether or

no I am worthy to arrive so far as to enjoy the pleasant Fruits thereof, GOD only knows; His merciful bounty hath bestowed upon me in my old Age a Philosophical Infant, which doth exceedingly rejoice me: But yet verily am I utterly ignorant whether or no He will vouchsafe unto me so long a Life, as to see the virile or man-like age thereof.

Therefore, like as a Father, unto whom in his old Age the Divine Bounty hath vouchsafed an Heir, tho' (haply) he well knows that the said Heir cannot possibly arrive unto man's estate, during his (viz. the Fathers) life, yet nevertheless he is exceedingly joyed, in that he hath an Heir to keep up his Name, and which will in time trace his Father's footsteps (viz. have more Children): Even just so doth my new-born Philosophical Infant exceedingly rejoice me, though haply I know that my Life will not last so long, as to be a Possessor of the same, in the state of its being advanced unto perfection. However, I doubt not but that God will stir up other nursing Fathers to this tender Infant, that being educated and nourished by them, it may arrive unto a Man-like strength, and unto virile powers and virtues, and may become serviceable to the advancement of the Honour of God, and to the succouring of many Thousands of sick People. The way of attaining this, I have, according to my simple judgement, too and agen, and peicemeal as it were, opened and revealed in divers places of my Work, viz. how it may be most commodiously effected, and therefore I judge it needless to treat thereof any further in this place.

Of the Nature, Form, Properties, and admirable Virtue and Efficacy of my True AURUM POTABILE.

As touching the form of this same new-born Infant, I would have the well-minded Reader know, that it is like unto a poor, naked, tender Babe, of no splendour, of a simple aspect, but yet carries within it self all the colours of the whole World, which by how much the older it grows, so much the fairer colours doth it yield. The Fire affords it nutriment, and clothes it with Garments of various colours, and makes it strong, fair, noble, and potent, insomuch that it may not undeservedly be termed its Father. Being born out of the Earth its Mother, it loves it, and useth it for its nutriment, until that arriving unto full years, it becomes like its Father the Fire, and leaves its Mother the Earth, and like a Lord of full age, bears rule over its Hereditary Possessions. But during its Minority and Infancy, all its actions are looked on as childish, but yet so that presently (or even now) appears what kind of notable man he will be, making good that Proverb; Urit mature quod vult artica mancre.

That which will a Nettle be,
Stings betimes, trust you me.

For seeing that a new-born Infant doth abound with so much virtue, as to be able to do so much good, What would not he be capable of effecting, should he attain to a ripeness of years? It will be therefore worth while to hear and see what virtues it is able to exercise upon Vegetables, Animals, and Minerals; and first we will treat about the Vegetables.

By what way a Trial is to be made, whether or no this AURUM POTABILE, or AQUA-VITAE of the Philosophers, be a most high Medicine for the Vegetables:

Every body knows, that the Vegetables which are to grow up, and be multiplied, must be also nourished. This nourishment now is nothing else but a sulphureous Salt, whether it hath its Rise from the Vegetables, or from the Animals, or from the Minerals; for 'tis all a case to the Vegetables, from whatsoever it proceeds, so that they have but their nutriment, by which they may grow, be encreased, and be multiplied. The Husband-man useth the Dung of any Cattle or Sheep, to dung his Lands withal, that the Seed sown in the dunged Earth, may thence extract the Salt, and convert it into its own nutriment, and so to grow up, and be encreased; and besides this kind of Dinging he knows none.

But the true Naturalist makes use of the Excrements of other Animals, yea, and the Minerals themselves too, for the dinging of the Ground; concerning which thing, I have written at large in my other Writings, and especially in my MIRACULUM MUNDI; and therefore there's no need at all of making any farther repetition of the same here. Forasmuch therefore as my AURUM POTABILE is also a sulphureous Salt, but yet stronger, and more efficacious than that which lies in the common Dung of Beasts and Cattle, and so consequently promotes the accretion or growth, and multiplication of all the Vegetables in a wonderful manner, I have judged it a thing worth while to set down in this place the use thereof in the melioration of the Vegetables, that so it may be evidently demonstrated,

that this my Potable Gold is the most excellent Medicine for all the Vegetables, and that their PARTICULAR Medicine which doth first proceed from the Dung of Sheep and Cattle, doth afterwards display its virtues by an UNIVERSAL operation. For if the DUNG of Horses, Cows, and Sheep (as 'tis barely Dung) could but succour Men and Metals, like as it brings a medical or helping succour unto the Vegetables, then might it by the same reason be likewise called UNIVERSAL.

But whereas it is an helper to the Vegetables only, and hath no conjoining familiarity with the Minerals and Animals, therefore it is rightly and deservedly to be referred to the order of particular Medicines, which are helpful to the Vegetables only. But yet notwithstanding, the Salt being extracted out of those sorts of Dung, and converted into Salt-petre, (which is a thing easily done) doth then admit of being transmuted into a UNIVERSAL MEDICINE: But now, afore such a Transmutation be made, it does not exceed the order or bounds of PARTICULAR Medicaments. But this AURUM POTABILE of mine merits the name of a true Universal Medicine, as being not only a most high Medicine for the Vegetables, but also for the Animals and Minerals too, and this shall be perfectly demonstrated as follows.

You must get some Vessels made of the best Earth, and strong, and such as being well burnt in the Fire, become like a Stone. And amongst such Earths, the COLEN, SIBURG, WALDENBERG, and other such-like natured Earths, are the fittest for this Work; let them be made very thick, and such as will not imbibe any Water. If you want such as these, cause then your Vessels to be made of Glass; for every porous kind of Earth,

though it be glazed over with Lead-glass, yet it is not so fit for this kind of operation; therefore you must of necessity provide your self with fit and convenient Vessels, and have a most especial regard to this admonition. Let such a Vessel be of a span long, or high, or deep, and let it have the same breadth or largeness, and let its bottom be perforated with some small holes, like as those Pots which are made for the keeping of Flowers in are wont to be: The Pots being thus prepared and filled up top-full, with clear and lean Sand, you may put or plant therein three or four Seeds of such Herbs that you have a mind to plant, that so if haply one of them comes not to good, the second, third, or fourth may. When the seeds are on this wise put in the said Sand, and shall have been moistened with our Universal Water, the Pots must then be set abroad to the Sun and Air, that so the Seeds may spring up and grow, which seeds, if good, and not too old, will in a few days time, grow up out of the Sand, as if they had been in any other fat Earth. Now, when they shall have sprouted up so high as a fingers length, you must leave in your said Pots two of the biggest and strongest stalks or sprouts, and pluck up the others, lest they should impede each others growth; and you must let them have room enough in the Pot to grow.

This Vessel thus filled with sand, and planted with seeds, is to be set upon another strong Dish or Platter, and which is made of the like sort of Stone-like Earth, that so if that medicinal water should happen to penetrate and distil through the sand, it may not be lost, but being saved, may be again poured into the pot-full of sand. Moreover, you must diligently take heed that no Rain-water fall therein and

wash away that medicinal water, and so take from the Herbs their nutriment. The sand must not be too much wetted, but lie always somewhat moist, lest by being quite dry, or too wet, the whole Work be corrupted by either the excess or defect of the due temperament: All things here prescribed being duly observed, the Herb springs up in a short time, and bears Flowers and Fruits sooner and better, than if it had grown in other dunged Earth. The Colours become fairer, the Odours will be stronger, the Virtues also will be greater, and these Herbs do likewise longer keep their virtues, and are not so corruptible as others are. After that all the humidity which you poured first on, shall have been consumed by the Sun and the Air, so as that it is plainly vanished, there must some other Rain-water (wherein a little of that potable Gold shall have been dissolved) be again poured on upon the Sand, that so the Herb may have its due supply of nourishment, so long as it shall be a growing, for the whole World knows, that there does not grow ought at all out of sand, which is only wetted with bare Rain-water.

Likewise by the help of this Universal Medicine all kinds of Herbs and Plants may be made apt to germinate and grow even in mid-Winter, and may be at any time amended, if so be that dissolved Liquor be but poured on upon the Roots. So will they be sooner ripe, and yield their Flowers and Fruits much speedier than those that are dunged after the common way; yea, and more too. I say, that as to their virtues and efficacy, they are to be preferred far before the common ones. The bare simple Universal Medicine is wont to shew so much efficacy, as is here mentioned: But now some metallick Ferment being added thereunto,

makes it far more efficacious; for by means thereof, the Herbs acquire greater and better virtues.

If there be adjoined thereunto an aureous ferment, the Herbs will not only get the virtues of the Gold, but will also appear spotted here and there in their Leaves and Flowers, with golden spots like little Stars, and will wonderfully please the sight by their delicate aspect.

If a Silver Ferment be thereto added, the Herbs will be impregnated with Silvery virtues, and be painted with silver spots as they grow. The Herbs being by this means bettered with a golden Ferment for the Heart, and with a Silver Ferment for the Brain, do with a more admirable efficacy succour those Members. And if the great ones of the World did for their Health's sake take for the nourishing, such Herbs as these in their Gardens, there's no doubt at all to be made, but that they would thencefrom obtain most great benefits. For, besides their wonderfully delighting the sight with their beauty and delicateness, and besides their admirable virtues, in which they far excell the common Herbs, they do likewise bring this exceeding great profit, viz. they may be made use of instead of my AURUM POTABILE, which perhaps some great men may be averse from taking, through the perswasions of their ignorant Physicans, who most an end do, by reason of their sottish stupidity and ignorance, snarle and bite at such kind of eminent Medicines, and divert their Lords and Masters from using of them, as if they were so many Poisons.

If therefore (to free themselves from that needless care) they did but make use of these Herbs instead of my Potable Gold, they would

however, by the help of such Vegetables, enjoy so much of the efficacy of my Potable Gold, as to keep themselves in good Health, or to recover it being lost.

Besides too, the said Potable Gold may be most commodiously and fitly applied to the use of Man-kind, not only by the help of the Vegetables, but also of the Animals too, and that on this wise.

Hens (or Pullets, & etc.) are to be a while nourished with Oats, Barley, Wheat, or other kind of Grain, macerated with the Liquor of that Universal Medicine; and being nourished therewithal, they will by concoction or digestion transmute those Medicinal Virtues into their Flesh, and so be far more efficacious and nobler than the flesh of other Hens or Poultry. The Dung likewise of such Fowls may be saved, and mixt with Sand, and Herbs be therein planted, which by this means will be rendered better than the common Herbs, because they assume to themselves the Reliques of that Liquor which the Fowls did not consume, and by digestion transmute into their Flesh, and so do convert it into their proper juice, so that there is not any thing at all of that Liquor lost, but the whole of it passeth into most notable profit.

Verily this is an excellent and admirable Transplantation of an Universal Medicine, into the Vegetables and Animals, the which the tender great ones of the World may make use of with greatest security.

Such now as these (viz. the great ones) seeing that this Universal Medicine of mine doth not at all hurt the tender seeds of Herbs, or the young Pullets, but rather bestows on them a greater efficacy and strength, will doubtlesly be induced to believe and understand thus

much, viz. that this same Medicine will in no case prove hurtful unto Men, who as to tenderness, cannot be like the seeds of Herbs, or like tender Pullen.

If this Medicine be of so great an efficacy as to be capable of transmuting some venenate Mineral, such as Mercury is, into true Gold, and that in a few hours space, as we shall see and hear by and by, it must necessarily follow, that it is not infected with any malignity or venom, for the malignity of one thing does not amend or correct the malignity of another thing, but rather makes it worsen.

From hence it is apparently manifest, that that Potable Gold does not at all partake of any malignity, but is a most wholesome Medicine for both Vegetables, Animals, and Minerals: Which thing, if any one will not give credit unto, or shall not be capable to understand the same, I know not what other help to afford him; for minding my own affairs, I have propounded and set down all things out of a good and sincere mind; if so be that any one hath ought that is better, let him produce it out-right, and not dispise those things which he does not understand, lest haply he hazardeth his good name, as that convicted Lyer FARNNER hath done, and be derided, and made a laughing-stock to the common People.

But FARNNER'S setting upon me with his calumnies and slanders, hath ministered unto me an occasion of answering, and of defending my self: Upon this occasion of my replying, there have sprung up, and come forth to the Light most excellent Secrets and ARCANAS of Nature. Surely I should never have so openly published my knowledge in natural things,

but should have lain hidden in quiet, had not that Blood-sucker and secret Murderer thrown me out of my tranquility by his venomous biting.

But that it may not seem a thing strange and absurd, that I write, that this AURUM POTABILE of mine doth induce into the growing Herbs a golden Nature, it seems a thing expedient unto me, to confirm the business by some true Histories.

In the HUNGARIAN and TRANSYLVANIAN Chronicles, it is mentioned, That in those Countries, in which the soil or ground hath every where about in the Mountains, an aureous or golden nature, and from whence, for this Thousand years, even to this very day, much Gold hath been, and yearly is digged out by the Gold-Miners, and been molten, and coined into Moneys, there have been oft times found such Vines, as have not only had their Leaves, but also the Grapes too gilded over, as it were, with Gold, just as if they had been artificially gilt. Nor is this an old Wife's Fable, but a thing most certainly true, and which many have affirmed unto me for a most undoubted Truth, some of which Persons have had their Habitations in those places, and othersome of them do even live at this day. About some six years since, when I lived in FRANCONIA, it chanced, that a Vine to whose Roots I laid Gold opened, and reduced into its first Ens, produced Bunches of Grapes, whose Stones were gilded: Which Story I have mentioned more at large in the Consolation of Navigators. And but very lately a certain Nobleman of HUNGARY, told me for a certain Truth, that not far from CREMNITZ, being one of the Mountain Cities of HUNGARIA, a certain Husbandman found in his Vineyard a piece of corporeal Gold, above an Ell long, grown out of a Stone,

and twined round about the said Stone, a little piece of which was given me by the said Nobleman, because of the Novelty and Wonders sake.

But put the case that this were not true, which notwithstanding is very true and indubitable, as being a thing known to the whole World, that such gilded Grapes are often found in HUNGARIA and TRANSYLVANIA; yet however, those things that I have mentioned, and attributed unto my Potable Gold, are most assuredly true.

Nor can I alleadge any other cause for these gilded Grapes and Leaves in HUNGARIA, but this, that the Earth there is impregnated with golden vapours, or with the not yet hardened and coagulated first Ens of Gold, and that aureous water being mixt with the Rain-water, insinuates it self into the Roots and from thence ascends up into the Boughs and Grapes, and in them manifests it self, and becomes visible.

Even thus also is it with my AURUM POTABILE, (which is like to a spiritual Gold) if it be dissolved with common Rain-water, and be therewithal commixt, and the sand (in which the seeds of the Vegetables were sown) be moistened with that Liquor, the nutriment is attracted out of the sand by the Vegetable Herbs, and being attracted, renders them partakers of an aureous nature: And this experience testifies to be a thing most true; nor can it be otherwise.

By these few things here spoken, every body (as I suppose) will sufficiently enough perceive, that my AURUM POTABILE is a most high Medicine for the Vegetables. Now we will likewise prove by some few but yet clear and convincing Arguments, that it is a most high Medicine for the Minerals too.

Of the Use of my AURUM POTABILE in the melioration of the Minerals.

As concerning the bettering of the Minerals by my Potable Gold, thus stands the case: It is capable of exhibiting to those that are inquisitive after the transmutation of the Metals, and would make trial of the same, some most exact proofs of the possibility thereof, both in the moist and in the dry way.

In the first place, it is behoveful for every one to know, that the said AURUM POTABILE, when brought to its due perfection, and such as my self know, hath the resemblance of a bright and clear water, is of a burning, hot, and fiery taste upon the tongue, and gives out a sulphureous, but yet pleasant odour.

But some may say, What can any such virtues be in a clear Water? What reason have you to call it Potable Gold, for that ought to be yellow or red? To such an one I answer, That in the whiteness is a redness hidden, which is not discernable in its tender Infancy; but when by the help of the Fire it arrives to a greater age, then it discovers it self, and shews forth its comeliness and excellency together with most eminent strength and efficacy: For thus say the Philosophers, UNLESS YOU MAKE OUR GOLD WHITE, YOU CANNOT MAKE IT RED. And in another place, IF ANY ONE KNOWS HOW TO DESTROY GOLD, SO AS IT SHALL BE GOLD NO MORE, HE HATH ARRIVED TO A MOST GREAT SECRET. And again, in another place, OUR GOLD IS NOT COMMON GOLD, BUT GOLD POTENTIAL, NOT FORMAL (OR GOLD IN POWER, NOT IN SHAPE). Such Sayings and Sentences the whole Troop of the Philosophers is full of; by which it is exactly demonstrated, that the true

AURUM POTABILE ought not to be presently red, as to the outward view, but that it merits this Title, if there be but only that golden and red virtue and efficacy lying hidden in its internal principle. For if this whiteness did not cover over an hidden redness, it could never possibly become red. Now my AURUM POTABILE being coagulated by the means of fire, and reduced to a stability in the fire, is turned into a stone of a blood-red colour, and yields not in the melting any corporeal Gold, unless a metallick body be adjoined unto it, into which the Spiritual and Philosophick Gold, betakes it self, that so cloathing it self with a body, it may become Corporeal.

This potable Gold of mine is, LAC VIRGINIS, or the VIRGINS MILK, which is coagulated with a small heat. This COAGULUM Passeth into (or becomes) the DRAGONS-BLOOD, which being coagulated, must necessarily yield the constant or durable SALAMANDER. I confess, that hitherto I have not prepared it; nor had I any opportunity to prepare it, but remain contented with my LAC VIRGINIS, as with a most excellent Universal Medicine, patiently expecting what the Divine Grace will in time to come bestow upon me.

But that I may proceed on to shew that my AURUM POTABILE doth likewise heal the Minerals, amend them, and make them golden, I will here set down some ways of doing the same both in the dry, and in the moist way.

The manner of trying (by the moist way) whether or no my AURUM POTABILE be a true Philosophical Volatile Gold.

Take of my potable Gold 1 ounce and $1/24$ or $1/8$ ounce of common Quick-silver, put them into a strong Glass, and so small, as that it may be half full with this matter. (N. B. The glass must have a round bottom, whether it be a piece of some small Bolt-head, or of some small Phial, that so the Mercury may gather it self into one Ball in the bottom) and place your glass, with the potable Gold and Quick-silver, in Sand, to the height of the Liquor, then heat it, and leave it for about one hour in a sufficient heat, that the Phlegm being exhaled, the potable gold may stay behind in the form of a white Salt: This done, pour again upon that Salt so much Rain-water as it evaporated in the boiling, or fill the glass so full with Rain-water, as it was before full of the AURUM POTABILE, that so lying a while upon the said Salt, it may dissolve it, which is hereby again turned into the same potable gold, having the same colour, the same taste, and the same virtues as it had before. The Mercury being freed from the said potable Gold, which is to be poured off, is found to be hard, and fix in the bottom like the best gold, and of the same bigness or quantity, as when it was put into the glass. N. B. If by some error committed the ARGENT-VIVE be not enough tinged and brought to a due degree, but hath gotten some blackness, it is to be taken out of the glass, and put into some little Crucible, and to be heated red-hot with live Coals, that so it may receive the due golden colour; which said colour it will get, and will be like

the best Duckat Gold, and will abide good and firm in all trials. But that AURUM POTABILE which was used about the coagulation of the Quick-silver, may be often made use of about the same labour; but yet you are to note, that you always take each time less and less Quick-silver to this operation, because the potable Gold doth in each of those successive labours lose by little and little its virtues.

This way of coagulating of Mercury may be like-wise used about the coagulation of other Minerals and Metals, provided that the said metals be reduced into thin Plates or Leaves, and so put in; for being put in too thick, they cannot be totally digested in so short a time by the AURUM POTABILE, into the due degree of Perfection, but remain (as their inside part) crude, and therefore an accurate regard is hereunto to be had. If this Labour be rightly done, the Metals will be thoroughly transmuted into pure and good Gold, and that of the same magnitude, figure, and form they were when you put them in; but yet one metal is sooner transmuted, and more commodiously than another, according as it shall be of a nearer affinity unto gold. N. B. If the Metal be not in a due manner proceeded withal, but be as yet black when it is taken out of the potable Gold, it is then to be well heated red-hot, that so it may get its golden colour. And if there be even yet any doubt left, let him put it in SATURN, and purge it by the Cineritium, or the Cupel, that so he may be assured of having true gold, and may be freed from all kind of scruple and doubt; for neither SATURN nor ANTIMONY will take away ought therefrom; which thing the proof it self will most clearly demonstrate.

The manner of making a Trial, by the dry way, concerning the Transmutation of the Imperfect Metals, by my POTABLE GOLD.

Take of my potable gold, or LAC VIRGINIS, 1 ounce, and put it in a glass dish; which done, and the dish placed in sand, evaporate all the humidity, until there remain about almost half an ounce of white Salt; put this Salt in a Crucible, with $1/24$ or $1/8$ ounce of the Plates of Silver, or Copper, or Iron, for Tin & Lead need not be laminated: Place your Crucible, together with the Salt and the Metal, amongst Wood-Coals, and the Salt will presently melt like Wax, and penetrate all the whole Metal, and transmute it into gold; and this operation is done in one quarter of an hour, or half an hour at the utmost. The molten Salt being poured forth out of the Crucible, you will find in the same Crucible, the Plate of the Metal, of the same quantity and shape it was of when put in, and throughly transmuted into pure good gold. The Tin and the Lead will be molten into Grains, as being of easie fusion, which Grains will have the nature of pure good gold. If the Crucible should be too much heated with too intense a Fire, it may also happen, that even the LUNA, Copper, and Iron too may melt into Grains. And this I thought good to inform the Studious of.

These (O thou Lover of Arts) are the too Examens and Proofs of my potable gold, and of trying it both by the dry and the moist way, which if thou shalt rightly perform, thou shalt not err from the mark. But now I must needs confess, that this Transmutation is not gainful, and I have already said before, that my divulging of all these things is

only to this end, viz. visibly to shew the possibility of the Art. For although that the gold gotten by these proofs be true, and purely good, and passing all the usual Trials, yet nevertheless it brings no profit, because this AURUM POTABILE requires so much expences, (afore it arrives unto this degree of power) as that the gold gotten by the benefit thereof, cannot countervail the same. Nay, if it should be somewhat profitable in this way, yet would that man do much amiss, that should waste away and imploy so kingly a Medicine for the getting of a little Gold, seeing there are other ways to get Gold by. And verily, it would be a great sin and shame for a man to consume such a most excellent and eminent Medicine for a little money's sake. Neither is it for this end, that I have thus mentioned what I have here said, viz. to use it about the making of Gold; for my aim is only this, that all the world may see that there are men to be found, even at this very day, upon whom the Divine Grace hath bestowed the Art of preparing and making most excellent Medicaments. I do not envy, that other men should learn something out of my Writings, and take the opportunity of advancing this Work to a farther perfection: But I would not have the impious ones at all to perswade themselves that they shall obtain this Instrument to do evilly, and to exercise their wickedness by; God, who knows what He has to do, will not do those things which are (perhaps) liking and pleasing to our fancies. I can every hour demonstrate the truth of what I have written, with which demonstration I rest satisfied.

I can easily conjecture that various men will pass various censures upon my Writings, but this is what I am not able to prevent; nor indeed

do I much care, but I do herein comfort my self, in that I have written an undoubted Truth, and can defend it even before the whole World. I can withal readily guess, that some or other may object against me, and say as followeth, viz. That my Potable Gold is a bare solution of common Gold, which being adjoined unto the other Metals, is by them precipitated, and so reduced into its former body; and this cannot be said to be a true transmutation of the Gold. To repel this objection therefore, I demand, Whether or no the common corporeal Gold can be dissolved without some corrosive Liquor? For this AURUM POTABILE of mine is void of all corrosion, and is a fiery water, most extremely contrary unto all corrosives: Seeing it is nothing else but fixed Nitre, or a sulphureous Salt, betwixt which Salts verily, and common Gold, there is no familiarity at all; nor are there any such virtues therein, as to dissolve the Gold: But put Case it could so be, that the body of common Gold should be dissolved with those fixed Salts, and that by such a Solution it should dissolve (or make) my AURUM POTABILE, verily it would necessarily follow, that such a solution of Gold would be of a yellow or red colour. But now 'tis not so with mine, for my AURUM POTABILE is so clear and bright, as that it far exceeds the bright transparency of even Fountain-water it self: Besides too, the solution of corporeal Gold tingeth the hair, hands, and nails with a black colour; but on the contrary, my Potable Gold does not so at all, and therefore justly and deservedly, it both may and ought to bear the Title of PHILOSOPHICAL GOLD; for all the Philosophers that have been true Possessors of an Universal Medicine, do confess in express words, THAT THEIR GOLD,

OR THE SOLUTION THEREOF, DOETH NOT AT ALL COLOUR THE HANDS, by which Character and Sign they distinguish betwixt the vulgar and philosophical Gold.

From hence it necessarily follows, that my AURUM POTABILE is prepared of the true Philosophical Gold, seeing it does not tinge the hands with any colour.

But put case that a Solution of common Gold should be made by the help of some MENSTRUUM that is not corrosive, (but such is not my solution) yet notwithstanding, it would not thoroughly tinge the Imperfect Metals and common Quick-silver in digestion with them, and transmute them, but would cover over (as it were) their Superficies only with the colour of the precipitated Gold, like as is wont to be with all other solutions of Gold, and such a powder performing the same effect, may be prepared of common gold; the way of the Preparation thereof I have delivered in my Writings. Silver being therewithal laid over, is as well gilt, as if it had been done with Gold and Quick-silver: The superficies therefore is only gilded over, but the body of the Silver it self is not at all transmuted, but abides in its former state. So Gold dissolved in spirit of Salt, doeth, by the help of the Vitriol of Venus, gild over the Superficies of any Iron, but the Iron retains its Irony property and nature: If to such a solution plenty of Water be poured, and ARGENT-VIVE, Tin, Lead, Iron, or BISMUTH, be put thereto, the gold is wont to precipitate out of the corrosive water, in the form of a porous Sponge, and to adhere to the metal thereinto put. Now, as soon as ever the water is shook about, the precipitated gold disperseth it

self abroad in the water, like a troubled muddiness, and the Metal is the same as it was before putting in, without any transmutation.

Moreover, if any Solution of common gold could tinge the whole body of the imperfect metals (but yet this can never be) it would necessarily gild over the external superficies of the Metals, and especially the external superficies of pure Luna, when rubbed or smeared over with the same: and even this now my AURUM POTABILE does not do; but if it be smeared upon Silver, it colours and paints it with all kinds of colours, and as infinite as appear in the Peacock's Tail, and in such wise too, as that they cannot be easily rubbed out; and these Colours are an undoubted Argument, that this my AURUM POTABILE is not the vulgar Gold, but the secret Gold of the Philosophers.

All these, and other the like Objections, I could most easily prevent by due and fitting Answers, if they should be objected against me; but I think no body will be so audacious, as (without producing any better things) to oppose himself against those things which in the judgement of the whole World are accounted for good.

Of the Use of my True AURUM POTABILE in MEDICINE.

To what purpose should I make many words of the most great Efficacy and Virtues of my Potable Gold in Medicine? I do not deem it a thing necessary to write a large Book concerning them, for such kind of Writings do many times more hurt than good: For there is such an odd custom of Writing so prevalent, as that some men blush not oft-times to ascribe

such great virtues to some coloured Brandy-wine, as can hardly be attributed even to AURUM POTABILE it self. I confess, that many times there lies more Virtue in some very vile mean thing, than in precious and sumptuous Pearls.

But seeing that every one cannot discern the true from the false, and is constrained (on the contrary) to give credit unto those things which he draws in by his Ears, it cannot possibly be, but that he erre from the Truth, and often chuse the evil instead of the good; which defect is easily helped by making trial, and proving them, for this way is wont to try the Truth of things.

Should I but describe in an accurate manner the Virtues of my Potable Gold, it would fill a large Volume: And this is not my intent in this place, but (God permitting) it shall shortly be effected in a little Book, wherein shall be comprized many other of my best Medicaments, and shall shortly come abroad under the Title of GLAUBER'S PHARMACOPAEA: And in this place I will in few words hint out the Use of my AURUM POTABILE.

Therefore, forasmuch as my Potable Gold is (as I have already frequently repeated) a concentrated Fire, and reduced into a liquid form, and all its whole Essence may be said to resemble nothing else but some tender penetrating Fire, yet void of flame, every one may readily conjecture what it is helpful for, and what use it is of in Medicine.

Amongst all the Elements, the purest, subtilest, most penetrative, and most efficacious is Fire, and this is granted by every body; for the force of the Fire, viz. its heat penetrates even the most compact

bodies, as Metals, and Glass; nor is there any thing that can stop its way; the Water, Earth, and Air are easily shut out. The Omnipotent God Himself is compared with Fire, from whom all things receive Spirit and Life, and without whom nothing can live or move it self, for without him, all things are dead, hard, and cold; as appears in the bodies of men and other Animals, which being alive, are always hot, but being dead, become more cold than any Ice.

Therefore, as long as that small spark of Life in Man, and other Animals, is fed and nourished with its due Food and Drink, so long doth it also attract its nutriment, and continues in its vigourusness.

But as soon as it is destitute of its nutrition, and that it be taken thencefrom, the Life doth presently begin to be debilitated, and to fade, like as a kindled Lamp, if Oil be not poured thereunto, doth at last go out, and extinguisheth.

Seeing now that the Life of a Man is a meer fire, and is fed and sustained by a suitable Food and Drink only, like to a Lamp, which (without the pouring on of Oil, and without Air, without which no fire can burn, nor any Life live) cannot conserve its light. Some or other may demand, What the reason is, that such men are so easily seized on by Diseases, who have no want of the best Food and Drink, and which too is most fit for the sustaining of Life? Hereto I answer, That in such kind of men, the gross, crude, tenacious, and cold humours do shut up the passage to the point and spark of Life, whereby it is deprived of the nutriment, being hereby kept back. For an Example of which, Take a kindled Lamp, in which the Wick or Cotten is furred and clogged up

with the Dreggs of impure Oil, whereby the Oil can have no farther access to the burning Flame; and hence it comes to pass, that it goes out, and vanisheth, and dies, though there be store enough of Oil. So likewise is it with an old Tree, though there be store of Dung thereto applied, yet the vegetation is not always, and for ever, but all things die at last. Now, the crude, gross, and clammy humours insinuating themselves into the Roots, do hasten on this death, and the Roots being stopt or clogged, the due nutriment is withdrawn or withheld from the Tree, like as is wont to happen in Men, and in burning Lamps, as we said but now.

All things have their natural Causes, the which thing God Himself hath doubtlessly so ordained and implanted in Nature, that all things in their order hastening on in their destruction, nothing may be found wholly constant and stable in natural things, but be all subject to decay and death, and that Eternity alone, and Divine stability, (or the durability of coelestial things only) might be laid open.

Bright clear Water, having its course through Channels and Wooden Pipes, doth, after many years time, at length fill them with Dirt, stops them up, and bars up its own way and current. This is the Operation of the clear and cold Water of Fountains; the hot Baths do it far sooner, as appears in the AQUISGRANE Baths, and others, in which the AQUADUCTS and conveyances for the Water are to be frequently opened and cleansed, whereby the Water may have the freer passage. But those Waters, which being hot, do (when cool) presently let fall their faeces in the Vessels, and stop or furr them up, do most speedily of all shew this same operation. The same is also done in open Vessels, if, viz. the clear and

transparent Water of Fountains be several times heated in a Copper, and be again so often cooled, there doth then at length stick on to the inside of the Copper a tenacious sliminess, which at last is turned into an hard stone.

If now the pure and bright Water of a Fountain effecteth such an operation, What, think you, would that Water do, which in its own nature is troubled or muddy, thick, saltish, and slimy. Hence it is that not only new-prest Wines, or that thickish, muddyish Must, do let fall their faeces to the bottom, and fasten their Tartar to the sides of the Barrel, but even the old Wines do likewise do the same, but not so much as the new ones do.

Now then, seeing that such kind of troubled drinks are used by men for nutriment, it is clearly necessary, that (the internal Bowels of the body being stopt by their dregginess) their nourishing property of the Life must with-draw, like as the feculent Oil withdraws from the light of the Lamp: For all those things which a man feeds upon, and daily drinks, do in process of time stop up the passages of the internal bowels and conveyances in the body of man, and so despoil the vital Fire of its nutriment. Therefore by how much the more this nutriment of the Life is withdrawn, so much the sooner is the light or vital Fire extinguished, and the cold and darksome death approacheth the nearer, and becomes superiour. From hence arose that old Proverb, EAT SUCH THINGS AS ARE WELL COOKED OR BAKED; DRINK SUCH DRINKS AS ARE CLEAR; SPEAK SUCH THINGS AS ARE TRUE, THAT SO YOU MAY BE LONG LIVED.

But now some may say, I will therefore shun troubled drinks, and

feed upon well-drest and well-prepared Meats, that so by shunning the way for Death's entrance, I may enjoy a long-life. I confess, 'tis well said, for sobriety in meat and drink, and the shunning of gross and crude meats, and troubled drinks, do much help to conserve health: But yet it does not follow, that he shall not be at length subject to Diseases, nor die; for there is no meat that is so well cooked, and no drink that is so clear, but it carries with it its hidden faeces, with which the internal Vessels may in a longer process of time, be stopt up, and Diseases introduced, even as we shewed but now, by an example drawn from Fountain-water, which in process of time stops up its own passages: And by the same reason too must those Trees that are in the highest tops of the Mountains at length die, when (though they are nourished with most clear Rain-water) their nutrition is withheld from them by the stopping up the pores of the Roots.

But yet I do not say that an Oak, or some other wild Tree, in wild places, which is nourished only with the Rain-water, and the leaves which yearly fall off, dures no longer than some Fruit-bearing Tree does, which is dugged and nourished in the Gardens with singular care and labour: No, for it is known, that an Oak doth many times endure and live a Thousand years; whereas on the contrary, such a tilled or tenderly kept Tree scarce attains to the Hundredeth year, and this is to be imputed to the diversity of nutriments. The Stag in the Woods, and the Crow in the Air, live above an Hundred years, but being caught and finely fed, they scarce live Fifty years. A man that lives barely upon Bread and Water, will doubtless, prolong his Life to far more years than if he

used delicate food and drink, and this is a most manifest thing, and yet men lay it not to heart, but by enjoying too great a plenty of delicacies, they burthen Nature with too great a load, from whence obstructions of the bowels do arise, and a way laid for Diseases to enter in. A Tree that is dunged with too much Dung, gets to it self, together and at once, too much fatness, and this choaks up the Roots and hinders nutrition, whereby the body and boughs thereof cannot be supplied, and so consequently Death must enter in, and put out the Life of that Tree. What Councel now? You will haply say, If that obstructions be the principal causes of Diseases and Death, are there no Remedies, by whose help such like obstructions may be prevented; or (if they already are made) be wholly removed and taken away? Yes, I say, that both may be done, viz. a timely prevention, and also a through abolition of them, when they have gotten head; and this to be done by such kind of Medicaments which are friendly to Nature, and contrary unto the things from which those obstructions and constipations have their rise; for cold, tenacious, impure, and watery humours must necessarily be attenuated, mollified, cut, and opened by heating, attenuating, inciding, or cutting, penetrating, and fiery Medicaments; for daily Experience teacheth, that it is a thing clearly impossible for obstructions to be taken away, what kind soever they be of, without the help of warming and penetrative Medicaments. And amongst all those Medicines, these are found to be the most certain and most efficacious, viz. the volatile Spirit of common Salt, or of Vitriol, void of corrosiveness; the volatile spirit of crude Tartar; the spirit of Urine, and of Salt-Armoniack, and other

the like fiery Spirits, which do exercise their Virtues with most excellent success in the taking away of those kind of obstructions. But forasmuch as those volatile spirits do for the most part set upon and resolve such obstructions as are but beginning, and not as yet confirmed, but do not seize upon the more fixt and inveterate ones, as having not so much strength as to subdue and cast out them, for they are to be cast forth by their like, that is, by the more fixt Medicaments; which thing no skillful Physican will gain-say. The whole drift therefore of the business lies in this, viz. by what means such kind of Medicaments may be gotten, as by whose help not only the newly-risen obstructions, but also the inveterate and confirmed ones too, may be driven out of the body of man. Now, this cannot be effected by Herbs, and such-like natured things, as is sufficiently witnessed by this present Age, for no body that is subject to those kind of obstructions, is cured by the help of the Herbs, and such like things. For after that the sick Patient hath a long time used the palliative Cure in vain, Death at length comes forcing in, and snatcheth him away after his licking in many Pots full of such stuff, which notwithstanding, by some good Medicine might have been easily prevented: For, I pray, how can it possibly be, that a cold, gross, crude, and not well-prepared Medicine should draw forth cold and gross humours, which should be heated, cut, and mollified? 'Tis just as if a man would melt one piece of Ice with another piece of Ice, and so reduce it into Water; but yet it will never be done without fire or heat. And therefore a penetrating, fiery, living and good medicament, is to be applied unto those cold and tenacious

obstructions, to heat, extenuate, and scowre them out; and the Syrups, Conserves, and the cold, dead, and mucous or slimy Juleps should be removed.

Verily, I cannot sufficiently enough wonder, when I think upon the small regard that is had to the Life of Man, and how rashly and wontonly it is neglected, out of meer pure ignorance.

The present World is so blind and perverse, as that it neither will nor can believe this; though it be shown it even with ones fingers: But yet this stubborn perverseness does not hurt any so much as it does the Innocent, who understand not these things; and are even constrained to credit those things only which they hear of; all other things they commit to Chance and Time, together with the rest of those errors, unto which, as likewise unto other abuses, this endeavour of mine, will (if God so please) some time hereafter administer some Redress.

We do therefore conclude and determine, that the principal and chiefest occasion and cause of Diseases and Death, are those slimy, gross, tenacious humours, which by little and little seize on and stop up the internal bowels of the body, and withdraw (or withhold) from the radical humidity its nutriment, and so debilitates the vital fire more and more, and at length quite extinguish it.

Now, to remove and throw off these Furrings, there is no other Remedy, but that the passages of the internal bowels be kept open and clean, or that they be opened and unlocked, as 'twere, if already stopt up.

Now this thing my AURUM POTABILE can perfectly effect; a better Medicine than which, and one more apt and fit to open all the obstructions of the body of man, 'twill not be so easie a matter to find; for

it is in its nature a subtile, fiery, penetrating essence, warming all cold affects, attenuating the gross, inciding or cutting the tenacious, and consuming, and drying up all humours and Waterishness; insomuch that (being made use of) it doth inhibit and impede the generation (or growth) of all kind of obstructions, and by mollifying and inciding them when they are already generated, doth wholly take them away: Upon this account, by its corroborating the radical moisture and vital spirit, and preserving it safe and sound, it gets the preheminnence over all other such Medicaments as perform the same effect: Most worthy is it therefore to be called and esteemed the concentrated center of all Medicaments. For all those virtues which are found simple and divers or distinct in any of the Vegetables, Animals, and Minerals, and which do, by a PARTICULAR Efficacy, set upon Diseases; are concentered in my AURUM POTABILE, and being collected into one, do display all the virtues of those particulars universally, and therefore do these virtues discover it to be well worthy the name of an Universal Medicine: For this Medicament does not only exceed all other Medicaments in the most speedy operation of its virtues in the curing of the bodies of men, but also it plainly abounds with the same admirable virtues in the bettering of the Vegetables and Minerals; and therefore it is to be preferred beyond all others, and to be extolled with the highest Praises.

But now, if in case it should abound with far more noble and more efficacious virtues, (as to the taming and subduing the Diseases of men) then it already hath; and yet, on the contrary, should effect nothing by those its virtues in the melioration or amending of the Vegetables

and Minerals, it could not possibly claim to it self the Title of an Universal Medicine, but would be ranked amongst the number of PARTICULAR Medicaments, as tending only to the curing of the Diseases of Animals. But now, seeing that (as we said before) my AURUM POTABILE doth most powerfully help not only men, in the Animal Kingdom, but likewise in all the Vegetables and Minerals, (out of the Dominion of which three Kingdoms, viz. Animal, Vegetable, and Mineral, there is nothing in all Nature to be found) and is a most high Medicine unto them all; therefore also the Name and Title of a UNIVERSAL MEDICINE doth rightly and properly appertain thereunto.

The Philosophers do indeed ascribe thus much unto their Universal Medicine, viz. that it is able to heal all the Diseases of Mankind, and of the imperfect Metals, and their defects, and transmute the said metals into perfect Gold. But concerning its being the supream medicine for Vegetables too, that they are silent in: Why they silently pass this over, for my part, I cannot certainly tell, nor do I deem it necessary to expound the same: 'Tis sufficient that my self have proceeded farther, and do manifestly declare, that it will perform the same in the Vegetables too.

But yet I would that everyone should understand me aright, and not count me so simple, as if I did liken or compare my AURUM POTABILE with that great Stone of the Philosophers, which transmutes vast quantities of imperfect metals into most pure Gold by projection: No, no, I do not ascribe such great Virtues unto my Medicine, which it has not in it, but yet withal I cannot tell, whether or no in process of time some better thing may not arise therefrom.

Farther too, the Philosophers say of their Medicine, that it can make variously-coloured precious Stones, agreeable in any colour to the natural ones, out of all kinds of Flints. And now, perhaps some or other will require this of my AURUM POTABILE; to whom I reply, as afore, so again now at present, that my AURUM POTABILE is as yet imperfect, and is but in its infancy, which haply (being brought by the benefit of the fire unto perfection) will effect the self-same thing: But in the state which at present it is in, and whereunto my self have brought it, and 'tis at present constituted in, it is turned in three hours space in a covered Crucible, into a transparent Stone, red like blood, and resembling a Ruby: Of which, if a little bit be cast into molten glass, it makes it green, yellow, sky-coloured, or even black too; according to the moreness or lessness of the quantity thrown in, or according as it is longer or lesser while kept in Flux. If now it operates these things, whilst unfixt and immature, any one may easily conjecture what it would effect, were it brought to a perfect constancy in the fire.

But it tingeth some sorts of the white Flints, kept for some hours in the Fire, with various colours, and transmutes Sulphur it self into most excellent Gold; which effect makes me more admire, than all the things that I ever heard of; and how this happened to me, it will be worth the while, at present, to make mention of. I did once put some ounces of my said AURUM POTABILE in a porcelane dish, as they call it, and placed it in sand, that by the evaporation of the Phlegm, I might reduce it into a Salt: But whilst I was absent, the heat of the Fire

being too much encreased, a good part of the Liquor boiled over the Dish, and spilt it self into the Sand. Now when I came to look to it, I perceived that the Liquor which boiled over the dish had hidden it self in the hot sand, I took out the said sand, which with the AURUM POTABILE was gathered into one body or mass, and I put it in a glass, and poured Rainwater thereupon, and placed the Glass in hot Sand; then I put the Water with which I extracted the Salt, into a Tunnel, together with the sand which was to have the salt separated from it, and so I separated by a Filter the Liquor thus impregnated with the salt, from the sand, which said Liquor past through transparent, and unchanged in colour and taste: But now this sand, which was white at first, was clad now with a red colour, which stirred in me an exceeding admiration, that this Potable Gold of mine should tinge the sand. This sand I put in a Cupel, and brought it to the Test, and it yielded me pure good gold; and this made me wonder the more; for verily it is a wondrous transmutation and such as I never heard of.

Upon this account do I perswade my self, that a piece of Crystal may by a bare digestion in this potable Gold, be digested into a precious Stone, but I have never as yet tried it, but yet I will try it, if God prolong my Life.

Having made this trial with the sand, I presently conjectured, that the sand which I planted my Herbs in, and which I moistened with my AURUM POTABILE, did not impart the full virtues, and all the qualities of the gold to the Herbs, implanted therein, but did retain the better part to it self, for its own melioration, and afforded but the smallest

portion thereof to the Herbs: Nor did this conjecture deceive me, for upon this occasion I searched farther into this business, and found it even so. And therefore, for the future, I used no more sand, for the communicating the golden virtues and faculties unto the Herbs, but instead thereof, I used Sawdust, in which I began to sow or implant the Herbs, for Wood is not endowed with such powerful or strong virtues, as to be capable of extracting the aureous Essence out of the Potable Gold, like as the sand doth.

Upon this accompt therefore any rotten Wood or even the Sawdust of Wood will be more fit for this Work of planting, than sand it self is, for the sand attracts to it self the most principal virtues of the AURUM POTABILE, and thereby doth better it self, and bestows upon the Vegetables some small Reliques only. Had I not accidentally found this effect, the sand would have robbed me of much benefit.

Moreover, this thing likewise, which is well worth the knowing, must not be passed over in this place, viz. that what herbs soever are (by the help of my AURUM POTABILE) grown up, they are all of them greater and stronger than the common sort are, and do far exceed them in colour, taste, smell, and in all virtuous qualities. The reason is this, because the said UNIVERSAL MEDICINE is a meer fire, and bestows its fiery vigour upon the Vegetables and Herbs: For it is a thing sufficiently known, that by how much hotter the Countries be, so much the more efficacious Herbs do they produce.

The Herbs that grow in the lower HOLLAND Countries, are not comparable to those which the upper GERMANY (which is of a drier and hotter

soil and air) doth produce, neither in odour, savour, nor virtues. Nor doth High-GERMANY produce Herbs of that efficacy and bigness as FRANCE doth, which is of a hotter and drier air than GERMANY is; for in GERMANY Rosemary will hardly preserve it self safe from being injured by the Winter season; whereas in the French Desarts it grows so exceedingly well, as that it runs up like Trees, capable of defending one against the Rain, the which thing is not usual in the more cold Countries. Verily most excellent Honey is brought from MARSEILLES, (where the Bees suck it out of the Rosemary Flowers) into GERMANY, HOLLAND, and other Countries, wherewith excellent Metheglin is made, and other Fruits and Flowers conserved therewithal. But that Honey which the Bees are wont to gather in HOLLAND and FRIEZLAND, about in the moist Meadows and moorish Fields, from the Flowers there growing, hath scarce any odour at all, but yet it is in goodness beyond that which the Bees gather from the strong-smelling Flowers of wild Trees, or from the Blossoms found in the barren Broomy Thickets. By this therefore it appears, that there is a vast difference between the Virtues of the Herbs in this or that Country, and that such men are not a little deceived, who without any regard had, esteeming of all the EUROPEAN Herbs alike, do attribute to the Herbs of the Northern Countries, as DENMARK, SWEDELAND, NORWAY, POLAND, the self same Virtues as the ancient Physicans ascribed to theirs, in the more Sourthern Countries. And thus do our modern Galenists, affirming that their moist Herbs in these cold Countries are of equivalent Virtues to those Herbs which the ancient Physicans have made mention of; but Experience sufficiently testifies what effects they shew, and what errours the said Galenists commit.

AVICENN, AVERROES, AEGINETA, and the pillager GALEN, were not GERMANS, SWEDES, DANES, or POLONIANS, but dwelt in those hot Countries, wherein the soil or earth was day and night heated with the Solar rays, and impregnated with an aureous property, and so communicated to the Hearbs wonderful Virtues and admirable Efficacy. Extreemly therefore do they erre, that dare attribute the very self same virtues to the Herbs of our colder Countries. But I confess, that by the benefit of Art, the self-same virtues may be bestowed on the Herbs, even in our most cold Lands, which those Authors attribute to their ARABIAN Vegetables; WHERE NATURE ENDS, THERE THE ARTIST MUST BEGIN, say all the Philosophers, but especially HERMES, who is, as it were, the Father of all the Philosophers, doth clearly and openly testifie the same in his SMARAGDINE TABLE, saying, THAT WHICH IS BENEATH, IS LIKE THAT WHICH IS ABOVE; AND THAT WHICH IS ABOVE, IS LIKE THAT WHICH IS BELOW, FOR THE ACCOMPLISHMENT OF THE MIRACLES OF ONE THING, & ETC.

And albeit that those words are expounded with divers Explications, yet notwithstanding, the general sense and meaning of them points at nothing else but the superiour and inferiour SOL, which generates all things, and brings them to perfection: We cannot by any force draw unto us the upper SOL, much less enjoin him to make our Lands partakers of his more hot beams, and to fill the Herbs that grow therein with the self-same virtues that the ARABIAN Vegetables were endowed with: Alas, the Sun neither hears nor knows us, but proceeds on in its accustomed course, and dischargeth that office which was imposed on it by the Divine Power. If we are desirous of bettering those gifts of Nature that

are vouchsafed unto us, then must we set about the Work of Art, and see whether or no it (being an imitator of Nature) can afford us any help. And this it will do very easily, insomuch that our EUROPEAN Earth may bring forth as efficacious Herbs as the ARABIAN soil doth, and that with small Costs and Labours; so that there is no need of my more chargeable AURUM POTABILE for the accomplishment of that business; for a sulphureous and fluid salt Water will perfectly effect the same, seeing that in salt and sulphur the Solar beams are abundantly concentrated and coagulated. This is our Terrestrial SOL, by the virtue whereof all things do grow, which if we do but know how rightly to fit and order, we should verily effect the very self-same thing by the help of Art, that the superiour and natural Sun operates in the Herbs, after its natural kind of way.

He now that neither understands nor apprehends these things, is not at all worthy to be accounted a Philosopher, but follows after blind Leaders, and hurries others as well as himself into darkness. The Sun performs its course in the Firmament, according to its accustomed manner, and cannot be rendered either greater or lesser: But we have the inferiour Sun in our power, and can accomodate it to our Herbs according as we list our selves, and in what quantity we please.

Upon this accompt ART DOTTH FAR OUTSTRIP NATURE; and 'tis in our power, by the help thereof, (viz. of Art) to outstrip it, if so be we have it and know how to use it. But this Discourse of mine hath been more large than I intended, and minds me of desisting therefrom. I suppose I have spoken enough for a wise man's instruction; and thus much

I thought it was expedient for me to hint by way of a Parenthesis.

But yet however, that I may the more clearly and more perspicuously set down all matters, that so every one may see and apprehend, that I have set before them the meer pure naked Truth; I judge it expedient to insert here yet more Examples and Instructions, that so whoever has a mind to make trial, may in very deed experiment the Truth of this thing.

Coagulate my Potable Gold into a red Salt, and put in 3, 4, 5, 6, 7, 8, 12 grains, more or less, into half an ounce of Crystal glass melted in a Crucible, that lying in the superficies thereof, the said grains of AURUM POTABILE Salt may be molten. This done, the glass will presently attract into it self the Tincture, and become of a Jacynth colour, and so delicate, that it is not a whit inferiour in colour to the natural Jacynth. N. B. If the melting be continued yet longer, the glass will be tinged with a golden, green, sky-coloured colour, and at last with a black-colour too, if it be too long left in the fire.

He that desires to make a Ruby, let him put the bare coagulated Potable Gold (without the addition of any peregrine thing) into pure and covered Crucible, and there leave it in fusion for some hours, and he will get such a delicate blood-like coloured glass, as is capable of refreshing a man's nature, when debilitated with the multiplicity of cares, troubles, and labours, and this by a bare looking thereupon. And any one may easily conjecture what a refreshment it will be to a man's mind, when (after abundance of vain-spent labours, and exceeding earnest expectations of the Blessing of God upon them, he doth at last

see with his own eyes, that that thing is possible to be effected, which with such an incredible, ardent a desire he hath so long a time sought after. Without doubt the seeing of the promised Land did affect MOSES with an unexpressible joy, though he never entred thereinto.

What man knows by looking upon the seed of any thing, what colours and what figure the Plant is of, that will proceed therefrom? But in its growing up by a due nutrition, it doth at length become manifest, which afore lay therein hidden: Even so the true first Ens of Gold lies hidden in my AURUM POTABILE, and is not visible to the sight, much less doth that appear which shall or may by Art be made thereout of, before it shall have arrived unto its constant fixity or fixation, (as the Chymists phrase it) by the help of the fire. And therefore must there be a patient expectation until this Infant wax ripe, and attaining unto a man-like estate, it performs man-like actions.

Who would ever have believed that there lies hidden in an Egg the whole essence of a Bird, with all its Members, Feathers, and whatever else appertains thereunto, but that it is a thing so thoro ghly common? The Must of Wine, if drank in too great a quantity, hurts the stomach, weakens it, and causeth Colick pains; and the same Liquor, after it is become a strong and clear Wine, corroborates the stomach and the whole body, and so at length lays off those virtues or properties which it held hidden in it self whilst it was Must. He that knows a Vegetable Seed, an Animal Egg, or a Mineral PRIMUM Ens, doth at last also come to know, that from a Seed there must proceed an Herb, from an Egg a Bird, and from the first Ens of Minerals an Universal Medicine: But he

whose understanding cannot comprehend these things, but contemns them, as an abject or contemptible Seed, Egg, and first Ens of Minerals, viz. a sulphureous Salt, such a one doth even ignorantly despise the Herb, the Bird, and the Universal Medicine hidden therein. Therefore no body should contemn those things that he has no knowledge of. And seeing it is clearly perceptible, that the first Ens of Gold hides within it the true Universal Medicine, and which Time, Art, and Nature will really produce unto the Light: Therefore there is no reason why any one should undervalue my Potable Gold, or despise it, because it is as yet in its infancy, and is like some common salt water; but he should rather think thus with himself, that it is like the white of an Egg, which hides within its inward bowels, as I may say, its yolk, which in process of time will bring forth a most delicate Bird.

But these things which I have already spoken of the nature and properties of my AURUM POTABILE may suffice; its Medicinal use shall shortly be clearly described amongst my chiefest Medicaments, and so be published, together with them. But he that is minded to make use of the same in the mean while, may safely do it, and without any kind of hazard at all, for it operates nothing else, but what is conducive to the good health of man's body, corroborating the debilitated radical humidity or vital spirit, and confirming it, by which the life of man is nourished, increased, and conserved many years in a wished for healthful estate, just as a Lamp is kept alive by the pouring on of Oil, or the vigour of the Fire by the apposition of Wood thereunto, by which it is preserved from extinguishing and dying: But yet the use thereof must be warily

and judiciously admitted, because being a meer pure fire, it must be moderately adhibited. At the beginning of administering it, one or two drops may be given in Wine, Ale, or other Drink, unto the Sick, but best of all in the spirit of Wine: Then the next following day one little drop more may be added, and so the Dose may each day be augmented by the apposition of one small drop, until it work by Sweat and Urine, and sometimes also gently by Stool.

This Operation being made (and on this wise active) then the Doses are to be in like manner daily lessened by the omission of one drop at a time, until the Sickness be happily removed, and so the sick need no farther use of the same.

All things being thus rightly instituted, it will manifestly appear, that all Sicknesses, yea, the hidden ones too, are expelled by this Medicament, and even as it were consumed like as Wood is consumed by a burning fire, in such wise, as that nothing at all of it remains, save the fixed Salt, but is all reduced into a Nothing: For all Diseases, as we shewed afore, have their rise from moist humours, which nothing can heal and remedy more commodiously and safely than this AURUM POTABILE of mine, which is such a vehement resister of all over-abounding humidities, opening, inciding, consuming, and dispelling them, just as the SOL consumes Water in a Vessel, and wastes it away by evaporation. Hence it is, that it both cures, and by way of a preservative, prevents the LEPROSIE, FRENCH-POX, QUARTANE, and all other FEVERS; the SCURVY, EPILEPSIE, APOPLEXY, HYPOCONDRIACK MELANCHOLY, THE STONE IN THE REINS AND BLADDER, the GOUT, and all other DISEASES OF THE MATRIX, both

known and unknown, and the various Sicknesses of Women, as also the dreadful PLAGUE, with all the evil-effects arising therefrom. For it is found that nothing is subject to Corruption and Death, but an abounding Phlegm, or an immature humidity which is wont most speedily to pass into a putrefaction.

From hence it is clearly manifest, that the sanguine man, which is endowed with a drier temperature, has a far better fruition of his health than the phlegmatick man hath, who abounds with moisture.

Dry Sugar dures many years, but being moistened, it turns sowre, and becomes ropy and ill-favoured, tho' it be a Salt, and is mixt with other corruptible Vegetables to preserve them.

From hence may it be seen, that a superfluous humidity opens the Gate for Death to enter in by, and seize upon the Life: But on the contrary, a temperate siccity preserves all things in an healthful state, and barrs up the passage against any corruption. The Roof of a curious and stately-built House being full of chinks and holes, lets the Rain in, which moistens all the whole structure, and causeth it to rot and spoil: But if the holes in the Roof be stopt, and the windows by which the Rain beats in be shut, and the windows on the other side of the house, where the wet beats not in, be on the contrary opened, that the warm Air passing in, thereby may throughly dry up all the moisture, and so inhibit or put a stop to the Progress of Putrefaction, then the whole frame and building will be kept sound and good, which otherwise would be rotted and quite spoiled. Such men as live in the moorish and fenny Countries, and feed upon a waterish Meat and phlegmy Drink, are for the

most part of an unsound temperature, and troubled with Catarrhs and the Scurvy. But on the other hand, those that inhabit high and lofty places, and have the fruition of a drier and purer Air, and that feed upon such meats as are more conducive unto health; these men Know nothing of those watery sicknesses, but have flourishing and strong bodies, and have firm, compact, and excellently well tempered flesh. And this difference is not found only to be in Men, but also in all other things. For not only Bread, Flesh, Fruit, and such other things as are used for daily food, do grow mouldy much sooner in the moist places, and so corrupt, but also even Metals themselves, too, as Iron, Copper, Tin, and the like, even these cannot shun the corruption of the Air, but are laid over with Rust, which (in a drier air) they do not so easily contract.

By all these circumstances it is so clearly evidenced, that superfluous moisture is to all things always hurtful, and gives an inlet unto Corruption, that I think there is no body that will dare to say any thing to the contrary.

And therefore seeing that this AURUM POTABILE of mine doth (amongst all other Medicaments, what Titles soever dignified with) most notably excel in the taking away of Corruption, and may be most safely made use of both for preservation from, and curing of Diseases, it ought to be accounted and esteemed of as an UNIVERSAL MEDICINE, and that very deservedly, and which gives place to none.

These few things I was willing to describe here in this place, concerning the use, efficacy, and virtues of my Potable Gold, in the curing

of the Vegetables, Animals, and Minerals. There shall suddenly follow more concerning the same, in THE DESCRIPTION OF THE USE OF MY PRINCIPAL MEDICAMENTS.

It now remains, that I make some brief mention of the preparation of my aforesaid Potable Gold, although I have already often done the same in many places of my Writings, and have very clearly shown the same, but yet after a Philosophical manner, and without setting down any Receipt, but here and there by piecemeal; as for example, in my MIRACULUM MUNDI, in its EXPOSITION and CONTINUATION, where it is briefly described, so as that it therefore needs not any further illustration.

But yet, that I may abundantly satisfie all men, I do (by way of over-plus) admonish every one, that he do not think that this subject is to be sought after from foreign and far remote places, with a great deal of costs and charges; for the matter out of which my AURUM POTABILE is made, is in every place, and offers it self even in a manner GRATIS, to the most poor as well as the richest, and without Costs, and is brought to its perfection in three days space: To that perfection, I say, (that you may rightly understand my mind) as its infancy requires, viz. so as to become a LAC VIRGINIS, or a clear Universal Medicinal Water, which I call AURUM POTABILE, and in which the most precious Dragon's-blood, lies hidden, which is to be transmuted in a certain limited time, by fixation, into a constant Salamander; the which I have not as yet ever effected, and therefore forbear to use more words, resting satisfied with this my AURUM POTABILE, which I have many a time prepared by my labour, and here treat of, and forbear to multiply any more words

about things of greater moment. In the mean time I doubt not, but that (if time and labour be bestowed hereabouts) this AURUM POTABILE would arrive unto the utmost fixity and constancy, both in the moist and in the dry way.

Farthermore, I deny not, but that this same AURUM POTABILE may be made of all the things of the whole World, but yet easier and sooner out of one subject than another. THERE IS NO INFANT THAT IS BORN SO POOR, BUT THAT HE NECESSARILY ENJOYS THAT SUBJECT, AND CANNOT LIVE WITHOUT IT: Therefore some of the ancient Philosophers have written, THAT Adam AND Eve HAD THE SAME MATTER IN Paradise; when as yet they had no cloathing.

MARY the Prophetess and Sister of MOSES, calls it, THE WORK OF THREE HOURS; another calls it, THE PHILOSOPHICAL WORK OF SEVEN DAYS: I GLAUBER, being a new Disciple of HERMES, do most truly affirm, That this my AURUM POTABILE, which I here treat of, may be perfected not only in three days, but even in three hours space, and that out of such subjects, as are every where to be found, and which all men know and make use of, and cannot be without.

I speak the pure and naked Truth, without hiding it under any coverings of similitudes or enigmatical expressions. And that no body may think that these my Writings are not to be understood according to the Letter, but that they conceal all things under an hidden meaning, I do again affirm this third time, that the AURUM POTABILE which I write of, may be made of any Vegetable, Animal, and Mineral, but yet sooner out of one than another. For although any one may prepare it out of a piece

of Wood, Bread, or Flesh, and out of an handful of Straw, Leaves, or Grass, yet notwithstanding, it may be easier made out of an handful of the salt of any Vegetables and Animals, as being their concentrated center; and this I bequeath to the whole World as an infallible Truth. But I would have every one rightly to understand me, what Salt I here point at, viz. I mean no other, but that which is to be found in all things.

But that the true meaning of my words may be yet the clearer and openier disclosed, I will adjoin a short but fundamental Discourse. It is not sufficient for a lover of Art, that is inflamed with a desire of obtaining some good thing, barely to read over such or such a Philosopher, and presently to perswade himself, that by the meer reading, he shall forthwith understand clearly and perspicuously the Art treated of. No, but he must accurately meditate, and consider what that is which he seeks for, whence it hath its original, and by what means or what way he may obtain it. For if we will make our search from the utmost and extreamest Coasts (or Bounds as it were) even to the inmost bowels or center, we shall find, that God was One and alone from Eternity, even till the time wherein it pleased him to create visible things for His own glory and delight. And when He went about doing this, He said, LET IT BE: As soon as this FIAT, or LET BE, was pronounced by God, it began to move it self, and to change (or turn) into four Elements, out of which Elements there afterwards arose all those Creatures, which can be discerned with our Eyes, and without the four Elements they could neither be nor consist, and without them even Nature her self can bring forth nothing.

Now, if any one would endeavour after what is purer and better than those things which are generated from the Elements, he must make his attempt by ART, the which, by overcoming or outstripping NATURE, hath its tendency to that But where-unto Nature cannot attain; and he must there begin his operations where Nature ended hers, as not knowing how to make any further progress: For then is a QUINTESSENCE obtained, which exceeds Nature one degree, and cannot be promoted by Art any farther.

But if any one has a desire of obtaining any better and greater thing than this same QUINTESSENCE, he must then proceed some other way; for (as we said but now) Art cannot make any further progress beyond a Quintessence: And therefore necessity requires, that there be made a regress or retrogradation unto the Center from which the very Elements themselves have their original. This Center is that Divine FIAT or UNIVERSAL HERMAPHRODITICK SALT, participating of both natures, which being the true PRIMUM MOBILE, comprehends hidden in it self two contraries, which acting one upon another, do bring forth the three Principles of the three Kingdoms, VEGETABLE, ANIMAL and MINERAL, and do nourish them by the four Elements, and multiply them, and this is the common course of nature.

But now Art makes a much farther progress, and reduceth the CIRCUM-FERENCE to the CENTER, and doth not permit unto that CENTER or PRIMUM MOBILE, that the PATIENT be overcome or subdued by the AGENT, by the operating of those two contraries upon each other, nor does it suffer it to pass into those three kingdoms, viz. VEGETABLE, ANIMAL, and MINERAL, as into its Circumference, but doth so subdue, and keep, and bridle

in that PRIMUM MOBILE, that it does not divide or dilate its Virtues by a large circumferential walk, as it were, but doth in a manner swallow them down into its own self, or concentrate them: just as if a Dragon should bite off his own venomous Tail, and therewithal nourish himself, when he cannot light upon any other Food, and so by this means becomes a most high Medicine. And therefore most wisely said HERMES, OUR DRAGON DOTH NOT DIE, BUT BY ITS BROTHER AND SISTER. It is a thing necessary, that one Fire should overcome the other, and transmute it into a more noble essence. Such a fire as this, is my ALKHAESTICAL ARCANUM, or true AURUM POTABILE, with which wonderful things may be effected. It is a transparent clear Water, wherein the colour and form of Fire lieth hidden and introverted; but yet that internal Fire is easily and speedily manifested, and educible unto view, by either the dry or moist Fire. The dry way is done by the heat and fire of common Wood-Coals; and as for the moist way, a well-rectified Spirit of Wine is to be used, and such as is void of all its Phlegm. Take therefore of the dry and concentrated Fire 1 ounce, put it into 3 ounces of the moist Fire or Spirit of Wine, which moist fire will presently swallow up the dry one. These being both of them digested by a due heat of Fire for some hours, in a long-necked Phial or Bolthead, will put on a blood-red colour, and will manifest and expose to view its concentrated Virtues, with curious colours, and with a pleasant taste and smell, by which heart-corroborating qualities it far excells all other Aromatical Essences, that serve for the strengthening of the heart; for those properties which afore lay turned inwards, and were shut up in its inmost bowels, are all of

them drawn forth and made visible, and become subject to the external distinguishing senses. By this means the abject and little Infant which was clad in a white colour, becomes a speaking, strong, and prudent man, and this very LAC VIRGINIS it self is changed into the most efficacious DRAGONS-BLOOD. This now is the most true AQUA-VITAE, and the most true WINE OF HEALTH, some few drops of which being daily taken, do conserve good health, and bestow long Life.

Many honest men have with their own eyes seen at my House the admirable and most speedy effects of my often-mentioned true Potable Gold, and especially its operative efficacy in the transmutation of the Imperfect Metals.

If therefore such a one as is troubled with grievous Diseases, and who finds no help in those vulgar, commonly known Galenical Medicaments, shall need the help of this my AURUM POTABILE, I will out of Christian Charity willingly bestow upon him so much thereof, as may be requisite for the recovery of his former health; and this I will the rather do, that the wonderful miraculous deeds of the Divine Power may be made known in these last times.

No body shall fish out from me more Directions than those which I have too and again hidden in my Writings, concerning this AURUM POTABILE; let it suffice every one, that he can find this Medicine ready prepared in my hands, the which scarce one in an hundred would be able to make, were he a Possessor of the Secret.

This Medicine shall lie ready prepared by me as long as I live; I will not deny it to any body; nay more, I will openly shew the use thereof

too, unto some of friends, in the melioration of both the Vegetables, Animals and Minerals themselves, that so the Wonders of GOD, and the possibility of Art may be manifested, and come to light.

And now, may it please the Omnipotent GOD, who is the beginning and end of all things, to inspire us, out of His meer Grace and Mercy, and implant in our cold hearts, which are stopt up with darkness, the warming heating spark of His Holy, Eternal, Infinite, and all-correcting Light, that it may therein, as in some saltish and sulphureous Earth, be nourished, and grow up like a little Seed, and bring forth Fruit a Thousand fold, to the Salvation of all our Souls.

AMEN.



THE COMPLETE WORKS
 OF
 RUDOLPH
 GLATZER
 trans: Chris. Packe



MIRACULUM MUNDI
 SECOND PART



THE
S E C O N D P A R T
OF
M I R A C U L U M M U N D I .

In which is described the Magnificent Coming of
E L I A S T H E A R T I S T ;
And that the wonderful SALT OF PHILOSOPHERS, is the most
Excellent Medicine of VEGETABLES, ANIMALS, and MINERALS.

By the help of which, not only VEGETABLES do grow, and are multiplied; Diseases of Men and Animals, whether internal or external, are miraculously Cured, and Imperfect Metals really changed into SOL and LUNA; yea, pure SOL rendered able to sustain the Force of Fire beyond the natural 24th. to the 28th. degree; but also from every Plant natural SOL is extracted, and disposed to FIXEDNESS, for multiplication of it self.

T H E P R E F A C E .

Candid Reader;

Among ancient Philosophers of the Heathen, as CHALDEES, EGYPTIANS, PERSIANS, GREEKS, and ROMANS, yea, and the HEBREWS themselves, it was a long-recieved Custom, enigmatically to propose what they esteemed most worthy of consideration, lest such Secrets should either be divulged or lost; to the end, that unworthy persons having regard to the

Letter only, and not respecting the Sense expressed in those words, might know nothing at all of them: But contrarily, the Worthy, enlightened with the Light of GOD and NATURE, well understand what is signified by those Words, might thence reap most profitable Fruit. The Truth of this is sufficiently proved by the Writings of ancient Philosophers; also by the Books of MOSES, and the Histories of the Prophets. For all these, or the greatest part of them, do indeed need another explication, than the Letter it self seems to infer, because some occult matter is in that contained.

In like manner our Christian Philosophers, both ancient and modern, discovered their ARCANUM'S enigmatically; as, among many others, BASILIUS and PARACELSUS did: For, although these men delivered all things true, yet they are understood by very few: Which hath been the occasion of Contempt and Reproaches, with which ignorant men, and the evilly-disposed, asperse all Philosophers (among whom Kings themselves, and divers Princes, in times past have been, and are yet found) and say, THERE IS NO SUCH THING IN NATURE, AS THE TRANSMUTATION OF METALS INTO A BETTER STATE; and that THE UNIVERSAL TINCTURE or STONE OF PHILOSOPHERS WAS NEVER FOUND BY ANY MAN. Truly it is a matter worthy of sharp Re-proof, and not to be suffered, that the Chymical Writings of many excellent pious men, should (although most consonant to Verity) be so maliciously rejected, and proclaimed false. This is rather due to Chymical Mountebanks, (understanding nothing less than Chymistry) because they expose to sale the Philosophers Stone unto others: This sort of men have rendered Chymistry so vile and abject at this day, as many men judge it a Reproach to be called CHYMISTS.

That we might, as far as is possible, prevent this evil, and demonstrate those things to be true, which the abovenamed Writers have left us, under the Title of THE SALT OF ANCIENT PHILOSOPHERS, which by PARACELSUS is called ELIAS the Artist, we resolved to effect the same thus.

PARACELSUS treating of the Transmutation of Metals, because he was not willing to insignize THE SALT OF PHILOSOPHERS with its true name, refers the Reader to ELIAS the ARTIST, who, he saith, when he comes, will teach the way by which the Transmutation of Metals may be effected. Here Men imagine Wonders, and generally regarding the words themselves, expect the coming of a certain Man sent from GOD, whom they believe, shall in the later Ages of the World, discover occult Arts, and make known the Secrets of Nature. Whereas, if the Name ELIAS THE ARTIST be rightly considered, or a transposition of the Letters be made, we read ARTIS SALIA, and these Salts indicate ELIAS THE ARTIST of PARACELSUS. These perform Wonders, so as a man possessing the SALT OF ART, or knowing the nature thereof, may effect Wonders. ELIAS THE ARTIST to such a man appears to be the cause of effecting marvellous things.

BASILIIUS, in his Testament, did very obscurely describe this SALT, where he sheweth the way of making THE STONE OF PHILOSOPHERS of common Vitriol; yet no man is able from those Writings to gather which way he should prepare the same.

Also he that considers the words of PARACELSUS, where he fortells the coming of ELIAS THE ARTIST, will find, that in that he describes Vitriol, both obscurely and openly; obscurely indeed in his Treatise entitled, THE TINCTURE OF NATURALISTS; openly, in that which he left,

touching Vitriol in Species. He would not expressly say, that ELIAS the ARTIST, or THE SALT OF ART, was expressly contained in Vitriol; only this he was willing to shew to Posterity, viz. That the Art of changing vile Metals into better, was descended from the Ancients unto him, and with him should perish, until the coming of ELIAS THE ARTIST, who should shew the true Transmutations of Metals, viz. in the 58th. year of the following Age. This time many have expected with grief and trouble, but in vain hitherto.

Many Philosophers, besides PARACELSUS, have predicted the Coming of ELIAS THE ARTIST, who coming from the NORTH, attended with a strong Lion, shall teach Arts, find out and manifest the secret Treasures of Nature, and dispose the various mutations of mundane things for the benefit of Mankind. These have many men in vain believed to be spoken touching some one man; for if we consult the Writings of those men, who have set down this Prediction, we shall find them not to have intended a Man, but SALT-PETRE only, and his BROTHER THE SALT OF ART: Hence it is that they cry out, O OUR SALT! O OUR SALT-PETRE! O OUR RADICAL SALT! Hence also it is, that they write, if GOD had not created this Salt, it had been impossible to make our Medicine; and various expressions like to this, in many places of their Writings they use, as I have declared in several of my Tracts, especially in the Third Part of THE PROSPERITY OF GERMANY, where (among other things) I said, I hoped that in time to come, by me should be unto all men exhibited SALT-PETRE, or THE SALT OF ART, sitting (like some Monarch) in a Triumphant Chariot.

I doing this, take PARACELSUS out of his Sepulchre, and (as himself predicted) turn him towards the Orient, that is, I expose him to the Light, by which the verity of that Prediction may be discerned by All.

Perhaps my Disciples may do the same; and they seeing the verity of the Transmutation of Metals, or restoring the Sick to health in a way unheard of, draw me after I am dead, or whilst I live, out of the Sulpulchre into which my evil-minded Enemies have cast me. And when they do these things, they will effect so notable a mutation in MEDICINE and ALCHEMY, as indeed for the future there will be even no Artist, who will not see and understand the fruads, ignorance, or hatred of the proud and high-flown Adversaries of Art and Truth, and justly oppose themselves against such malicious Enemies of true Verity. Thus may those who have long before been blind, recieve sight, profess themselves to have been Opposers of Truth, and strenuously labour to suppress and amend what's amiss. In such a time not only true MEDICINE, and the most noble Art of CHYMISTRY would begin to flourish, but also all Arts would ascend to a greater degree of perfection; and so one Age will exhibit it self much more excellent than others. Wherefore my Prayer is, that the Gates may be opened to divine and natural ARCANUMS, that ELIAS THE ARTIST, and the SALT OF ART would discover the predicted GOLDEN AGE, and that the most Wise GOD would unto pious men grant an entrance into the LAND OF PROMISE, that they may thence bring Fruits, and present them to their Neighbours, for the Honour of GOD most high, and the solace and comfort of the Needy. AMEN.

Indeed PARACELSUS makes some mention of this Salt in his Works,

calling it SAL ENIXUM; but we in our Treatise (published in the year 1658) of the nature of Salts, have somewhat more largely expounded the matter, calling that SAL MIRABILE. In the present Treatise of the Salts of Art it is expressly called ELIAS THE ARTIST; the verity of which Appellation, we shall by the help of GOD clearly demonstrate, viz. that ELIAS THE ARTIST of PARACELSUS signifies no other than the SALT OF PHILOSOPHERS, prepared of SALT-PETRE, common SALT, or VITRIOL. Indeed it is in taste like SALT-PETRE, yet it is not inflammable, although it may be procured by Art. PARACELSUS and BASILIUS made it of VITRIOL, as several parts of their Writings shew, which for better knowledge sake I shall here insert.

ELIAS and ELISHA, what men they were, and what miracles they wrought, Sacred Letters shew. The Miracles they wrought were Divine; the same almost is our Salt able to perform in a natural way: Therefore not without reason have we called it THE MONARCH OF THE WORLD, or ELIAS THE ARTIST; for there is no subject found in the nature of things, by help of which we are able to do the same, as may be effected by benefit of This. The truth of this all Animals, Vegetables, and Minerals do witness, as we shall demonstrate variously anon.

But some One may say, Since CHYMISTRY is treated of in so various Tongues, and there are found almost infinite numbers of Chymical Books, How comes it to pass, that this Salt hath so long remained unknown, even until this day, and it was never so clearly described by any Writer, as we thence could understand what it is, or which way it should be made? I answer, Writers and Readers also are found of a twofold condition.

They who writ by the guidance of Experience, did all acknowledge, and obscurely describe this Salt: Otherwise they, who compiled their Books from the Writings of others, being ignorant of the thing it self, proposed nothing but Fictions, leading the Reader into a Labyrinth and various By-paths.

Writers are diligently to be considered; regard is not so much to be had of their Words as of their Sense; if this be minded by you, you will find none of the true Writers, who did not make mention of this Salt, which, as it is manifest to those that understand, so it is hid from those who are yet ignorant of these things. You may find very many, who in Writings seek the STONE OF PHILOSOPHERS, and yet are ignorant what they seek, or what the Stone is, whether it be something black or white, hot or cold. And if such a thing should be presented to those men, they would neglect it, and after their fashion leaving the most precious Jewel, proceed to please themselves in Dung. Many men handle this Salt with their hands, yet what they have in their hands they know not, because they are blind, and their arrogant mind instigates them to betake themselves to things more vile. But on the contrary, not a few may be found, who will divulge none of those excellent things which they know. Oh, how happy is he that studies Taciturnity! He is permitted to lead a quiet life. I indeed do seriously bewail my so liberal Communication of Secrets, but I did that to discover the Wonders of GOD, to serve my Neighbour, and to preserve our Art. Egregious things would often be exhibited to the World, did not Ingratitude of mortals deterr the Writer, and prevent his good intention. When they find a

man endowed with the Knowledge of some things beyond others, they flock about him, entreating him to impart his Secrets to them; there are found divers of this sort. The Wealthy come, the Needy come, and men of a middle condition also come. The first sort of men being, for the most part, very covetous, will return nothing in exchange; the Second sort have not any thing to give; but the third only we have sometimes found grateful. What we have acquired with very great labour, we cannot easily impart to Enemies. Yet it often happens, that those who are judged good, are afterwards found evil, and in a FARNNERIAN manner, for Benefits received, return Calumnies and Reproaches. Therefore, in such cases there is need of great circumspection, and we must not discover all we know, lest afterward we repent. But as for my self, I have not changed my mind, I have begun to make known the Wonders of the Omnipotent, and will go on (GOD willing) and kindle an unextinguishible Light to this blind World. In this Treatise I shall only describe the wonderful Virtues of the Salt of Art, reserving the way of preparing or use to my Friends; for what are our Arms, we must not cast them away, lest our Enemies take them up, and wound us with them, after the example of FARNNER.

I speak of the SALT OF ART, the Virtues of which I know, I will not communicate its Preparation or Use, all shall be open to my Friends, (yet with respect of persons) more than is fit, is already discovered to Enemies. Is there any reason we should cast PEARLS BEFORE SWINE? If what others obscurely treated of, I should here openly communicate to enemies, would they, think you, cease to do evil, and begin to do

well? Although I propose not at all to discover the Preparation and Use of this SAL MIRABILE, yet I doubt not, but that I shall prepare and make eásie the way for finding it out; so as in a few years space all EUROPE will see ALCHEMY flourish, and not so much any other way, as from the discovery of this Salt.

Of other Arts, which we shall perceive to arrive to a more excellent state, the reason is the same. It is sufficient that I have shewed such an incomparable Salt is found in the nature of things; yea, I demonstrate the place where it may be found. If COLUMBUS had not told us, That the Occidental part of the Earth did abound with Gold and Silver, who could have found the same, to bring such Treasures thence to us? If some One had not revealed, that gold, silver, and precious stones were contained in Caverns of the Earth, and Pearls to be found in the Sea, who (doubting the event) would ever have been at those vast charges of Diggings and Fishings? But now we all know such Treasures are to be found there, none refuseth to search for them. And although they are not obvious to all, yet that they are in being no man doubts, even so I judge it to be with our SAL MIRABILE. The virtues of it I deliver, which are great, and with most easie labour, and a very little direction; other things may be thereby obtained. The only moving cause why I propose these things, is the most Wise GOD, whose wonderful Works I neither would nor could hide or keep to my self any longer.

THE
SECOND PART
OF
MIRACULUM MUNDI, & ETC.

1. Of the Original of this Salt.

Touching the Original of this Salt, I have before shewed which way it should be made of F. and common Salt. Yet I would not have these words be so taken, as if the same could be prepared no other way than this. The methods of preparing it are various; for it may be prepared of G. only, without the mixture of common salt, yea, of allome, sulphur, or common salt, without the addition of H. or without the benefit of the Fire of any other salt. No salt can be found, which is not a commodious matter for this salt of Art; yet it may be collected from one more easily, and more copiously than from another. But because we exhibited one only way of preparing that before, as well for other reasons, as because of want of time, and lest we should be too tedious to the Reader; therefore we now think it convenient to signifie, that these wonderful salts may be prepared, and that they are endowed with special virtues denied to others, which they exercise, as well universally as particularly, in Vegetables, Animals, and Minerals. For who can deny that salt to be of another nature, which remains after the Distillation of spirit of common salt, and that which is left in the Distillation of AQUA-FORTIS or R. although they be salts of a most diverse nature, of which these are prepared?

Yet every one of these is endowed with power of dissolving and fixing. But that which is made of SAL ARMONIACK volatilizeth all bodies so, as the souls of them pass over by Alembick; in like manner a spirit separated from SAL ARMONIACK, by the help of C. manifests other virtues and properties, than those which are found in the Spirit of common Salt. To one more accurately considering these, ARCANUMS of great note will exhibit themselves: But more of these elsewhere.

Of the Name of this Universal Salt.

On this Salt we impose the name of THE UNIVERSAL SALT OF PHILOSOPHERS, respecting those excellent Powers and Virtues, with which it is endowed above any other Salt. We deservedly call it Universal, because it is the highest of those Medicaments which proceed from Minerals, Animals, or Vegetables, as in the following Treatise shall be demonstrated: Of Philosophers is added, because the demonstration of this matter is necessarily grounded on Philosophick foundations.

Of the Virtues of this Universal Salt.

Touching its virtues, they are innumerable, and we judge it impossible to discover them all; for if I should undertake only to write what I knew of the virtues thereof, a whole years time, day and night labouring, would scarcely suffice. Perhaps GOD will discover more to others; perhaps they, who are younger than I, may find what is to me unknown.

By me the first, by me the Guide is opened to the Searcher an entrance to things more excellent.

My purpose is to communicate to others those things, which the most Bountiful GOD hath largely conferred on me, for His Honour, and the profit of my Neighbour: I intend, I say, to divulge the wonderful Works of GOD, but at this time (by reason of various businesses and hindrances) I shall only make mention of some of the virtues, which I find to be in my SAL MIRABILE, or Salt of Art, reserving the more special explanation of all things to a more commodious time.

This Salt is rightly called Universal, because it is the principal Medicament of the three Kingdoms, viz. of Animals, Vegetables, and Minerals, and hath power to perfect and augment the same. I remember that heretofore I have attributed to Nitre the Dignity of this, and not without reason; yet in many things it is inferiour to this SAL MIRABILE, so as it deserves not to be compared with the same. Therefore in no wise correspondent to Verity are those Writings, which teach, That by the help of a certain Corrosive, a transparent Salt may be extracted from a Metal, and that salt, dissolvable in water, is the true Salt of the Wise. Such Writings are of no other use, than to seduce the Ignorant by Lyes.

For the salt in which a Metal is dissolved, deserves no more to be called or esteemed a simple salt, but receives the condition of a metallick Vitriol, whether that Vitriol is green or yellow, of SOL and LUNA, or white, of MERCURY, JUPITER, and SATURN; or blewish-green, of MARS and VENUS; for what is to be an Universal Medicine, extending it

self to all Kingdoms, must necessarily have no extraneous thing mixed with it. This is consentaneous even to the judgement of Rusticks.

The true Universal Salt should be partaker of no metallick matter; but altogether pure, and most easily able to put on the nature of all things contained in the kingdoms of Vegetables, Minerals, and Animals, and so exhibit it self a most excellent Medicine. And since these Properties are most fully found in our Universal salt, there is no reason we should ascribe to it less Honour, or not prefer it before all salts.

Intending to expose the Verity of these sayings to all, we begin first with Vegetables.

Of the wonderful power of the UNIVERSAL SALT in the kingdom of VEGETABLES.

I said in my MIRACLE OF THE WORLD, and the Continuation thereof, that a sulphureous sweet salt, is the most excellent Medicament of all Vegetables: The Truth of which no man hath cause to doubt; for I have shewed in various places, that barren grounds are made fruitful by the addition of that. Of this salt, which we may use instead of Dung, there is great diversity, for it is prepared of Wood-ashes, of Stones burnt to Lime, and of other bodies putrefied by length of time. But the Chief of all these is Salt-petre, being the salt of Vegetables, Animals, and Minerals putrefied, especially because it is endowed with a certain occult sweet Fire. Also the signature proper to it, clearly exposeth to our sight its augmentative virtue; for it exhibits not it self in a

Cubical form, as is observed in corrosive salts, (altogether adverse to the augmentation of Bodies) but Dart-like or acuminate. By this signature Nature intended to shew of what condition and virtue salt-petre is. And indeed, if Experience be consulted, the things we have proposed will be found true, viz. that in Nitre is a principal Virtue, augmenting Bodies. As for example: R., what Corn you will, steep it for a night and day in Rain-water, wherein Nitre is dissolved, commit it to the earth, and you will find, that it not only shoots up more copious stalks and ears, and hath a more swift germination and ripening, but also is endowed with a much more acceptable taste, than other Corn in the vulgar manner produced by the help of the Dungs of Animals.

But of this matter, more at large elsewhere.

Pure Nitre is a salt genited in old Stables, from the Dung and Urine of Animals. Urine and Dung are no other than Vegetables themselves, putrefied by digestion in the stomachs of Animals; which concoction is wont to be perfected in 24 hours space: But Vegetables and Animals, out of the stomachs of Animals, cannot be putrefied without long time, especially when they have acquired some undue hardness.

Thus we see Putrefaction differs in respect of time, yet it acknowledgeth no diversity; for whether it be made in the stomach of an Animal, or out of it, it is all one, and never different in virtues. By this MEDIUM the Vegetable kind hath its propagation and encrease, but altogether in a rustical manner, because a better way is not yet known.

Indeed, unto Philosophers is known a more easie and more compendious way of reducing Vegetables, Animals and Minerals, to their first

matter, or into a sulphureous sweet Salt; yet they reserved the same among their ARCANUMS, lest such a most noble Art should be made too COMMON.

As it is altogether impossible that the seed of any Vegetable set in dry Herbs should grow, or Man himself, or any other Animal, should be able to sustain Life, encrease, or be multiplied, with the only use of Sand or Flints; but earth moistened with a saline liquor, is required, unto which the seed must be committed; and in Man such Ailment must be digested in the stomach, as will easily be changed into nutriment of the Parts: so it is impossible to augment Metals, unless they have been before reduced to their first matter, and so spiritually conjoined each to other, as one may give nourishment and encrease to the other. All these things are far more easily and more readily performed by Art than by Nature.

By Art that all Vegetable, Animal, and Mineral subjects may most easily and swiftly be reduced to their first matter, which is a sulphureous sweet Salt; and by that means be multiplied, the true Universal Salt clearly demonstrates; which salt, if we observe its signature or long figure) is not only more excellent than Salt-petre, but is also generated easily in the air. We have discerned sand or a stone to imbibe this salt, if exposed to the air, and from an ingenited virtue thence to grow, yea, and that which first grew taken away, in a few days space another hath shewed it self, and so to Infinity. Indeed these things seem impossible, but they are not so to him who rightly knows Nature; for that augmentation is effected in a Magnetical manner, of which we do more fully treat in another place.

Hence, not without good cause, do we ascribe to this Universal salt the title of HERO, and a most rich and liberal Monarch..

The Process.

A most easie Way of acquiring Spirit of Salt together with the SAL MIRABILE.

R. of common salt two parts, dissolve it in a sufficient quantity of common water; pour A, upon the solution; put the mixture into a glass Body, or a glass Retort well coated, or else into an earthen Body or Retort. If a Body, set on an Head, and begin to destill with Fire of sand, encreasing your Fire gradually; with the first heat comes off the unsavoury Phlegm, which gather apart; when the Liquor comes forth sowerish, change your Receiver, and receive the sower spirit: Continue the operation till no more spirits will arise, then let out the Fire, and permit the Vessel to stand in sand till all is cooled, when cold, take it out, and if it be unbroke, fill it again with the aforesaid matter, and proceed as we taught: The Phlegm is not to be cast away, but must be kept, that in it may be dissolved Salt, (because it is better than common Water) for another distillation. Thus from every pound of salt you will have 1/4 (?) pound of the best and most pure spirit. Dissolve the salt remaining in the Body or Retort (if neither be broke) in Water, filter and evaporate the Water, let it crystallize, the Crystals will be white, endowed with wonderful Virtues, to be declared here following.

Note, If the Glass be broke, there will be no necessity of dissolving

the Salt, it will be enough to take out the dried SAL MIRABILE, and reserve it for Use.

Note, This distillation may be performed in a silver Body, for so doing, we shall be free from all danger of breaking; yet the Vessel must be made of very pure Silver, void of all Copper, lest those most sharp spirits do attract the Copper from the Silver, and so the Body become altogether porous and soft. Although in the salt is no property agreeing with silver, yet every distillation it raceth off some of the silver, which that you may save, gather the white Powder left in the Filtre, after filtration of the dissolved salt. Dry this Powder, moistened with a strong LIXIVIUM, and melt it in a Crucible into silver; yet you must not institute this melting of the silver PER SE, because it hath acquired such volatility from the spirit of salt, as it will fume all away.

And although every distillation some quantity of the silver be raced off, yet you may distill the same matter some hundreds of times in the same Body, before you shall need a new one. Thus we shall have the less need of Glasses, and sooner perform the distillations, because a strong Fire may be given at first, without fear of breaking the Vessel.

A yet more compendious way is, when we set the Body alone upon a Trivet, and by putting Fire under it, extract the spirit; for so we shall need no Furnace, unless we will, for better constringing the heat: Nor will any great quantity of Coals be spent in such extractions, because 1 lb. of salt may be distilled with two or three lb. of Coals.

This spirit being of it self sufficiently clear, and of a grateful taste, needs no rectification.

Yea, it is able to effect more than we ascribe to it in our Writings. Also the remaining salt effects other incredible things, besides those we ascribed to it in our Treatise of the nature of salts.

Plainly, after the very same manner as we have taught spirit of salt to be prepared, so may also be made AQUA-FORTIS and AQUA-REGIS. Instead of salt, take Nitre, and you will have AQUA-FORTIS; and if to a solution of Salt and Nitre, equil parts, you add a sufficient quantity of B. you will, by help of Distillation, acquire AQUA-REGIS.

Therefore since the infallible BASIS and Foundation of MEDICINE and ALCHEMY is C. or else D. it is now known to us, which way, and for little Charge, we may produce large quantities of this Medicine; whereas in the vulgar way great costs and Labours is required; and the more easily we can obtain it, the more abundantly profitable will it be to us, especially when we intend to bestow time in the transmutation of the more vile Metals. Wherefore its principal Use is directed to the Preparation of F. as is said most easily. Hence also the spirit of salt and SAL MIRABILE may duly be used in true Medicine and fruitful Alchemy.

Of a Lyon and Panther is produced a most sharp-sighted Lynx; yea, of a Lyon and Eagle is genited a most potent Dragon, vomiting Fire, flying on high, and carrying up in the air an Horse, with a man sitting upon him. Although these can do very much, yet they could not preserve the most noble Art of Alchemy from being accounted unprofitable and neglected by evil-minded and ignorant men. Yet at length an unsatiable GULO consuming all things, being genited of a Dog and a Wolf, restored

the same to a due splendour. This dares to demonstrate the species of Metals to be mutable, contrary to the opinion of ARISTOTLE, and by this means plainly shew and confirm, that ALCHEMY is most profitable, and contemned without cause. ALCHEMY stands obliged to this, because by the same it hath recovered its pristine and truly royal honours; to this, because it both acquires favour and praise.

Of the Utility which our SALT of ART contributes unto all Men, of what state or condition soever they be.

The Utility of this is very great, for if seeds, before they be sowed, be steeped in it, they will yield an incredible encrease; which is a thing of very great concern to all men dwelling on the Earth, because they shall never sustain the want of Bread.

And will not the Husband-man, gathering in his Fruits for less labour and charge than in the vulgar manner, be able the more certainly to pay his Dues to the Magistrate?

Of Artificers also the Reason is the same; because they being hereby better able to exercise their Crafts, may also return the benefits thereof to their superiours.

Unto Physicans, by the help of this, are known more excellent Medicaments, and they being present, more speedy and certain relief is procured to the sick.

So is it with Apothecaries, Chirurgions, and their Medicines, Plasters, and Unguents, which by this are more perfectly prepared, and

therefore the Cure is sooner, and more happily absolved, than by Medicines vulgarly known.

And I believe every Artificer and Trading Man, when he can perform his Work with less labour and charge, and acquire his Wares for less trouble and cost, will sell his Commodities to his Neighbours, at a cheaper rate than he could before he found the benefit of this salt.

Husbandmen and Gardeners, and other such labouring men, when they can more easily, sooner, and more abundantly reap their Fruits than before, cannot chuse but sell to the buyers for less price than they could afford them when they had no benefit of this.

Thus we generally see, of how great Utility our SALT OF ART is, or what benefits may thence redound to men of every condition. What man, considering these things, will not imploy all his faculties that he may become the Master of such a salt, whence he may not only benefit himself, but his Neighbour also?

Of the Use of this SAL MIRABILE in Medicine.

1. This salt ought to be numbered among Universal Purgers, for by a Magnetick Virtue it extracts all sorts of noxious humours out of the Body.
2. This purging Property is augmented by Metallick or Mineral Bodies dissolved in it.
3. For expelling all depraved humours, the most profitable to be dissolved in it, is Antimony; when the Medicine is to be appropriated

to the Heart, Gold; when to the Brain, Silver; to the Liver, Spleen, and Reins, Iron; to the Lungs, Tin and Sulphur; to the Habit of the Body, Copper and Mercury.

4. If purging Vegetables, Minerals, and Animals be boiled in the Water in which this salt is dissolved, and that decoction be used in a Clyster, we know all corrupt humours will be evacuated thereby.

5. In all those Persons, young or old, which cannot or will not take purging Medicaments, either by the mouth, or otherwise, it will be very profitable to free their bodies from corrupt humours, to make suppositories of Honey and this salt mixed.

6. In HEAD-ACHES, all FEVERS, and the EPILEPSIE, it will deserve the praises of a suitable Purger.

7. In CATARRHS, when the Head is full of Phlebmatick Humours, half a grain, or a whole grain of this snuffed up the Nostrils early in the morning, or in the day-time, wonderfully evacuates the Phlegm.

8. It is an admirable Remedy in Affects of the Jaws, and parts adjacent, as the Tongue, Tonsils, Cheeks, and Gums, having their original from a sharp Catarrh falling down, and oftentimes conjoined with Ulceration and Corruption, as is frequently known to happen in Scorbutick Diseases. For it extracts the humours causing the EVIL, and heals the part vitiated, if it (dissolved in Water) be often used hot as a GARGARISM, and the use of Purging not neglected.

9. In like manner, in the TOOTH-ACHE it performs Wonders, drawing out the Humours causing dolour in the Teeth; if as much as will lie on the point of a knife, or 1/8 ounce of it, be applied, tied up in a fine

Cloth, to the acheing Tooth, yet after the use of some gentle Purgation.

10. It is a famous Medicine in Affects of the Eyes and Ears, drawing their Original from a CATARRH, provided the use of some Purging Medicine be not neglected.

11. This salt is egregiously useful, and especially after Metallick Bodies have been dissolved in it, against green Wounds of the Body and old Fistula's.

12. If it be mixed with a due quantity of common Water, and thence a Bath be made, it admirably clears away the SCAB and like Affects of the skin, better than natural Baths themselves; for by its famous power of attracting depraved Humours, lying between the skin and flesh, and producing such Affects, it heals and extracts the same, especially if that power be helped by some other Medicine.

13. It extracts Humours of every kind, sharp, gnawing, or which are most firmly inherent in the external parts, or which often produce Vermin like Lice, and cannot be removed by Baths or Unguents.

14. This used internally and externally, (viz. in a Bath) extracts the Water out of Dropsical persons; and this it effects so much the more powerfully, if Gold be dissolved in it.

15. It is a famous Medicine for removing Dolours of the Gout, or diminishing the same.

16. Inwardly given, it is conducent against bloody Fluxes of every kind.

17. Also externally applied, it wonderfully stops Blood in Wounds, especially if after it is calcined and reduced to Powder, it be mixed

with Cobwebbs or Peacocks Dung, or which is better, when Steel hath been dissolved in it.

18. It kills and expels all Worms.

19. In FRACTURES OF BONES, and in RUPTURES, it is a most excellent Medicament.

20. It, dissolved in Water, and put upon the Body, not only preserves Insects from Corruption, but also greater Animals, and Man; yet it may be used in a more dry form.

21. It is an excellent Conditure not only of Animals but also of Plants and Flowers.

22. It preserves bodies dissected from rottenness, stink, and dryness; contrary to what we have observed Turpentine, Spirit of Wine, Aloes, and Myrrh to do; yea, from decay, as we have seen done in Salt-water.

23. It of Gold produceth an excellent ELIXIR, in a few days, some grains of which used either liquid or dry, most gently expels depraved Humours by Urine, Sweat and Seidge. Such an Universal ARCANUM was never before this time known to Mortals; we liberally give it, for the Honour of GOD, and Health of our Neighbour.

24. It so prepareth Gold, as by the help of Alcolizate spirit of Wine, it passeth the Alembick of a golden colour, and is a famous Medicament.

25. Also by the help of that (although after another manner) a blue Tincture may be extracted from Gold, of excellent use in Medicine and Alchemy.

26. It is able to impress the nature of Vegetables on all Metals; so as Metals this way prepared, and added to the Roots of Herbs, impart to those Herbs the nature of the Metal applied. How famous the use of such Metallick Medicines will be in Medicine, it is easie to understand.

Of the Utilities of the Salt of Art, in various Arts.

1. It suddenly coagulates River-Water, Rain-Water, or any distilled Water, so as it becomes Ice, and may be carried in Paper, a Sack, or Wooden-Box or Chest, wheresoever you will, and be dissolved when need is, so as the salt may be separated from the Water; which salt is not at all changed by the Water, but may oftentimes again be used for like Coagulations.

2. After the same manner Wine, Vinegar, Beer, Metheglin, and like Drinks, may be reduced by coagulation into a clear substance, and again be most easily dissolved.

3. Also by help of that may be coagulated saline spirits, as AQUA-FORTIS, AQUA-REGIS, spirit of Salt, spirit or oil of Vitriol, and the like, so as they will become hard salts, without any change or corruption, portable in Paper or wooden Boxes, to other places, where being dissolved when need is, they exhibit a Liquor distinct from the salt, the salt in the mean while keeping its coagulating Virtues intire.

4. To Honey and Syrup it gives the consistency of sugar.

5. Fountains may be so stopped with it, as their flowing to be stayed.

6. It changeth wood in process of time into a most hard stone.
7. It abstracts the superfluous Phlegm from Wine, Beer, Vinegar, and spirit of Wine, so as they become the stronger.
8. It separates the Phlegm from subtile Mineral spirits, whence they are made volatile and more powerful.
9. It takes away from Wine, Beer, Vinegar, and spirit of Wine, its ungrateful taste or odour, and unto them also gives greater clearness.
10. Also it corrects the unsavory smell of Vessels, so as may commodiously use them.
11. It preserves for a long time all Fruits, as Cherries, Apples, Pears, Grapes, Garlick, yea, Hens-Eggs, and whatsoever may be changed by the air, and otherwise would be corrupted.
12. Unto PAINTERS it may be a BASIS for their Colours.
13. The seeds of Vegetables moistened in it, are wonderfully multiplied, so as from one only grain 10, 20, or 30 ears will arise: And the same will be effected, if the salt it self be committed to the earth.
14. It causeth the Earth long to keep the Rain-Waters it receiveth. Hence must necessarily arise great profit to the Fruits.
15. This applied to the Roots of Trees, recovers them, though almost dead before, and makes them fruitful.
16. Yea, Animals suffocated or drowned in Waters, as Dogs, Cats, Mice, and Insects, by help of it may again be restored to life.
17. It attracts the breathings of many men lying together in one Chamber, and coagulates the same as snow or ice; not indeed by any real

co-touching, but being included in some Glass, and hung up by a Thread. Even so, in a Magnetick manner have we observed such breath or vapour to adhere to the outside of Glass like true Ice. But this is a Winter operation.

18. Flowers and odoriferous Herbs, by addition of this, may be preserved without change of odour, taste, or colour.

19. By the benefit of this salt, various colours and very many odouriferous species may be prepared; whence the Roots of Plants, if they be applied to them, attract the colour or odour, which they communicate to the Herbs themselves.

20. It takes away the bitterness of Oil-Olive, rendering it sweet and clear, better than boiling can do.

21. Linseed-Oil being mixed with it, is presently clarified, and freed from its Aquosity, which otherwise cannot be effected in many days. (See more in the Second Century.)

The Use of the SALT OF ART in ALCHEMY.

1. It dissolves and fixeth all Vegetables, Animals, and Minerals.

2. In three hours space it reduceth all the aforesaid into their first matter, whence most excellent Medicaments are made, and whence proceeds a product of Metals, new and more excellent than others.

3. It demonstrates, that in all Herbs, none excepted, there is volatile SOL, and teacheth which way it should be fixed.

4. It adds strength to AQUA-FORTIS, AQUA-REGIS, and spirit of salt.

5. In a few hours space, it extracts the soul from Gold, so as it ascends by Alembick, and becomes a very excellent Medicament.

6. To the white body of SOL, and of other Metals, spoiled of its soul, it restores the same.

7. In a very short time it reduceth Gold to such an essence, as it may be united with the seeds of Vegetables, and communicate it self to the Herbs.

8. It extracts Gold, Silver, and Copper from Metals most compendiously, and with very great profit, in a dry way, without fusion or any addition.

9. It gives more noble qualities to metals, whilst they are washed in it, so as even by the help of such a Lotion, Iron can join it self with Mercury, yea, become fluid and ductile, like Copper, which is a thing very profitable.

10. It brings imperfect Metals by graduation to maturity, and so changeth them into SOL and LUNA, as well by the dry as humid way.

11. It can ripen every iron into steel.

12. By the help of this, Iron may be changed into Copper, Copper into Silver, and Silver into Gold, either by the humid or dry way. Also every Gold may be brought to the 28th. degree, yea, to a true Tincture. But of the last I have as yet made no experiment; nevertheless, it seems not to be impossible, because there is no metal which may not be changed into another, and indeed more excellent metal; yea, we know that common SOL keeping its colour, may be exalted. And although the way of making this Tincture is not yet certainly known, yet there will

be some one, that shall succeed us, to whom GOD will grant the knowledge of the same, who shall stop the mouths of all slanderous and evil-minded men, and discover their malice.

But some one may say, How shall we know this colour of Gold to be true Gold, and not Copper? To him I answer; For this Process neither Copper nor any other Metal is required; only a Vegetable Sulphur with the Salt of Art absolves that. Whence then should the Copper have access to the Gold? To say, from the Vegetable Sulphur, is nothing: for that must be numbered among Miracles. Hence, if that should be Copper, we see it may be demonstrated, that all Metals yea, and THE PHILOSOPHERS STONE it self, may be prepared of Vegetables. Which is a saying most nearly correspondent to Truth: for there is no Plant, yea, I say, no Excrement, no not humane Dung, which exhibit not true Gold, or a true Tincture. Therefore this colour, which we find to have access to Gold, by help of the SAL MIRABILE, and Vegetable Sulphur, argues not Copper, but true Gold. The Elementary Rays of SOL have passed into Sulphur in the coagulation in Herbs; this, by help of the Salt of Art, is changed into Tincture, when fixed and added to Gold, becomes corporeal.

From these and the like, we judge the certainty of the Transmutation of Metals to be sufficiently manifest to every one. Indeed many have endeavoured to demonstrate this, but none more clearly than I have done, because this appertains to SAL MIRABILE only. Therefore let Ignorants cease to gain-say GOD and the Truth, lest they be severely punished.

These, and various such-like Transmutations, may be performed with very great profit; therefore I judge it needless to speak more of them.

Occasion of knowing many things offers it self to Posterity, if GOD give the Blessing. For the Utilities of this Salt are daily more and more known to my Disciples, so as it cannot otherwise be, than that all EUROPE by the help of this Salt only, shall see true Alchemy flourish. Whence, and not undeservedly, it is called the SALT OF ART, or ELIAS THE ARTIST, who entring into the World, should communicate various Arts to the same. Here you now have him, teaching those things which always were accounted impossible.

The World not contented with this ELIAS, must necessarily expect another. The Jews considering the abject state of Christ, esteemed him unworthy the Honours of the before prophesied of MESSIAS, altho' with their own eyes they saw very many Miracles wrought by him. If the same happen at this day in this case, what wonder is it? It is very hard to believe, that such a wonderful Salt can be found in most abject Vitriol.

Could such men know the nature of common Vitriol exposed to the eyes of all men, they would easily understand more to be contained in the same, than I have attributed to my SAL MIRABILE. It is better something should be reserved to Posterity, than all things laid open to our Age. I have begun, let others proceed.

PARACELSUS, in that Chapter he writ of Vitriol, saith, By help of this every Iron may be changed into the best Copper; but which way, something more excellent, viz. Iron, may be changed into Gold, ELIAS THE ARTIST (which we call the SALT OF ART) when he comes, will demonstrate. That the occult virtues contained in Vitriol may be more known to every man, what this Author left in Writing, touching Vitriol, I thought good here to insert.

Therefore, since I in this Treatise denominate my SALT OF ART, ELIAS THE ARTIST long since predicted, some one may properly say, MY Glouber, YOU PROCLAIM YOUR Sal Mirabile TO BE Elias the Artist; BUT IN Paracelsus's WRITINGS WE READ, THAT WHEN HE COMES, HE WILL TEACH THE WAY OF TRANSMUTING IRON INTO GOLD; NOW SHEW US, WHICH WAY YOUR Sal Mirabile CAN DO THIS. I answer, That here is nothing of impossibility, I have obscurely in this and other places shewed; but which way the Operation is to be instituted, I have not declared: because I my self have not as yet obtained a perfect understanding of the same. Nevertheless, that it is possible we have often observed; for Iron hath access to Gold, and so augments it even as it augments Copper.

For when Copper is dissolved in a certain salt, and the solution is poured upon the Iron-Plates, not only the Copper and Iron settle to the bottom, and so becomes Copper again, but also whilst the coction is performing, a great quantity of the Iron hath access to the Copper, so as you take out more Copper than you put in. I bring for a true Testimony of this Experiment, the Saying of that most true Writer, LAZARUS ERCKER, in his Probatory Book, where he sayeth, He had often observed, that Iron Instruments in length of time were changed into Copper, without any depravation of their Figure. Yet it is credible, that this Mutation is from Spirits, not from Bodies, because Spirits are endowed with a greater penetrative power.

Since the Writings of this man are in the hands of few, I thought good here to insert what he hath left written, touching the Transmutation of Iron into Copper.

Whether Copper may be made of Iron.

Courteous Reader,

I did for a long time persist in denying, That Iron in Coppery Waters, such as are made of Vitriol, green Tartar, and the like, could be precipitated into Copper; nor could I in any wise believe, that any encrease could come to Copper, from Iron; but daily Experience hath taught the contrary, viz. That in Mines and Mountains of Vitriol, were left Iron Instruments, which after long time were changed wholly into Copper. For although precipitation of Copper is made, by the benefit of Iron, yet the same quantity of that, as is put in, is not taken out again. Notwithstanding this, here it is to be observed, that together with the Copper, which is so precipitated, Silver also (if any be) settles to the bottom. Therefore they seem to do well, who for Precipitation of Silver, besides Copper, cast also into the AQUA-FORTIS Plates of Iron: And so in one and the same Operation, Silver, and Copper settle to the bottom, and we save all, which the separatory Water did contain.

As it is manifest, Copper may be made of Iron, so also that the same may be changed into Gold, is most easily demonstrated. That it is possible, I have often observed, although without profit, because the true way of Operating was then unknown to me.

Iron is not changed into Copper in every solution, but in that which is in certain Determinate Salts. For, if you dissolve 1 ounce of Copper in AQUA-FORTIS, and to repress the sharpness of the AQUA-FORTIS add a little common Water, cast in Plates of Iron, or duly institute coction;

1 ounce of Copper will indeed be precipitated by the Iron, but the Iron not changed into Copper. The certain reason of this, we believe, is, because no Salt having power of Graduation, was added to the AQUA-FORTIS. Of Gold, the reason is the same, if it be dissolved in AQUA-REGIS; for the Gold is here found to be precipitated alone, and the Iron not changed into Gold, because of the defect of salt convenient for graduation.

But if a solution of Copper or Gold be made in spirit of salt, and Iron cast into that solution, then not only the Copper or Gold settles to the bottom with the Iron, but also in this solution part of the Iron passeth into Copper or Gold, because the spirit of salt more potently acts upon the Iron, and introduceth Tincture better than AQUA-FORTIS.

Although any Iron, as you see, may be changed into Copper or Gold, yet no profit is thence to be expected, for commonly some parts of the Gold remains in the solution, and is not precipitated; and which way this may be separated from the Water is not known to all. Therefore it is better to omit this Operation, than to labour and be at charge to no purpose; For reduction of this Gold, mixt with the solution, experienced men are required, which will do all things with judgement, and are not contented with that only which exposeth it self to sight.

Yet I do not in any wise think that such gradation cannot be instituted without profit. If we can really transmute a very small Particle of Iron into Gold or Copper, Why may we not also do the same in a greater quantity? It is our faults if we do it not, who are ignorant how to use rightly Salts of gradation, sufficiently able to compleat the work. That the way of effecting that was known to PARACELSUS, I doubt

not; yet he would not communicate it to the ungrateful World, but referred the divulgation thereof to the coming of ELIAS THE ARTIST, and that not without reason. I doubt not, but that this gradation may be performed with very great profit, by help of my SAL MIRABILE, or SALT OF ART; yet I cannot subscribe to it as an infallible certainty. I have other things now in hand to speak of: My Labours and almost incredible Charges have discovered various secrets, which I publicly communicate for the profit of my Neighbour. Other things may be effected in time, by which (Darkness being discussed) Light may be given to the World, and the Miracles of the Omnipotent GOD be exposed to the view of all. HERE IS NEED OF LABOUR.

That Gradation of Iron may be made by the help of appropriate salts, so as to be changed into Copper, Silver, or Gold, our SAL MIRABILE plainly enough declares, whether the gradation be instituted in a humid way, or Cementation made in the dry.

Now it remains, that we demonstrate, that such gradation may be made by spirits, having power of perfecting and fixing, so as no consumption of the Iron be, as we see done in the addition of AQUA-FORTIS. It is sure that the same gradation which LAZARUS ERCKER said, he observed in the aforesaid Mountains, is of like condition; and since we possess such Spirits, we also, remote from Mountains, may effect the same. I cannot believe that any other can (if he would) teach us the way of preparing such spirits, besides ELIAS THE ARTIST.

In what relates to me, I say, that this gradation of Iron may be the better performed, Copper, Silver, and Gold must first be reduced

into Vitriol, having power to effect gradation, and that indeed by the benefit of the SALT OF ART. I have more than once, by the help of the SALT OF ART, changed silver or gold into a green Vitriol: I need not speak of Copper, the mutation of which is far more easie, yet the other is not very difficult, and indeed in an humid way. For I have not seldome (when it happened that the Iron being consumed, my labour was to no purpose) had one end of an Iron Wire changed into Copper, and the other into Gold. If time will permit, for my Friends sake, and that they may be mindful of me, I will repeat the same labour. But the principal thing, which infers difficulty in this Operation, is a too great corrosion of the Iron by the Vitriol.

Note. Besides this, there are other things, which cause difficulty, and so render the labour invalid, in the dry way as well as in the humid, viz. the aptness of Glasses to break in the humid; and of Crucibles in the dry way; whence it comes to pass, that the SAL MIRABILE cannot be kept in them a due time, but runs out.

The gradation of iron into gold, in what way soever made, without gold can very difficultly be perfected; and if a glass happen to break, Who shall be able to gather up what runs out? The loss of one gradation, by the breaking of the Vessel, and outflowing of the Liquor, will scarcely be repaired with 5 or 6 other gradations compleated without loss. Therefore it is best to desist from such Works.

Of that Operation, which is performed by the dry way, the reason is the same. For here the gold which is added for gradation, is almost all lost, without regard to the breaking of Crucibles, which by that

means cannot contain the SALT OF ART its due time: And besides all this, the substance of the Crucible will imbibe some of it, and together with the same part of the Gold; and, Who can without loss extract it thence? Yea, we think the Crucibles drink in a greater quantity of the gold, than we acquire by the gradation, although our Work succeed well. By Experience it is manifest to me, that when there are eight parts of Gold, but one part of Iron in gradation is changed into Gold, which way soever the Work is performed. What will it avail to spend our time in perfecting those things, the event of which is very uncertain? This is the reason why very many with me have refused this profitable Operation.

We considering the possibility of the matter, whether it was possible to prevent those difficulties, began to labour, but to no purpose, a great while, until at length it pleased the Highest Giver of all Good things to hear our Prayers, and opened to us the way of preparing such Glasses, as (although not luted, are able to bear the vehemency of Fire without coating; and Crucibles also we know how to harden so, as they will continually keep Metals in Flux. I now hope, if GOD hinder not, for better success.

A man not fearing the breaking of Glasses and Crucibles, might perform egregious things, this way handling Metals, according to his will instituting gradations and fixations, and so reduce Metals to due maturity, even as the sun, by continual digestion, ripeneth Fruits: For no man, if he fear breaking of his Vessel, and loss of his matter, is able to keep the same till its final compleatment in a Glass or Crucible.

By the benefit of either of these inventions, such things may be effected in Medicine and Alchemy, as before were impossible to be done.

Yet let no man sollicite me (considering the great labour and vast charge I have expended thereon) to divulge this secret. Nevertheless, that it may not be buried with me, I purpose to communicate that to two of my most loving Friends, adding (besides many other ARCANUMS) a succinct Explanation of this second part of the MIRACLE OF THE WORLD. It will concern these men to use the same for the Honour of GOD, and good of their Neighbours. I did not this to profit our selves, because they are rich enough and I live contented with what I have, but only that the sustentation of the Poor might be chiefly regarded.

Iron may also another way be changed into Gold or Copper, viz. by the help of fiery spirits, which SALT-PETRE (the Cousin-German of our SALT OF ART) exhibits, and of which I have very plainly discoursed in a special Treatise, not yet published. That you may see the possibility, I will declare the matter by example.

Make a Fulmen of Tartar, Sulphur, and Nitre mixt, to this add of the MINERA (or Ore) of Copper, Silver, or Gold, never exposed to the vehemency of Fire, but still endowed with its own Sulphur, endowed with power of tinging and perfecting Gradation an eight part. Put 1 ounce or 1/4 ounce of the mixture into a Crucible at one time, and set this Crucible under the Receiving Vessels of our fifth Furnace, and with a live Coal kindle the Fulmen, and then the Orifice being well closed, you will find and observe the Gradation of Iron into Copper, Gold, or Silver, according to the diversity of matter added to the Fulmen. Here most

commodiously may be used Steel-Needles; these I have often drawn out of a Crucible, wholly changed into Gold.

Note. He who intends to make Gradation with Gold, must necessarily apply Receivers, in which he may collect the volatile Spirits of Gold. If a man be contented with a very small quantity, he needs not use Receivers, afterward (being first assured of the certainty of the Operation) he may build a Furnace fit for it. I built such a Furnace, in which the last Summer, for my Friends sake, I performed this Operation.

Note. If a sufficient abundance of good Metals be wanting, that your labour may not be in vain, it will be requisite to make the same spiritual with Salt-Petre, before they be added to the Fulmen. If you would make trial of graduating into Gold, to 1 ounce of the Fulmen, you may add 1/8 ounce of fulminating Gold (precipitated with spirit of Urine, not with LIXIVIUM) and your endeavour will have good success, if you proceed right.

By help of this Fulmen, all Metals may be changed into Gold or Silver; that is, the true Regal Cement of ancient Philosophers, which they always kept secret; only PARACELSUS, in his Preface to the Book of Cements, was willing to make some small discovery; YOU MUST NOT (saith he) SO MUCH REGARD THE INGREDIENTS OF THE CEMENT, BUT THE WAY OF CEMENTING IS ONLY TO BE CONSIDERED, THE FIRE ONLY, WHICH IS IN IT, MUST BE ENDOWED WITH POWER OF FIXING AND GRADUATING. Yea, in his Book of Vitriol he almost speaks the same.

But some one may say, What is that Regal Cement, or what is the way of using the same? Although this hath been always kept as a Secret,

yet I in these last times communicate the same to All. There is indeed no Metal, which may not (even without the addition of any other thing having power of perfecting Gradation) by the help of this only, be turned into gold; as in our work of SATURN we largely shew. Yet this Operation is not done with so great profit, as that which adds Powders perfecting gradations to the Cement; nevertheless it is sufficient to shew the possibility.

But that Doctrine of ELIAS THE ARTIST may be more manifest by the aforesaid PARACELSUS, we thought good here to subjoin his own words at large, which take as follows.



THE COMPLETE WORKS
OF

**RUDOLPH
GLAUER**

trans: Chris. Packe



THE BOOK OF
PARACELSUS



THE BOOK
OF
PHILIP THEOPHRASTUS BOMBAST

Of HOHENHEIM, Monarch of Philosophers, Prince of Spagyrists, Chief of
Astronomers, Paradoxical Physican, and great Master of Machanick Secrets.

TOUCHING

The TINCTURE of Natural Things,
Against Sophisters born since the Flood, in the Age of our LORD JESUS
CHRIST the Son of GOD.

THE PREFACE.

Since thou, Sophister, with foolish and lying Words, hast reproached me in all places, because I was born in HELVETIA, that I am rude, and understand or know nothing; also, that being one Letter more than a Physican, I rove and wander about from one Region to another: Therefore I propose in this small Treatise to discover and lay open to the World, ignorant and unexperienced men; also that in the first Age good Arts were in being; and what your Art is able to effect against mine and mine against yours, and what is to be judged of either, and how Posterity in the Age of Grace will imitate me.

Consider HERMES, ARCHELAUS, and others in the first Age, what

SPAGYRISTS they were, and how great Philosophers. That they were such, is witnessed even by their Enemies, who are thy Patrons, (or Idols rather at this time) O Sophister. But if this had not been testified by your Authentick Fathers and falsly-reputed Saints; yet the ancient SMARAGDINE-TABLE discovers more of Art and Experience in MEDICINE, ALCHEMY, MAGICK, and other like Sciences, than can ever be taught by you and all your Tribe. If from the Precedent you do not yet understand what, and how great Treasures these be, tell me why no Prince or King was able to subjugate the EGYPTIANS? Then why did DIOCLESIAN the Emperour command all Books of Chymistry (how many soever they were he could come by) to be burnt? For their Books being destroyed, they were long since compelled to bear such an intolerable Yoke, as will in time fall upon the neck of thee and thy Collegues, O Sophister.

In this Middle Age the Monarchy of all Arts is at length derived to me, THEOPHRASTUS PARACELSUS, Prince of Philosophy and Medicine; for unto this am I chosen by GOD, that I may extinguish all Phantasies of devised, putatitious, and false Works, and presumptuous Words, whether they be the Placets of ARISTOTLE, GALEN, AVICEN, MESUE, or any other foller of them. And my Theory proceeding from the Light of Nature, shall never fail through its unconstancy, nor be changed, but begin to flourish in the 58th. year of the following Age. Then the Practice following, it shall be proved by admirable and incredible Signs, so as it shall be openly manifest to Mechanicks and the common People, how constant and unmoved the PARACELSICK ART stands against the Trifles of Sophisters; in the mean while that Sophistick Art hath need of Papal and Imperial

Privileges, to strengthen and uphold its Impertinencies. But whereas I am by thee, O Sophister, accounted a Begger and Vagabond, the DANUBE and the RHINE, I being silent, shall answer for me to thee. Often hath those impertinently-devised Calumnies of thine against me, displeased many Princes and Earls, also Imperial Cities, Noblemen, and Knights; for I have a Treasure in a certain City of FORUM JULIJ, called WEIDEN, hid in the Hospital there; which neither thou LEO the ROMAN, nor thou CHARLES THE GERMAN, with all your Substance, are able to purchase. Although a signate Star fell upon the ARCANUM of your Names, yet it was known by none but the Sons of the Divine SPAGYRICK ART. Wherefore since, thou Verminous and Lowsie Sophister, judgest the Monarch of Secrets to be an ignorant Fool and prodigal Decocter, I will now, in the middle Age, openly discover (as an honourable prosecution of those things I have asserted) the Virtues and Preparation of that Tincture, for the profit and honour of the Lovers of Truth, and that the Contemners of true Arts may be reduced to Beggary. The latter Age will be illustrated and honoured with this ARCANUM, as the Gift of GOD, and manifest Endowment of the true Spirit, so as from the Beginning of the World the like sprout of Understanding and Wisdom was scarcely ever heard of. In the mean while, vice shall not be able to suppress the Just, nor the Riches or power of those that are evil, be any Damage to the Upright.

OF PHILIP THEOPHRASTUS PARACELSUS

His Tincture of Natural things, & etc.

Chapter I.

I PHILIP THEOPHRASTUS PARACELSUS BOMBAST, say, That (after the manifestation of Divine Grace) many ways to the Tincture of natural things, were found out, which did all finally tend to the same scope and end: For HERMES TRISMEGISTUS the EGYPTIAN set about this Work, according to his own Reason. ORUS the GRECIAN observed the same Process. HALI the ARABIAN persisted in his own order; but ALBERTUS MAGNUS followed a Process very prolix. Every one of these proceeded in his own manner, yet they all attained to one and the same end at last, viz. to long Life, and an honest sustentation and Conservation of the same in this vale of miseries. At this time, I THEOPHRASTUS PARACELSUS BOMBAST, Monarch of Secrets, am endowed with peculiar Gifts of GOD, viz. in such a manner, as every searcher of this high natural Work must needs imitate and follow me, whether he be an ITALIAN, POLONIAN, FRENCH-MAN, GERMAN, or whatsoever he is, and whosoever he is. Hither must you all, Philosophers, Astronomers, and Spagyrist, how high soever you be, come after me. I by my own immense Labours, will shew and open to you, Alchymists and Doctors, that corporeal Regeneration. I will teach you that Tincture, Arcanum, or Quintessence, in which the Foundations of all Mysteries and Works are latent: For every man may and ought to give credit to another in those things only, which he hath experienced by Fire. If any one,

otherwise than by this experience, offer any thing in Chymistry, he is not to be believed, because the true must be separated from the false by Experience in Fire. Assuredly the Light of Nature was created for this end, viz. that by it the trial or Proof of every thing should appear; yet to those only who walk in that Light. With this Light we shall be taught by the best demonstrations, That all those who ever before me entred this so difficult Province, with their proper phantasies and acute speculations, have made trial to their own hurt. Therefore, by my Foundation, many Rusticks have been made Noble-men; but on the contrary, by the putatitious and opinionative Art of those men, of Nobles, many have been transmuted into Rusticks; because they could bear golden Mountains in their Heads, before they had put their Hands into Coals. But first are to be learned DIGESTIONS, DISTILLATIONS, SUBLIMATIONS, REVERBERATIONS, EXTRACTIONS, SOLUTIONS, COAGULATIONS, FERMENTATIONS, FIXATIONS, and every Instrument requisite for this Work, is to be known by use, as Glasses, Cucurbits, Circulatories, Vessels of HERMES, Earthen Vessels, Balneums, Wind-Furnaces, Reverberatories, and other such like; as also a Marble, Morters, and Coals; so may you at length proceed in ALCHYMY and MEDICINE.

But as long as you by phantasie and Opinion adhere to your Fictitious Books, you will be apt for, and predestinated to none of these.

Chapter II.

Of the Definition of the Subject and Matter of the TINCTURE OF NATURAL THINGS.

Before I come to the Process of the Tincture, it is convenient I should discover to you the Subject thereof; for this was always kept secret (with a peculiar concealment) by the Lovers of Verity. Therefore the matter of the Tincture (here you must understand me in a Spagyrick sence) is a certain thing, which from three passeth into, or remains in one Essence, by the Art of VULCAN. But that I may signifie the same to you by its Name; according to ancient use, it is by many called the RED-LION, but by few known. This, by the help of Nature, and the Art of the Artist, may be transmuted into a white Eagle, and of one two be made; yet then the golden splendour shines not so much to the Artist, for they two kept in one shine more. Now, if you understand not the use of Caballists and ancient Astronomers, thou art not born of GOD for the SPAGYRICK ART, nor by Nature chosen for the VULCANICK WORK, nor created to open thy mouth in ALCHEMISTICK ARTS. Therefore, the matter of the Tincture is a very rich Pearl, and a most precious Treasure, and the noblest thing (next to the manifestation of the most High) and most worthy of humane considerations, that can be in the earth. This is the LILI of ALCHEMY and MEDICINE, which Philosophers have so diligently sought, but through defect of intire knowledge, and perfect Preparation, they attained not to the perfect end thereof. By their

Searches and Experiences, a Beginning only of the Tincture is given to us; but the true Foundation which my Collegues should imitate, was left to me; wherefore no man must mix his Vizors with our Intentions. I, after my long Experiences, deservedly correct Spagyristes and separate the false or erroneous from the true, having by continual Searches found out those things, by reason of which I may justly reprehend and alter many and diverse things. Yet had I found the Experiments of the Ancients more excellent than my own, I would not have sustained so great Labours, as I willingly undertook for the sake, profit, and honour of all good Alchymists, & etc. Therefore, since the subject of the Tincture is so sufficiently declared, as a more faithful discovery cannot, nor must be made between two Brothers, I will enter upon the Preparation thereof; and after I have posited the Experiences of the First Age, I will also add my own Inventions, unto which, in time to come, the Age of Grace will adhere, whomsoever thou (SOPHISTER) from thy own Philosophy in the mean while shalt constitute Patriarchs or Principals.

Chapter III.

Of the Process of the Ancients in preparing the Tincture; and of a more short way found out by PARACELSUS.

Ancient SPAGYRISTS putrefied LILI for a Philosophick Month, and then distilled from it the humid Spirits, so long as until the dry were elevated: The CAPUT MORTUUM they again imbibed with the humid Spirits,

and from it, by distillation, often abstracted them, and continued this Operation so long, as until the dry Spirits were wholly elevated. Then they united the abstracted humours and dry spirits by a Pellican together, 3 or 4 times, until all the LILI remained dry in the bottom.

Although the first Experience followed this Process before fixation, nevertheless our Ancestors often obtained their wished end perfectly. But they would have had a more short way of coming to the RED-LION'S Treasure, if they had learned the Concordancy of Astronomy with Alchymy, as I have demonstrated it in the APOCALYPS OF HERMES. Yet since every day (as Christ spake for the comfort of the faithful) hath its proper Care, the Labour of SPAGYRISTS before me was vast and great, which now by help of the Holy Spirit assisting, will be eased and lightned by my Theory and Practise, and declared to all those, who abide constant in their Labours with patience; for I am experienced in the Property of Nature, and know the Essences and Conditions thereof, and the conjunction as well as resolution of the same. Which is the highest and greatest thing in Nature, never yet known to Sophisters.

When the first Age had the first Experience of the Tincture, SPAGYRISTS of one simple made two; but afterward, when in the middle Age that Invention was lost, their Successors, by diligent search, at length happened on the two names of that simple, and with one denomination called it LILI, as the subject of the Tincture: Then the Imitators of Nature putrefied this matter (no otherwise than as Seed in the Earth) for its due time; because before this Corruption, nothing could of it be produced, nor any ARCANUM discover it self; and after putrefaction,

they abstracted the humid spirits from the matter, until by the force of Fire they were dried and sublimed; that this way (no otherwise than as the Husband-man waits on the Seasons of the year) the said spirits might come to maturity, as one thing is wont to rise and fall after another. And lastly, as after Spring the Summer appears, they incorporated those Fruits and dry spirits, and brought the Magistry of the Tincture so far, until it should come to its Harvest, and dispose it self to ripeness.

Chapter IV.

Of the Process of preparing the TINCTURE OF NATURAL THINGS, abbreviated by PARACELSUS.

Ancient SPAGYRISTS would have not undergone so prolix a Labour, and made such tedious Reiterations, if they had learned their Work from my School, and in their labour followed the Rules of the same, but would full as well have obtained their end with much less Labour and Charge. At this time, in which THEOPHRASTUS PARACELSUS, the Monarch of Secrets, comes, is the Season of Inventions, which was hid from all Spagyrist before me. Wherefore I only say; Take the Blood of a Rosie colour from the Lyon, and the Gluten from the Eagle, which, after you have joined them together, coagulate according to the old Process. Thus you will have the Tincture of Philosophers, which infinite men have sought, but very few found.

Whether thou wilt or no, Sophister, this Magistry is in Nature, and is a wondrous Work of GOD above Nature, and the most precious Treasure in this Vale of Miseries. If you consider it externally, it appears to be that which transmutes some vile thing into another much more noble than it was before. Yet that Miracle is produced by a Spagyrist, because he had patience, and was not weary, and by the Art of his Preparation did corrupt the vile extrinsecal Body, and from thence raised up another and most precious Essence. If thou hast learned, or knowest any thing similiar by the light of ARISTOTLE, or from the Rules of SERAPIO, produce it here, and bring it to light by experience. Now keep the Law of the Schools, as becomes a Lover of Honour, and a Doctor. But if thou knowest nothing, or art able to do nothing, Why dost thou contemn me, as an irrational HELVETIAN Calf, and accuse me, to be a Vagabond-Circulator? Art is another Nature, and a peculiar World, as Experience witnesseth and demonstrates against thee and thy Idols. Therefore the Alchymist sometimes compounds certain Simples, which he afterwards, according to his necessity, corrupts, and thence prepares another thing. For so, very often of many, one thing is at length made, which effects more than Nature PER SE is able to do; as is sufficiently manifest in GASTAYNUM, where of SATURN, VENUS is made; in CARYNTHIA, of VENUS, LUNA; and in HUNGARY, OF LUNA, SOL. Not to mention other Transmutations of Natural things (sufficiently known to Magicians) which bring greater wonders to Light than OVID speaks of in his METAMORPHOSIS.

But that you may rightly understand me, seek your Lion in the ORIENT, and your Eagle toward the SOUTH, which are to be assumed for this Work.

You cannot find better Instruments than HUNGARY and HISTRIA produce. But if you would deduce that from Unity, through Duality into Trinity, with an equal permutation of either, then you must direct your Journey towards the SOUTH, for in CYPRUS thou canst not obtain all thou desirest; yet here we must discourse no farther than at present we have declared. Of these ARCANUMS, which exhibit transmutations, there are many more, although known by few; and should they be by the Lord GOD be manifested to any one, the rumour of this Art would not therefore presently break forth, but the Omnipotent, together with it, would give understanding to conceal these and other things, until the Coming of ELIAS THE ARTIST, in which time nothing shall be so hid, as not to be revealed. You very clearly see (although there is no need to speak of this here, which may be by some be taken in derision) in the fire of sulphur, is a great Tincture of GEMMS, which indeed exalts them more sublimely than Nature PER SE is able to do. But this Gradation of Metals and Gemms must in this place be omitted by me, because I have very sufficiently writ thereof in my SECRETS OF SECRETS, in THE BOOK OF VEXATIONS OF ALCHYMISTS, and in other places. As I have begun our Ancestors Process of the TINCTURE OF NATURAL THINGS, so I will perfectly conclude the same.

Chapter V.

Of the Conclusion of the Process of the Ancients, made by PARACELSUS.

Lastly, the ancient SPAGYRISTS, by a certain orderly augmentation

of Fire, long continued, fixed their pellicanate and dry LILI, until from blackness, through a change of all colours, it became red as Blood, and with its colour had put on the condition of a SALAMANDER. Rightly indeed did they proceed in such a Labour; and it is equil and fit, that every man, who would compass this Pearl, should proceed after the same manner. To declare this more clearly to thee, would be very difficult for me, if you have not in the school of Alchymists learned to observe the degrees of Fire, and also to change your Vessels. If you have done this, then you will see, that as soon as your LILI shall be made hot in the Physical Egg, it will with wonderful apparitions become blacker than a Crow, afterward in success of time, whiter than a Swan; and lastly, passing through yellowness, become more red than any blood. SEEK, SEEK (saith the first Spagyrist) AND YOU SHALL FIND, KNOCK AND IT SHALL BE OPENED UNTO YOU. It would be an impious and uncomely thing to put Meat into the mouth of so perfidious a Bird. He should rather be suffered to flie out, as I, and all others before me were compelled to do. Therefore follow the true Art; for this will lead thee to the perfect knowledge of That. There is no reason to set down any thing here more amply or clearly than I have already done; let thy PHARISAICK Schools teach thee what they will, from their own unstable and tottering Foundation, it will not reach their end or scope; but after you shall, as accurately as is possible, have learned Alchymistick Industry, nothing then in the nature of things will be so difficult, but it, by help of this Art, may be manifest to thee. Indeed, Nature her self brings forth nothing to light, which is brought to its highest perfection; as in

this place may be seen by the Unity or Union of our Duality; but Man should, by Spagyrick preparations, deduce it to that, unto which it was ordained by Nature.

Thus far have I said enough, of the Process of the Ancients, and of my correction of THE TINCTURE OF NATURAL OF NATURAL THINGS, as to its preparation.

Now, we having this Treasure of the EGYPTIANS in our hands, it concerns us to convert the same to our profit, which is two-foldly offered to us from this Spagyrick Magistry. In the first way, how it may be applied for Renovation of the body; in the second, how it is to be used for Transmutation of Metals: Therefore, since I THEOPHRASTUS PARACELSUS am experienced in both diversly (according as the signs of the Work, both in experience and proof, have appeared better and more perfectly to me than any other) I will describe and propose the same.

Chapter VI.

Of the Transmutation of Metals by Projection of the Medicine.

If the Tincture of Naturalists be to be used in Transmutation, one pound of it is first to be projected upon a thousand pounds of SOL in Flux; then your Medicine will be prepared for transmuting the Leprous humour of Metals. This is a wonderful Work in the Light of Nature, viz. that by this Spagyrick Magistry or Operation, that which before was such a Metal, should perish, and become another Metal. That renders

ARISTOTLE, with his evilly-founded Philosophy, a Fool: The Country-men in HUNGARIA casting Iron for a convenient time into a certain Fountain called ZIPFERBRUNNEN, find it consumed into a FERRUGO (or Iron scarf) which melted in a strong Fire with Bellows, is presently pure Copper, which never more returns into Iron. Likewise, in the Mountain KUTTENBURG (as it is commonly called) they strain a LIXIVIUM from MARCASITES, in which Iron is presently changed into the best Copper, highly graduated, and more malleable than other natural Copper. These, and many such like, are better known to simple men than to Sophisters, for these men transmute one species into another; yet these Arts remain for the most part absconded, by reason of the notable contempt of Ignorant men, and also partly by reason of the just Envy of Artificers. In ISTRIA I have often brought Venus beyond the 24 (alias 38) degrees, so as the colour of Sol could not ascend higher, and it was constant in Antimony, or in the Quartal Examen; this indeed I used in all Cases, as the other.

Although ancient Artists were earnestly desirous of this ARCANUM, and sought the same with very great diligence, yet very few could after perfect Preparation deduce it to its end. For the Transmutation of a Minor-Metal into a better, brings with it many difficulties and hindrances; as when Tin is to be transmuted into Silver or Copper into Gold. Perhaps GOD will have the Magnalia of Nature hid from many men by reason of their Sins. For sometimes it hath happened, that when this Tincture hath been prepared by Artists, and they could not bring Projection to effect, that the same (through their neglect and carelessness

in keeping of it) hath been devoured by Hens, whose Feathers afterward fell off, and grew new again, as I my self have seen. This way, by abuse, through negligence of Artists, came Transmutation into Medicine and Alchymy. For when they could not use that Tincture according to their own desire, they converted the same to Renovate Men, as you shall hear more at large in the following Chapter.

Chapter VII.

Of the Renovation of Men.

Some of the first and ancient Physicans in EGYPT, by this Tincture, lived 150 years. Also the Life of many was produced and prolonged for several Ages, according as we find it clearly recorded in divers Histories, which seems a thing almost incredible. For its Virtue is so admirable, as it extends the strength and vigour of the Body further than is possible by Nature, and conserves it in that degree so firmly, as it lives safe from all Infirmities. And although it be grown aged, yet it appears as in a youthful Constitution.

Therefore this Tincture is an Universal Medicine, like an invisible Fire consuming all Diseases, how soever they are predominant. Its Dose is very small, but the Operation of it most potent. With it, by me, the Leprosie, Venereal Lues, Dropsie, Epilepsie, Colick, Rosy-drop, (GUTTA ROSACEA) and like Diseases, have been cured and healed; also, the Wolf, Cancer, NOLI ME TANGERE, Fistula's, and other internal

Diseases, more certainly, than can be believed; of which GERMANY, FRANCE, ITALY, POLONIA, BOHEMIA, & etc. will give a Testimony large enough.

Now, thou Sophister, behold THEOPHRASTUS PARACELBUS, and consider how your APOLLO, MACHAON, and HIPPOCRATES, natural Physicans, sought this Tincture for resisting Diseases, because all Physicans aim at long Life, and by this Universal, they, for the most part, obtained it, and that very efficaciously; and according to their own Arbitriment, named it the Tincture of Naturalists. For in all Medicine, what can be greater, than such a cleansing of the Body, by which every Superfluity is totally eradicated, and transmuted? The Seed being found, all things are perfect. What profits the evilly founded purgation of Sophisters, since it removes nothing of that, which should be taken away? Wherefore the most excellent Foundation of a true Physican is, Regeneration of Nature, and Restoration of Youth: Then, that new Essence, expels all whatsoever is adverse to itself. For this Regeneration, the Powers and Virtues of the Tincture of Naturalists were strangely found out, and until our time used by true Spagyristis, and absconded as a Secret.

Of Vitriol.

Nature generates a Salt, called VITRIOL. This is a peculiar kind separated from all other Salts, possessing also Virtues different from them. Its Virtues are so many, and so famous, as of right they ought to be described in this Book. For, a perfect Cure of the Jaundice is latent in Vitriol, also of the Gravel and Stone in the Reins or Bladder,

of all Feavers, Worms, Falling-sickness, & etc. And in Constipations of the Body, it is a famous Deopilative: In the mean while of other Virtues in this Chapter to be mentioned, I here am silent. The Description of this is to be directed both to Medicine and Alchemy. For in Medicine, it is an excellent Remedy; in Alchemy it is profitable for many other things. But the Art consists in the Preparation of Vitriol for Medicine and Alchemy. For Vitriol crude, is no such thing. It is like Wood, of which all things may be made. It is profitable for Medicine of the Body; it profits also in Chirurgery, or External Diseases, as the Psora, Tetter, Hereditary Leprosie, and others; where all other Remedies are ineffectual, and as it were dead to the Disease. Vitriol assaults Diseases of this kind powerfully, and cures them fundamentally. Therefore the true Preparation of Vitriol is in a special manner to be known by Physicans. For its Virtues when crude are other, than when dissolved; and other when calcined, than when converted into a green, red, or white Oil. This is the condition of it, that as often as it is reduced into another form, so often it is made a peculiar ARCANUM.

This confounds all Apothecaries, and Writers, both ITALIANS and GERMANS. For this part is such, as it alone PER SE can fill a fourth part of all their Shops, and cure Diseases proportionally. This being present, there is no need of so many Boxes, Pots, Glasses, & etc. set all of a row, and disposed in order in Shops. It concerns a Physican, not to take care for so many Boxes, and Beyond-Sea Medicines, but to be circumspect, provident, and wise as a Virgin; since in such numbers of Vessels adulterate Remedies are for the most part contained. If he use

the aforesaid circumspection, at his own doors he will find more choice Remedies, against all Diseases, than INDIA, EGYPT, BARBARY, or GREECE can afford.

Let every Physican follow this Basis, for it is now known even to plain Country-men, that meer Frauds are contained in those Boxes: Which, as they are for the most part of Wood, so are they that use them Wooden Doctors and Apothecaries: But like with like do very well agree.

Of the Species of Vitriol.

There are many Species of Vitriol, for they vary according to the Pits out of which they are taken. The common Probation of this is, as Coperas is proved upon Iron, but this is not true. The Genuine Probation is, that it be used crude against the Worms, in that manner as we will now explain; and accordingly as it expels Worms, so is it more or less excellent in Medicine. In Alchymy, another Probation by Cuprosity is more available; yet it may also be thus proved. If Vitriol change Iron into Copper, and that speedily, and the same be perfectly well gradated and soft under the Hammer, then is that Vitriol best in Medicine and Alchymy. For there is a Conjunction of Iron and Vitriol, where of Iron it makes Copper good and excellent. Of the best Vitriol the best Copper is made. Let no man wonder, that Copper can be made of Iron by Vitriol; for there is also this virtue in Nature, viz. that the Water of Borax makes Quick-silver of Lead. Also experience teacheth, that CACHYMIA'S transmute all Metals into other, no otherwise than as

Vitriol changeth Iron into Copper. Nor is Vitriol, only the transmuter of one Metal into another, but there are also other things, which have like effect upon all Metals. The reason why we know not them all, is, because Sophisters pervert Arts for their private benefit, using them only to supply their Purse and Kitchin.

In HUNGARY is a River proceeding from Vitriol, or PER SE consisting of Vitriol, not coagulated into Crystals. If Iron be put therein, and left for its due time, it turns to a Rubigo, or Rust. If that Rust be melted by a Wind-Furnace, it is presently made pure and constant Copper, not convertible into its own Nature of Iron. There are infinite Mines of Vitriol found throughout GERMANY, all which cannot be described apart. Yet the aforesaid Probations are to be used both in Medicine and Alchymy. There is besides these another Probation (not profitable in Medicine, but in Alchymy only) and that is: If the Colcothar of Vitriol do from it self by Fire, give or yield Copper. If it give Copper, then in Medicine it is weak, but in Alchymy strong Vitriol. Likewise the Colours of Vitriol are to be observed: That which is all over blue, mixed with no other Colour, is not so good in Medicine, as that Vitriol, which is (as it were) parted, and all over filled with red and yellow Lines and Veins. What in the Air inclines to whiteness, is efficacious, and fit for the green and white Oil of Vitriol: what turns to a redness and yellowness is more excellent for the red Oil. There needs no more to be said touching the Species of Vitriol, than what is suggested by Probation; which every Physican and Alchymist should make, according to the use he intends it for. Lastly, this Probation

is never fallacious. If mixed with Galls, or Oak-Apples, it makes good Ink, then it may be used in all Cases: But if it maketh an aqueous, or waterish Ink, that needeth many additions, it is not so good.

Of the Virtues of VITRIOL in Medicine: first, of it Crude, and its Colcothar.

In explaining the virtues of Vitriol, I will first speak of the virtues of it Crude, and of its Colcothar. Therefore, know ye, Vitriol is a famous Purgation, in grievous and difficult Diseases of the Stomach. For it sometimes happens, that the Stomach is distempered by Meats and Drinks, and falls into a Diuturnal Disease, which continues unto death, and by depraved Meats and Drinks, it often comes to pass, that the Sick are either contracted in their Members, or die.

Also among Soldiers, through Immoderation, it frequently happens, that burning Feavers, Dysenteries, and other Diseases arise. In all these Evils, the highest, and most excellent Remedy is a Purgation by Vitriol, which rightly and Allegorically is called GRILLUM. Its Dose is as much as you can take up at six times upon the point of a Knife. If that Operate not, repeat the same Dose, and if not this Dose neither, give it a third time, and it will be sufficient. To the Weak, give it in Wine or Water; but to a strong Man, that is not easily Laxative, in rich Wine. It so exhibited, will throughly purge upwards and downwards. Indeed Hellebore, both the Spurges, Coloquintida, & etc. do famously purge also; yet not with virtues equal to Vitriol. The Reason of this

is, because in Vitriol is a certain sowreness, which hath a conjoined Sharpness, Acrimony, and Detersion; by which saline sowreness the Operation obtains a full and perfect power, which neither Hellebore, nor Coloquintida, & etc. hath. For in Nature, or way of Purgation is here two-fold: One purgeth PER SE, the other by Saltness. Therefore here the two virtues are better than the only one in Hellebore. In Saltness is a Specifick Form is latent, and that of such a Nature, as all Worms touched by it die. And that is a singular power, which destroys Worms, being what none of the aforesaid doth. Therefore it is evident to every one, that a Purgation, which hath in it self sowreness and saltness, together with a Laxative virtue, doth in a double way and manner exquisitely cleanse, evacuate and purge. Wherefore, for Internal Diseases, it is twice more noble, and more excellent than other Purgations. But because I intend at large to declare to you the Nature of Vitriol, there is no need I should also explain those Internal Diseases: Yet in general I say, that a Purgation of this kind in all Vices of the Stomach, in the Falling-Evil and Vermination, is most profitable and most safe, if it be used according to the condition of time, Disease, Person, & etc.

Touching Colcothar you are to know, that it is not inwardly to be taken, but only to be applied in Chirurgick Diseases, viz. in putrid Ulcers, which admit not to Sanation: For in these it discovers the way to perfect healing. Yet there are many Chirurgick Diseases, as Grievous, Malignant, Worse and Worst. Against the Worse and Worst, Colcothar is not conducent, yet is effectual against those, which consist in the first degree; and therefore to be applied to them. For the Worse and

Worst of all, its Oil is to be used according to the degree of the evil, and of the Oil. All ulcers of this kind, how many soever they be, are cured by Vitriol; but according to the degree, the use of it is, that it be reduced to good Colcothar, which must be certain times extinguished in Vinegar; and being dry, be sprinkled on, or permixed with some Plaster, which by the Physican shall be judged apt and fit for that evil. So it makes an Escar, which taken off by Fatness, a good and easie Cure follows. But the Evil, which is not obedient to this Cure, of it you shall thus judge, viz. that there is yet more venom latent, which must, thenceforth be searched out with Oils applied; because the Basis of the Ulcer cannot sufficiently be amended with Colcothar for an intire Sanation. If crude Vitriol be dissolved in Vinegar, and the Solution thickened with Colcothar into a Powder, and so applied, it soon cleanseth the bottom of the Ulcer much more potently, than of Colcothar is said. But the best way of reducing it to Colcothar is to extract the water thereof, and therewith to imbibe the CAPUT MORTUUM, until it be consumed, afterwards to dry it leisurely in the Air. If this be used, it induceth a better bottom in Ulcers. But whatever you do, mind the degree of Ulcers, Tettors, & etc. Whatsoever of these is not cured, set about the Cure of, with its separated Oil and Water of which afterwards.

Although Colcothar answer not the desired end, yet by reason of that the Cure must not be despaired of, but you must think of correcting it in distilling. For by Preparation the Medicine is brought to the highest degree, so as it even cures all Ulcerous Affects, as the Wolf, Cancer, and the like. These are explained more at large where we speak of the Preparation of them.

Of the Water of Vitriol in Chirurgick, and Internal Diseases.

Alchymy discovers many excellent Arts to Physicans; by which, wonderful Sanations of many Diseases are made. For this cause in the beginning of Medicine, Physicans always used Alchymy; because this was the Mother and Genetress of many Commodities. These two Faculties, (viz. Medicine and Alchymy) as SOCRATES so long kept together, as until Deceivers and Humorist Sophisters arose, who mixed Venom with Medicine, and made her a Strumpet. Such Medicine as this, will always remain, as long as Humorists live. These things I thought good to premonish you of, that henceforth you may give the more diligent heed to this head Chapter, by reason of its famous Medicinal Utility.

But this is always to be premised, viz. That as often as unskillful Men take in hand any Art, so often do they every way defile and corrupt it, and of a Pearl make a stinking Puddle. The very same is also committed in Vitriol. At first, the Spirit from Vitriol extracted, was wont to be gradated to the highest. By this exalted, the Ancients did perfectly cure the falling-Evil, whether Recent or Inveterate, both in Men and Women, of what Condition soever they were. But here unskillful Laborators rushing in, attempted otherwise to reduce the Virtues of Vitriol, and thus failing of the first way and ARCANUM, they suffered that to expire, and then sought an Oil in the Colcothar, which could not any way be made to that end, or have such a Use. For what is to take away the Epilepsie must have a subtile, sharp, and penetrable Spirit.

In that consists a faculty of piercing through the whole Body,

and of leaving no one thing untouched therein. And by that pervasion, or penetration, the Disease is assaulted in its own place. For it cannot be known certainly and indubitably, whence comes the Seat, or Centre, or Period thereof. Hence we conclude, that a Physican hath only need of such Remedies, as can penetrate the whole Body. This is the Reason, why sordid Humorists heal none, but prostitute all their Doctrine and Profession. Therefore, I positively affirm, that in the Oil, which those Laborators seek, is no penetrating Spirit. A meer Terrestreity (as I may call it) is by them used, which penetrates not at all, but where it falls there it lies. Wherefore it is generally and greatly to be bewailed, that the true Process is suppressed by the unskillfulness, and a false substituted in its stead. But I am perswaded, the Devil contrived that, to the end the Sick should not be cured, and the Sect of Humorists might thenceforth spread the more.

Let us return to the beginning; how the Spirit of Vitriol was found out. The Humid Spirit of Vitriol was at first distilled from its Colcothar; then it was gradated, by distilling and circulating PER SE, as the Process teacheth. This way the Water began to be used for many Diseases, both Internal and External, as for the Falling-sickness, & etc. and thus a marvellous Sanation was effected. But in the extraction they were wonderful diligent; for they took the Spirit of Vitriol corrected, as above, and distilled it from Colcothar eight or ten times, with a most strong fire; so the dry Spirits were mixed with the Humid Spirits, and the Work so long continued, as until the dry Spirits came forth together with the Humid, by extracting. Afterward, both Spirits

put into a Phial were gradated to the highest. This Medicine they found to be of much more powerful Operation against Diseases, and by that Medicament effected so much, as they confounded all Humorists in General. Yet here is no Correction added to it (by Artists) by Spirit of Wine, to render it of greater Penetration. But it was of no greater degree, than as I shewed.

Now I will Communicate to you my Process, which I commend to all Physicans, especially for Cure of the Falling-Evil, the singular Cure of which, consists in Vitriol. For which cause, Charity to our Neighbour binds us to institute a more diligent Cure in this Disease. The Process is thus.

I imbibe the Vitriol with Spirit of Wine, and afterward distil it from the dry and humid Spirits: This being done, I find the following Addition to be very profitable, viz. if Spirit of Tartar, corrected, be mixed to a third part of the Vitriol, and Spirit of Treacle-water Camphorate, be added in a fifth part, with respect of the Vitriolate Spirits. Thus I administer it, before the assault of the Fit, or certain times of a day. This Medicine is famously efficacious against this Disease; yea, so excellent, as a better cannot be desired from Nature.

Therefore, the first Process invented by the Ancients, is to be retained with the said Correction, viz. by imbibing with Spirit of Wine before distillation, and by adding the Spirits of Tartar and Treacle-water after distillation, as is said. For so is attained the Heart of Nature, and every Virtue.

I hope I shall not be blamed, but commended rather by every good

Man, that considers the horridness of this Disease, which would even move a stone to Commiseration. Since so great is the vehemency and horridness of this Disease, as almost any Man may lawfully say, Cursed be all Physicans, who passing by such Sick, yield them no relief, but like the PRIEST and LEVITE in JERICHO, who forsaking the wounded man, left him to be cured by the SAMARITAN. I pray here give your judgement, what Condemnation were that PRIEST and LEVITE worthy of, who passing by the distressed, STOPPED THEIR NOSE, as the Proverb is; surely they were worthy of Hell Fire, from which is no Redemption.

And who can judge any other of all Physicans, none excepted, that look upon this Disease, and yet pass by with their Nose stopt? Who can otherwise say, than they must render an account of it at the last day? Notwithstanding, all these men are generally so disposed, as they will not wag their hand, or bestow one penny, for acquiring a more certain Foundation for the cure of this Disease. Did they not, as it were, by compact imitate PRIESTS and LEVITES, but would rather study to imitate the SAMARITAN, GOD certainly would recompense their fidelity with a manifestation of the Secrets of Nature, with which they might be helpful to the Sick. And if such Virtues were not incited in Nature, the Almighty would undoubtedly create them anew. Therefore I testifie, together with you noble and ignoble men, that all Doctors generally have basely erred and deviated from the Truth. Whatsoever those Seducers, GALEN, AVICEN, & etc. foolishly devised, to that they adhere, and relie upon those Lyes, so far are they possessed with the Devil, that they cannot exercise Charity towards their Neighbours; and in this

manner they make themselves the Sons of Damnation; for their only study and drift is to heap up Wealth. The Kingdom of GOD is first of all to be sought, yet not after the fashion of the PRIEST and LEVITE, but according to the SAMARITAN nature. If we be merciful, and follow the example of the SAMARITAN, GOD is with us, who will presently help us with a Remedy not yet created in Nature. In the mean while, since Physicans deal with the Sick LEVITICALLY and PRIEST-like, the most Wise GOD withholds Medicine, and reserves it to himself. The Sick flie to the Kingdom of GOD, but Physicans to the Infernal Abyss, prepared for LEVITICAL Doctors of the same sort. Therefore open your eyes and look, the way is two-fold, one leads to infernal shades, this the LEVITES follow; the other way leads to Heaven, unto which the SAMARITAN directs his Feet.

That Vitriolate ARCANUM, and its extraction, is not only excellent in the FALLING EVIL, but is also conducent in other species like unto it, as in SWOONINGS, EXTASIES, & etc. Also it is after the same manner beneficial in all Oppilations and inward Imposthumes, and is no less efficacious in precipitation and suffocation of the Matrix. Yet in it are many more Virtues acquirable than are here commemorated, if greater diligence in inquiring be bestowed thereabout, and Physicans themselves would be better men. But the Devil, whom they serve, possesseth them, and stirs them up to the hating of Him who loves Verity. Even thus things are acted about the Health of Good Men.

It is further to be known, that the aforesaid Receipts of the preparation of the humid spirit of Vitriol cannot more clearly be described;

for to understand that, a sufficient Artist is required; those sordid Decoctors cannot understand a thing of so great moment. Therefore you are only to expect all-sufficient Information from true ARTISTS, and ALCHEMISTICK LABORATORS; so also by them you must be fully instructed about the correction of spirit of Wine. For the Doctors of Academics are so very rude, as they can scarcely discern AGARICK and MANNA. Yet this kind of Asses are created Doctors. You have Treacle-Water contained in my practise, in the Chapter of the Cure of the FALLING-EVIL; what others there are of this kind, are not here to be recited. By this Chapter you may learn, That the Art and all Virtue of Vitriol, consists in well-extracting the Spirit, and graduating it to the height, and by addition deducing it to Penetration, whereby it may search out the centre, root, and seed of the Disease. For 'tis impossible so exquisitely to find the places, as those Doctors babble of Humors. Certainly, the Foundation is not yet known, as what it is that makes a Disease, or where that lies, or what that is, which casts a man into so grievous a Fit. Therefore every Operation is only to be committed to that ARCANUM, which Nature hath directed to the Disease; that ARCANUM searcheth out his Disease, as the Sun penetrates all the Angles of the World. Briefly, I say, whosoever endeavours to be a true Physican, ought first of all to learn to be a SAMARITAN, not a PRIEST or LEVITE. If he be a SAMARITAN, all things he hath need of will be given him; nothing will be occult to, or hidden from him. But to him who will first be a PRIEST or LEVITE, nothing will be given, unless it be Infidelity, which he also had before. Thus are such men paid in their own Coin.

Of the Red Oil of Vitriol.

You are also to understand, how of the COLCOTHAR by a Retortive Distillation, in a Chymical manner, a blood-like and most sowre Oil may be prepared. This Oil Laborators have judged more efficacious in the aforesaid Diseases than the Spirit, but that their judgement was erroneous. The vulgar Process of preparing it I think not to mention here; for every thing of moment is cited in manual Operation and diligent Inspection, also in convenient Instruments. As touching the Virtues you are first to understand, that it is a sowre thing, so far exceeding all sowreness, as nothing than it is more sowre. It likewise contains a corrosive nature, for which cause it had need be used circumspectly and warily, viz. not PER SE, but in a good Concordancy and suitable mixture, with respect to that against which it is exhibited. We will explain this by Example: The Viper is a Serpent most venomous, therefore of no use alone, but in Composition it is most excellently useful; for of it Treacle is made. The very same is also to be judged of this Oil, viz. That it is not to be used alone, but in a Composition suitable and fit, as of Treacle we have said. By reason of its sowreness, it profits a Stomach free from Cholera and an Imposthume; but if either an Imposthume or Cholera be present, it is manifest by Experience, that it hath no good effect. For the Imposthume is intruded by it, and exasperated by such sowreness, passeth into an unquiet matter. And if Cholera be present, a mutual Ebullition and Strife is caused, no otherwise than as is seen between AQUA-FORTIS and TARTAR, neither of which

can remain or persist with the other. Therefore diligently and circumspectly consider, lest you err to the damage of the Sick. In Composition this Oil is profitable for other Affects, as in all Fevers and want of Appetite, if given in the aforesaid manner, viz. in a good concordancy. There are many other Virtues said to be in this Oil, but Experience confirms few of them. I have seen and proved those to be egregious Lyars, who have boasted, that they could do Wonders with this Oil. It is true, it is useful in the STONE and GRAVEL, yet I have known no man cured by it. In all it doth something, but not to purpose: Yet in my Practise, in the Chapter of the Cure of GRAVEL, you shall find a Composition thereof, for this and other diseases. But as I said of the Corrosion of this Oil, used by it self, so I do also affirm, that the same Corrosion hath power of diminishing or breaking the STONE, and expelling GRAVEL; yet that is done with so great difficulty, as there is need of some other Invention, than hath hitherto been practised; for otherwise it may not safely be used. As much as any man hath gained by Experience, so much I allow of. This Medicine is new; wherefore it daily ought to be proved anew, and as oft as need is permixed with new Compositions.

But as to Chirurgery, of this Oil you are to note, it doth indeed excite great dolours, yet it inferrs present Health, even in the most difficult diseases. For in the Hereditary Scab of the Head, called ACHORES, it is so effectual, as it takes the same off in one whole piece, as a Man pulls off an Helmet from his Head. With this Oil the whole Head is to be anointed with a Feather, where it is hairy, for 3 days

continually; then expect its Operation. If you see it not sufficient, anoint it more often, according as the Scab shall be. The same Oil may also be co-tempered and mixed with Water of SELANDINE, and the Head often washed therewith. Yet he who would be healed, must not think that his Cure can be effected without dolour; for the condition of the Sick is the same as of a pregnant Woman, which brings not forth without exceeding great pain. So Meat, without pain, cannot be prepared for us; with dolour and sweat also we are freed from diseases. This way all TETTERS, SCABS, and ITCH, together with all other Vices of the skin, howsoever arising, are healed; and likewise the depraved TENTIGO, by anointing herewith, is cured, and the WOLF and CANCER expelled and mortified; yet in this case you must diligently observe, if the Evil be very forcible (that the Venom so deeply penetrate, as the quick and sound flesh be in success of time like to be eaten away and fall off) to apply a good OPPODELOCH for a defensive.

But in whatsoever estiomenuous Ulcers, other Remedys be deficient, this Medicine yields relief, by reason of the degree it holds. It will not be improper to mix this Oil with some fat Unguent, and so apply it. This way it will cause less pain, but it is not so swift in operating: DOLOUR can by no means be avoided, no more than a Woman in Travel can be delivered without pains. The best, and most sublime way of preparing this Oil, is to distill it into spirit; so a very small weight will be sufficient in all the aforesaid diseases, which are then removed with little trouble.

These things I have found out by experience of the Red Oil of Vitriol,

which in grievous diseases is an excellent and famous Medicine; for fetid and contagious diseases of this kind, as are the SCAB, ITCH, TETTER, ACHORES, and other like Affects, which are of affinity to the LEPROSIE, may be cured by this great Gift of Nature, which is here offered to the Physican, by which he may effectually cleanse and heal diseases men. There is not an abundance of Remedies of this kind, therefore I will carefully preserve this Oil, & etc. for all other Coctures are nothing worth, nor do they remove these loathsome diseases, but with their fatness do cause them to be reincrudated and encreased.

Of the White and Green Oil of Vitriol.

It is worthy of consideration, that from crude Vitriol an Oil is distilled by descent, sometimes white, and sometimes green, according to the condition of the Vitriol. This Oil deserves a singular commendation; for since it is prepared of crude Vitriol, therefore it also contains the spirit of the same, touching which I have above treated. This Oil, made by descent, demonstrates by those its Virtues that it is an excellent and admirable Remedy for the before-mentioned internal diseases. The same Oil whether it be white or green, (but the green is better) if circulated and mixed with the above-commemorated spirit of Vitriol, is a certain and indubitate Remedy against the Falling-Evil, and all its species. But it is worthy your observation, that this disease is seldome so solitary, as not to have other Evils concurrent with it. Indeed, that such a concurrency is, is evidently manifest by all

diseases. Hence it is now clear, that a Remedy against the principal Evil is not sufficient, but Secrets against concurrent symptoms are also required. For this cause in my Practise I have designed a peculiar Chapter of the Falling-Evil, not for the principal Remedy sake, which in this place is sufficiently described, but only for the understanding of those things, which concurr together with the first Affect. If other Accidents do not concurr together with the first Affect, there is no need of exhibiting other Medicaments than the principal, which is sufficient. Therefore, touching the green Oil, thus do ye: Graduate it to the highest, that it may be separated from its terrestreity and faeces, in BALNEO first, afterward in dry Fire. So in BALNEO the phlegm is taken away, and the terrestreity removed by dry Fire, and the spirit of the Oil only is collected, which in it self is circulated. Afterward you may make addition with spirit of Wine, but there is no need of adding more, if it be only to be used as a Primary Remedy, without Medication of coherent diseases.

It is also given in Water of Paeony, always before the coming of the Fit, whether it be frequent or seldome, & etc. Therefore mind the Paroxisms. As soon as the spirit of the Oil finds out the center of the disease, then the Fit is pacified, and thenceforth waxeth more and more gently. But when it exerciseth a power of Healing, it first of all excites a VERTIGO sensible to the Sick, who notwithstanding do not fall nor foam, nor are shaken, or quake, nor deprived of reason, but are seized with a gentle sleep, and are much better presently. At length the VERTIGO also ceaseth, and the sleep is ended; yet in the

mean while the Medicine must continually be applied, several times reiterated, according to the condition of the Disease and Patient. This way the Cure is to be followed, and all things diligently administered. This belongs not to a drunken Physican, or DOCTOR LEVITE.

Of the Vitriolate Oil to be used in ALCHEMY, and also of the Crude.

Now to speak of the Alchymistick Virtues absconded in Vitriol: I will first propose to you the Virtues of Crude Vitriol: How every Crude Vitriol of Iron makes Copper. For the Alchymist doth not this, but Nature, or Vitriol, by the Operation of the Alchymist performs the same. And this is the sublime power of Nature. And in the light of Nature it is done, but not without admiration; to see any Metal, as it were put off it self, and become another, which is almost, as if of a Man, a Woman should be made. But in these things Nature hath her singular Privelege granted by GOD, for the sake of Man. I speak this of Transmutation, that you may understand, that the foolish Philosopher ARISTOTLE, was not well grounded in his Philosophy, but was meerly fatuate. Now I will give you the Receipt, that you may know how, in all places of GERMANY, to make Copper of Iron; whence we may easily gather, what the power of Transmutation is, and that many other Transmutations may be made; although they as yet be unknown to Us.

To change Iron into Copper, is not so great moment, as to turn Iron into Gold. Therefore, what is least, GOD manifests, but the greater is yet hid, until the ELIAS OF SCIENCES shall come: For Arts also, want

not their ELIAS. The Receipt of this Transmutation is thus.

R. Of the Scales, or Filings of Iron (without all other Metals, as Copper, Tin, & etc.) 1 lb; Quick-silver, 1/2 lb. Put both into a large Iron Pan, or Pot, and pour on them one Measure of Vinegar, and of Vitriol 4 ounces; Sal Armoniack, 1 ounce. Boil them together, and continually stir them well with a Wooden Spatula. If the Vinegar vapour away, pour on more, and add new Vitriol.

By this Decoction, Iron is changed into Copper: If it be made Copper, it all passeth into the Quick-silver, the boiling being continued for ten or twelve hours. After the Cocture, is ended, separate the Quick-silver from the Iron (as much of it as is left) and well wash it, that it may be clean. Put that Quick-silver into a Bag made of Leather or Cotton, and press it out; so you will see an Amalgama left. Suffer that Amalgama to expire by Vulcanick Heat, and you will find pure and good Copper. Of this Copper, R. 1/2 ounce of Silver as much, make them flow; or melt them together, and the Silver will presently ascend to the sixteenth degree. This way you may prove, that such Copper is made of Iron: But that the degrees are fixed, is not true. Yet he, who in Regal Cement is able well to operate, may thence receive a sufficient Recompence for his pains. The whole business consists in the Operation, and in Judicious labouring: Yet in this most err. Nevertheless, by the aforesaid Process, you may always make Copper of Iron. I so often inculcate this, only to confirm the transmutation of one into another.

Also of Vitriol such is the Nature, as if the Colcothar thereof be calcined, it with easie liquefaction is turned into Copper. For

in it is a wonderful Coppery Nature, and in Copper also a Nature of greatest Affinity to Vitriol. If Copper be dissolved in AQUA-FORTIS, and Crystallized, it makes every Copper Vitriol, and it is no more Copper: So also of Vitriol, Copper is made; and that is no more Vitriol. Therefore the Reason of such Affinity in Vitriol and Copper is very strange. What is Cuprous or of Copper, makes good Vitriol. So Verdigrase, which is good and highly gradated, gives a Saphyrick Vitriol.

Although it may seem ridiculous for us to discourse of these things; yet it cannot be denied, that in Vitriol a Tincture is latent, which is of greater efficacy than many can believe. Blessed is he that understands this. But touching the Oil of Vitriol, further note. If the Oil of Quick-silver, and this Oil be conjoined, and so coagulated in their Process, a Sapphire of wonderful Nature and Condition is produced: Not indeed a Sapphire stone, but like unto it, of an admirable Tincture; of this I will say no more. Hence it is evident, that stupendious, and to be admired ARCANUMS are treasured up in Nature, and in many other things created by GOD, and produced by Nature. Now, it would be more commendable for us to search out these things with an indefatigable labour and study, than to consume our days in Luxury, Drunkenness, Whoredom, & etc. But at this time, Lascivious Whoremongers, are in greatest Honour, and so are like to be, until with these Vices one third part of Men are suffocated, and another third part destroyed by Pestilence; so as one part of the World, will scarcely remain untainted, or unconsumed. For with this abomination the World cannot long endure, nor good Arts flourish. Therefore, of necessity those evil Courses

must be annihilated and cut off, otherwise no good can have place. But when this evil time is expired, the Golden age shall flourish; that is, Man at length shall use his own Understanding, and live as a Man, not as a Brute, nor act as a Swine, or lie in the Caves of Murtherers or Robbers.

Therefore, since I have communicated to you these things of Vitriol, out of my good affection to all; I do earnestly entreat all Physicans in general, when they shall see the unhappy and miserable sick to afflicted with that most grievous Disease the Falling-Evil, seriously to consider, what GOD the Creator, their own Consciences, and Charity to their Neighbour, command and require of them in such a deplorable State as this; and not contemn, or slightly esteem of the Virtues, which by GOD himself are insited in Vitriol. Let Charity move you night and day to be diligent in these things: Let none be found idle, but every one make it his business to help his needy Neighbour: But be not you deterred herefrom, because Lawyers do not this. Hear what Christ said: WOE TO YOU LAWYERS. Surely this is not a light Saying. Nor take you any offence at THEOLOGIANS, because they rather seek Rewards and Salaries, than take care for the sick: These are they, which in JERICHO passed by. Be ye SAMARITANS, and press after the SAMARITAN Virtue: So GOD will conferr on you such profound and necessary Gifts, as in curing the sick you shall be sensible of no Deficiency. All things you have need of shall be given you, do you only search out this Treasure.

Thus far PARACELSUS.

An Admonition.

Although all things we have in the foregoing Discourse proposed, touching our SAL MIRABILE, be consentaneous to Verity; and the Virtues, which we have ascribed to it in Medicine, Alchymy, and various Arts, do powerfully discover themselves, yet we find very much diversity in it, according to the diversity of matter, of which it is made. For, that which is prepared of Vitriol, is of a far other Nature, and endowed with far other Properties, than that, which is made of SALT-NITRE. And what is made of common Salt, agrees with neither of these: For one possesseth a greater sharpness than another; yea, this more than that, dissolves Metals. The more potent, are fit for Transmutation and Solution of Metals; the more weak subservient to Medicine; the weakest, and most sweet, profitable for multiplication and propagation of Vegetables.

These things, he who would reap the desired Fruits of his Labours, ought necessarily to know, and consider accurately of. For if any one, in hopes of future Multiplication, committed to the Earth the Seeds of Vegetables imbued with the stronger Salt, he will indeed never obtain his desired end, nor will the Earth give forth any Plants, because such sharp Salts do rather destroy, than augment Vegetables. In like manner, Metals are delighted with a convenient Salt, viz. with the more sharp, as Vegetables are with the more sweet. Therefore, when we find our labour to be frustrated, we must not impute that to the SAL MIRABILE, but to our own Unskillfulness.

Indeed these Salts are endowed with far more noble Virtues than we mentioned in the precedent Discourse; but the high Ingratitude of Men of this Age, permit us not to discover the same. For if you communicate your Secrets to those Men, from whom you cannot require a promise of Secrecy; be assured, the knowledge of those Secrets will presently come to others, who will proudly use the same to thy Disparagement.

If you do the contrary, and keep to your self, whatsoever you have purchased by your own Labour and Costs; you will create Enmities to your self: So as which way soever you take, you will sustain loss.

The Consideration of these things, have caused me to resolve to expose my Laboratory, with all my Arcanums, to the view of others. The end of this only was to exhibit to the sight of all, the truth of those things, which I have purchased with indefatigable Labour, and communicated to the World by writing; that this way, the Mouths of the Malevolent and Ignorant may be stopped.

I could, if it were needful, give various other Reasons, by which I was moved to make my Laboratory common to those that desired it.

Now the year is past, in which I promised IN MY FOURTH PART OF THE PROSPERITY OF GERMANY, I would build a Laboratory, and exhibit the Wonders of GOD to my Friends. I then publicly and privately demonstrated various most excellent Inventions, not without labour and very great Charges, all which I value not, since I know, that by this means I have discovered the Truth to many, which they also will publicly own to the honour of the most high GOD, and Correction of envious Detracters.

I did purpose, also, in the following years, to continue my Labours for the sake of faithful Friends, but (besides other hinderances) my Age prevented that, Nevertheless, those, to whom I have committed my Laboratory, will perform the same, and exhibit a Light to this blind World. This I was willing to signifie to all, that they may for the future cease to trouble me with Letters.

But whilst I exhibit the Virtues of my SAL MIRABILE, and to it (prepared in Glasses after the above recited manner) ascribe the virtue of changing imperfect Metals into Silver and Gold, I would not have this matter so understood, as if we could by the help of it acquire to ourselves Gold in a very great quantity, it is sufficient to have demonstrated the possibility (of Transmutation) and the same to be proved by a small quantity.

It is most certain, that very many Medicaments may be prepared, by the help of it, against various effects of the Humane Body. Also it is most certain, that it is very conducent for a particular gradation of the minor Metals into better. Believe me, that have experienced the same; if you rightly proceed, you will reap no mean Fruits.

But touching the true Universal, I do not question, whether by the help of it, it may be procured. Assuredly, if common Gold, as to its degree, can be changed above what is Natural, Why should it be judged impossible, to exalt it further, in length of time? My decrepid Age forbids me to put my hand to this Work; yet to Posterity (better able to, than I to sustain the heat of fire) occasion is given, by prayers and Labour to search further; perhaps, GOD will grant to them, what he

hath denied to us.

This Operation, by which we peculiarly draw profit from the Minor Metals, cannot be performed in common Crucibles, as we before said; because they are obnoxious to breaking, and so the Liquors are easily lost; but in such as will not easily break, unless after a long time, and will not permit the humid Salt to run out. Here it will be needful to peruse those things (relating to this matter) which I mentioned in the Third and Fourth Parts of the PROSPERITY OF GERMANY.

To prepare these Crucibles is a great Work, greater to make some Pounds of Salt, or rightly to use the same; but greatest of all, (and in which the sum of all consists) to know what Metals are to be joined, or in what quantity. Here many will have enough to do, and be at a loss, although they enjoy my Secret Furnace, and know how to make the Salt of Art in abundance.

Besides all these, we must needs crack the hard Nut, if we will eat the sweet Kernel. It is required of us to know an easie way of separating Gold or Silver from fixed Metals; for such a Metallick Mass, altogether untameable, cannot be separated by the help of Lead, PER SE, as Ductile Metals; but here is need of another Separation; which is the principal thing.

Nor should any Man perswade himself, that all things are here so clearly written by us, as he can by their literal sense most easily institute the Operation. For there is need of a long time, and a skillful Master. It would be a very inconsiderate thing to set about those things, of which we have no knowledge.

Although this is my Admonition, here often repeated, yet there will be some, who neglecting it, will set about the said Operation, and perhaps find out various profitable things: In like manner, there will be various found, who following my Prescripts, will reap much benefit from the Minor Metals.

Who can deny, but that MARY RANTA, A BRITTAINE, hath Propheesied truly, viz. That true Alchemy should flourish in the Year of Christ, 1660? I my self have not seen this Prediction, but have it from the Relation of others, whereunto I refer the Reader. And add, that if such a Prediction were not, daily Experience doth abundantly witness, that egregious things are here and there performed in Metallicks, by help of my SAL MIRABILE. And there is no doubt, but that all Darkness will daily more and more be dissipated by the power of this Light.

I have unto some communicated the use of this Light for their proper benefit; but these, contrary to my Intention, have caused what I thought to have kept secret, to be spread abroad in publick and many have hit on the right way leading to Verity. If this be done without my knowledge, what would not have been done, if my Laboratory had been open for a year longer? Certainly the World would have shewed it self other than it is, and altogether new; which the new and great Star extending it self from the South to the West, seems to indicate.

Let the most high GOD grant what are necessary, and salutary for us, turn the Ungodly into the right way, and give to his own Children, Rest and Peace, that his most Holy Name and Truth always to be magnified, may not be totally suppressed by the Impious. AMEN.