



THE COMPLETE WORKS  
OF  
RUDOLPH  
GLAUER  
trans: Chris. Packe



THE MINERAL WORK



THE

MINERAL WORK :

The First Part.

Wherein is Taught the Separation of

G O L D

Out of Flints, Sand, Clay, and other Fossiles by the Spirit of Salt, which otherwise cannot be purged. Also a PANACEA or Universal Antimonial Medicine, and the use thereof. Invented and published in favour of the Studious in the CHYMICAL ART.

By JOHN RUDOLPH GLAUBER.

A Preface to the Reader.

There will be some without doubt, because the Edition of other Pieces (of which I made mention in some former Tractates a few years past) hath been hitherto by reason of diverse Journeys, and other various impediments, neglected, who will think (having no knowledge of me) that I am unable to perform my promise; and there are others, who knowing my condition, and the Contumelies of my Enemies, will fear that I

being diverted from my purpose by those Reproches, will make void my secret promises. But I have resolved to stand to my promise, that these men may see that I am neither moved nor altered with the Taunts of the Envious; but that they may be convinced by real demonstration of my Secrets; some of which, I shall now for the publick good endeavour to communicate. And although the ingratitude of the World be cause enough for my silence, yet the uprightness of my Heart would not permit me to conceal those things, notwithstanding the malevolent and ungrateful. Beside also the following Reasons moved me, because there are some ambitious men, who faisly boast of the knowledge of diverse of my secrets; wherefore, some have been moved to think that mine are not my own, but the Works and Writings of others; by which means I have been deprived of my due Praise, being attributed to another. And this I have often found, that one or other having by entreaties obtained a secret from me, have afterward through Ostentation ascribed it to themselves.

There are also others who fear not to reproach me, and my Writings, as though they were trifles, not attaining their desired end, who (rather than I who have written plain enough) are themselves to be blamed; for being ignorant bow to work. Such and other things might deter me, but I would not omit the publishing of these Writings for those mens sake who are pious and honest. Wherefore I openly affirm, that these things published by me are not only no trifles, but most true, and also my own, and not the Invention of another. And I call him a lyer, who shall boast himself the Author without any of my help. But of these enough! Yet I would have the Reader know, that for the meanness of the stile,

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I am not like many Writers, who more look after the flourish of words than the thing it self; I rather seek that my Neighbour may profit by me. Wherefore, for his better understanding, I had rather be prolix in words, tedious to delicate ears, than write in obscure brevity adorned with Rhetorical figures. For I know that the studious in the Art do affect a prolix, plain, and distinct information or Instruction, rather than a CICERONIAN or obscure. And now, in the Name of aod, I will begin my Work, which is most profitable to all, and will faithfully communicate and publish the same in that manner as It was written by me in my travel, under the title of THE MINERAL WORK, divided into three parts, In the first of which shall be taught how out of sand and golden flints, corporeal gold may be drawn by the help of Spirit of Salt. Which secret, although it may seem small, yet it is that whereby (a knowledge of the true Stones and true sand being obtained) life may be sustained, and also the cost laid out may be recompensed, as shall be proved in the following parts.

In the second part shall be treated of the original and generation of metals, and also of the destruction of Minerals and Metals.

In the third part shall be demonstrated the possibility of metallical transmutation by Nature and Art, and that with divers reasons: which demonstration is not (unless I am deceived) performed yet by any, being the foundation of all metallick Philosophy, and the GOLDEN CROWN of all my writings. Which God grant I may perfect, to the glory of his Divine Name, and the good of my Neighbour, Amen.

The First Part of the  
MINERAL WORK

A most profitable process of the separation of Gold out of Flints, Sand, Clay, red and black Talk, and other Fossiles, containing very subtile Sold, thin and spongeous, which otherwise cannot be separated, either for its scarcity, or the obstinacy of the Mineral, by reason of the great Cost to be bestowed; viz, very easily with the Spirit of Salt.

Know first, (good Reader) that not all Sand, Clay, nor all Flints, and other Possiles do contain Gold, but only some, without the knowledge of which, this secret avalleth nothing. And because the knowledge of these are very necessary for the Artist, Iwlil shew how they are to be proved, whether they contain Gold or not, that he labour not in vain, but that it may prove to his commodity or profit.

The madness of Men, searching after uncertain things is wonderful, but neglecting certain, although exposed to every ones view, for many seeking the perfection of Metals to gain Riches, are busied about an uncertain thing, because of a thousand scarce one obtains his end: aitho' they may be perfected and purified, I mean imperfect and impure metals, 80 that good Gold and Silver may thence be extracted, but this Art is given to few, neither is every one fit to perform the business; because it requires an ingenious and experienced ARTIST: But the thing which is certain, may be performed with small cost and labour by any vulgar

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Chymist, having any knowledge of the Art of fusion and separation, being an ingenious man, and not seeking things too high or too gainful at the first tryal. Be cautious therefore in the extraction of the aforesaid atones, for if thou shouldst with the spirit of Salt extract many of them, having no Gold without doubt thou shalt find no Gold there: And if thou shouldst extract some contained in them, and if thou be ignorant of the separation of it by Antimony, thou carist thence hope for no profit.

First then, the knowledge, viz, of those stones is necessary afterward of that separation by Antimony. Impute therefore the fault, if thou errest, not to me, but to thine own ignorance, if thou knowest not to extract the Gold; for I have written clearly, though thou shouldst not know any thing that were omitted. And I before admonish thee to be cautious in thy work, lest thou labour for nought: For it is certain, and no fiction, that in many places there are found golden flints, and golden clay, and sand, oft-times abounding with gold. And if they do not abound with it, yet may be extracted with profit: but the flints abounding with it are extracted with greater gain. There are also found whole Rocks and Mountains of gold, and great Mountains filled with golden Sand and Clay, not returning the charge of washing, either for Its too great rarefaction or spungiosity and levity, by reason of which, its washed away with the sand; all which, how poor soever, may be extracted by the spirit of Salt with gain, and by Antimony fixed and purified. In brief, this is such a secret, by which, no man can be an impediment to another, as in other mechanical operations, whereof no

man may be ashamed; for God did therefore create Gold in the earth and atones, that we may therefore extract it to the glory of His Name, and the benefit of our Neighbour; neither hath he forbidden the true and genuine use of it. I say therefore in truth, that I have here described this Art, bow ever despised by the ignorant, yet of greatest moment, and almost incomprehensible. Now consider the thing a little farther, thou shalt find every where in the earth great Treasures to be hidden, which only through ignorance are not discovered. Truly it is known to all, that there is found golden sand and clay in diverse places, which for the aforesaid Reasons are left unlaboured, but by this our Art may easily be worked upon.

There are found also silver Mountains, out of which, silver cannot be extracted for the little weight it yields: there is also found in many places a certain yellow or reddish earth, or such like clay, which though it contain store of silver, yet it cannot be extracted with profit by this way, yet separable, with gain, but not by the spirit of salt, which leaves it untouched, but by some other thing, every where to be found in pleanty, of which, for some reasons we shall speak nothing here.

And this way of separation makes much for the poor mineral of copper, which with profit cannot be worked upon by the vulgar way, to be separated from the copper, afterward by ripening it into a better metal, or turning it into verdy-grease, for want of a better art, which business also may well and honestly more than maintain a family.

This way also may the rejected dross of the gold, silver, and copper

be with profit separated. But because I have decreed to handle here only the extraction of gold out of stones, therefore these menstrues which are used in the extraction of copper and silver, are deservedly omitted, and reserved for another place, where sometime they shall be delivered, to wit, if I shall see that this demonstration shall be accepted in mens eyes, which more very excellent shall follow. As now I have undertaken a more excellent matter in love to my country, by which it may appear, that GERMANY however reduced to want, is yet rich enough, if it would but at last look upon its hidden treasures. There is no need to offer a fore-chewed bit, for demonstration is sufficient, neither will we obtrude a good upon the negligent; for to the ungrateful the best things are unacceptable. These therefore being waved, in short we will give the demonstration and extraction of those flints, not doubting but the expert and experienced, though the sluggish may not, will thence reap profit, and give God the praise.

What belongs then to the aforesaid stones, out of which gold may be extracted, thus the matter stands. All kinds of flints for the most part have invisible gold, sometimes visible and invisible, volatile and corporeal together: but many commonly contain impure iron-like volatile gold, and also mature, and a few, sulphureous and copper like.

Stones which the GERMANS call QUARTZENS and HORNSTEIN, containing pure and corporeal gold, although mixt with silver and copper, may be burnt and ground and extracted with Mercury, and if they abound with gold, be purged by flux; which labours are usual with diggers and dealers in metals, of which I do not intend to write, because others have



heretofore writ of them. But those flints QUARTZEN and HORNSTEIN every where almost to be found, contain.ing but a mean quantity of dispersed iron-like Gold, Marcasite-like, and that either fixt or volatile, cannot be separated with gain, to wit, neither by Mercury nor by Flux, wherefore they are neglected by. the Miners, either out of ignorance or for the intolerable costs, But I having tryed those base atones, that how little gold soever they possess; yet may be separated with great gain, I would not intermit to publish this knowledge for my Christian neighbours sake, not doubting but this publication will be profitable to very many. For I am not ignorant that there are as well learned, as unlearned, noble as ignoble, secular as spiritual, either by war or otherwise exposed to poverty, so that they are hardly able to maintain their family, & etc. and for their sakes and others in want. I have published this secret, which rightly handled may bring no small gain yearly, but especially where those stones are plentiful, and also that spirit of salt, whereof the description is given in the first part of the Philosophical Furnaces, and hereafter there shall be given a better, if nothing hinder; in the mean while use and enjoy these. And if it happen so that thou canst not rightly perform all things of the aforesaid tractate, blush not to learn the manual Operations (which cannot be so exactly described) from those that are experienced, lest you hereafter unprofitably spend your labour and costs. As for those stones know that very many of them are found in several places, chiefly in those that are sandy and mountainous, but in some more and better than in others, for there is seldom seen sand without flints, and oft-times

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the sand it self, though very little doth not want gold. But they are very likely to be found on the shores of Rivers, where the waters washing away the sand from the flints, they are found in great abundance, though they- are not so easily known by their outside, as those which were found clean in the sand, because they are covered with slime. Wherefore they must be broken with a hammer, that that may be seen which is in them, which may better appear if they be burnt, and quenched in cold water. For the stone retaining its whiteness when it is burnt and quenched doth contain nothing; but acquiring a redness it shews there is something in it, and the more red it is the better token it is.

N. B. But this is not to be understood of sandy stones, waxing red in some part, in the fire, containing no gold, but of flints out of which by a mutual percussion fire is brought forth, which the more pure they- are the purer gold do they yield, There are also flints out of which fire is forced by percussion being red in the fire, which contain no gold but Iron; which you may know by that clear redness before the burning, which being burnt is changed into an obscure redness, not shining and crude: but the flints containing Sold, being burnt do acquire a fair golden yellowness, or reddish colour, as if they were covered with gold, and that through the whole substance if they be broken in pieces. And these give a pure gold, but those other yield a red extraction like blood, yielding not gold, but the purest and malleable iron, good in Chymick uses, (but chiefly for silver to be cemented and exalted) for gold is seldome to be found in them; the which is well to be observed lest thou draw out iron in stead of gold, and so

lose thy labour.

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Also the best stones containing gold, are those which are white and shining, here and there throughout having in the whole substance green spots and lines, red, yellow, skie coloured and brown. There are also black flints out of which fire is forced by percussion, having gold and iron, which may be separated with profit, yielding sometimes plenty-of ironish Sold, which may in like manner, be separated of which afterward.

They are very good flints also which being burnt retain a whiteness, with veins green, skie-coloured, and such like, neither are they die-esteemed which burnt, have black spots, and not veins.

But the stones (QUARTZEN and HORNSTEIN) although they in burning are not altered, yet if there be seen before gold volatile and spiritual, they by separation of themselves yield gold.

Gross and subtile sand having light and yellow gold, yields in the burning a skie-coloured smoke, and is exalted in colour, viz, brownish: but that hath nothing which is not altered.

Subtile earth, yellow or red, passing through sand of a mountain like a vein contains also gold, which is for the most part volatile, and not mature, flying away in reduction, having ingress into silver and other metals, and therefore for this reason conservable.

For thy- better knowledge thou mayst prove the stones, with white fusile glass, which thing is treated of in the fourth part of the Philo- sophical Furnaces, that thou may-st not have cause to impute the fault of thy error to me; therefore I would have thee understand, viz, that all stones contain not gold, neither in all is it aeprable by the spirit

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of salt: they are therefore to be known before they be apply-ed to the work.

Now follows the preparation of flints, and the extraction of the gold contained in them, by the spirit of salt.

First the flints being made red hot in the fire, they must be quencht in cold water, after taken out and cooled, and finely powdered.

N. B. When they are broken in a Morter the better parts may easily be separated from the baser: for while they are finely powdered, always the best part goes into red powder first, the worser part thicker and harder, containing little or nothing, being left; And if they be courely powdered and sifted through a fine seive the more like red powder goes through the seive, the unuseful part being left in the seive like white dust, which may be cast away: and if yet some redness appears, it must again be powdered in a Morter, and the better part shall go into a red powder, the baser part being left in the seive hard and white which is to be cast away, but you must observe that not all and every of these flints are thus separable by powdering; for some being beaten do every where retain the same colour, without any separation of the better parts, which you must finely powder and extract in the whole substance, but they (viz. those separable) are more easily extracted, because all the gold contained in one pound for the most part may be gathered out of three or four ounces finely- powdered and separated in the aforesaid manner; so that it is not needful to extract the whole stone, nor to

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spend so much spirit of salt. But sand and clay need not such a preparation, but without a preparation being made before, are extracted by the affusion of the spirit of salt.

Rx. then of the flints as aforesaid prepared and separated two, three, four, six pound, to which being put into a cucurbit of glass whole (undivided) pour of the spirit of Salt to the depth of three or four fingers breadth, and place it in hot sand or BALNEO, that there the spirit of salt may be hot, and may extract the gold, and so let it continue for five, six or more hours space, until the spirit tinged with a deep redness, can extract no more. And perchance at the first time (though seldom) it may not be tinged with so great a redness, then must you decant that same imperfectly tinged spirit, and pour to other flints after the manner expressed, prepared in another cucurbit, and place it with the flints in a moderate heat for to extract the gold; which done pour it off again, and pour it to fresh flints, and do so often until it hath drawn to it a sufficient quantity of gold; which afterward thou must keep, until thou halt gotten a greater quantity, and all the Gold may be separated at one time from it, as afterward shall be said.

Which done pour to the reserved flints in the first cucurbit, a fresh spirit of salt, and leave that so long in heat, until it be coloured, and extract the gold that is left in the flints, and was not at the first time extracted; which spirit being afterward decanted, pour it to the flints reserved in the second and third cucurbit, to extract the residue of the gold which was left at the first time, and so

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consequently to the others reserved, until the spirit be sufficiently coloured, and can attract no more; which afterward pour off and put it to the first, which was reserved. You must also pour a fresh spirit to the remainder of the extraction for the extracting of all the gold. At length pour to it also common water to wash away the tinged spirit of gold remaining in the flints, that none of the Gold may be lost.

And this labour is so long and often to be repeated till there remain neither flints nor spirits; in the mean while you should cast away the flints extracted and washed, that the cucurbits may be filled with fresh flints, and so continue the work; and if there be no more spirit left to continue the extraction, you may then separate the extracted gold from the spirit, which is done as followeth: but first, you must have plenty of glass vessels, or retorts of the best earth, which may retain the spirits; which you may so far fill with the impregnated spirit, that the spirit in the abstraction run not over, which done, it is to be extracted in a dry- BALNEO by little and little from the Gold, which spirit ye may use again in the aforesaid work. And the Gold which is left in the bottom of the vessels, is to be separated from the vessels with a crooked iron wire and (kept being very like red earth) for its use, until thou hast gotten a good quantity, viz, so much as sufficeth for separation and purgation (of which afterward) to be made by Antimony.

N. B. But when thou shalt extract red talc with spirit of salt, red or black granates, SMIRIS, or LAPIS CALAMINARIS, and other Fossiles, which beside fixt Sold contain much immature and

volatile Gold; you

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must in the abstraction cast in a little iron, viz, to the solution, which retains and fixes the gold which otherwise flyes away in fusion. Wherefore those solutions and extractions of Talc and other things containing volatile gold are better extracted out of iron Cucurbites by earthen alembicka than out of glass and earthen retorts, because then that volatile gold doth attract only so much thence as is sufficient for its fixation; which iron is after easily Separated by the Antimony from the gold, as shall after be taught. And this is to be noted, that not the whole granete is soluble in the spirit of salt, although it be long left in digestion, always retaining its former colottr; wherefore there is a difference to be made, or a preparation to be learned, requisit for the solution of the gold contained in them.

And you must extract Talc not with too much or excessive heat, lest its substance be totally dissolved in the spirit and be a hinderance to the work; because there is little profit then, for it is therefore appointed, that a little gold dispersed in a great quantity of Talc may be reduced into a little compass that it need not that all the quantity- of Talc be made fusile, because it will thereby procure loss. But there is no danger in flints, because the spirit of salt doth not dissolve them as it doth Talc, but only extracts gold from thence, the stony body being left. The LAPIS CALAMINARIS may also otherwise be handled in the extraction and fixation than granates, flints and Talc, because it is almost wholly soluble in the spirit of salt; which work is not here to be handled, . because the extraction and fixation is taught in a puculiar way

in another place, neither do I mean to treat of it  
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here, but only of the extraction of gold out of flints every where to be found. And this is the way of extraction of Gold out of flints and sand in heat by the spirit of salt, to. be done in glass vessels. But there is another way too, which is done in cold without glass vessels, which I thought worth the setting down, that in the aforesaid work you may choose which you please, this or that, and it is done as followeth. We must have in this way store of earthen funnels well burnt, and not sucking up the spirits; for want of which we must have such as be of strong glass: there must also be a form with many holes in it to receive the aforesaid funnels, under which must be placed glass dishes or basons to receive the strained spirit.

Here follows the work to be performed by Funnels.

The Funnels being put in the holes of the form, you must first put a big piece of FLINT in the straighter part of the Funnel, to which after put lesser pieces, and on these again less, viz, as much as serveth to fill the straight part of the Funnel, of which the larger part is after to be filled with powdered flints, but so that there be left a depth of three or four fingers breadth for the spirit of salt. By this means those greater pieces in the lower part will hinder the passage of the fine powder in the Affusion of the Spirit of Salt.

Which being done as it ought, pour to the flints contained in the Funnels the spirit of salt, two or three fingers breadth in deepness, which forthwith shall work on the flints, and attract their gold, and



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then run into the dish or bason. set underneath: and because for the most part at the first time, some of the powder passeth through with the spirit, you must so often pour the same spirits on the flints until there be a stoppage, and the spirit come clear; afterward pour this spirit into the second Funnel with flints; and then into the third, and so consequently-, until it be strained through the flints of every Funnel; or till the spirit of salt be sufficiently coloured, which you must keep until you have gotten a sufficient quantity to be distilled by retort for the separating the spirit from the gold. Then that first spirit being strained through the flints of each Funnel according to order and coloured, pour a fresh spirit to the flints of all the Funnels according to order, beginning at the first, till you come to the last, until that be sufficiently coloured; which being done, pour a fresh spirit of salt to the flints (according to their order) contained in. every Funnel, And when you see the strained spirit not to receive a tincture, it's a sign that all the gold is extracted; and then pour on no more spirit but common water, that it may be strained, and the water will attract the spirit of salt left in the flints, that none shall be lost, which acidish water save by its self to the same, and the like uses: which being done, take out the extracted flints, and fill the Funnels with fresh as before, viz, to be extracted; and do this so long as you have flints and spirit. But you must not pour a spirit not sufficiently tinged into the spirits that are well coloured and impregnated with gold, but keep it apart, and pour it still to fresh prepared flints according to order, contained in divers Funnels, viz, until it be

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sufficiently coloured, and being coloured, separate it by the glass retorts with the rest, extracting it from the gold by abstraction, and and being abstracted again, use it to a new work like the former. And by this means with 100 pound of spirit of salt may be extracted some thousand pounds of flint prepared, and separate the gold contained in them, which otherwise by fusion cannot be done. But the chief point consisteth in the extraction (the spirit of salt being well and rightly first administered) viz, that the spirit may not be washed, whereby many stones may be abstracted with a little spirit. But this caution is to be observed in this extraction, which is done in cold, that it requireth a stronger spirit of salt than that, which is done in heat by cucurbits, or else the business goes on slower: but with a stronger spirit by this (the cold) way they are extracted sooner and easier than by that which is done in heat; and neither so dangerous, labourous or costly: this extraction then, viz, the cold, requires a stronger spirit of salt (which is worth noting) than the hot.

And this is that way, by which those golden flints, and other golden fossiles are prepared, and with the spirit of salt are extracted, and by which it is again separated from them: Now shall follow the manner of purification, viz, of the Gold left in the Retort.

N. B. The pure gold being extracted out of the flints, not the iron-like, there needs no great business of purification; for thou mayst purify it by fusion with borax, or with the fluxing powder made with the equil weight of nitre and tartar: but if the gold extracted out of Flints be mixt with iron, as for the most part it is, then you must not

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fuse it with Fluxing Powder, because it is not thereby- purified or rendered malleable Gold, but separate it by lead, by which way it is purged and made malleable, And if such Gold have any sulphureous impurity mixt besides, it is not to be separated with lead, because it is then partly turned to dross and other impurities by the iron with loss; wherefore it is to be purged with three parts of Antimony and separated; by which means nothing is lost: which is the best way- of separation and purification of Gold, viz, the ferreous, without which it cannot otherwise be separated without loss.

How impure Gold may be separated and purged by Antimony-.

This work is necessary to be known, if you think to have any benefit by the aforesaid extraction of Flints by the spirit of Salt, which without this separation and reduction is of no moment: and what profit I pray is there by the extraction of immature Gold, which by the common way cannot be purged, requiring the industry of the Artist in fusion, whereby it may be separated from its sulphureous feces and fixed? For it is easie to conjecture, that such spiritual and volatile gold mixed with iron, by that common flux is not reducible into a body, but rather into dross: for experience testifies that gold dissolved with the spirit of salt, and also iron, or any other sulphureous thing, the spirit of salt being abstracted cannot be reduced whole by the vulgar flux made of Nitre and Tartar, going into dross; which if it happen to corporeal pure, and fixt gold, how shall it be otherwise with that which is

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incorporeal, unclean and volatile? For the Gold being ironiably commonly, which is extracted out of stones, and iron having great affinity with gold (by reason of which being nearly united, it is difficultly separated, so that it easier goes with iron into dross than parted from it) you must of necessity-make a flux not only attracting that impure gold, but also purifying and cleansing it, that which Antimony alone doth, which with its combustible fusible Sulphur easily enters that ironish Gold: But by its Mercury-it attracteth the pure corporeal gold, and cleanseth it; and separates it from all dross without any loss: wherefore there cannot be a better flux, but requiring industry, or an ingenious separation of the Antimony from the gold, without wasting the gold; which is done as follows.

And first your ferreous gold, that is left in the abstraction of the spirit of salt, must be finely powdered in iron retorts or pots, and mingled with it two or three parts of Antimony powdered, and mixt in a very strong crucible filled and covered, and then fused in our fourth Furnace, until that flow like water; which soon appearing, pour them together into a heated Cone, smeared within with wax, and when they be cold, separate from the dross the REGULUS (having most of the gold) with a hammer, and keep it by it self. Which done, you must again melt the drossy Antimony (as yet containing much gold) that was left, in the crucible, and add to it a little filing of Iron, mixing them with a crooked wire, and that Antimonial combustible sulphur will be mortified by adding iron, and will yield a REGULUS containing the rest of the gold, which, as a regard is had to the quantity- of iron added, will be

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more or less, and for the most part will answer in weight to the weight of the iron; then cast the mass (well flowing) into a Cone heated and smeared on the inside with wax, which being cold, separate again the REGULUS from the dross with a hammer, which also is to be kept by it self; melt the dross again, as before, and precipitate it with iron, and extract the REGULUS thence, which keep by its self, for it contains gold. and silver mixt. For the best gold is precipitated the first time, but afterward the baser sort, and at last only Silver. Wherefore every REGULUS is to be kept by it self, that the purest gold may be a part, and the Silvered gold by it self.

N. B. And if the Antimony, by the addition of Iron, do lose its fusibility, and therefore can yield no REGULUS, it's required, that you at every time when precipitation is made, by adding iron, that you do also cast in some MIST, to make the mass to melt in the crucible and precipitate the PEGULUS. All the gold and silver being reduced into three or four REGULUS'S, you must keep the drossy parts by themselves that were left, of which we shall speak hereafter.

Now follows the way of separating the Gold and Silver from the Antimony.

The aforesaid antimonial REGULUS'S may many ways be purged, and first by help of Bellows on a plain earthen test, as the custom is with Gold-smiths when they make Gold fusile by Antimony, which labour is tedious and dangerous; which cannot be done often without the loss of health, nor in great quantity: wherefore when a better way is known,

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'tis folly to do so. The REGULUS'S also may be purified by lead on a test, which work may be done in a great quantity, but it requires abundance of coals and lead, where the Antimony cannot be preserved: but it may be done with gain, and is to be preferred before the former ways: Thou maist if thou pleasest calcine the aforesaid REGULUS'S to ashes, and then fuse them; which way the gold and silver may easily be drawn out. Thou maist also fuse them in a crucible, and by- the addition of some salts, separate the antimony from the gold and silver, turning the antimony into dross, which being separated, those are found purify-ed and malleable, which though it be the easiest way, it is yet also very dangerous, for the salts often, if you do not warily proceed, do spoil much gold and silver, and sometimes leave gold unmalleable, and so double the pains.

But he who knows bow to do this by Nitre only, he may with great gain, and in a short time, purify a great quantity of the aforesaid REGULUS'S without loss of the gold, silver, or antimony. There are also other means for the doing of it which to relate were tedious and indeed impossible. Wherefore I will set down the best of all, most profitable in the separations of great quantities of REGULUS'S. Where first is required some peculiar little Furnace with a Fire almost like to that in our first part of Philosophical Furnaces, built for the subliming of Flowers; it wants indeed a grate, but it bath little vents for to make the coals burn, that thy antimony separated from the gold, may be sublimated or elevated into sublimatory vessels. Which being rightly built and heated, let so much of the REGULUS be cast in with

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a spoon as the Fire can bear, which will quickly melt and be elevated, the air being attracted by the vents, without any trouble: which being sublimed, you may cast in more, if you have more, until all the REGULUS be separated and sublimated from the gold and silver, which are left in the Fire pure and malleable; the furnace being cold, you may take out the Flowers and keep them (of which afterwards) for uses, which way you may not only separate a great number of REGULUS'S from gold and silver in a small time, but also keep all the antimony, which may many ways be used in Alchemy and Medicine with great profit. Which sure is an excellent knowledge, for not only hereby may any one get abundantly, without wronging his neighbour, but also help many sick People, viz. by- that excellent Medicine made of the Flowers: which is a special gift of God, for which we owe immortal Thanks. And this is, of all others that I know, the best way of separation of gold from antimony, which is not only done in great quantity, in a short time, and with small charge, but also without loss of the Antimony.

Here follows the Use of the Antimonial Flowers,

First, you may take the whitest of the Flowers out of the lower hole, and keep them for a Universal Medicine; but reduce the rest (being less pure) into REGULUS by the salt of Tartar, for divers uses, as shall be said afterward; or you may mingle them with an equal weight of common sulphur, or antimony, which being mixt in a covered crucible, melt them, and they will yield an antimony like to a natural, good to purifie

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gold: or thou maist mingle them with other metals or minerals, that by this means they may be made better. Or thou maist use them in Chyrurgery, for they- of all stiptick plaistera make the best, In brief, the aforesaid Flowers may many ways be used with good gain and success.

The aforesaid antimonial dross may also be reduced into Flowers, and used in the same manner; which indeed are endowed with as excellent Properties, as they which are made out of REGULUS'S; because in that fusion and separation of gold extracted out of Flints and Talc, the gold only that was fixt and mature, was separated from the REGULUS'S, (the Immature and volatile being left in the dross) and elevated with the Flowers: It follows thence, that these are better, as well in medicine as in the transmutation of metals.

Or if thou wilt, add to the antimony (as aforesaid used) old iron, to reduce it in. a furnace, and take the REGULUS, having gold and silver, which may therefore be used in other operations of Chymistry, where there is need of REGULUS, as we may ahew hereafter. But the dross doth yield a REGULUS, viz, in a very strong Fire, and a Furnace with a pec- uliar separatory by- abstraction, which although it contain not gold, yet it may be used not without gain, as if it be mingled with Tin in fusion, it procures to it a hardness and sound, useful for fashioning divers sort of Household-stuff, which is not so easily darkened as the common Tin, or if thou wilt not, thou maist make weights of it.

Hitherto, we have treated of the extraction of gold out of Flints, and of its purification by antimony; now we shall teach you how to use the rest of the antimony, as well in the



perfection of base metals as  
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in medicine, as well for the preserving of Health, as the curing  
of Diseases.

But seeing we have made mention of an Universal Medicine,  
to be made out of antimony aforesaid, I would not have thee  
think that that is such as can take away all distempers in  
general, without distinction, which virtue is only ascribed to  
the Philosophers Stone, but not by me to this medicine; to which  
I attribute no more than I have tryed:

But this in truth I dare affirn, that there is, besides  
the stone, scarce any comparable to it; for it doth not only-  
preserve the body from divers Diseases, but also happily- frees  
it from the present, so that it may deservedly be termed a  
UNIVERSAL MEDICINE.

The Preparation followeth.

Rx. of the flowers purified from the dross a pound, viz, of  
Antimony, by which the extracted gold was purified, which for  
the most part are of a yellow colour, having gold volatile and  
immature: in defect of which, take the flowers made out of the  
REGULUS'S, being for the most part white, to which pour in a  
Glass Vial, strong and long necked, of spirit of wine  
tartarified, three or four pound, mingle and stir them well  
together, and put on it another crooked pipe (within which let  
there be some ounces of Quicksilver, as is described in. the  
Fifth Part of our Philosophical Furnaces) and make strong the  
joints with a bullocks bladder thrice folded, made wet; which  
dried, place the glass in BALNEUM, and give fire by degrees,  
that the spirit of wine with the

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antimony may digest, in which leave it for 24 hours space, and so soon as the fire is out, take out the glass, when it is cold, pour off the spirit tinged red from the Flowers, and pour on fresh; and place it, as before, in BALNEUM, to digest 24 hours apace, till it be red, and do this the third time, or so often till the Spirit be no more coloured, for then no more is to be poured on, and that which is coloured, is to be filtered with Cap paper. The rest of the Flowers, after the extraction, as not requisite to this business, are to be either kept by themselves, or thrown away. But the tinged Spirit is to be abstracted out of a glass cucurbit by- an alembick, to the half, from the tincture, which distilled spirit may again be used in. the sane work: but the tincture left in the cucurbit is the medicine, of which mention has been made.

Now mention being made also of tartarised spirit of wine, that I may satisfie the doubtful concerning that I will here also give its description, which is as followeth.

Rx. of Tartar 20 or 30 pound, put it in a large coated retort, and place it in sand, and distil the spirit off with a soft heat.

N. B. This work may better and sooner be performed by that instrument of our second Furnace; and because it requires great and large receivers, as being very penetrative, thou maist first apply a tin or copper Serpent to the neck of the retort, instead of a receiver, which is placed in a tub filled with cold water, that the spirits being thereby cooled, may be retained, which afterward you must abstract to the half, out of a glass cucurbit by an alembick: for the other half with

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the black oil is unprofitable in this work, and therefore to be taken away. After that, mingle the more subtile part, distilled with half of the CUPUT MORTUUM, of the aforesaid Spirit, calcined to a whiteness, and abstract it half again in a gentle BALNEUM, out of a glass cucurbit by an alembick, the Joints whereof are every where to be well closed, and the calcined Tartar shall receive with it self the stench, together with the Phlegm, only the purer parts of the Spirit, and more subtile distilling forth, which is again to be mingled with the other half of the Tartar calcined to a whiteness, and to be rectified by another alembick; the CAPTJT MORTtJUM may- again be calcined to take away the fetidness, that it may be used again. And this is that tartarised spirit of wine, with which the aforesaid tincture and essence is extracted, and truly not only this, but of all other metals, which no other can do. And if it were lawful, I would write something more of its wonderful force and virtue which it hath in purifying baser metals, with which it hath a great affinity; for it can separate the pure from the impure, of which more in another place. But when it is to be used in mending of metals, it needs not so much rectification as is required In the extracting of metallick medicines; where you may draw it in plenty out of the dry lees of wine. But there is also another tartarised spirit of wine, which may also be used in the same work, which is made after the following way-: Dissolve in a pound of the Spirit of wine six ounces of Crystal of Tartar; which solution use in the aforesaid extraction, in the same manner.

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Of the Virtues of this Medicine.

This Antimonial Tincture doth, above all other Medicines evacuate vitious humours, and insensibly purgeth impure blood; opens any obstructions of the Liver, Spleen, Reins, and other vessels, attracting to it all malibnities, and leaving no impurities behind it. And because it cleanseth the blood, it cures the Leprosie, French-pox, and itch, and other Diseases proceeding from the impurity of the blood. By its penetrative and attenuative virtue, it resolves all tartareous humours, and evacuateth them, viz, which ingender the Gout, the stone of the Bladder, and Reins, but not the Stone perfectly coagulated, only it mitigateth its pain, and hinders its encrease; but being not hardened or coagulated, it attracteth and evacuateth it totally and fundamentally out of all parts; it takes away also all Fevers, and other diseases coming from the superfluity of humours. It gently evacuateth the water between the akin, by siege and urine. In brief, It strengthens and purges the principal parts, and preserves them from all preternatural accidents. It is a most excellent, preservative in the time of pestilence, and other contagious diseases; and of them being caught, it is a most absolute remedy, expelling the disease suddenly from the heart, and evacuating it. In few words, 'tis of all others a most excellent Universal Medicine, very profitable to both old and young, and also very- safe; but warily to be ministered, by reason of its strength with which it is endued, which is most powerful, for it is as a great fire, which extinguisheth the lesser. Truly a better medicine cannot be

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desired than this, which is extracted of a very mean thing, in a short space of time, and with very small cost and pains. I ingenuously confess, I never saw its like, which I doubt not to be the best in the World. Wherefore then do we seek any other but this, viz, which excels in those things which are desired from the real medicine? But as it is most excellent, yet I am certain, that many deluded people will be offended at it, being prepared out of Antimony, a mean and despised thing, and after a plain way. But 'Tis no matter, FOR THE WORLD WILL BE DECEIVED, looking after gay things, disrepecting and despising mean things, when all good things, yea, even when God himself doth rejoice in simplicity-, for which, by wicked and proud men he is not sought unto. But this is the effect often, by which man is so blinded, that though he know not good, when set before his eyes, yet he is studious of evil.

Of the Use and Dose of this Medicine.

Seeing of all medicines it is the most powerful, it had need be warily used, for a smaller dose is always safer than a greater; which therefore may after be given; the which is to be observed in all diseases of young and old. To children of 2, 3, 4, or 6 months old, against the Worms, Scabs, Feavers, and Epilepsie, you need not give above half a drop with a proper vehicle, which you may repeat three or four times a day-: it killeth the Worms, it emptyeth the stomach of evil humours: it refresheth them, and preserves them from scabbiness; and because it evacuateth evil and corrupt humours, it preserveth them from the small

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pox and measles, viz, if it be used every month; but to children of 1, 2, or 3 years old, you may give a drop, and to children of 4 or 5 years old a drop and a half: to young people between 15 and 24 years, may be given 2, 3, or 4 drops. To stronger bodies from 25 to 30 years, 4, 5, 6, or 7 drops. But the dose must be greater or less, with a regard had to the sickness of the patient. And in the Stone and lout, may be daily administered in wine or beer, viz, in the morning fasting, unless the patient be very weak, for then you may give it twice or thrice in. a day, and continue this till the cure be perfected; where it is to be observed that he must keep a temperate dyet.

In the Leprosy, French-pox and Scurvy, every morning may a dose be given, and the disease shall totally be rooted out. Otherwise, viz. the strength being too much wasted and weakened, you may give only every other day, viz, so long as shall be need.

In the Epilepsie it may be given daily; and also in the Dropsy. In all Feavers, two or three hours before the fit. In the Plague it is to be given presently, and every day to be repeated: but for a preservative to be drunk every week once. In all other internal effects it must be given daily, until the declining of the disease; but afterward by- little and little, the medicine is to be used till the disease be fully cured.

In external, as in fresh wounds by a blow, thrust or shot, broken bones, & etc. every day once; with a necessary extrinsical application of a Plaister. In old Fistulaes and Cancers, it may be used once every day intrinsically and extrinsically, the place affected may be cleansed

with Mineral Oyntments, For by this means every invenerate evil, how desperate soever, is throughly cured, and pleasantly, without all pain.

But although this be most precious of all medicines, yet there is a MENSTRUUM not corrosive, with which not only more easily than with the spirit of wine tartarised, a Universal Medicine may be extracted out of Antimony, and endued with better than the aforesaid virtues; so that for the charge of one royal, in three days time, so much may be gotten as may serve to cure some thousands of men, but also all vegetables, animals, and minerals and metals, are radically dissolved and reduced into their first matter: by which means not only very great Poisons are changed into most wholesome medicines, but also bitter things are deprived of their bitterness: for by it things are so corrected, that they do no more provoke stool and vomit, viz, which are very vehement Catharticks (by nature) being changed into most excellent restoratives. Also fetid things being corrected by it, do acquire a sweet odour. And it doth not only (which seems a wonder) dissolve vegetables, animals and minerals with those things which come of them, but also the very Glasses; wherefore you must always choose the strongest glasses for digestion and solution, or in the defect of such, the weaker are to be changed every- 6 hours. And yet it is not at all altered by those things that it doth reduce and turn into their first matter medicinal, neither in. virtue nor colour; for it always keeps the middle place between pure and impure, of which this falls to the bottom, but that swims on the top of the MENSTRUUM, which may again be used. In brief, it's virtues in preparing medicines cannot be enough praised. But it may be compared

with the Mercurial water of BASILUS VALENTINUS: and the ALCAHEST of PARACELSUS and HELMONT, which I Judge to be the FIRE of the MACCABLES turned into a thick water under-ground. It is a perpetual fire, but not always burning visibly; it is a water permanent, not wetting the hands, the Sope of the Wise, the Philosophers AZOTH, and the Royal-Bath.

Which Menstrue though I have known some years, and have often used it with metallicks, and by it have found out many secrets, yet I never thought of it. use In Physick, until being asked of one who was a great Student of HELMONT, whether I knew the preparation. of the liquor ALCAREST of PARACELSUS; and naming some of the virtues of this liquor in preparing Medicines, I began to bethink my self, and I observed that it was my SECRET BALNEUM, that purifies minerals. Wherefore I presently made try-al with vegetables and animals (for I knew the Virtues thereof in metalliche) and I found wonderful and astonishing things in it, which before were incredible to me, I affirm and confess therefore sincerely, that all and every- the invented medicines published by- others, and my self, how rare and costly soever, are most mean things in my estimation. For this UNIVERSAL KEY was wanting to us. For our vegetables and minerals, however by art maccrated, cannot be perfectly resolved, and therefore we hitherto have had but part of their virtues. But now we need not much art, labour and cost, to reduce a whole body- without corrosives, into the first matter, like in shape to some clear and excellent water, of its own accord casting forth its superfluous terrestreity-, and becoming a most wholesome medicine, consisting of the three purest principles; the which cannot be done without this MENSTRUUM. For, What



else could Physicans extract out of herbs than Syrupe, Electuaries, Conserves and Waters? With which Preparation they were not amended, but only qualified with the addition of Sugar or Honey-, because there is no separation made of the pure from the impure, or good from bad. For all are left mixt together in the Electuaries and Conserves, but in the Syrups and Waters distilled there is only- some part. Extracts indeed by the spirit of Wine are not to be disesteemed, if rightly prepared, but they are no better than their simples; and besides, want that which the spirit of wine cannot draw out, which remainder, though being calcined for the drawing of the salt, which is mingled with the extract, yet that is not of much moment, for fire destroyeth the virtue of herbs, so that fixed salts, as crystallised, do perform nothing in. medicine, those excepted which without combustion are made out of the Juice of herbs, of which in. the third part of our Furnaces Philosophical. But none dares extract the most strong or efficacious sort of herbs for medicine, because they in preparation are not corrected or amended.

But by this means the most strong Herbs, which without this Preparation are poisons, are matured and purified by- the liquor ALCAHEST, so that they may safely- be taken against most grievous Diseases. For Sod did not create these herbs in vain, as some think, which he purposely created that his wonderful works might appear, and that it is poesible to take away the Curse from them by a man, being freed from the malediction by the regeneration through Christ, See OPIUM, Mandrake, Henbane, Hemlock, and other stupify-ing things, how deadly they are, being cautiously used; which corrected by this Menstrue, become most

safe and excellent medicines, How dangerous is spurge, seamony, hellbore, gambuglum, and other strong purges (being administered unwarily) no man is ignorant: all which are by this way corrected, and changed into most wholesome medicaments. Who, I pray, dares eat Wolf sbane, and poisionous Toad-stools, and other venomous vegetables? Which are all so corrected by the liquor ALCAHEST, as that not only they are not p01-sonous, but are also turned into most safe and wholesome medicines of many diseases, NOX VOMICA, Levant-berries, and other things that disturb the Brain, are by this means made wholesome; also poisionous Animals, as Spiders, Toads, Serpents, Vipers, & etc. are by it corrected, as that not only they are not poisionous, but do resist and expel poison,

N. B. Consider the Spiders signed with the cross, who change their skin every month, and renew themselves, which the serpents and halicon do but once a year. How great the virtue of worms, earthy and crude, & etc. is in resolving tartarous humours, and the french Disease, many know; What then will they do, being corrected with this Menstrue? The CAUTHARIDES and MILLIPEDES are also corrected, that they may more safely be used in provoking Urine. And if that most venomous Basilisk, of which there are so many fables, whose sight only kills men (which according to the letter is false) could be had, he might be changed into medicine by the liquor ALCAHEST; as that mineral Basilisk, Gun-powder may be, which in a moment kills innumerable men; also Arsenick, Orpiment, Kobalt, and the like; so that they be deprived of their malignity, and be reduced into very excellent medicines. In brief, its excellent virtues

which it manifests in correcting of venomous simples cannot be sufficiently described, Wherefore it's worth our pains to search it with all our power, that we may prepare admirable medicines, that the sick may not for the future be so vexed with those tedious and bitter cups. Truly I cannot enough admire its great virtues, which have been hid so long. It is not a corrosive thing, and yet dissolves every thing, but some things sooner than others. It changeth and amendeth their natural virtues; wherefore it may be the comfort of Spagyrist, having a long time sought for rare medicines, viz, being that by- which vegetables are separated and corrected, and also animals and minerals. Wherefore all conscientious Physicans may have commended to them the Preparation of this universal Menstrue, by the help whereof to prepare their medicines; of which the original and preparation is vile, but its virtues most efficacious, the finding out and uses abstruse. Wherefore it is not obtained, but from God, FROM WHOM PROCEEDS EVERY GOOD GIFT. Do not think then that gluttony and drunkenness, idleness, pride, and lying, the contempt of thy neighbour, malice, avarice, with an impious life, to be the means by which it is to be obtained, for it is only- THE GIFT OF THE MERCIFUL GOD, viz, this Menstrue, the gate and key of which is only Divine mercy-. But that thou maist know what is to be determined concerning medicines prepared out of poisonous simples, I will in brief expound that by example; for all vegetables, animals, and minerals, called poisons, making war with humane nature being intrinsically used, and therefore not undeservedly shunned of all, are like some powerful unvanquishable enemy, with all his power seeking the oppression and

destruction of his contrary, who being checked by a mediator of no lees strength, and reconciled with his contrary, does no more (being unable before the reconciliation to resist his powerful enemies) fear the contrariety- of his enemy, which now is made his friend, bringing aid for the extirpating and vanquishing of all such like (otherwise) invincible enemies. Even so it is with venomous vegetables, animals and minerals, destructive to humane nature: which by- the liquor ALKABEST (a checker, and reconciler) are so corrected and reduced, that they- hurt not, being deprived of their malignity and made friends with men: whereby they are not longer poisonous enemies, but very safe and wholesome remedies, agreeing to humane nature, overcoming and expelling other the like enemies otherwise poisonous and invincible, for by how much the more enemy before reconciliation it was, by so much the more help is brought by it, the reconciliation. being made, There is not the like found in nature, which can so suddenly correct Poisons, and reduce them into their first matter, and bring them into very-wholesome essences. Let religious Physicans then that can, get this. And so I end this declaration (not without cause set down) which will move those hearts which are not as yet hardened. This certainty is a true Philosophical correction, with which that which is malign is turned into a wholsome substance. What profits that correction, I pray, which is made by the admixtion of other things, as in. the mixture of Catharticks and Cordials? Truly nothing, aeither can the Cordials do any thing but debilitate the Catharticks: for nature is not at once able to expel a purging poison., and attract a thing consortative and corroborative: For a Purge being given, forthwith that chews its strength in the body, whose malignity nature resisting,

desireth to expel it, before that it can attract the consortative; wherefore that friend is expelled, together with the disease, The same happens in the mixture of sugar, honey-, and other sweet things with bitter, sharp and tart, & etc. whose unpleasantness is not corrected by sweet things, but Only dulled, thereby acquiring another smell and taste, without any other essential alteration. Which correction is like: to that which is made in Taverns, amending the air with sweet fumes, which before was infected with the spittings, apewings, and stinks of ruatick drunkards, which is to rusticka an excellent correction, attracting the ill as well as the good aromatick odour, being by drunkenness depraved of their judgement, but not so to sober men enjoying the use of Understanding, to whom that seems a ruetick correction, In this manner (not to be commended) are at this day simples corrected. But a true and Philosophical correction is done by it self, without the addition of other things, by benefit of the fire only, as well actual as potentially moist, by ripening, mending, and separating the malignity; which is done by- the liquor ALKAHEST, as It is called by PARACELSUS and HELMONT.

But whether this my liquor be the same ALKAHEST of PARACELSUS and HELMONT, it matters not if it perform the same things.

Fire, and a fiery virtue may do much, but not by burning and destroying, but by maturation and nutrition; and feeding and moistening. Of which moiet fire, see ARTEPIUS, BERNHARDUS, BASILIUS, PARACELSUS, & etc. for maturation is not done with cold things, but hot, promoting germination, And what ever Nature hath left imperfect in the vegetable, mineral, and animal kingdom, viz. accidently; that may be amended by

Art with the liquor ALKAHEST, which is the best way of correction, until by benefit of art, and the help of nature, some better thing be found out, & etc.

And these are the virtues of that wonderful liquor ALKAHEST, which is made use of in the preparation of medicines: And, because it is said before that it chews its virtues on metallicks also, I could not conceal them from the studious, But all its virtues shall not here be related, for it is endued with so many, that no mortal is able to number them. As for me, although by divine favour and the instruction of that excellent man PARACELSUS (excellently- in a certain place, but observed but by few; describing it, speaking of It briefly, but very plainly- and clearly naming it) I did obtain the knowledge thereof, which afterward daily- I did more and more encrease, so that I could hardly believe that any ever had spent so much money and pains in the searching of its virtues, for the trying of metals: yet I must needs confess, although happily I have made more tryal therein than any other; that many of its virtues are as yet unknown to me, Seeing then that its virtue<sup>s</sup> and strength cannot all be try-ed by any man, by reason of his short life, although searching an hundred years; and that by our merciful Father only to a few, and but part of the knowledge of its wonderful and incredible force, is granted, to the glory of His Divine Name, in favour of the poor sick, which none, how learned soever, with his ambitious learning and craft could ever obtain. Therefore some excellent gifts being given from the Father of Lights, the Omnipotent GOD, to come of His Children, IRATIS, and out of meer mercy, viz, for some causes, I easily believe, that it

is not His Will that it shall long be kept close, but be revealed to the world, to the glory- of His Name, and the benefit of our poor neighbour, Wherefore I could not longer hold my peace, hiding my- talent which I received GRATIS, though small, but communicate It GRATIS to my neighbour; but so that the Divine mystery may not be gotten by those ungodly abusers, but only- by the worthy through divine favour, I affirm therefore expressly, that in whole nature such a thing may not be found; for not only by its help all animals, vegetables, and minerals may be reduced into very excellent and safe medicines, but also be brought into the first matter; minerals and metals may be purified, washed and fixed, and so changed into better bodies, That which is worthy admiration, that in so vile and mean a subject should lye hid so great virtues, by which alone without any- other art, may be acquired riches and honours, and lost health, Than which thing, what doth mortal man more need In his misery, besides the Divine Word, the comfort of the soul, than for necessary sustentation of life, soundness of body, and honest report before God and men? All these things nay be had with this subject, so that one need not to involve himself into any other troublesome art or vanity of this world, having this secret, whereby all necessaries may in abundance be procured: of which gift that this unclean world is unworthy, I do affirm sincerely, because it swells with ambition and avarice; for which we are not able to give God the Donor sufficient thanks in our whole life, wherefore I would have all what state or order soever earnestly admonished, that they do not use this gift from Heaven to the destruction of their souls, but in thankfulness to Him that gave it, and every way to the good of their Christian Neighbour.

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Now follow the Virtues which It manifests in Metallicks.

First, it (viz.) the Philosophical Menstrue, doth radically dissolve all minerals and metals without noise, and reduces them into very safe and wholesome medicines. Out of gold it makes potable gold; out of silver, potable silver, and so consequently- of other potable metals; so that it may well be called THE UNIVERSAL MERCURY.

Secondly, This secret Menstrue purgeth, washeth, and trausmuteth minerals and metals to a more noble species; wherefore It may well be called SAPO SAPIENTUM, by which the saying of the Philosophers is confirmed; IGNIS ET AZOTH ABLUUNT LATONEM.

Thirdly, by it all minerals and metals are matured and fixed, so as that afterward the immature gold or silver incorporated with them, may by cupeflation be drawn out with gain, wherefore 'tis deservedly compared to HERMES seal.

Fourthly, it makes metals volatile, and radically conjoins them that they abide together, and one act on the other in the fire; it destroys and revives, kills and renews ; wherefore it is compared to the Phenix.

Fiftly, It separates metals without any loss, and that speedily; but after another manner than corrosives, so that each of them may be had by themselves. For Example: Being about to separate gold, silver, copper, iron, tin, lead mixt; one, or two, three, or four of them mixt, that they may appear each by themselves, without the loss of any, you need not cupellate the mixture with lead, which way only gold and silver



are gotten out, with the loss of all the rest: but by this way they are all preserved, whereby turns, one after another, they are extracted wonderfully and swiftly, in halt an hours time, by this sharp VINEGAR OF THE PHILOSOPHERS, & etc.

Sixtly, By it metals may siddenly be mortified and reduced into transparent glass, irreducible, and like AMAUSA, but reserving the propriety and nature of every metal: which in the reduction of Gold do give perfect silver; whereby it is confirmed that saying of the Philosophers, THE CORRUPTION OF ONE THING IS THE GENERATION OF ANOTHER; and that of PARACELSUS, EX ALIQUO FIAT NIHILUM, & EX NIHILO ALIQUID, But this incombustible water, or permanent water, shows the truth of the Philosophers writings, generally mentioned it. In it the solution, putrefaction, distillation, sublimation, circulation, ascension, descension, cohobation, inceration, calcination, coagulation, fixation and fermentation, & etc. in their work to be done at one time and one way: In which only operation all the colours appear of which the Philosophers make mention: as the head of the crow, virgins milk, dragons blood, peacocks tail, green and red lion, & etc. There Is also by it demonstrated the truth (by the liquor ALKAHEST) of that Hermetical saying, THAT WHICH IS ABOVE, IS AS THAT WHICH IS BENEATH, & etc. and many other things are performed by-its help, as making that secret Sendivogian CHALYBS; also that long sought for oil of Talc.

So far (courteous Reader) hath come my Experience; neither doubt I, but by it to obtain that universal SALAMANDER which lives in the fire.

These things which I write are true, and no fallacies. And though

this secret be incredible to the ignorant, for the wonderful virtues it showeth in the preparation of medicines, I would willingly publish It to the world for publick good, but on consideration I held it not meet to communicate it for certain causes. But only lest the knowledge of it should perish, and that the true (and almost extinct) medicine for the curing of diseases vulgarly incureable, might flourish, I have revealed this secret MENSTRUUM to two friends, viz. its preparation and use, (See the preparation in Mirac. Mundi, and Apology against Tamer).

But do thou not think, because I write of these high things, that I do intend to make common the Secret to all in general; not so, but I endeavour to confirm him that seeketh, and give him occasion to search this secret deeper; which being found, he shall not only find the truth of my words, but he shall daily by exercise obtain far greater things than these.

And because I have never aspired after vain riches and honours, nor never desire them: I might well be perswaded to leave to others, as yet not hating the wicked World, my troublesome labours, because in this my painful age such tedious labours are very burdensome; besides Philosophy hath pointed me another way, so that what I am able I have determined to abstain from these vanities, and to seek a perpetual good, the life of rest; but my counsel shall not be wanting to those that seek it: for besides moved with the former reasons, also seeing innumerable many vain Philosophers, as well learning as unlearned, uncessantly working, and losing their time and labour, and at last despairing, are perawaded that there is no truth in the Philosophers writings, but to be all filled

with lyes and deceits; whence royal Chymistry is disgraced, But this MENSTRUUM eufficeth to defend the writings of the Philosophers, without the metallick transmutatjona; so that I verily believe the time to be near, when the Omnipotent GOD, before He judge the World by fire, will shew His omnipotency to the Nations, by the revealatlon of the wonderful and incredible things of nature; of which, transmutation of metals is not the least, which in the third part of this Mineral Work I shall deliver to the last age, (being acceptable to God) to the profit of my neighbour, and for demonstration sake, Wherefore I now pass over such things, with a firm hope, that this faithful Admonition shall be received as an undoubted and infallible truth.

How the aforesaid REGULUS of the flowers and dross of Antimony, is to be used in the bettering of course Metals, shall be shewn, that ART may not be abused.

The Antintonial REGULUS, a radical metallick humour, may help to perform wonderful things, for being reduced to a water without a corrosive, it resolveth all metals, cleanseth, washes, and purifieth them, and turns them into better species, so that particularly not a small gain may be from thence received, But how it may be reduced into water, and how by its help metals may be resolved, volatilized, and again fixed, bath been demonstrated by ARTEPHIUS, BASILIUS and PARACELBUS; wherefore we need not here repeat their writings, but refer the Reader to their works.

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But not only the REGULUS, but also all Antimony may many ways be used in the separation of metals, viz, for the extraction of hidden Gold, which cannot be done without Antimony; as shall appear by the following example. When you find a marcasite or other ironish fossile, that will not yield to the try-al of lead, add to it three parts of Antimony, and being well mixt, melt then in a covered crucible, and being melted, pour It into a cone; and when all is cold, separate the PEGULUS, which purge again by fire as before, and thou shalt find gold contained in the aforesaid fossile: And if It be indued with more plenty of gold, for it is not all drawn out at one time, viz, with the first REGULUS, another REGULUS is to be melted, by adding more iron and salt-petre, which is also of a nature near to SOL. And if these marcasit fossiles are not ferreous, you must in the first fusion, add iron and nitre to them, or else they yield no REGULUS. By the adding more scales of iron more REGULUS is made, and for the same use as that is, of which above in the fusion and separation of extracted golt; weights also may be made out of the dross. And thus are LAPIS CALAMINARIS, marcasit, kobalt, mink, talc, and other fossiles separated, viz, containing gold.

But all gold containing iron (as that of Stiria, Carinthia, the Granada, and of Transylvania, & etc.) may this way be easily separated with profit, by the help of iron. And if the iron have no gold, yet if the Antimony have it, it may thence be separated by fusion with iron, win. if It be brought to a REGULUS. The rest of the Antimony may again be fused with new iron and new glass of more weight than it, but less than this, and be reduced into a REGULUS fit for the following uses.

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Out of the dross let weights (that nothing may be lost) be made, that thou maist have the more gain; as may appear from the following example,

When you have the Antimony, a hundred of which contains two duckats, if you will separate the gold; take a hundred (weight) divided into three or four parts, fuse it according to art, adding a little iron. and salt of ashes, and reduce them into small REGULUS'S, weighing a pound or two. Then melt the dross with half the weights of the iron In a large and strong crucible, and thou shalt have more REGULUS,S about fifty pound or more, dross 40 lib. which make weights of, or else guns, & etc. the rest, about eight or nine pounds, will vanish Into smoak, And so thou bast reduced the gold COnTained in a hundred weight, into one or two pounds, which thou maist sublime by-fire into flowers (leaving the gold in the fire) for its uses, but those 50 or 60 pounds of the REGULUS'S prepared by adding much iron, they- having little or no gold, you may mingle with tin for its beauty, hardness and sounding, to make divers sorts of household stuff, as platters, dishes, & etc. for tin mixt with the REGULUS looks like silver for whiteness and hardness, and sounds like it, nor is it so easily- dulled as unmixt.

Now let us weigh what gain may come from the separation of the meanest Antimony. Put case that a hundred weight of Antimony be sold for three Royals (for so for the most part the Polonian is sold, than which, although that of HUNGARIA and TRANSILVANIA be dearer, yet this hath more gold) to which add 60 pound of iron, which is sold for half a royal, and the charge of coals and cruciblee requisite be half a royal more: the total of the expences is tour roy-ala, for which take two duckats

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in gold, sixty pound of REGULUS, eighty pound of dross, and one or two pound of flowers. Those 60 lib. of REGULUS may be sold at the price of tin, whereof a pound is sold for a quarter of a royal, and then their whole price is fifteen roy-ala. Then the eighty pound of refuse made into weights, may be sold at forty shillings, or at least twenty four shillings, or half a royal; and all things being considered and reckoned, as they ought, there may remain the value of sixteen royals.

And though the Antimony should yield but one duckat, and a pound of REGULUS should be sold at the eighth part of a royal, yet the remainder would be above six royale: And in a day there may easily be two hundred weight separated by two men. And then suppose it should contain no gold (as some Antimony doth not) yet may four or five royals be gotten daily.

But when you have Antimony, one hundred whereof contains three, four, or five duckats, and iron requisite to the separation containing one or two duckats, then there is so much more gained. Then let him that undertakes this business seek for the best Antimony and iron, and he may well gain in a day twenty, thirty, and sometimes sixty royals.

N. B. And if you should have so much REGULUS that you could not mix all of it with tin, for want thereof, then it may be sold in parcels, so that one lb. may go at a fourth part of a royal; by which means the daily-gain may not be deminished, but may be rather encreased; as may be seen by what follows. The REGULUS of Antimony is the masculine species of Lead; whose first being is gold impure and immature: but the first being of common Lead is impure and immature Silver; as experience

witnesses; for Antimony being purged and fixt, yields gold, but the common lead only silver. And because Antimony, which is better than common lead, is called the PHILOSOPHERS LEAD, or their SECRET LEAD; of so many named, but known of few; not that the thing is unknown, or of an unknown original, but by reason of its hidden properties; therefore I say that its virtues are not all to be known by any mortal, though he should have a hundred years to search into wonderful nature, for it is unsearchable, and the creator of all wonders, let him injoin himself silence, neither let him glory in the knowledge of it, who hath not made tryal of it; for in it, through it, and by-it, Nature and Art do strive for perfection. Of which more elsewhere,

Now follows the Use.

Having mentioned ANTIMONIAL REGULUS, which is Lead and better than the common. It must also purify impure metals, wash them, separate the occult Gold and Silver in then; that which the common Lead can do, to which, if those be added, it attracteth the more impure part in the Cupel, which it convereth into dross, and draweth down with it into the porous ashes, leaving the purer Gold and Silver In the Cupel: but from some Tin and Copper not yielding to the Lead, nor willing to be washed by it, it cannot extract their Gold and Silver, neither hath any one written the way of separation of it. LAZERUS ERKER indeed hath described (and others also) the way of separating Silver from Tin and Iron, which is not to be disesteemed if it be accidently mixed with Silver,

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which is separable that way, but not so, being generated in, and radically mixt with them, requiring other Lead, willingly embracing Tin and Iron, which nothing but REGULUS can perform.

But seeing Tin and Iron do for the most part, contain much Gold (but chiefly Tin) viz, inseparable by the common way, it will be worth our pains to seek another Lead and way of separation; as it is apparent to Refiners, proving Tin and Iron by the common way on a test; whilst Tin and Iron melted in the Lead, do forthwith ahew their stubbornness by innate properties and forsake It, viz, as a contrary rising to the top like dross or ashes, without any separation, Gold and Silver being excepted, if accidentally mixt together, which are left with the Lead; but not so being hid in their middle or centre. But that the truth hereof may appear, I will demonstrate it by example: Place on a test under a tyle 16 parts of Lead, and one of Tin, after the manner of proofs, give a fusing fire for to separate the dross; and all the Tin almost flying away, will at the bottom be burnt, and separated like ashes, being sublimated on the top of the Lead; not deprived of its Gold and Silver incorporated together, which afterward I shall demonstrate, when all the Tin is sublimated from the Lead, and calcined, and the test taken from under the tyle, and the rest of the Lead poured off, and you shall find after cupel3ation no more Silver than the sixteen parts of Lead did contain before, if they had been cupelled without Tin; sometimes less, some part being taken away by the Tin in the examination: the same is done with Iron, although thou shouldst add Copper with glass of Lead, to retain the Tin and Iron, thereby to separate their Gold and



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Silver, you would effect nothing: for although some more Silver may hereby be extracted, yet that would not come from the Tin or Iron, but from the Copper: it may therefore be extracted another way, of which, hereafter,

In the mean while I will prove clearly, that the separation of tin and iron by- common lead, thereby to get their gold and silver, is of no value, which being left in them, are turned Into ashes and dross.

Take any tin, and reduce it Into ashes by lead, or agitation, on a smooth earthen vessel (try-ed before, by the Common way, for distinction sake, which calcine well, that the corporeal tin powdered, may be calcined, or being melted, may be separated from the ashes. Then take of these ashes one part, and of the following flux, or of that a little after six parts or more; being axt, fuse them in a strong crucible with a strong fire, until the Flux have Consumed or drunk up all the calx of the Tin, and of them both shall be made one, viz, yellow or red Glass, which may be tryed with a crooked wire put in: which if it seem not clear, the crucible must be covered again, and a greater Fire be given, until the Fire be perfect; which labour in one half hour is finished: which done, pour it into a brass mortar, afterward to be covered, until it be cold, that it leap not out and be lost.

Afterward powder It, which with calx of Tin, mix the equil weight of filings of Iron; being mixt, put them Into a strong Crucible (because the Flux is very penetrative) covered, and give a strong Fire for fusion half an hour: which done, pour it out, for the Tin hath made separation, and reduced some part of the Lead out of the Flux, sinking to the bottom

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to be separated when it is cold, to be reduced into dross on a test, and then to be cupelled, and you shall find grain Gold drawn from Tin without Silver. And if before you weigh the caix of Tin by the lesser Hundred weight, and after that the grains of Gold, you may easily conjecture how much Gold is contained in the whole hundred weight of Tin ashes, viz, at the least, 3, 4, 5, or 6, LOTONES or HALF OUNCES, if thou work aright.

See then the Fault is not to be imputed to the metals, but us, being ignorant of the separation of the Gold and Silver.

You should not perswade your self by this means to get much wealth out of Tin; for I havó not written this for that end, but only to demonstrate the possibility. And if thou think that Gold will come out of Iron by- the fluxing powder, mingle then filings of Iron with the Flux, before thou put in the caix of Tin, and thou shalt find In so doing, that Gold doth come neither from the Flux or Iron, but out of Tin; then being hereby- assured, that 'Tis the Tin which contains Gold, thou mayet consider, how most conveniently that may be extracted, vIz, with other Lead, and another way, as shall be hereafter taught. Neither think that Tin contains no more Gold than you have heard; for more there is if you can wisely extract it: neither do I deny, that more Gold may be extracted out of the Tin, but more care than this is to be given, if you desire more plenty. But Gold may thence be extracted, not only by Flux, but diverse other ways, in diverse weights; for what is written, is only for demonstration of the possibility, that the Gold contained In the imperfect metals, may be extracted by a secret separation.

The Fluxing Powder requisite to this Work.

Rx. one part of very pure and white Sand, or Flints, having no Gold fusible; to which, add three parts of Litharge of Lead; being mixt, fuse in a very strong Fire, that thereof a transparent Glass may be made of it, which pour out, that it may be cold, and reduce it to powder, which use in the aforesaid manner. But you may ask, why Sand and Flints are mingled, seeing they are not of a metallick nature: to which I say, the caix of Tin, cannot, as also other Fossiles be Examined by Lead alone, for the following Reasons, viz, because in the Calcination of Tin, its metallick nature is hidden, but the impure and earthy parts are manifest, wherefore it bath no longer affinity with Lead and other metals; unless the hidden parts of the lead be manifest, and also other metals and the manifest be hidden, for then they easily embrace one the other, and are again mingled well, and not altered.

What belongs to the alteration of other metals doth not belong hither; for to this place only pertain Lead and Tin, the alteration of which is demonstrated by this tryal; whereby it appears to be thus.

Lead reduced into ashes, by it self, or into Litharge, and deprived of its metallick form, cannot so in this work be used without the flints or sand, for the following reason. The lead and glass thereof made by it self is very- fusible and volatile; but the calx of tin is very difficultly fused: which two calxes, although they should be mingled to fuse in a crucible, yet would not be mingled, nor being fused, embrace one the other, by reason of the difference of their fusibility; because

the calx of lead alone being fused by a small fire, will perforate and penetrate the crucible, the caix of Tin being left in the crucible; wherefore you must add sand or flints to the lead, viz, to hinder its fusibility-, that it may endure the same degree of heat with those that are difficulty fused, and further their flux. For like things do mutually affect and embrace each other; as water doth water, oil oil, and glass glass; and metals other metals; but water is not mingled with oil; neither are glasses mingled with metals, but metals with metals, and glass with glass, whether it be made of metals or out of sand. Wherefore they greatly err who mingle the caix of metals difficultly miscible, or other hard things with lead to prove or examin, not considering that corporeal lead hath no affinity with them: who remaining in their error, and not weighing the thing further, consequently can find nothing of any moment.

But when the caix of metals united with lead by a MEDIUM, as flints or sand, are brought together into transparent glass; then the lead being precipitated and separated from the mixture, it cannot be, but that the gold and silver contained in them must be carried away with it. This is a true and philosophical tryal, and not to be contemned, for many things may be by it performed.

N. B. But this is not to be passed by, that in the mutual mixture and fusion of the glass of lead and the calx of tin, and other hard metals, one may easily err, viz, in the precipitation (which is done with the mixture of iron) of the gold with the lead into REGULUS, by either the excess or defect, so that nothing may be gotten, which is

committed In precipitation. For if the mixture stand long in the fire not fused, it is burnt, so that it cannot well be separated, and if it stand too long fused in the fire, the gold is attracted by the dross, by- reason of the mixture oi the iron, having great affinity with the gold, so that by this means nothing can be gotten: wherefore the Work is to be done warily, and with wisdom and industry, You must have a care you burn not the REGULUS of lead with too much fire, when you reduce it into dross; for fear of attracting the gold from the iron, and turning it into dross. And although this may by Art be prevented, yet we must not presently create every one MASTER OF ARTS, it requiring diligence and daily exercise, besides the reading of Books. But this Secret shall other where be communicated.

This admonition then I give, that thou do not impute thy error (if thou dost err) to me, but to thy self, for what I have written is true: and do not thence infer an impossibility of attracting gold by iron, out of lead, and of turning it into dross, which is no wonder to me, though it may so seem to thee. Which he who hath the knowledge of metals will himself easily-perceive. But that thou maist be certain, try the certainty after the following manner: Take two hundred lib. of lead, of the lesser weight of the Refiners, put it on a test under a tyle; add eight or ten LOTONS of pure gold, of tin two or three; six or eight of iron, viz. of the lesser weight: make them flow together an hour to make dross; as Examiners use to do; then pour it out, and separate the lead from the dross, viz, to cupel that which is separated, then weigh the grains of gold left, and thou shalt find half of it consumed

by the dross. If this happen to corporeal gold and fixt, How will it be with that which is newly extracted out of an imperfect metal? Therefore you must diligently search out the natures of metals, and then such cases will not seem incredible,

From hence then, and other Examples mentioned it appears, that that separation which is done by tests and cupels, is not true and legitimate; and consequently, that another profitable separation of metals is to be sought; because by this the greatest part of gold and silver burns into dross, witness Experience, for which cause the former example was alleadged; whither belongs the proof, viz, how much gold. the dross bath attracted, which is done as followeth: Rx. the remaining black dross, to which add a double weight of salt of tartar, put it in a crucible filled but to the half (for fear of boiling out) and covered, that nothing fall in, under a tile or among live coals, one or two hours space to digest; and a new REGULUS of lead shall be precipitated, which separated from the dross, you may cupel, and you shall find new grains of gold attracted by- the iron in the dross, and now separated by the salt of tartar, overcoming the force of the iron. And so you have heard from two examples, how in the coction of the separation gold may be drawn out of lead by tin and iron, and that therefore there is no need, that gold be separated by the ANTIMONIAL REGULUS out of the aforesaid metals, and not by lead, if you would extract the true substance with gain.

N. B. Gold may likewise be separated out of the glass of lead (being first dissolved with the ashes of tin) with coal dust, adding it in the

flux and stirring it with an iron wire; and also with common sulphur, by burning it on it: but the aforesaid way with iron, is to be preferred before those two which spoil the gold, & etc. wherefore the remaining dross is to be gathered, which by some abstracting furnace by other means may be try-ed, for to recover the spoiled or lost gold and silver.

And all these are alleadged to demonstrate that the gold in tin and iron is to be separated by the ANTIMONIAL REGULUS, and not by Lead. But how this separation may be perfected, you shall hear in the third part, where we will treat of lead, explained by PARACELSUS, in his book called COELUM PHILSOPHORUM, and other artificial Chymical labours: wherefore here we omit it, being superfluous to handle one thing in divers places. In the mean while exercise thy self in lesser things, that thou maist be more fit for greater when they shall be set forth. But wonder not at my liberality- in publishing so great secrets, for I have reasons for it. Such a burden is too much for me alone, neither doth it profit the Covetous to sell his goods to them which keep not their words, nor pay the money, after they have obtained their art, which bath happened to me. Wherefore I have determined to communicate some secrets to all the world indifferently, that the poor nay receive some profit by them; knowing that though I write plainly-, yet that all will not at the first view obtain their desires. For some are so dull, that they cannot imitate a work though often seen, For some have often visited me, to see my new manner of distilling, which though it was sufficiently demonstrated to the eye, yet they could not imitate it, till with often perusals at length they have found the right path.

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Others have left it as too hard a work, when it would not presently succeed, which if it happened to those who had an ocular demonstration, how much more difficult will it be and hard to them who have nothing but what they have heard or read. Wherefore I am certain, that though I should publish every one of my secrets, yet could they not be performed by all men, my coals and materials being less sufficing for my necessity. Wherefore I fear not to publish, the next opportunity offered, divers profitable and excellent secrets, viz, in favour of all and every one.

As for the spirit of salt necessary to this work, you may find it in the first part of my Philosophical Furnaces corrected and amended; but the way of separation in the fourth part.

And so I finish this work, being published in favour of those who by war (though honest men) are reduced to poverty. But what things are deficient in this little tract shall (God willing) be delivered in the next (which shall follow in a short time) largely and clearly without fraud.

FINIS.



THE  
SECOND PART  
OF THE  
MINERAL WORK.

Of the Birth and Original of Metals and Minerals, viz. How they are produced by the Stars, and take to themselves a body out of the Water and Earth, and are found in a sundry shape. Written and brought to light for the sake of the Diligent Searchers of Nature.

A Preface to the Reader,

Courteous Reader,

Whereas in a former little Book, lately by me published, I mentioned this little Tract of the generation of Metals, and through want of time, could not hitherto make it publick, although earnestly desired by men of the meanest and highest condition: I have now determined to spare so much time from my other Employments, as to do this Work for the publick good, no ways doubting, but that (although this my opinion of the Generation of Metals, doth not agree with all the PHILOSOPHERS) yet will it get credit from, and the assent of not a few quick-sighted men.

That which I here declare, I do not exhibit it with flattering words, or many circumstances, or the testimonies of other Writings, but with a naked and genuine simplicity; for which very cause I would not make this little Tract too prolix, but have unfolded my mind with the most

Compendious style that I could. But let none think that I endeavour to weaken and nullifie the Opinions of other men concerning the Generation of Metals, and obtrude mine in the World, no, not in the least:

I leave to every man his free will, and the Liberty of viewing others, who have written Monuments of this thing, and of comparing of them with my writings, that he may evidently perceive which of the two Corresponds most with Nature and Truth: I aim not at any Honour hereby, as if I were wiser than the common sort: Nor do I reap any benefit by making this little Book, but 'tis done only for this end and purpose, That (because I have formerly written of Metalline things, and have also made mention of this little Tract of the Birth and Nativity of them) I may give light unto my Writings, and render them more easie to be understood; for I should most bitterly suffer, if but one only should be lead into error by my Writings, but I trust that the light is springing up unto many, by the guidance whereof they will more cautiously handle than hitherto they have done. Let the Benign and Merciful God, our Father of all things, of whose Wonders the Heaven and Earth are full, give unto His poor needy Children that which may tend to the Glory of His most holy Name, and to our health.