

Three Tracts on Medicine

By

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Tres tractatus de metallorum transmutatione.

Amsterdam, 1668.

Produced by

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Metamorphosis of Metals

CHAPTER I

Of the Claims of our Art, its Students, and its Method

All men who devote their lives to the study of any art, or to any kind of occupation, have before their eyes, as the aim of their efforts, perfection in the thing which they pursue. But only few attain to the goal of their wishes: there are many architects, but few masters of the art of architecture; many students of medicine, but few men like Hippocrates or Galen; many mathematicians, but few proficient like Archimedes; many poets, but few worthy to rank with Homer. Yet, even men who have nothing more than a respectable knowledge of their calling, are capable of being useful to society.

Among those who devote themselves to the transmutation of metals, however, there can be no such thing as mediocrity of attainment. A man who studies this Art, must have either everything or nothing. An Alchemist who knows only half his craft, reaps nothing but disappointment and waste of time and money; moreover, he lays himself open to the mockery of those who despise our Art. Those, indeed, who succeed in reaching the goal of the Magistery, have not only infinite riches, but the means of continued life and health. Hence it is the most popular of all human pursuits. Anyone who has read a few "Receipts" claims the title of a Sage, and conceives the most extravagant hopes; and, in order to give themselves the appearance of very wise men indeed, such persons immediately set themselves to construct furnaces,

fill their laboratories with stills and alembics, and approach the work with a wonderful appearance of profundity. They adopt an obscure jargon, speak of the first matter of the metals, and discuss with a learned air the rotation of the elements, and the marriage of Gabritius with Beya. In the meantime, however, they do not succeed in bringing about any metamorphosis of the metals, except that of their gold and silver into copper and bronze.

When captious despisers of our Art see this, they draw from such constant failures the conclusion that our Art is a combination of fiction and imposture; whilst those who have ruined themselves by their folly confirm this suspicion by preying on the credulity of others, pretending to have gained some skill by the loss of their money. In this way the path of the beginner is beset with difficulties and pestilent delusions of every kind; and, through the fault of these swindlers, who give themselves such wonderful airs of profundity and learning, our Art itself has fallen into utter disrepute, though these persons, of course, know nothing whatever about it. The beginner finds it extremely difficult to distinguish between the false and the true in this vast Labyrinth of Alchemy. Bernard of Trevisa warns him to eschew like the plague these persons who hold out so many vain and empty promises; while I have written this Treatise for the guidance of the blind, and the instruction of the erring. I wish, in the first place, to clear our Art from the slanders which have been cast upon it, then to describe the qualifications of its students and its methods of procedure. After these prefatory explanations, I will gird myself to a description of the Art itself.

Before I say anything else, I would record my most earnest protest against that method of reasoning by which the deceptions of certain wretched sophists are laid to the charge of this science. The wickedness of some of its lying professors can prove nothing either for or against its genuineness. Such a position could be made good only by arguments based on natural relations; but such arguments it is impossible to find. The light of Nature is too bright to be darkened by these obscurists. I hope my Book will shew that the Transmutation of Metals, from an imperfect to a perfect state, is a real and true achievement, and that by the co-operation of Nature and Art. The only thing that distinguishes one metal from another, is its degree of maturity, which is, of course, greatest in the most precious metals; the difference between gold and lead is not one of substance, but of digestion; in the baser metal the coction has not been such as to purge out its metallic impurities. If by any means this superfluous impure matter could be organically removed from the baser metals, they would become gold and silver. So miners tell us that lead has in many cases developed into silver in the bowels of the earth; and we contend that the same effect is produced in a much shorter time by means of our Art. It is a fact that the Mercury which is generated in the bowels of the earth, is the common substance of all metals -- since this Mercury will enter into combination with every kind of metal -- which could not be the case if it were not naturally akin to them all. Mercury is a water that will mix with nothing that is not of the same nature. By Art, the handmaid of Nature, Mercury can be so successively concocted with all metals, that one and the same under the same colour and flux, may subalternately shew and express

the true temperature and properties of them all. Moreover, all metals are capable of being resolved into running Mercury -- and surely this could not be if it were not their common substance. Again, the Mercury of lead may become that of iron, the Mercury of iron that of copper; while the Mercury of tin may even be transmuted into that of silver and gold -- a fact which triumphantly demonstrates the substantial affinity of all the metals. From antimony, too, a good Mercury is obtained, which some of our Artists are able to change into metallic mercury. It is also a well-established fact that the Mercury gained from any metallic or mineral body possesses the properties of assimilating common Mercury to its own nature; thus common Mercury may become that of all metals in turn. Do not these arguments clearly shew that there is one Mercury, and that in the various metals it is only differentiated according to their different degrees of digestion or purity? I do not see how these arguments can be answered. It is possible indeed that some dull person may allege in refutation of our reasoning his inability to accomplish those chemical transformations on which it is based; but such operators would be vindicating too great an honour for their ignorance if they claimed to advance it as an argument against the truth of our Art. They must not make their own little understandings the standard or measure of the possibilities of Nature. At any rate, my word is as good as theirs (and better, since they can never prove a negative), and I do most positively and solemnly assert that I have with my own hands performed every one of the experiments which I have described; and I know many others whose experience has shewn these things to be true. How can our opponents hope to prevail against eye-witnesses by bare

negation? My testimony is borne out by the experience of such men as Albertus, Raymund, Ripplaeus, Flamellus, Morienus, and a host of others. I confess that the transformations of which I have spoken are not easy to accomplish, but whoever has the Key of our Art can unlock all gates, and has power over all the secrets of Nature. But this Key is possessed only by those who have both a theoretical and a practical knowledge of natural processes. I could here reckon up divers mutations of metals, as, for instance, Mars into Venus, by the acid stalagma of vitriol, Mercury into Saturn, Saturn into Jupiter, Jupiter into Lune, which operations, indeed, many vulgar chemists (far enough from the top of the art) know how to perform. I might also add what is known only to a few philosophers, that there is a secret substance intermediate between metals and minerals the mixed heavenly virtues of which produce a certain metal without a name, which is, strictly speaking, not a metal at all, but a Chaos, or Spirit, for it is all volatile: from this all metals can be educed without transmutatory Elixir, even gold, silver, and mercury. It is called Chalybs by the author of the " New Light," and it is the true key and first principle of our Art. What though the Sages have hidden all these things, and set them forth parabolically for the true sons of knowledge? Are they any the less true for that reason ?... All that is wanted for the perfect development of an imperfect substance, is the gentle, digestive action of a homogeneous agent. This agent is gold, as highly matured as natural and artificial digestion can make it, and a thousand times more perfect than the common metal of that name. Gold, thus exalted, radically penetrates, tinges, and fixes metals. This scientific fact we may illustrate in the

following manner. If you take six pounds of silver, and gild it with a single ounce of gold, you may afterwards draw out the silver into threads of the greatest fineness, and still distinctly perceive in each thread the brilliancy of gold. If then this dead, bodily, and earthy metal (which, as a body, of course, has no power to enter another body) can produce so wonderful an effect, does it seem incredible that the spirit of this gold, which can enter and animate the bodies of other metals, should transform them into its own nature ? If we had this spiritual tincture, is it not clear that it would do inwardly what the body of the gold is seen to do outwardly? Remember that our Tincture is the Quintessence of gold, and infinitely more perfect than the mere body of gold can ever be; and that it has, therefore, an infinitely greater power of diffusing its essential quality. If gold thus spiritually enters another metal, it will clearly assimilate it to its own nature. The method of this spiritual ingestion we shall describe further on. Let us only add in this place, where we are discussing the rationale of metallic transmutation, that seed is the perfection of any seed-bearing substance; that which has no seed is altogether imperfect. It is, then, as the poet sings: "Gold contains the seeds of gold, though they be deeply hidden." Gold is not only perfect, but the most perfect thing of its kind (ie., of metals). If gold has seed, it must be contained in water, which is the habitation of all spirits, seed being a certain spiritual means of conserving any species. If gold is to be dissolved for the purpose of educating its seed, the dissolution will have to take place by means of this same metallic water. When this dissolution takes place, the gold puts off its earthly form, and assumes a watery form. Now, gold being

both the starting point and the goal in the whole of this generative process, it is clear that all intermediate operations must be of a homogeneous character, ie., they must consist in gradual modifications of this seed of gold. The processes of our Art must begin with the dissolution of gold; they must terminate in a restoration of the essential quality of gold. But as the negative can never become the positive, the final form of our gold must be essentially different from its initial one. The final form is so much more noble than the initial one as fire is more subtle and spiritual than earth. What I have written is enough for the faithful student of our Art; and to its hostile and carping critics this book is not addressed. Therefore, I will now go on to add a word or two about the qualifications of those who should study this noble science. Our Art has fallen into disrepute, as I have said, through the stupidity and - dishonesty of many of its professors. They are ignorant mechanics who, not having skill and brains enough for an honest trade, must needs meddle with our Art, and, of course, soon lose all they possess. Others, again are only just less ignorant than these persons; they are in too great a hurry to make gold before they have mastered even the rudiments of natural science; of course they fail, spend all they have, borrow money from their friends, amuse themselves and others with hopes of infinite wealth, learn to talk a barbarous semiphilosophical jargon, and afford a capital handle to those who have an interest in abusing our Art. Again, there are others who really have a true knowledge of the secret, but who grudge others the light which has irradiated their own path; and who therefore write about it in hopelessly puzzling language, which the perplexed beginner cannot possibly understand. To this

class belong Geber, Arnold, and Lullius, who would have done much better service to the student, if they had never dipped pen in ink. The consequence is that every one who takes up this study at once finds himself lost in a most perplexing labyrinth of falsehood and uncertainty, in which he has no clue. I will therefore try to give him some sound advice as to the best way of accomplishing his object.

In the first place, let him carry on his operations with great secrecy in order that no scornful or scurrilous person may know of them; for nothing discourages the beginner so much as the mockery, taunts, and well-meant advice of foolish outsiders. Moreover, if he does not succeed, secrecy will save him from derision; if he does succeed, it will safeguard him against the persecution of greedy and cruel tyrants. In the second place, he who would succeed in the study of this Art, should be persevering, industrious, learned, gentle, good-tempered, a close student, and neither easily discouraged nor slothful; he may work in co-operation with one friend, not more, but should be able to keep his own counsel; it is also necessary that he should have a little capital to procure the necessary implements etc., and to provide himself with food and clothing while he follows this study, so that his mind may be undistracted by care and anxiety. Above all, let him be honest, God-fearing, prayerful, and holy. Being thus equipped, he should study Nature, read the books of genuine Sages, who are neither impostors nor jealous churls, and study them day and night; let him not be too eager to carry out every idea practically before he has thoroughly tested it, and found it to be in harmony not only with the teaching of all the Sages, but - also of

Nature herself. Not until then let him gird himself for the practical part of the work, and let him constantly modify his operations until he sees the signs which are described by the Sages. Nor let him despair though he take many false steps; for the greatest philosophers have learned most by their mistakes. For his guidance in these operations he will find all the light he requires in the following treatises.

CHAPTER II

Of the Origin of this Art and its Writers; its Fundamental Metallic Principles, and the Gradual Production of Metals and Minerals

Hermes, surnamed Trismegistus, is generally regarded as the father of this Art; but there are different opinions with regard to his identity. Some say he was Moses; all agree that he was a very clear-sighted philosopher, the first extant author on the subject, and was also of Egyptian extraction. Others say that Enoch invented the Art, and, before the coming of the Flood described it on the so-called emerald tables, which were afterwards found by Hermes in the valley of Hebron. Many assert that it was known to Adam, who revealed it to Seth; that Noah carried the secret with him into the Ark, and that God revealed it to Solomon. But I do not agree with those who claim for our Art a mystical origin, and thus only make it ridiculous in the eyes of a scornful world. If it is founded on the eternal verities of Nature, why need I trouble my head with the problem whether this or that antediluvian personage had a knowledge of it? Enough for me to know that it is now true and possible, that it has been exercised by the initiated for many centuries, and under the most distant latitudes; it may also be observed that though most of these write in an obscure, figurative, allegorical, and altogether perplexing style, and though some of them have actually mixed falsehood with truth, in order to confound the ignorant, yet they, though existing in many series of ages, differing in tongue and nation, have not diversely handled one operation, but do all exhibit a most marvellous and striking agreement in regard to the main features of

their teaching -- an agreement which is absolutely inexplicable, except on the supposition that our Art is something more than a mere labyrinth of perplexing words. Our Art is most plainly and straightforwardly expounded by Bernard of Trevisa, Ripley the English man, Flamellus the Frenchman, Sendivogius, the author of the "New Light," the anonymous author of the "Arcanum of Hermes," who also wrote Enchiridion Physicae Restitutae, and "The Ladder of Philosophers," the great "Rosary," the "Child's Play," the Tract of Dionysius Zachary, the works of Morienus, the works of Egidius de Vadis, Augurellus' poem entitled "Goldmaking," the works of Peter Bonus of Ferrara, and the "Abridged Rosary." Let the student procure one or more of these, and similar genuine works on Alchemy, and let him study the secrets of Nature by the light which they throw upon it. He will find a knowledge of natural science, and more particularly of mineralogy, indispensable for his purpose.

All philosophers tell us that there are four elements, which compose all things, and, by means of their diverse combination, produce various forms. But the truth is that there are only three elements, i.e., those which of their own nature are cold -- air, water, and earth. The defect of heat which we perceive in them is in proportion to their distance from the sun. Fire I do not acknowledge as an element. There is no fire, except the common fire which burns on the hearth; and its heat is essentially destructive. The heat there is in things is the product either of light, or motion, or life, or alterative processes. Fire is not an element, but a robber that preys on the products of the four elements; it is a violent

corruptive motion caused by the clashing of two active principles. Thus, we see that it is an operation of two other substances, not a substance in itself -- a result of the active co-operation of a comburent and a combustible. The nature and characteristic quality of the three elements is cold, and they possess heat only as an accident... Nor is it true that objects are formed by a mixture of these three elements; for dissimilar things can never really unite, seeing that union is a complete mixture and concretion of the smallest atoms or molecules of two substances. But such a mixture is impossible in the case of two dissimilar matters, as, for instance, between water and earth (or water and wine); they admit of being separated at any time on account of the disproportion of their smallest particles. It may be said that for the sake of union the grosser element becomes as subtle as the other; but if this were the case, if for the purpose of union water became as subtle as air, that would simply mean that water became air, an assumption which would thus fail to prove the possibility of an amalgamation of water and air. Is it not a simpler and more credible supposition that only water or air, as the case may be, enters into the composition of any given object? But if any one still persists in maintaining this permutation of the elements (which, after all, would only mean that all things consist of air) -- let me ask the humble question -- by the activity of what agent they are so transmuted? Moreover, one would also be glad to enquire what is the use of this permutation of earth into water, and of water into air? What can earth converted into water, or water converted into air, perform, that could not be just as well accomplished by simple unchanged water or air? Surely, Nature does nothing in vain: I but here would be a

difficult and wasteful process of transmutation constantly going on, which is not calculated to serve any useful purpose whatsoever. If it be said that earth rarefied into water is like water, yet not exactly water, my answer is that this is a mere quibble about words, and that if the rarefied earth is only like water, and not really water, it cannot possibly combine with it in its smallest particles; so nothing is gained by this hypothesis. Hence we may conclude that all things derive their origin from one element, which can be neither earth nor air. This I could prove at great length if I were not cramped for space. It follows, then, that water must be the first principle of all things, i.e., of all concrete bodies in this world; earth is the fundamental element in which all bodies grow and are preserved; air is the medium into which they grow, and by means of which the celestial virtues are communicated to them. The seed of all things has been placed by God in water. This seed some exhibit openly, like vegetables, some keep in their kidneys, like animals; some conceal in the depths of their essential being, like metals. The seed is stirred into action by its form (i.e., a certain appropriate celestial influence) coagulates the material water, and passes through a series of fermentative processes (fermentation being the principle of all transmutation), until it has produced that for the production of which it was specially suited. If the seed is metallic, there; generated from it first a dry liquid, which does not wet the hand viz., Mercury, the mother of all metals. Mercury may be described as the true first matter of metals; for not until the elemental water has become Mercury can it be affirmed with any degree of certainty that a metal or mineral must result from it.

Water is, in itself, potentially the seed of either an animal vegetable, or mineral; but Mercury is metallicly differentiated water, ie., it is water passed into that stage of development, in which it can no longer produce anything but mineral substances. Mercury, then, is the common seed of gold, silver, copper, tin iron, lead, etc.; their difference is only to be sought in the degree of their digestion. The digestive is not any fat sulphur which is brought to bear on them from without; but Mercury contains within itself the active principle of its development, viz., the inward heat due to celestial influences, causing vitality, and dependent on the fitness of the womb. These heavenly influences are at work throughout the world; but their exact mode of action is determined by the potential nature of the seed; if the inward life be metallic, the course of its development by means of outward agents will also be metallic. Still Mercury develops only where these outward influences (celestial and terrestrial) can be brought to bear. In every other place it will appear a cold, dead, and lifeless substance. But in the centre of its nativity it is quickened by the action of celestial influences, conveyed to it through the medium of air, whence results heat, wherewith life is necessarily associated. Now, the womb in which this Mercury is placed, is either more, less, or not at all suited to it; and according to the different degrees of this fitness, the substance either remains altogether stationary, or is more or less perfectly developed; imperfection of development yields the imperfect metals, while by means of perfect development are produced silver and gold; but all metals, though differentiated by the degree of their digestion or maturity, have the same first

substance, viz., Mercury. The dross and impurities which are largely found in the base metals, form no part of the original Mercury but are added afterwards through some flaw in the process of coagulation, or through the impurity of the place or womb in which their metallic generation (fermentation) takes place. But I will now go on to deal with the special subject of this Treatises, viz., . the renovation or multiplication of gold and silver.

CHAPTER III

Of the Generation of Gold and Silver from the Mercurial Substance, and the Possibility of bringing Imperfect Metals to the same State of Perfection

To the aforesaid source (Mercury) we trace the birth of gold, and of its sister, silver; they represent this substance brought to perfection by means of digestion. Perfection is of two kinds, inchaotive or complete, partial or entire. Complete perfection (the complete digestion of all crudities and elimination of all impurities) is the ultimate aim of Nature; and she has reached it in our gold, which with its brilliancy lights up the whole earth. Inchaotive perfection may be so named, not absolutely but relatively, when compared with essentially imperfect bodies. Those bodies are formally or essentially imperfect in the composition of which the impure predominates over the pure, so that they could never of themselves (by natural development attain perfection; this is the case with all metals except gold and silver. But whenever the pure is freed from the corruptive tyranny of the impure, and obtains the mastery over it, we have inchaotive perfection, though the development of the body may be still incomplete. These crudities and impurities do not originally belong to the metallic substance, and are very well capable of being separated from it; if they are so purged off before coagulation, we get a perfect metal. But even if they are coagulated together with the Mercury, it is still possible to separate them from it, and thus to perfect the Mercury. It is on this possibility that our Art is based; and its business is to perform this separation. The base metals contain the same mercury as gold; if we can

free this Mercury from the impurities which hinder its development, it must also go on to perfection, i.e., become gold. If we could find some separating agent which would perform this office for the impure minerals, it would also be a digestive, i.e., it would quicken the inward metallic digestion of the long-entombed Mercury. Such a separant is our divine Arcanum, which is the heavenly spirit of water with fiery penetrative power. Compared with common gold, it is what the soul is in comparison of the body; and having attained the highest degree of corporeal fixity, it takes up the Mercury of the base metals into its own nature, and protects it from the fire while the impurities are being burnt up. The Mercury of the base metals (unlike the Mercury of gold), if exposed to the fire without such protection, would not be able to encounter the searching ordeal, but (having no cohesion with its impure body and possessing no fixity in itself) would simply evaporate, and leave the impurities to be burned. But our Arcanum, being both a spiritual and a homogeneous substance, is capable of entering into a perfect atomic union with the imperfect metals, of taking up into its own nature that which is like to it, and of imparting to this Mercury its own fixity, and protecting it from the fire, so when the fire has burnt up all the impurities, that which is left is, of course, pure gold or silver, according to the quality of the Medicine -- which from that time forward is (like all other gold and silver) capable of resisting the most searching ordeal. So you see we do not, as is sometimes said, profess to create gold and silver, but only to find an agent which -- on account of its homogeneity and spirituality -- is capable of entering into an intimate (atomic) and maturing union with the Mercury of the base metals. And we contend that

our Elixir is calculated, by the intense degree of its fixity and colour, to impart these qualities to any homogeneous substance which does not possess them.

CHAPTER IV

Of the Seed of Gold; and whether other Metals have Seed

Seed is the means of generic propagation given to all perfect things here below; it is the perfection of each body; and anybody that has no seed must be regarded as imperfect. Hence there can be no doubt that there is such a thing as metallic seed. If metals have seed, they certainly do not lose it in coagulation, which is the effect of perfection (or rather of perfect conditions). Now, in all seed-bearing things maturity means the perfect development of the seeds, and it stands to reason that metallic seed is therefore most certainly not destroyed by coagulation (the maturing process). If it be asked whether all metals have seed, my answer is, that the seed of all metals is the same; but that in some it is found nearer to, and in some further from the surface. All metallic seed is the seed of gold; for gold is the intention of Nature in regard to all metals. If the base metals are not gold, it is only through some accidental hindrance; they are all potentially gold. But, of course, this seed of gold is most easily obtainable from well-matured gold itself. Hence it would be lost labour to endeavour to obtain it from tin or lead by some laborious process, when it may be more readily obtained from gold itself. Remember that I am now speaking of metallic seed, and not of Mercury. Lead is to be multiplied, not in lead, but only in gold; for only when it attains its maturity as gold can its seed become fruitful. It may be admitted that silver has its own seed, as there is a white (as well as a red) multiplicative Tincture. Still, the White Tincture is really contained in the Red;

and the seed of silver is nothing but a modification of that of gold. The whiteness of silver is the first degree of perfection, the yellowness of gold is the second, or highest degree. For the mother of our Stone (the silver of the Sages) is white, and imparts its whiteness to our gold, whence the offspring of these two parents first becomes white, like its mother, and then red with the royal blood of its father.

CHAPTER V

Of the Virtue of Golden Seed, and where it is most readily found

In order that we may obtain this means of perfecting imperfect metals, we must remember that our Arcanum is gold exalted to the highest degree of perfection to which the combined action of Nature and Art can develop it. In gold, Nature has reached the term of her efforts; but the seed of gold is something more perfect still, and in cultivating it we must, therefore, call in the aid of Art. The seed of metals is hidden out of sight still more completely than that of animals; nevertheless, it is within the compass of our Art to extract it. The seed of animals and vegetables is something separate, and may be cut out, or otherwise separately exhibited; but metallic seed is diffused throughout the metal, and contained in all its smallest parts, neither can it be discerned from its body: its extraction is therefore a task which may well tax the ingenuity of the most experienced philosopher; the virtues of the whole metal have to be intensified, so as to convert it into the sperm of our seed, which, by circulation, receives the virtues of superiors and inferiors, then next becomes wholly form, or heavenly virtue, which can communicate this to others related to it by homogeneity of matter. In respect of the Stone, the whole of gold is its substance. The place in which the seed resides is -- approximately speaking -- water; for, to speak properly and exactly, the seed is the smallest part of the metal, and is invisible; but as this invisible presence is diffused throughout the water of its kind, and exerts its virtue therein, nothing being visible to the eye but water, we are

left to conclude from rational induction that this inward agent (which is, properly speaking, the seed) is really there. Hence we call the whole of the water seed, just as we call the whole of the grain seed, though the germ of life is only a smallest particle of the grain. But the seminal life is not distinct from the remaining substance of metals; rather, it is inseparably mingled with the smallest parts of the body. Roughly speaking, however, we describe the whole of our golden water as the seed of gold, because this seminal virtue pervades it in a most subtle manner. This seminal virtue the ancient Sages called the hidden ferment, the poison, or the invisible fire; again, they said that it was fire, or that fire resided in the water; they distinguished between soul and spirit, of which the former is the medium, the latter the active virtue. If anyone wonders that we describe water as the seat of the seed, or the seminal spirit, let him remember that in the beginning the Spirit of God moved on the face of the waters, i.e., penetrated them with His heavenly quickening power. Thus, from the very first day of Creation, water has been the source and element of all things. For water alone contains the seeds of all things; yet in vegetables they are put forth in crude air; in animals they are preserved in the kidneys; while in minerals they are diffused throughout the whole substance; nevertheless, seed can never leave its original seat (i.e., water). Things are preserved by that from which they derive their origin; for the cause of their origin being removed, the things which are the effect must also cease to exist; hence the multiplication and nutrition of all things is in water and through water. Vegetables are generated and nourished by the aqueous Teffas of the earth; animals by the liquid

chyle; metals by the mercurial liquid. Animals preserve their seed in their kidneys, and in due time project it into the proper womb, where it is first moulded into a tender and very compacted foetus; this fetus is nourished by the liquid female menstruum, and thus grows until the time comes for it to be born. Then it is nourished with milk until it can bear stronger food; but this solid food does not become real nutriment until the stomach has converted it into a liquid chyle (as, for instance, bones in the stomach of the dog). In the same way the metals keep their perfect seed where it cannot be seen; but even there it is preserved in water. Thence the Artist extracts it, puts it into its own proper womb, where it is cherished and grows, until (by means of corruption) it attains to its glorification. This is a most difficult operation, because the Metals, in which the seed is hidden, are so firmly and tightly compacted, and will not yield to violence, but only to a gentle and exquisitely subtle chemical process. Then I say to you, that there is a womb into which the gold (if placed therein) will, of its own accord, emit its seed, until it is debilitated and dies, and by its death is renewed into a most glorious King, who thenceforward receives power to deliver all his brethren from the fear of death.

CHAPTER VI

Of the Mode and Means of Extracting this Seed

That the most beautiful things are the most difficult to produce is the experience of all mankind; and it is not to be wondered at, therefore, that the most glorious of sublunary operations is attended with a very great amount of difficulty. If any student of this Art is afraid of hard work, let him stop with his foot upon the threshold. When, indeed, the Father of Lights has entrusted the Key of the Art to any man, that which remains to be done is mere child's play; his eyes are ravished with the sight of the most glorious signs, until the time of harvest arrives. Without this, error and vexation will be the result. Therefore the wise man, before commencing the work, will be chiefly solicitous of knowing it by its marks. Let the sons of knowledge learn that the great object of our Art is the manifestation of the hidden seed of gold, which can be effected only by full and perfect volatilisation of that which is fixed, and the subsequent corruption of its particular form. To break up gold in this way is the most profound secret in the world. It is not brought about by corrosive depravation of the metal, nor by the usual method of dissolution, but by our philosophical solution of the metal into mercurial water, by means of a previous mercurial calcination (made by means of the agent), which is produced through the subtle rotation and conversion of the elements; this calcination, again, is a mortification of our homogeneous liquid with the dry element belonging to it; afterwards the dry is so far revived by means of this same liquid, that the perfectly matured virtue, extracted from the substance by the solvent, is the cause of this calcination and solution. Here, then, there is no room for the action of a corrosive. Gold, which is the most solid, strong, fire-proof, and fixed of all substances, is to be volatilised, and no mere corrosive will accomplish such a perfect change of nature. The mighty agent required for this purpose must be homogeneous, amicable, and spiritual, i.e., it must be akin to the body (of gold), and yet strong enough to overcome it; and penetrate to its very core, still leaving each smallest part of the gold true gold. Gold does not easily give up its nature, and will fight for its life, but our agent is strong enough to overcome and kill it, and then it also has power to restore it to life, and to change the lifeless remains into a new pure body.

CHAPTER VII

Of the First Agent or Womb, into which our Seed should be emitted and where it is matured

There remains to be found an Agent, by means of which the aforesaid operation may be performed. For this purpose we require a homogeneous water. For we have seen that the seed Of gold is concealed, and can remain effectual only in water, and this water must be homogeneous with the body, or else it could not penetrate all the thick integuments by means of which this seed is secured. For like generates like, that is to say, every agent that exercises a generative action upon anything, transmutes it (as far as possible) into its own nature. The Agent then must be akin to the body which is to be dissolved, and, moreover, perfectly pure from all dross or alloy. Again, whereas gold is fixed and solid, the Agent must be highly volatile and spiritual; gold is thick and gross, our Agent is subtle gold is dead our Agent is living and life-giving: in short, our Agent should have all those qualities which gold has not, and which it is to impart to the gold. Hence we conclude that Mercury alone is the true Key of our Art; for it is in truth the dry water described by the Sages, which, though liquid, does not wet the hands, nor anything else that does not belong to the unity of its substance. Mercury is our doorkeeper, our balm, our honey, oil, urine, may-dew, mother, egg, secret furnace, oven, true fire, venomous Dragon, Theriac, ardent wine, Green Lion, Bird of Hermes, Goose of Hermogenes, two-edged sword in the hand of the (Cherub that guards the Tree of Life, &c., &c.; it is our

true, secret vessel, and the Garden of the Sages, in which our Sun rises and sets. It is our Royal Mineral, our triumphant vegetable Saturnia, and the magic rod of Hermes, by means of which he assumes any shape he likes. It is of this water that the Sage uses the words: "Let Alchemists boast as much as they like, but without this water the transmutation of metals is impossible. In Nature it is not such as we use it in our Art; it is a most common thing, and yet the most precious treasure of all the world... Therefore, Son of Knowledge, pay diligent heed to my words: Take that which in itself is most impure, the strumpet woman, purge it radically of all its uncleanness, and extract from it that which is most pure, namely, our menstruum (solvent), the Royal Diadem." Behold, I have told you in a few words that which ennobles the Sage, delivers him from error, and leads him to the most beautiful meadow of delights... The Arcanum which we seek is nothing but gold exalted to its highest degree of perfection, through the operation of Nature assisted by our Art. When the sperm hidden in the body of gold is brought out by means of our Art, it appears under the form of Mercury, whence it is exalted into the quintessence which is first white, and then, by means of continuous coction becomes red. All this is the work of our homogeneous Agent our Mercurial Ponticum, which is pure crystalline without transparency, liquid without humectation, and, in short, the true Divine water, which is not found above-ground, but is prepared by the hand of the Sage, with the co-operation of Nature, which we know, have seen, have made, and still possess which also we desire to make known to the true students of our Art, while it is our wish to hide it only from the unworthy.

CHAPTER VIII

Concerning the Genealogy of the Mercury of the Sages, its Origin, Birth, and the Signs which precede and accompany it

Some boastful and arrogant sophists, who have read in books that our Mercury is not common Mercury, and who know that it is called by different names, do not blush to come forward as pretenders to a knowledge of this Art, and take upon themselves to describe this solvent as diaphanous and limpid, or as a metallic gum which is permiscible with metals, though they do not in reality know anything whatsoever about it. The same may be said of those who would extract our Mercury from herbs or other still more fantastic substances. These gentry know not why the Sages do not use Mercury such as is sold by apothecaries as their substance. They are aware of the fact, but are unacquainted with its causes; and the consequence is the idea which they have that anything which changes the nature of common Mercury, will convert it into that of the Sages. But in regard to these foolish persons, I have already expressed our opinion... All metals, as I demonstrated in the second chapter, have the same substantial principle, viz., Mercury. From this proposition it follows that the substance of common Mercury is homogeneous with that of all the other metals, and if the Mercury of the Sages be the homogeneous metallic water, it can differ from common Mercury only in respect of its purity and heat. The first substance of common Mercury is that of all other metals, viz., our Mercury. So long as it remains in the veins of the earth, in a place perfectly adapted to its generation,

and is sheltered from crude air, it retains its inward movement and heat, which are the cause of all metallic development. But if it be marred by any accident, or if the place become unfit for it, the inward movement is stopped, and the germinal life chilled like that of an egg which a hen has left after sitting on it for some time. This is the reason why those who have attempted to digest common Mercury by means of artificial heat have failed as ludicrously as any one who should endeavour to incubate artificially an addled egg. The difference between the egg and the metal is that our Art is capable of making good the damage, but not by artificial means. We have a crude, undigested, frigid, unmaturred metallic mass, which wants the form of our Mercury, for which it must exchange its own, if it is to become that which we seek. With this end in view, its deficiencies are twofold; its nature is clogged with superfluous foreign matter, and it does not possess the requisite spiritual virtue. Its superfluities consist of earthy leprosy, and aqueous dropsy. Its deficiency is one of true sulphureous heat, by means of which it would be enabled to purge off these superfluities. Water, indeed, is the womb, but no womb can receive a vital germ without warmth. Supplement your (common) Mercury, therefore, with the inward fire which it needs, and it will soon get rid of all superfluous dross. If you can do this, you have accomplished the great feat of the Sages. Jupiter has recovered his empire; the black clouds of Saturn are dispersed, and the sparkling fountain wells forth clear and pure. This substance will dissolve gold by means of a true philosophical solution, which is as different as can be from that foolish use of corrosives which only destroy the metallic nature. This Mercury (with) gold and silver

naturally produces the Arcanum, or potable gold, as all adepts know and can testify.

Here I conclude this Tract, as all that remains to be said is set forth in a special (the next) Treatise.

Brief Guide to the Celestial Ruby

**Concerning the Philosopher's Stone and its Grand Arcanum
The Philosopher's Stone is a certain heavenly, spiritual,
penetrative, and fixed substance, which brings all metals
to the perfection of gold or silver (according to the
quality of the Medicine), and that by natural methods,
which yet in their effects transcend Nature.**

It is prepared from one substance, with which the art of chemistry is conversant, to which nothing is added, from which nothing is taken away, except that its superfluities are removed. No one will question the utility of our Art, if he believes that it enables us to transmute base metals into gold. That base metals are capable of such transmutation is clear; Nature has destined them all to become gold, but they have not been perfectly matured. If, then, that which hinders their perfect digestion be removed, they will all become gold; for crude, cold, and moist Mercury is the common first substance of gold as well as of the other metals. Hence all other metals may be perfected into gold, by the aid of our Divine Magistry, which, being projected upon imperfect metals, has power to quicken the maturing process by as much as itself exceeds the standard maturity of gold. How patent, then, must the spiritual nature of our Stone be, which can effect more in one hour by a bare projection than Nature in the course of ages. If that substance which Nature supplies be taken in hand by Art, dissolved, coagulated, and digested, its perfection is increased from a monadic to a denary virtue;

by repeating the same process, it is increased a hundred-fold, and then a thousand-fold, etc. This wonderful Medicine penetrates each smallest part of the base metals (in the proportion of 1::1,000) and tinges them through and through with its own noble nature: your arithmetic will fail sooner than its all-prevailing power. Each smallest part that is pervaded with the vitalizing power of the Elixir in its turn tinges that part which is nearest to it until the whole mass is leavened with its marvellous influence, and brought to the perfection of gold. This is done in a very short time, on account of the spiritual nature of the agent; it is the true metallic fire, and as a common fire warms even those parts of any object which are not in immediate contact with the fire, so this Elixir penetrates dissolved and melted metals in a moment of time—just in the same way as the virtue of leaven or yeast is brought to bear even upon those parts of the meal which it never reaches. A reproach is sometimes levelled at our Art, as though it claimed the power of creating gold; every attentive reader; of our former tract will know that it only arrogates to itself the power of developing, through the removal of all defects and superfluties, the golden nature, which the baser metals possess in common with that highly-digested metallic substance.

Listen, then, while I make known to you the Grand Arcanum of this wonder-working Stone, which at the same time is not a stone, which exists in every man, and may be found in its own place at all times. The knowledge which I declare is not intended for the unworthy, and will not be understood by them. But to you who are earnest students of Nature God will, at His own time, reveal this glorious secret.

I have shewn that the transmutation of metals is not a chimerical dream, but a sober possibility of Nature, who is perfectly capable of accomplishing it without the aid of magic and that this possibility of metallic transmutation is founded upon the fact that all metals derive their origin from the same source as gold, and have only been hindered from attaining the same degree of maturity by certain impurities, which our Magistry is able to remove. Let me tell you, then, what is the nature of this grand arcanum, which the Sages have called the Philosopher's Stone, but which is in every man, in every thing, at every season of the year, if it be sought in the right place.

It must consist of the elements, for they are the universal substance of all things, and as it is of a nature homogeneous with that of gold, it must be that which contains the qualities of all elements in such a combination as to render it incapable of being destroyed by fire. It follows, then, that you must look for the substance of our Stone in the precious metals, since the required combination of elements is not found anywhere else. Those foolish sophists who seek it outside the domain of metals will never arrive at any satisfactory conclusion. For there is only one true principle, and nothing heterogeneous must be introduced into our Magistry.

For as a lion is always born of a lion, and a man of a man, so all things owe their birth to that which they are like; that which is combustible is derived from that which is combustible, that which is indestructible from that which is indestructible. Nor must we expect to find the principle

which imparts the qualities of gold anywhere but in gold itself. If, indeed, we were able to create the sperm of things, we might hope to evolve this metallic principle from plants or animals which do not contain it; but that is the privilege of God alone. We must be content to dispose and develop the sperm which is made ready to our hands—new things we are unable to produce, and even if we could, our artificial seed would be no better than that which Nature has provided. If any one calling himself a Sage cannot use the things which are already created, it does not seem likely that he will be able to create new things out of heterogeneous substances—the seeds of metals out of herbs or animals.

Thus, you see that the Stone which is to be the transformer of metals into gold must be sought in the precious metals, in which it is enclosed and contained.

But why is it called a Stone, though it is not a stone; and how is it to be found? The Sages describe it as being a stone and not a stone; and the vulgar, who cannot imagine how so wonderful a thing should be produced except by art-magics decry our science as impious, wicked, and diabolical. Some silly persons clamour for an Act making the profession or practice of this Art punishable by statute law. Now, one can hardly be angry with the illiterate and ignorant persons who raise this cry; but when it is taken up by men of exalted station and profound learning, one hardly knows what to say. These men I also reckon among the rude multitude, because they are deplorably ignorant of everything pertaining to our Art, and yet, forgetful of their dignity, they join in the hue

and cry against it, like so many cowardly village curs. It is neither religious nor wise to judge that of which you know nothing; and yet that is exactly what these people do, who claim to be both Christians and scholars.

But let us return to the point from which we strayed. Some Alchemists who are in search of our Arcanum seek to prepare something of a solid nature, because they have heard the object of their search described as a Stone.

Know, then, that it is called a stone, not because it is like a stone, but only because, by virtue of its fixed nature, it resists the action of fire as successfully as any stone. In species it is gold, more pure than the purest; it is fixed and incombustible like a stone, but its appearance is that of very fine powder, impalpable to the touch, sweet to the taste, fragrant to the smell, in potency a most penetrative spirit, apparently dry and yet unctuous, and easily capable of tinging a plate of metal. It is justly called the Father of all miracles, containing as it does all the elements in such a way that none predominates, but all form a certain fifth essence; it is thus well called our gentle metallic fire. It has no name of its own; yet there is nothing in the whole world whose name it might not with perfect propriety bear. If we say that its nature is spiritual, it would be no more than the truth; if we described it as corporeal, the expression would be equally correct; for it is subtle, penetrative, glorified, spiritual gold. It is the noblest of all created things after the rational soul, and has virtue to repair all defects both in animal and metallic bodies, by

restoring them to the most exact and perfect temper;
wherefore is it a spirit or quintessence.

But I must proceed to answer the second and more important part of my question. How is this Stone to be obtained? It does not exist in Nature, but has to be prepared by Art, in obedience to Nature's law. Its substance is in metals; but in form it differs widely from them, and in this sense the metals are not our Stone. For if we would elicit our Medicine from the precious metals, we must destroy the particular metallic form, without impairing its specific properties. The specific properties of the metal have their abode in its spiritual part, which resides in homogeneous water. Thus we must destroy the particular form of gold, and change it into its generic homogeneous water, in which the spirit of gold is preserved; this spirit afterwards restores the consistency of its water, and brings forth a new form (after the necessary putrefaction), a thousand times more perfect than the form of gold which it lost by being reincrudated.

It is necessary, then, to reduce metallic bodies to their homogeneous water which does not wet the hands, that from this water there may be generated a new metallic species which is nobler by far than any existing metal, viz., our Celestial Ruby.

The whole process which we employ closely resembles that followed by Nature in the bowels of the earth, except that it is much shorter. Nature produces the metals out of cold and humid Mercury by assiduous digestion; our Art takes the same crude, cold, and humid Mercury, and conjoins with it

mature gold, by a secret artifice; the mixture represents a new and far more potent Mercury, which, by digestion, becomes not common gold, but one far more noble, which can transmute imperfect metals into true gold.

Thus, you see that though our Stone is made of gold alone, yet it is not common gold. In order to elicit our gold from common gold, the latter must be dissolved in our mineral water which does not wet the hands; this water is Mercury extracted from the red servant, and it is capable of accomplishing our work without any further trouble to the Artist. It is that one true, natural, first-substance, to which nothing is added, from which nothing is subtracted, except certain superfluties, which, however, it will cast off without any aid by its own inherent vital action. The chief object of your perseverant efforts should be the discovery of this Mercury, or the albification of our red Laton; all the rest is mere child's play, as the Artist has only to look on while Nature gradually matures his substance.

But remember that our albification is by no means an easy task. Gold which has been thus whitened can never resume its old form, for, instead of being corporeal and fixed, it is now spiritual and volatile. Concentrate your whole mind, therefore, on the whitening of the Laton. It is easier to make gold than thus to destroy its form; he who so dissolves it may be said rather to coagulate it-for dissolution of the body and coagulation of the spirit are coincident in it.

Consider these signs, ye sons of knowledge. That which dissolves is spirit; that which coagulates is body. A body cannot enter a body so as to cause dissolution; but a spirit can enter it, attenuate and rarefy it; and as you seek water, you need water to bring it to light; for every Agent has a tendency to assimilate to itself that which it acts upon, and every natural effect is conformed to the nature of the efficient; hence water is necessary if you would extract water from earth.

When I speak of water, I do not mean aquafortis, royal water, or any other corrosive whatsoever, for these waters, instead of dissolving metals, only corrode, mar, and corrupt them, without destroying their old form, to which task they are insufficient, as they are not of a metallic nature. No, our water is the water Mercury, which dissolves homogeneous metallic bodies, and mingles with them in indissoluble union, abides with them, is digested with them, and together with them becomes that spiritual whole which we seek. For everything that dissolves a substance naturally (still preserving the specific properties of the thing dissolved) becomes one with it both materially and formally, coalesces with it, and is thickened by it, thus nourishing it; as we see in the case of a grain of wheat, which, when dissolved by the humid earthy vapour, thereby takes up that vapour as its radical moisture, and grows together with it into a plant. We may also observe that, every natural dissolution being a quickening of that which was dead, this quickening can take place only through some vital agent which is of the same essence with the dead thing; if we wish to quicken the (dead) grain of wheat, we can do this only by means of an earthy vapour, which, like

the grain itself, is a product of the earth. For this reason common Mercury can have no quickening effect on gold, because it is not of the same essence with it. A grain of wheat sown in marshy soil, so far from being quickened into life, is, on the contrary, destroyed, because the aqueous humour of the soil is not of the same nature. In like manner, gold, if mixed with common Mercury, or with anything except its own essential humour, is not dissolved, because such waters are too cold, crude, and impure; for which reason, being utterly unlike gold, they cannot amalgamate with it, or attain with it to a far nobler degree of development. Our Mercury, indeed, is cold and unmatured in comparison with gold; but it is pure, hot, and well-digested in respect of common Mercury, which resembles it only in whiteness and fluxibility. Our Mercury is, in fact, a pure water, clean, clear, bright, and resplendent, worthy of all admiration.

If you wish for a more particular description of our water I am impelled by motives of charity to tell you that it is living, fluxible, clear, nitid, as white as snow, hot, humid, airy, vaporous, and digestive, and that gold melts in it like ice in warm water; moreover, that in it is contained the whole regimen of fire, and the sulphur which exists but does not predominate in it. This water is the true Keeper of our Gates, the Bath of the King and of his Queen, which warms them incessantly, but is not taken of their substance, and is distinct from the whitening substance of the water, though the two are united and appear under the same flowing form and colour. It is our vessel, our fire, the abode of our furnace, by whose continuous and gentle warmth the whole substance is

digested. If you know this water, it will be seen to contain all our fires, all our proportions of weight, all our regimens. It is Bernard of Trevisa's clear pellucid Fountain, in which our King is cleansed and strengthened to overcome all his foes. All you have to do is to find this water and to put into it the purified body; out of the two Nature will then produce our Stone.

This mineral water can be extracted only from those things which contain it; and that thing from which it is most easily obtained is difficult to discover, as is also the mode of its extraction. It dissolves gold without violence, is friendly to it washes away its impurities, and is white, warm, and clear Without our Mercury, Alchemy could not be a science, but only a vain and empty pretence. If you can obtain it, you have the key of the whole work, with which you can open the most secret chambers of knowledge. Its nature is the same as that of gold, but its substance is different, and the preparation of it causes a great stench. Weigh well the possibilities of Nature; refrain from introducing any heterogeneous element into our Magistry, and do not blame me if you fail to understand my words. . Our Stone is produced from one thing, and four mercurial sub-. stances, of which one is mature; the others pure, but crude, two of them being extracted in a wonderful manner from their ore by means of the third. The four are amalgamated by the intervention of a gentle fire, and there subjected to coction day by day, until they all become one by natural (not manual) conjunction.

Afterwards, the fire being changed, these volatile substances should be fixed and digested by means of heat

which becomes a little more powerful every day (i.e., by means of fixed and incombustible Sulphur of the same genus) until the whole compound attains the same essence, fixity, and colour.

There are twelve degrees or phases of this our process, which I may briefly enumerate and describe as follows. The first is Calcination.

Calcination is the first purgation of the Stone, the drying up of its humours, through its natural heat, which is stirred into vital action by the external heat of water-whereby the compound is converted into a black powder, which is yet unctuous, and retains its radical humour.

This calcination is performed for the purpose of rendering the substance viscous, spongy, and more easily penetrable; for gold in itself is highly fixed, and difficult of solution even in our water; but through this calcination it becomes soft and white, and we observe in it two natures, the fixed and the volatile, which we liken to two serpents. In order that a full dissolution may be made, there is need of contrition, that calcination may afterwards produce a viscous state, when it will be fit for dissolution.

When the substances are first mixed, they are at enmity with each other, by reason of their contrary qualities, for there is the heat and dryness of the Sulphur fiercely contending with the cold and moisture of the Mercury. They can only be reconciled in a medium which partakes of both natures, and the medium in which heat and cold are reconciled is dryness which can co-exist with both. Thus

cold and heat are brought to dwell peaceably together in the dryness of the earth, and dryness and moisture in the coldness of the water. This reconciliation of contrary qualities is the second great object of our calcination.

Its sufficient cause is the action of the inward heat upon the moisture, whereby everything that resists it is converted into a very fine powder; the moving and instrumental cause is the fire contrary to Nature, which, being hidden in our solvent water, battles with its moisture and digests it into a viscous or unctuous powder.

This operation takes place before our dissolution, because whenever bodies are dissolved, the spirits in their turn are congealed. Again, the woman must reign, before she is overcome by the man. The dominion of the woman is in the water, and if the man overcome her in the element in which both her qualities of coldness and moisture inhere, he will easily conquer her where she has only one quality.

Calcination, then, is the beginning of the work, and without it there can be neither peaceable commixtion nor proper union. The first dealbation reduces the substance to its two principles, sulphur and quicksilver, the first of which is fixed, while the other is volatile. They are compared to two serpents, the fixed substance to a serpent without, and the volatile substance to a serpent with, wings. One serpent holds in his mouth the tail of the other, to shew that they are indissolubly conjoined by community of birth and destiny, and that our Art is accomplished through the joint working of this Mercurial Sulphur, and sulphureous Mercury. Hence the whole compound

is at this stage called Rebis, because there are two substances but only one essence. They are not really two, but one and the same thing the Sulphur is matured and well digested Mercury, the Mercury is crude and undigested Sulphur. It has already been said that in our Art we imitate Nature's method of producing metals in the bowels of the earth, except that our method is shorter and more subtle. In metallic veins only crude and frigid Mercury is found, in which the inward heat or dryness (i.e., Sulphur) can scarce make its influence felt. No digestive heat is found there, but in the course of ages an imperceptible motion changes this metallic principle. In the course of centuries, however, this imperceptible digestive heat changes the Mercury into what is then called fixed Sulphur, though before it was denominated Mercury.

But in our Art, we have something besides crude and frigid Mercury, viz., mature gold, with its manifold active qualities. These are united to the passive qualities of our Mercury; and so one aids and perfects the other, and as we have two fires, instead of the one slow inward fire of Mercury, the operation is more expeditious, and something far nobler than common gold is produced.

Thus you see that in our Art we have two Sulphurs and two Mercuries (i.e., Sulphur, and Mercury of Mercury, and Sulphur and Mercury of gold), but their only difference consists in degrees of perfection and maturity. Now, the perfect body of gold is reduced to its (two) first principles by means of our Divine water which does not wet the hands (viz., Mercury and Sulphur). This operation for a time gives the ascendancy to the female agent; but this

being unnatural, the male agent soon reasserts itself, and by means of its heat dries up the moisture of the female agent, and-through calcination-converts it all into a most subtle and viscous powder, which powder is then changed by dissolution into a water, in which the spirits of the solvent and the thing dissolved, the male and the female principles, are mingled. But the inward heat, which has once been roused into action, still continues to work, separating the subtle (which floats on the surface) from the gross (which sinks to the bottom), until the man has gained the upper hand, the inseparable union takes place, and the male impregnates the female; the female brings forth a nebulous vapour, in which they are putrefied and decay, and from which both arise with a glorious body, no longer two, but only one by inseparable conjunction. This new birth is then coagulated, sublimed, nourished, and exalted to the highest degree of perfection, and may afterwards be indefinitely multiplied by fermentation, and used both for projection and as an Universal Medicine. We see, then, that these black and fetid ashes are not to be despised, since they contain the Diadem of our King; your substance will never be white, if it has not first been black. It is by means of putrefaction and decay that it attains the glorified body of its resurrection. Therefore, you should honour the tomb of our King, for unless you do so, you will never behold him coming in his glory.

A great many students make a mistake at the very outset by performing this calcination on a wrong substance-borax, or alum, or ink, or vitriol, or arsenic, or seeds, or plants, or wine, vinegar, urine, hair, blood, gum, resin, etc; or they choose a false method, and corrode instead of

calcining the metallic bodies on which they operate. Calcination can take place only by means of the inward heat of the body, assisted by friendly outward warmth; but calcination by means of a heterogeneous agent can only destroy the metallic nature, in so far as it has any effect at all. Every calcination of gold, which is not succeeded by a spontaneous dissolution, without laying on of hands, is also fallacious.

The true calcination is by means of Mercury, which (being added to gold in due proportions) softens and dissolves the gold, and, by its inward heat, united to outward heat, stirs into action the native heat of the gold, and thus causes it to dry up its humidity into that fine, viscous, black powder. And this is the true key of the work-to incrudate the mature by the conjunction of an immature-being incrudated to calcine it-being calcined to dissolve it-and all this philosophically, not vulgarly.

The outward signs of the calcination are as follows:-When the gold has become saturated with water, and the fire of the Mercury has called into play the heat of the bath, the water which was so brilliant begins to grow dim, then visibly swells and bubbles, until the whole becomes a fatty and viscous powder, which, however, still retains its radical humour. For when the heat first begins to operate, the cold and the moist seek refuge by rising to the top; thence they descend in liquid form and assimilate as much of the substance as they can to themselves; thus the powder is converted into a glutinous water. For between the different processes of our Art, there exists such a concatenation that not one can be produced or understood

without the rest. In order to hide our meaning from the unworthy, we speak of several operations; but all these-the whole progress of the substance from black to white and red-should be philosophically understood as one operation, one thing, one successive disposition to black, white, and red.

The following rules should be observed if you wish to bring about true calcination:- In the first place, you must procure our Mercury; common Mercury will produce no effect if you operate on it till doomsday.

Secondly, the external fire of the furnace should be neither too violent (in order that the equilibrium of chemical forces in the substance may not be disturbed), nor yet too gentle, so that the action of the inward fire may not languish for want of outward heat. It should be just such as to keep up an equable vital warmth.

In the third place, the Laton should receive neither too much nor too little to drink. If it receive too much, it will not be able to give it out, and a nebulous tempest will arise; if too little, it will be burnt to cinders. The activity of the Sulphur must dry up the superfluous humour of the Mercury; therefore, the active (sulphur) must not be swamped with too much sperm; nor must the moisture be choked with too much earth. The proportions should be between two or three parts of water to one of gold; but the larger the quantities of both substances, the more perfect will the calcination and dissolution be. The chief mistake against which you must guard is the swamping of your earth

with water. For the earth contains the fire, which is the principal digestive in our Art.

In the fourth place, you should take care to seal up your vessel properly, to prevent the spirit from evaporating. Consider how carefully Nature has closed up the female womb to prevent anything from escaping or entering that might prove hurtful to the young life; and quite as much (if not more) care is required in our Magistry. For when the embryo is being formed, great winds arise, which must not be allowed to escape-or else our labour will have been all in vain.

The fifth requisite in our work is patience. You must not yield to despondency, or attempt to hasten the chemical process of dissolution. For if you do so by means of violent heat, the substance will be prematurely parched up into a red powder, and the active vital principle in it will become passive, being knocked on the head, as it were, with a hammer. But our true calcination preserves the radical humour in the body dissolved, and converts it into an unctuous black powder. Patience is, therefore, the great cardinal virtue in Alchemy. It must not be supposed that the signs and colours which I describe appear on the first day, or even within the first week: Bernard of Trevisa tells us that he waited in an anguish of expectation for forty days, and then returned and saw clouds and mists. You need the patience of the husbandman, who, after committing the seed to the earth, does not disturb the soil every day to see whether it is growing... As soon as you have prepared your substance i.e., mixed mature yellow sulphur with its crude white sulphur, put them in a vessel and let

them stand undisturbed; at the end of twenty-four hours, the Mercury, which is attempting to rouse the latent fire of the sulphur, will begin to effervesce and send up bubbles. But little variation of colour shall appear until the object of the Mercury has been accomplished, and the Royal Bath prepared; at first it is the Mercury alone that is at work. When, however, the Bath has been made hot (i.e., the inward warmth of the gold roused) the greater part of our work is over, and we shall be easily able to distinguish the various operations. The first colour which appears after the silver colour of the amalgamated body, is not perfect blackness, but only a darkish white; the blackness becomes more pronounced day by day, until the substance assumes a brilliant black colour. This black is a sign that the dissolution is accomplished, which does not come about in one hour, but gradually, by a continuous process; for the Tincture which comes out of the Sun and Moon appears black to the eyes, but is insensibly and imperceptibly extracted. When the whole of the Tincture has been extracted from the body that is to be dissolved, the blackness is complete. The more you digest the substance at first, the more you subtilize the gross, and blacken the compound. There are four principal colours, the first of which is blackness; and it is of all colours the most tardy in making its appearance. But as soon as the highest degree of intense blackness has been reached (there being no idle intervals in our work), that colour begins little by little to yield to another. The time during which this blackness is developed is very long, and so is the time during which it disappears; but it is only for one moment that the blackness neither increases nor decreases: for things find

rest only in that which is the end of their being, but blackness is not the end of our substance.

The advent of the blackness is like the coming of the night, which is preceded by a long twilight-when the last ray of light has faded away, the blackness of night has come; only our work is more tedious, and the change is, therefore, still less perceptible.

It may be objected that the black tincture begins to be extracted as soon as the inward heat is roused, and that, therefore, the colour which appears must be, from the very first, an intense black. My answer is that the Tincture which is extracted is, as a matter of fact, not black, but of a dazzling white; and that the blackness is produced gradually, through the action of the water on the body, out of which it draws the soul (the tincture), thus giving the body up to decomposition. It is this putrefaction (the result of the mutual action of the Sulphur and Mercury) which imparts to the Tincture its black colour; in itself the Tincture is brilliantly white. How long, then, will you have to wait till perfect blackness appears? Flamellus tells us that this intense blackness comes at the end of about forty days. Ripley advises us to let the mingled substances remain together for six weeks, until the conception has taken place, during which time the fire must be very gentle. And Bernard (of Trevisa) suggests the same thing, when he says in his parable: " The King doffs his glorious robes, and gives them to Saturn, who clothes him in a garment of black silk, which he retains for forty days." Of course, the blackness which is here spoken of is

not equally intense all the time, as you will understand from what has been said above.

In the course of this change from white to black, the substance naturally passes through a variety of intermediate colours; but these colours (being more or less accidental) are not invariably the same, and depend very much on the original proportion in which the two substances are combined. In the second stage, during which the substance changes from black to white, it is already far purer, the colours are more lucid, and more to be depended upon. In the two phases there are intermediate colours; but in the first they are more dingy and obscure than in the second, and very much less numerous. In the progress of the substance from blackness to whiteness (i.e., the second phase of our Magistry), the most beautiful colours are seen in a variety such as eclipses the glory of the rainbow; before the perfection of blackness is reached, there are also some transition colours, such as black, azure, and yellow-and the meaning of these colours is that your substance is not yet completely decayed; while the body is dying, the colours are seen, until black night shrouds the whole horizon in pitchy gloom. But when the process of resurrection begins (in the second phase) the hues are more numerous and splendid, because the body is now beginning to be glorified, and has become pure and spiritual.

But in what order do the colours of which we speak appear? To this question no definite answer can be given, because in this first phase there are so much uncertainty and variation. But the colours will be the clearer and more

distinct, the purer your water of life is. The four principal colours (white, black, white red), always follow in the same order; but the order of the intermediate colours cannot be so certainly determined, and you ought to be content if within the first 40 days you get the black colour. There is only one caution you should bear in mind, in regard to this point: if a reddish colour appears before the black (especially if the substance begins to look dry and powdery at the same time), you may be almost sure that you have marred your substance by too violent a fire. You should be very careful, then, about the regulation of your fire; if the fire be just hot enough, but not too hot, the inward chemical action of our water will do the rest.

Our Solution, then, is the reducing of our Stone to its first matter, the manifestation of its essential liquid, and the extraction of natures from their profundity, which is finished by bringing them into a mineral water; nor is this operation easy: those who have tried can bear out the truth of my words.

Fount of Chemical Truth

Our Magistry consists of three parts: the first deals with the essential and substantial composition of our Stone; the second describes their manner of combination; the third the mode of chemical procedure. Our substances are "red ore," or matured Sulphur, and water, undigested Mercury, or "white ore." To these a vessel is added, a furnace, and a triple fire. In discussing their manner of combination, we have to consider their weight and the regimen. The weight is twofold, and so is the regimen: between them they produce the following processes -- Calcination, Dissolution, Separation, Conjunction, Putrefaction, Distillation, Coagulation, Sublimation, Fixation, and Exaltation. The first two produce the black, viscous powder, by means of the "unnatural fire," a temperate, incomburent, and altering ignition. There is then a further change into a mineral water. The three operations which follow are the result of the first and third fires, namely, natural and contra-natural, and "circulate" the substance, until the gross is separated from the subtle, and the whole is evenly tempered, the separated elements being then recombined, impregnated, and putrefied.

The five last operations are the result of natural fire which increases and gets stronger from day to day, purifying the putrefied substance of its dross, by continual ascensions and descents. This process is therefore called distillation, volatilization, ablution, imbibition, humectation of the earth, and is continued until the dryness gradually thickens the substances, and, finally, under the influence of coction or continued

sublimation, induces fixation, the terminal point of which is exaltation, an exaltation which is not local, from the bottom to the surface, but qualitative, from vileness to the highest excellence.

These operations are sometimes called regimens; but there are only two kinds of fire, the natural and the non-natural, the latter being employed to call out the activity of the former. Putrefaction precedes regeneration, and is caused by the strife of the two fires. That part of the work which is subsequent to putrefaction and conjunction, when the Sulphur and the water have become one, and also receive congelation, is effected by the natural fire alone.

The substances are our body (commonly styled Lemnian earth) and our water (our true rain water). Our water is the life of all things, and if you can by much toil obtain it, you will have both silver and gold. It is the water of Saltpetre, and outwardly resembles Mercury, while inwardly at its heart there burns purest infernal fire. Do not be deceived with common quicksilver, but gather that Mercury which the returning Sun, in the month of March, diffuses everywhere, till the month of October, when it is ripe.

Know that our Mercury is before the eyes of all men, though it is known to few. When it is prepared, its splendour is most admirable; but the sight is vouchsafed to none, save the sons of knowledge. Do not despise it, therefore, when you see it in sordid guise; for if you do, you will never accomplish our Magistry -- and if you can change its countenance, the transformation will be glorious. For our water is a most pure virgin, and is loved of many, but

meets all her wooers in foul garments, in order that she may be able to distinguish the worthy from the unworthy. Our beautiful maiden abounds in inward hidden graces; unlike the immodest woman who meets her lovers in splendid garments. To those who do not despise her foul exterior, she then. appears in all her beauty, and brings them an infinite dower of riches and health. Our Queen is pure above measure, and her splendour like that of a celestial being -- and so indeed she is called by the Sages, who also style her their quintessence. Her brilliancy is such as baffles imagination, and, if you would have any idea of it, you must see it with your own eyes. Our water is serene, crystalline, pure, and beautiful- though it can assume its true form only through the aid of our Art. In that form it is our sea, our hidden fountain, from which gold derives its birth by natural descent; yet it is also stronger than gold, and overcomes it, wherefore gold is united to it, and is washed in it, and the two together grow up into a strong hero, whom neither Pope nor Emperor can buy for a price. Hence you should, above all things, seek this water, by means of which (with the solitary addition of a clean and perfect body) the Stone may be prepared.

But it requires profound study to become acquainted with all the secrets of our sea, and with its ebb and flow. It took me 18 months, after I had discovered the spring of our water, to find the method of making it well forth, because I did not know the meaning of the fiery furnace of the Sages. When I discovered it, indeed, the sight which I beheld richly rewarded me for all my pains. I was then suddenly, as by a flash of inspiration, enabled to understand all the secret words and enigmas of the Sages.

Our water is the fire which causes both death, and, through death, a more glorious life. Whoever discovers it has reached the autumn of his Magistry, as Nature will then (when the pure body has been put into it) perform all the other processes, and carry the substance onward to perfection through all the different regimens. This water, though one, is not simple, but compounded of two things: the vessel and the fire of the Sages. and the bond which holds the two together. So when we speak of our vessel, and our fire, we mean by both expressions, our water; nor is our furnace anything diverse or distinct from our water. There is then one vessel, one furnace, one fire, and all these make up one water. The fire digests, the vessel whitens and penetrates, the furnace is the: bond which comprises and encloses all, and all these three are our Mercury. There are many kinds of fire (and of water) in our Magistry, but all these only represent different aspects of our Mercury.

There is only one thing in the whole world from which our Mercury can be obtained. It is like gold in essence, but different in substance, and if you change its elements you will have what you seek. Join heaven to earth in the fire of love, and you will see in the middle of the firmament the bird of Hermes. Do not confound the natures, but separate and re-combine them, and you will reign in honour all your life.

In the South-west there is a high mountain (very near the Sun), one of seven, and the second in height This mountain is of a very hot temperature (because it is not far from the Sun), and in this mountain is enclosed a vapour or

spirit, whose services are indispensable for our work. But it does not ascend, unless it is quickened, nor is it quickened unless you dig knee-deep on the summit of the mountain. If you do this, a subtle exhalation (or spirit) ascends, and is congealed by the air into drops of beautifully limpid water -- which is our water, our fire, our vessel, and our furnace; not common Mercury, but the hot and moist liquid of most pure Salt, which we call Mercury, because in comparison with the Sun, it is immature and cold. If the Almighty had not created this Mercury, the transmutation of metals would be impossible, because gold does not tinge unless it be first tinged itself. Our Mercury is the beloved spouse of gold, and changes its body into a purely spiritual substance; gold loves it so, that for very love he dies, and is revived by his spouse, and she is impregnated by him, and conceives, and bears a most beautiful royal son. The whole knowledge of our Art consists in the discovery of this our sea; any Alchemist who is ignorant of it, is simply wasting his money. Our sea is derived from the mountain of which I told you above. The exhalation or white smoke which ascends there, will accomplish our whole Magistery. There is another secret which you should know if you wish to see your hope fulfilled, viz., how you are to dig a hole in the mountain, as its surface is impenetrable to ordinary tools, its dryness being such that it has become harder than a flint. But in the places of Saturn a small herb is found, called Saturnia, whose twigs appear dry, but in whose roots there is abundance of juice. This herb you should carefully take up with the roots, and carry with you to the foot of the mountain, and, with the help of fire, bury it beneath the mountain; its virtue will at once penetrate the whole

mountain, and soften its earth. Then you may ascend to the summit, easily dig a hole knee deep, and pour in so much dry and viscous water, that it penetrates to where the herb lies buried, and makes it ascend as a fume, which carries upward with it the spirit of the mountain. This spirit is the strength of fire mingling with water, and dwelling in it. The spirit of Saturnia is the whitening fume, the vapour of the mountain is fire, and all these things are fire. Thus you obtain Saturnia, the royal plant and mineral herb, which together with fat flesh makes such a soup as to eclipse the richest banquets in the world. Here is an enigmatic description of our water, which should in course of time and study, become plain to the diligent enquirer. There is the King (gold), and the water which is the King's Bath; our water is the vessel, inasmuch as our King is enclosed in it, and the furnace, inasmuch as our fire is enclosed in it, and our fire, inasmuch as the virtue or spirit of the mountain dwells in it, and the woman, inasmuch as it receives the vapour of the plant Saturnia; and as the dear friend of the Sun penetrates, whitens, and softens it, and causes it to emit its sperm. Then the fiery virtue which is in the water, begins to act on our body, wasting and mortifying it, until at length the innate heat of the Sun is roused into activity. Our Stone is called a little world, because it contains within itself the active and the passive, the motor and the thing moved, the fixed and the volatile, the mature and the crude -- which, being homogeneous, help and perfect each other. We have already shewn that our object in adding matured Sulphur to crude Mercury (the same thing in different stages of development), is to shorten and accelerate the natural process. Gold is a hot and dry body, silver a frigid and

humid one, Mercury the means of conveying tinctures. The body of the Sun is most highly digested, that of the Moon imperfect and immature, while Mercury is the bond by which these two contraries are united. Join the Moon to Mercury by means of proper heat, so that the two become one Mercury which retains its inward fire; then the Mercury will be freed from all dross and superfluties, and it will become transparent like the tears we shed, though not exactly perspicuous. If you then unite this purified Mercury to gold, in which is the Moon and fire, the hot and dry will love the-cold and humid, and they will unite on the bed of the fire of friendship; the man will dissolve over the woman, and the woman be coagulated over the man, till the spirit and the body become one by commixtion. Continue the same operation (let the heaven descend to the earth) till the spirit puts on the body, and both are fixed together. Then our Stone will have obtained its royal virtue. For Mercury is the water of all metals, and they are digested in it. When vegetables are boiled in ordinary water, which is naturally frigid and humid, it partakes of their qualities, and is yet separable from them; so the pure Mercury, which is in all metals and minerals, is perfectly separable from the dross and foreign matter which has become mixed up with them; yet the different minerals and metals qualify the Mercury in the same way as the water is qualified by the vegetables cooked in it. There are these two differences between the Mercury and the water, that the water is not coagulated and fixed with the vegetables as our water is with the metals; and that, while the colour of common water is changed by anything boiled in it, Mercury retains its own colour and fluxibility, though its essence is qualified. Therefore the Mercury is effectual in the

dissolution of the metal, and the metal in the coagulation of the Mercury; and as, in the dissolution, the form and colour of the metal is latent in the form and colour of the Mercury, so, in coagulation, the form and colour of the Mercury is hidden in the form and colour of the metal; neither do the qualities of the metal in dissolution prevent the fluxibility of the Mercury, nor the qualities of Mercury in coagulation the fixity of the metal. Do you not here observe a wonderful harmony between Mercury and the metals? For their love is like that of mother and son, sister and brother, male and female. Hence they are calculated mutually to perfect each other, the water imparting to the body a spiritual and volatile nature, while the body gives to the water a corporeal substance. The reason that the colour of Mercury is not changed in coction by the dissolved body, is this: the earth and water in the Mercury are homogeneous, and so well tempered that neither can be separated from the other, and they are so well mixed that the whole substance exhibits (together with great fluxibility) so great a consistency as entirely to conceal the colours -- and only if a part of the Mercury is destroyed or marred by some deleterious chemical corrosive, are the colours seen. The relations of Mercury in respect of earth and water are these: in respect of water it is fluxible and liquid, in respect of earth it moistens nothing but what is of the same essence with it. These hints will enable you to detect any errors in your treatment of Mercury. Some obstruct or divide its homogeneity by unduly drying up its water; others corrupt the earth and render it diaphanous by disproportionate mixing. Mercury is the sperm of the metals; it contains in itself the Sulphur by which alone it is digested (through

which Nature would in course of time have matured it into gold); nor would it be possible to convert Mercury into gold without it. This mature Sulphur, then, is radically mixed with the Mercury, and rapidly digests it, while itself is putrefied by the Mercury, and is revived again, not as common, but as spiritual, penetrative, and tinging gold, which has power to purify imperfect metals of all their dross, and to change them into its own nature. Thus you see that none of the Mercury should be destroyed, or violently dealt with; all you have to do is to add to it a mature body sprung from the same root, and mix the two in their smallest parts, by means of our cunning conjunction (which is performed, not by a manual, but by a purely natural process, of which the Artist does not even understand the cause). We must distinguish, however, between our transmutative conjunction, and a sort of conjunction practised by sophists which is merely a fusing together of the two substances, and leaves each exactly what it was before. In our operation the spirit of gold infuses itself into the spirit of Mercury, and their union becomes as inseparable as that of water mixed with water. The conjunction can take place only by means of the Moon or an imperfect body and fire; and this Moon is the sap of the water of life, which is hidden in Mercury, and is stirred up by fire; it is a spirit which enters the body, and compels it to retain its soul. We speak not of common Mercury (which lacks the spirit and fire), but of our Mercurial water -- though common Mercury may be made like it by the addition of that which it lacks. Our conjunction is the grand secret of our Art for earth is not inseparably united to water, but the union of water with water is indissoluble; hence our conjunction can take place only

after dissolution, which dissolution takes place through the Moon and fire that are in the Mercury. For the Moon penetrates and whitens, and the fire mortifies and frets, while water combines both these properties, according to the philosophical dictum: "The fire which I shew you, is water," and, "Unless the bodies are subtilized by fire and water, nothing can be done in our Magistry." Thus everything, from beginning to end, is accomplished, not by sophisticated operations, but by our Mercury, which, unless it be violently impeded, is kept to the right road by the necessity of arriving at a certain goal.

Some Alchemists fail because they put (common) gold with Mercury in a phial over the fire, and thus sow good seed in barren earth. But gold is not the substance of our Stone in its whole essence, nor yet Mercury. What we want for our work of generation is the seed of gold which is profoundly hidden in our metal. This seed must be received into its own proper womb, and there mingle with the female seed, in order that, being kindly fostered with heat, and fed with its proper aliment, it may become that part of gold which is of abundant use in our work. It is not the whole of a man that generates the infant, but only his seed, which is rightly disposed in the proper womb; and so only the seed of gold (and not the whole metal) is useful for our metallic generation. Gold is the Father of our Stone, the substance of our Stone is in gold, but gold is not the substance of our Stone; yet there is that in gold (the sperm) which, by right manipulation, may become our Stone. We extract from gold, by a cunning process, that which is its most highly matured virtue, and this is called, not common, dead, but our living gold. The difference between

common gold and our gold, is that which exists between a Father and his seed; common gold is dead and useless, as far as our work is concerned, until it emits its living seed. Take the body of gold, then, and gently extract from it its seed, and you will have the living male seed of our Stone, which we now no longer call gold, but ore, magnesia, lead, etc. -- because it is no longer a body, like gold, but a chaos, or spirit, which cannot revert to its corporeal form. Aristotle says: "The first thing you should do is to sublime the Mercury, then you should put a pure body into the pure Mercury." The sublimation of the Mercury which is here referred to, is not an artificial, but a true and natural one. It is the " first preparation of the thin substance," by which the eclipse caused by the interposition of Earth is removed from the Moon, enabling her to receive the light of the Sun -- which happens when the murky sphere of Saturn (that overshadowed the whole horizon) is removed, and Jupiter ascends the throne; then there rises upward a mist of dazzling whiteness, whence there is distilled upon the earth a pure, sweet, and fragrant dew, that softens it and stirs up great winds at its centre; these winds bear our Stone upward, where it is endowed with heavenly virtue, and thence descending once more to its nurse, the earth, is clothed upon with a corporeal nature, and thus receives the strength both of things above and of things below. This living gold is "that which is, but does not appear till it pleases the Artist, and in the knowledge of which is the secret of all perfection." Mercury is our field, in which the Sun rises and sets; let the two be inseparably united on the bed of love, till from this (regenerate) Mercury there comes forth a quickening virtue, which is able to raise the dead. Then

there will appear the royal child, whose father is the Sun, whose mother is the Moon... Besides these things, we need, of course, a furnace of clay, a vessel of glass, and a triple fire; but we do not call these three our vessel, our fire, or our furnace, because ordinary sophists employ these things as well as the Sages; when we speak of our vessel, our furnace, and our fire, the terms are to be interpreted in accordance with the explanation which we gave above. Of this fire a Sage might well say: "Behold, the fire, which I will shew you, is water "; - and again, "The vessel of the Sages is their water." Another Sage says, that all our operations take place in our humid fire, in our secret furnace, and our hidden vessel, and thereby clearly shews that there must be a fire, vessel, and furnace, other than those which ignorant Alchemists possess in greater perfection and abundance than we. Our appliances are part of our substance, and are described by Sendivogius, for instance, as the "vessel of Nature," and the "fire of Nature." This practice is followed by Flamellus, Artephius, Lullius, and all other Sages; and I tell you that these three appliances are, after all, only one; for the nature of our substance is one. Our fire is that which dissolves and heats bodies more effectually than ordinary fire; hence it is called ardent wine and a most strong fire, and the Sages bid us burn our ore with our most strong fire -- words which are falsely interpreted of an ordinary coal fire. Of this fire John Mehungus writes: "No artificial fire can infuse so high a degree of heat as that which comes from heaven."

- Finis -