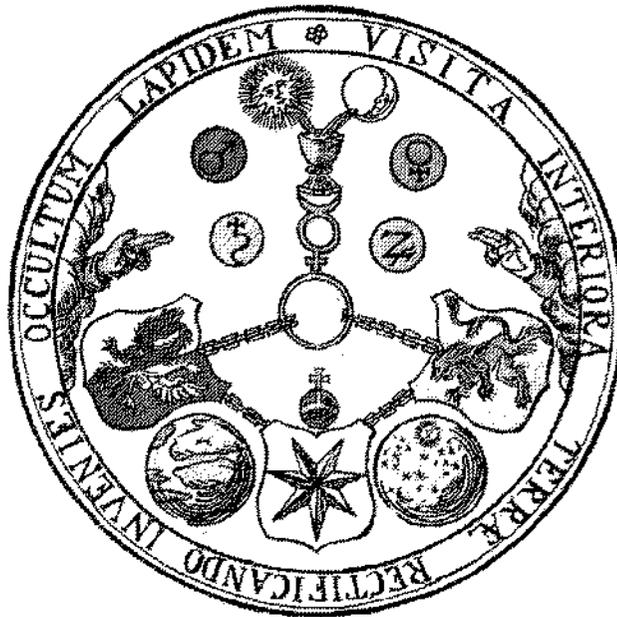


MINERAL ALCHEMY

(A PRACTICAL COURSE)

VOLUME 1 OF 4
LESSONS 1 - 24



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MINERAL

Lesson 1

Dear Friend,

The lessons on mineral and metal Alchemy follow the course on spagyrics. You will receive a single lesson each month. As mentioned before, the subject of vegetable alchemy will be treated for some time in one out of three lessons.

REFLECTIONS ABOUT THE CIRCULATUM MINOR

Those of you who study the lessons on spagyrics and carry out the experiments indicated should be able to understand the theory and practice we make available in our teachings.

What is the difference between an elixir and a circulatum?

In elixirs, the salt is spiritualized, and made volatile through cohobation and circulation with the tincture, which contains both Sulfur and Mercury.

In the circulatum, the salt is *opened* through maceration with the Sulfur alone.

When the maceration *opens* it, the Salt is rendered volatile (passes to a gaseous state) and spiritual by the Mercury, through a sequence of distillations and cohobations.

Should we take precautions when we choose the plant?

The choice of the plant is very important. In a previous lesson, we indicated that the grapeseed oil which you can obtain in stores and macerate with salt of tartar (potassium carbonate) is not suitable, because, in that case, the maceration does not *open* the Salt but yields a soap.

In the making of the elixir, the maceration of the tincture with the Salt does not produce soap because the presence of Mercury prevents its formation. Urbigerus therefore chooses plant materials in which Sulfur is present but as a resin rather than oil. This allows us to *open* the Salt without turning it into soap. However, the use of resinous material calls for two remarks:

1. the steam extraction of the resin requires us to use specific parts of the resinous plant.

2. the resin *separates out* well only if the steam is strongly superheated. Our experience in using resinous plant materials from the Fontainebleau area has taught us that we can start a first extraction without superheating the steam which extracts the pine oil. As a matter of fact, this oil alone, if combined with the salt, could transform part of the Salt into soap and thus ruin the process. After that stage, superheating the steam will extract the resin. We should keep in mind that, in this operation, we cannot obtain a volume of circulatum greater than 6 to 8 times the volume of salt we could obtain by leaching the ashes. Therefore, if you want to attempt the circulatum, you should choose a plant meeting the following conditions:

- an inexpensive plant that can be found easily and in great quantities.
- a plant which yields a reasonable quantity of Salt after leaching and calcination;
- a plant which yields a good quantity of resin or oil which does not produce a soap.

To complement the part of our study entitled *Labora* we shall also emphasize the *Ora* section for seven lessons.

ALCHEMICAL MEDITATION

General rule for all meditations:

- no specific posture, simply be comfortably seated;
- no specific breathing rhythm;
- work in a dark room, in complete quiet;
- strive to attain a mentally calm state;

MEDITATION NUMBER 1

Meditation on the retort or the Philosophical Egg:

In a way, this meditation is the basis and the opening ritual for subsequent meditations. Through its symbolism, it attempts to initiate a communication between the outer consciousness and the inner Being, particularly in the alchemical domain.

This meditation and the ones following can bring out specific elements, of a personal character, pertaining to our conduct and direction in laboratory alchemy.

MINERAL

Lesson 1

In these meditations, we'll use the retort as an example. However, the process is the same if you choose the Philosophical Egg. The choice of the object is up to you. The retort used for this meditation should be used for this purpose only and kept in the oratory out of the layman's view and especially out of his physical contact. We recommend that you place inside the retort a minute fragment of gold of a few milligrams *(1mg = 0.154 grain). A traditional retort, without an upper opening is preferable.

The principle of this meditation follows:

- the inside of the retort is your inner Being;
- your material consciousness is outside the retort;
- the glass of the retort is the partition separating the two worlds, the physical and the spiritual. The clear glass symbolizes the possibility of communication between the two worlds;
- the gold in the retort is a symbol of the eternity of the inner Being.

In the first part of the meditation, let the preceding information sink into you, one item at a time.

- 1 — *the outer,*
- 2 — *the inner,*
- 3 — *the clearness*

Then strive to sense your psychic consciousness as it moves toward the retort, enters it, harmonizes with the Inner and, henceforth, perceives the outer world from the standpoint of the Inner.

Often, in this experiment, an all-inclusive perception occurs, in which the five senses are no longer differentiated. It is useful to try to differentiate the perception and attend to the senses, one at a time. A candle in the meditation room may act to awaken the visual aspect of perception; a slight noise (rubbing a piece of paper), the auditory aspect; a slight pain (a pinch), the tactile aspect; incense can awaken the sense of smell and salivation, the taste.

This may seem unimportant, but visual and auditory perception which often are the most important, are thus better characterized. We should remember that in Alchemy, taste and smell composed the main chemical analysis system of the Ancients.

Often in this experiment, a deep darkness is generated from which all impressions emerge.

The entering of your consciousness into the retort is the opening. The exit of your consciousness out of the retort is the closing.

ORA ET LABORA!

MINERAL

Lesson 2

Dear Friend,

Let us continue our study of the Circulatum minor.

What are the characteristics of a good, vegetable Mercury?

The vegetable Mercury that emits the best vibrations is the mercury originating from grapes. It requires *the fewest distillations*. Vegetable Mercury extracted from apple, grain or any other source can be gradually elevated to the same degree. But the number of distillations necessary to achieve the same level is much greater.

Depending upon the source, some methyl alcohol might be present and this could be a problem. We know it is imperative to eliminate this alcohol; any methyl alcohol ingested by man makes him permanently blind as it destroys the optic nerve. In this work, it is desirable not to distill the alcohol over potassium carbonate for carbonate mineralizes the alcohol.

The best method of preparing the alcohol for a circulatum is a careful and gentle vacuum-distillation. The point is to prevent the alcohol from *bumping* and directly passing into the receiving flask, without undergoing distillation. To avoid this drawback we can use boiling stones, or a water aspirator. However, to maintain the vacuum, the water aspirator should constantly be in operation. To avoid excessive water consumption, a pump should be set up so water can travel in a closed circuit. If, however, you do not add stones or a water aspirator, you should direct the vapors toward a column filled with pieces of glass (fractional distillation). Careful heating makes this system possible.

In all cases of vacuum-distillation, there is a risk of explosion if the cooling is inadequate. To eliminate this hazard, a pressure relief valve should be installed into the distillation circuit which will prevent accidental overpressure.

Raw material for the circulatum minor.

An Australian alchemist, Manfred M. Junius, suggests the use of a ready-made philosophical resin. This product, known as Canadian Balsam, is used in optics.

If there is an opportunity, should minerals be bought in advance?

Yes, but there may be a specific handling precaution for each mineral.

Virgin sulfur is interesting and doesn't need special precautions. Antimony, the ore of which is stibnite, should be handled with gloves.

To follow Cockren's method, the best ore is cerusite (native lead carbonate) and which should also be handled with gloves.

The Collectana Chemica method is easiest with galena (native lead sulfide). Gloves are required to handle it also.

The fire stone requires an ore ruled by Aries, like gold nuggets or native marcasite. No specific precautions are required for those two minerals.

Practical problems in the manufacture of the elixir of tincture + Salt

After the maceration of the tincture-Salt, we proceed to the distillation. If we want to distil to the dry point, distillation *should occur in a water-bath* otherwise we may damage the product or incur the risk of cracking the round bottom flask.

The question is how to get the Salt out of the round bottom flask, for it forms a gum sticking to the glass. The solution is to pour a little absolute or 98% proof ethyl alcohol *on the cold residue* so that it becomes liquid and can be poured out of the glass.

Pour the liquid into a crucible. Evaporate off the alcohol and calcine the gum.

Generally, by the second and subsequent cohobations, we can get the Salt without any problem by the second and subsequent cohobations.

ALCHEMICAL MEDITATION

MEDITATION NUMBER 2

Separation and conjunction:

1— perform the ritual with the philosophical Egg until you sense your Self well inside the Egg or the retort;

2— with all the strength of your Spirit, become conscious of bubbling water in the bottom of the retort; it must be clear and have a definite form;

3— deliberately separate your Self from the water, so that the image of the Self is above the *Realm of the living and the bubbling waters of the soul*.

Allow the separation to proceed until you find yourself above it as a definite, detached point. At that stage, you can allow the descent of the self to occur and allow yourself to open up to the energy produced by the encounter with the bubbling waters. The image of the Self must dissolve in the bubbling waters of the soul at the bottom of the retort.

Then it is recommended to again raise to the top of the retort, and so on, many times until you finally exit from the retort.

This exercise trains one in the ability to penetrate the inner space at will and gives the necessary inner flexibility for later work.

This exercise is identical to the work of laboratory alchemy which, by the process of separation-conjunction, changes Salt into Sulfur, whereby the body acquires more soul.

Mentally perform exiting from the retort as in the first meditation.

Relax a few moments and jot down on a notebook impressions if any, the time and date.

ORA ET LABORA!

MINERAL

Lesson 3

Dear Friend,

ALKAHEST OF SULFUR

Why do we start the present work with sulfur? There are three reasons for that:

— first, if we consider its potential and applications, it comes right after the vinegar of antimony;

— then, in the two possible ways to make it, one only requires patience and a distillation train.

— finally the third reason is that sublimated sulfur, which is easily obtainable, allows us to break in to this experiment with little capital expenditure.

For those who search on their own in old alchemical books, we should immediately point out that the oil of vitriol is the modern sulfuric acid; the alkahest of sulfur has nothing to do with this acid, but it is often called Spirit of sulfur.

First, let us examine the raw material — sublimated sulfur. It is easily available in stores and so the experiment can be repeated; but it only yields the oil of sulfur, or the Sulfur of sulfur. If the sublimated sulfur has been produced through fusion, there is little chance of alkahest being present. However, as native sulfur is harder to find, we strongly suggest that you would practice first with sublimated sulfur before your risk your native sulfur in this experiment.

Native sulfur comes in two forms:

— crystalline form;

— in the form of a mixture of sulfur and limestone;

We prefer the crystalline form for we only need to detach the crystals from the matrix and crush them in a dry atmosphere to prepare the matter.

However, what follows is valid for both forms of native sulfur.

Native sulfur loses its philosophical characteristic at a temperature of a little more than 230F. (110C.). On the other hand, any trace of moisture can eventually produce sulfuric acid. If you believe that there is moisture in the Sulfur, you can put the sulfur in a round bottom flask and heat it in a water-bath under vacuum. It is safer to include in the vacuum — circuit a round bottom flask which contains calcined potassium carbonate which helps the desiccation by absorbing the water vapors. (see figure #1 page 6). This is one solution.

If you use the second form (the blend of sulfur and limestone), pulverize the native sulfur and fill a Soxhlet extractor thimble with the powder thus obtained. The extraction occurs through heating, using the water-bath method. Carbon tetrachloride is the solvent; it is noncombustible and boils at a temperature of 147.2 F (64 C). **Be careful!** The vapors are *toxic* and decompose into *phosgene*, a gas that becomes an asphyxiant upon contact with a very hot body. *A water-bath distillation* of the carbon tetrachloride yields a residue of pure, crystallized sulfur. The tetrachloride is recovered and can be reused. However, the sulfur thus purified retains the smell of carbon tetrachloride. To eliminate it, we'll use another round bottom flask to contain the sulfur. Heat it in a water-bath and produce a vacuum. In addition to the circuit with the flask of calcined potassium carbonate which absorbs the vapors from the water aspirator, a round bottom flask refrigerated by an ice bath which traps the vapors of carbon tetrachloride must be inserted in the vacuum circuit as in Figure #1.

The sulfur is ready now and we can begin the extraction of the alkahest.

Note: Carbon tetrachloride should not be used unless in the open air or under a well vented fume hood.

FIRST METHOD OF EXTRACTION: MACERATION

Here we can use our native sulfur right away.

Use an airtight jar, like a mason jar but the seal should not be made of native rubber; you can, for example, cut a gasket out of a tire's inner tube or a piece of plastic. You can also use a jar with a ground glass stopper; in that case, you'll have to keep the stopper and the bottle neck in a plastic bag or plastic wrap in order to prevent any air from entering.

Pour the sulfur into the jar, and cover it with philosophical alcohol. The sulfur shouldn't occupy more than a tenth of the flask and the alcohol about a third. Then, leave the flask in a warm environment, at around 104-107.6F. (40 - 42C.) for a complete lunar cycle (about 29 1/2 days); for the next lunar cycle place the flask in a cold environment, in a cellar or preferably in a refrigerator. During the cold lunar cycle, the flask should be handled and moved as little as possible.

When crystals appear, remove them and allow more crystals to develop. When the quantity of crystals is sufficient, distill them very slowly, in a retort for example. Recover the oil and the alkahest. In order to recover the alkahest the round bottom receiver must be immersed in a refrigerated mixture composed of salt and ice. Basil Valentine says that the method works in three days, he probably means three lunar cycles; we know that in some cases the crystals can take as long as two years to appear. We believe that the speed of extraction depends on the quality of the philosophical alcohol we use, therefore we'll present some more information in order to complete the process presented in the lessons on the vegetable work (see Spagyrics Lesson #29 about Kerkring's Menstruum).

The sal ammoniac (ammonium chloride) used should be sublimated three times with strong heat so that the salt takes on a yellow, orange-yellow color.

If you do not use the ammonium chloride right after the sublimation, always dry it through a vacuum for a few hours just before you use it again. The alcohol should be distilled over potassium carbonate at least three times, the last time with very little calcined carbonate: 25 or 50 grams (0.70 to 1.76oz.) per liter (0.26 gallons). The alcoholometer (hydrometer) should show 100% for the alcohol. If you circulate the alcohol on the salt in the Soxhlet, you should circulate for 72 hours. The Soxhlet apparatus must be air-tight; for this, place a stopper on top of the refrigerating flask.

If the menstruum is produced through circulation in a *pelican*, allow three to four lunar cycles. In winter, place the pelican on a heater, in summer, place it on a black paper and expose it to sunlight. The menstruum should be distilled. There shouldn't be any solid residue at the first distillation. If there is a residue, it is probably because the alcohol or the salt still contained water. The menstruum should be used as soon as it is produced, otherwise keep it in flasks sufficiently air-tight that the water vapors of the atmosphere do not contaminate the liquid.

We believe that a good philosophical alcohol can yield crystals within six months.

SECOND EXTRACTION METHOD

Native sulfur, glacial acetic acid and distilled water are necessary to begin with. The acetic acid should be glacial or use radical vinegar which should be prepared as indicated in Spagyrics Lesson #33. However, this preparation takes a long time.

Place the native sulfur in a Soxhlet extractor; use the glacial acetic acid as a menstruum. After a few extractions, the acid starts to boil violently. It should be replaced with fresh acid. During that time, distill the circulated acid *with the greatest care and very slowly*, otherwise the acid bumps in the round bottom flask and *goes over as a liquid*, then everything must be started again from the beginning. Boiling stones are essential for these extractions and distillations.

If you started the experiment with sublimated sulfur, you'll obtain a residue of a brown-black color; with native sulfur, the residue will be a red powder.

The distilled acid is circulated again, whereas the new acid is distilled. Repeat this cycle again for as long as you extract any powder. Then put all the powder together, dissolve it in distilled water, filter and evaporate it. You need to go through this process many times until the slightest trace of acid is eliminated from the red powder; *this is very important*. Then, put the powder in an Erlenmeyer flask (maximum capacity 500 ml — 0.13 gal.) or in a flat bottom retort. You can add a straight condenser and a round bottom flask receiver. (see figure #2, p.7).

If you can, it is preferable to use a setup that allows you to produce a vacuum or an overpressure of 25 cm (9.84 inches) of mercury or about 5psi. As the distillation begins in overpressure, you should produce a vacuum as soon as the first drops of liquid appear.

The heat can be produced either by an electric hotplate on which there is a brass or copper sheet, or by a sand bath.

The Erlenmeyer flask should be 1cm (0.39 inch) away from the hotplate; this prevents the flask from breaking.

Later on, you'll see that the alkahest or mercury is generally released in a violent — *if not very violent* — manner; it is therefore necessary to place a protective plastic shield in front of the apparatus. Take care to increase the temperature at an extremely slow rate. As soon as the white smoke appears, the receiving flask should be cooled down with a mixture of ice and salt. It may take a few days before the vapors and the first drops of liquid appear.

Distil the liquid you recovered (always with an ice — refrigerated receiving flask). Two liquids can be obtained:

- a very clear yellow oil: the Sulfur of sulfur;
- a liquid clear as water: the Spirit of the sulfur — its alkahest.

If everything is done carefully, these liquids should not be toxic. The oil, it is said, cures chronic illnesses and the Spirit has a quick action on acute illnesses.

The possession of the *Alkahest*, even in minute quantities, opens significant horizons of research and experiment. Do not forget that this Alkahest dissolves native sulfur and can therefore multiply itself by a simple distillation. It will also extract all the metallic tinctures, except the tincture of gold.

In the next experiment, we shall study the extraction of the Alkahest of tartar, an extraction not as laborious as this one, but then the alkahest of tartar is not as universal as the alkahest of sulfur.

These two experiments are not essential to the alchemical process, but they are an interesting chapter of Alchemy. Those of you who would not or could not perform these experiments can wait for the work with antimony.

Note:

In order to verify the toxicity of the alkahest, perform the following test: put a little bit of this alkahest in a separate test tube and pour into it a very small ball of mercury, the size of the head of a pin. The alkahest extracts a tincture from the mercury, but if some sulfuric acid has been formed during the process, the mercury will be completely dissolved. The extraction of the Sulfur of mercury should give a dark blue or dark green color to the alkahest.

The alkahest can be separated from this tincture through distillation; the alkahest is thus recovered. The tincture is set aside for subsequent experiments.

ORA ET LABORA !

ENCLOSED FIGURES:

- Figure #1 - First method of extraction
- Figure #2 - Second method of extraction

Figure #1

FIRST METHOD OF EXTRACTION

Parts list for apparatus shown in Figure #1

- A. Flask which contains the matter to be dried.
- B. Condensation flask.
- C. Flask containing the calcined potassium carbonate.
- D. Water-bath used to heat round bottom flask A.
- E. Ice-bath to refrigerate flask B.
- F. Tube to the vacuum (vacuum stopcock, check valve, and water aspirator).

Note: If the liquid to be evaporated is water, do not use B and E. In this case, A should be directly connected to C.

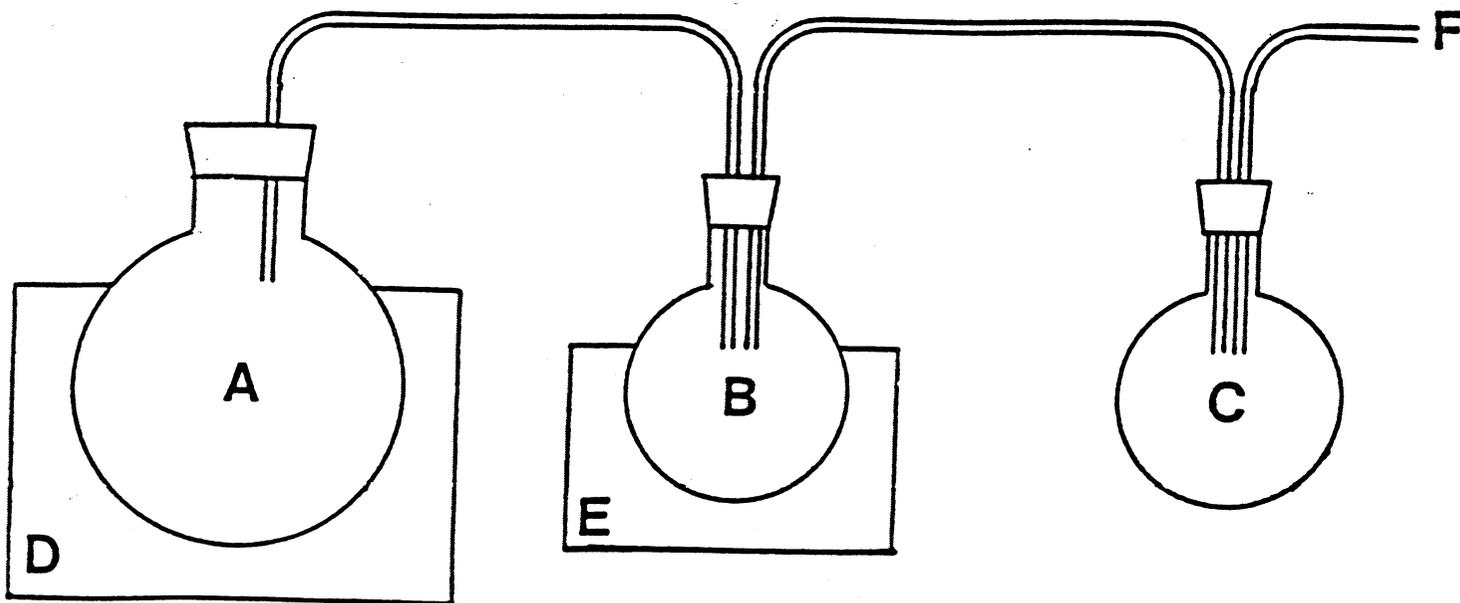


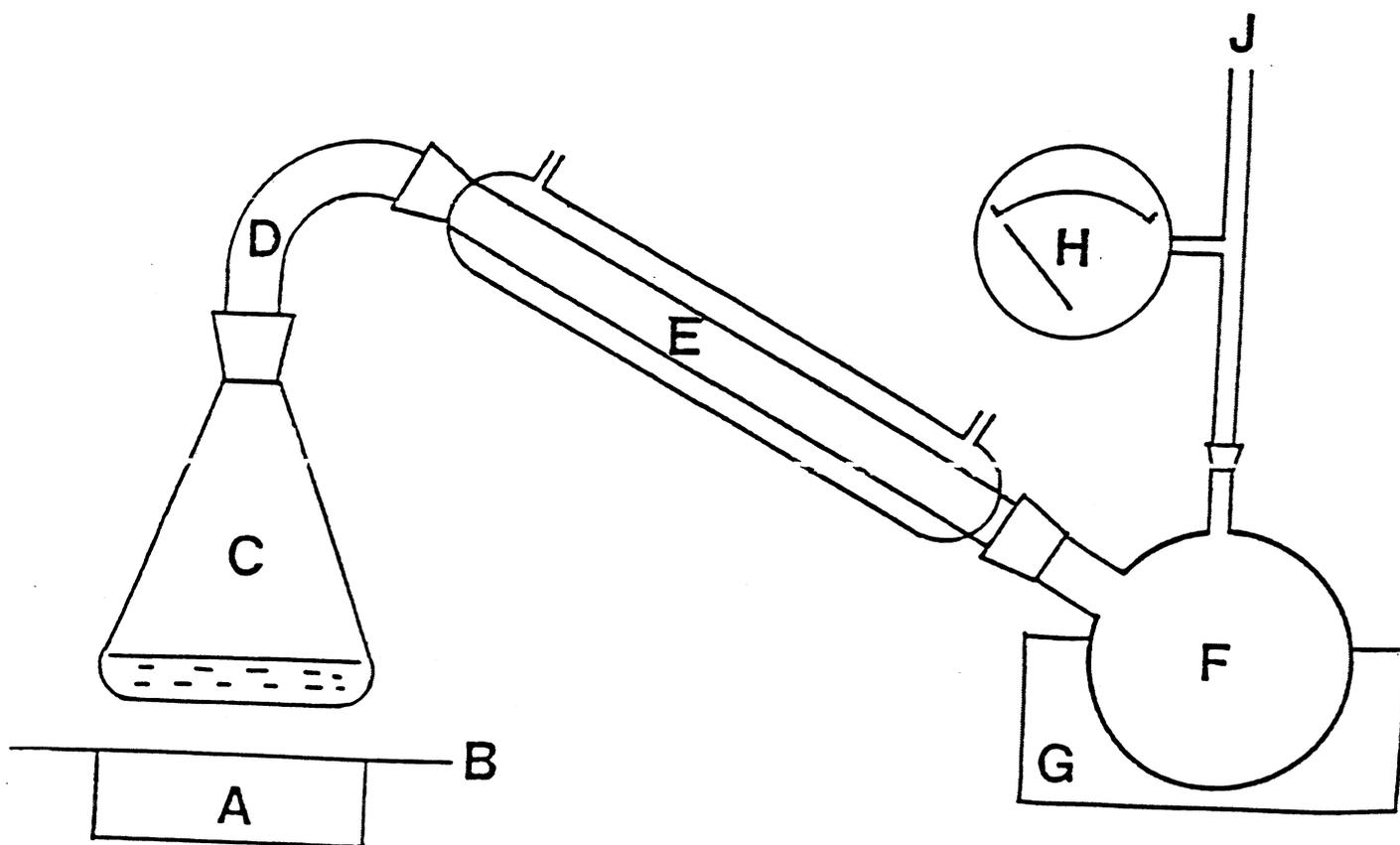
Figure #2

SECOND METHOD OF EXTRACTION

List of Parts for Apparatus Shown in Figure #2

- A. Hotplate with thermostat.
- B. Copper or brass plate 1 or 2mm thick (APPROXIMATELY 1/16th of an inch) which is placed on the hotplate. This plate is compulsory.
- C. Erlenmeyer flask of a maximum capacity of 500ml (16.8 fl. oz. approx.); there is risk of implosion if a larger flask is used. The red powder is flattened in the bottom.
- D. Elbow 105 degree ground glass joints; if we consider the overpressure, all the ground glass joints should be equipped with plastic clamps.
- E. Condenser must be a straight tube model. (Liebig or West).
- F. Receiving round bottom flask with two ground glass fittings.
- G. Refrigerating bath; the ice is placed in it as soon as the distillate starts flowing.
- H. Vacuum and pressure manometer or gauge.
- J. To the vacuum pump through the round bottom flask which contains calcined potassium carbonate, check valve and vacuum stopcock.

Note: The beginning overpressure can be obtained by a bicycle pump and a stopcock. A pressure of 25 cm (9.84 inches) of mercury or about 5psi is adequate.



MINERAL

Lesson 4

Dear Friend,

The Influence of Energies in Alchemy

When we handle matter at an atomic level, physical energies are used, the energies of matter. The reactions they produce in man are generally on the level of matter, of the Salt of his body. Moreover, we can determine that according to the force or the nature of the energies at play, the reaction produced in the body is either beneficial or harmful. On the other hand, the energies of life act upon the psyche. The energies of the Vegetable Kingdom cause very weak reactions in man. The body of man is already accustomed to a certain number of these energies, whether positive or negative, through food intake. He can take them rather well.

As for the vital energies at play in the mineral or metallic experiments, they are much more potent. The body of man is not at all or very little accustomed to these energies which only manifest on earth in the *telluric currents*.

If, in our alchemical work in the plant realm, we meet the traditional conditions, in other words, if we are sure that the matter is *Philosophical*, that the process is *Philosophical*, that the astral influences are exact or were made exact through the use, for instance, of systems derived from the Qabala, these energies won't be unfavorable. In fact, these energies will have a direct influence on the operator or his immediate surrounding, and will contribute to the inner awakening of the alchemist — to his genuine initiation — as much perhaps as the elixirs and tinctures in the metallic kingdom.

The first principle of the metallic experiments with antimony is to operate on a clear, sunny day, even if the laboratory is not exposed to the sun.

For other metals, the work should be started in the first hour that follows sunrise, on the day specific to that metal. That is to say, Saturday for lead, Thursday for tin, Friday for copper, Tuesday for iron, etc..

In Alchemy, we should also consider the energies from a different perspective if we want to avoid all drawbacks to a maximum. As a matter of fact, whether an alchemist or not, everyone of us consciously or unconsciously manipulates and is affected by these energies. When we eat meat we find an identical phenomenon. The application of the Biblical principle

that states that the spirit is in the blood, led to the Kosher or other equivalent solutions. These solutions are only partial for they only eliminate animal mercury from meat; as the animal sulfur is not removed, it therefore remains in the meat. Likewise, the metallurgist who melts the ore liberates powerful energies that can be either beneficent or harmful.

As we went over alchemical theories rather completely in our 48 lessons on the Vegetable realm, we believe that those who work with us should think about the aspects and consequences of these alchemical energies in everyday life.

If you have food allergies or other problems with food, you probably should seek the solution in this domain.

The domain of energies is very important in the alchemical processes that will be developed later on. The energies that are used in Alchemy are of the *spiritual* order; they belong to the domain of life.

The energy that isn't embodied is not determined, that is to say that it doesn't belong to any of the three kingdoms. The alchemist uses a magnet to attract this energy which he calls *steel*. The most common method is to deliquesce the salt generally at night and preferably but not necessarily, in the *Spring*. The obtained liquid usually must be distilled.

The choice of the *magnet* determines the nature of the steel. We'll go over the preparation of these salts in a later lesson. The *metallic magnet* requires a great deal of care and experience in its preparation.

The other methods of handling these energies consist in making one kingdom accept the energies of another kingdom in order to change the rhythm of its evolution. The transfer of vegetable consciousness into the mineral accelerates its evolution in significant ratios, and its evolution could be made even more significant by the transfer of life and animal consciousness. Like astrological influences which only act on substances in a liquid state, in the same way, these transfers can only occur when metals are in the liquid state. They do not occur by fusion but by dissolution.

ALCHEMICAL MEDITATION

MEDITATION NUMBER 3

Before entering the retort, impress upon yourself the fact that the operation of *Solve* extracts the essence, the principle, and that the operation of *Coagula* gives the extracted principle its material form.

The process of *Solve/Coagula* builds a bridge between the invisible inner principle and the form.

MINERAL

Lesson 4

It is good to place a symbolic figure behind the retort; a triangle made of cardboard with a small vial placed at each of the points. Each vial contains one alchemical principle, an essential oil for the Sulfur, a little bit of pure alcohol for the Mercury, a little bit of vegetable ash for the Salt. Beside each vial draw the symbols:



The symbols are placed in such a way that the Salt is toward the operator and the two other away from him. (See Figure #1 page 4).

Perform the ritual of entry into the retort. Meditate on the fact that as the Sulfur and the Mercury spiritualize themselves they bring the Salt with them and that the triangle grows infinitely and becomes more subtle. The consciousness must follow and the triangle can then be subdivided into three radiating triangles, each of which corresponds to the invisible worlds of the Qabala. The operator should not remain in the Solve phase very long.

Then Coagula brings all the elements of consciousness into the world of form.

Finally, exit from the retort, relax and write down your impressions.

This experiment should gradually show the link which exists between the three alchemical principles and the three archetypal worlds.

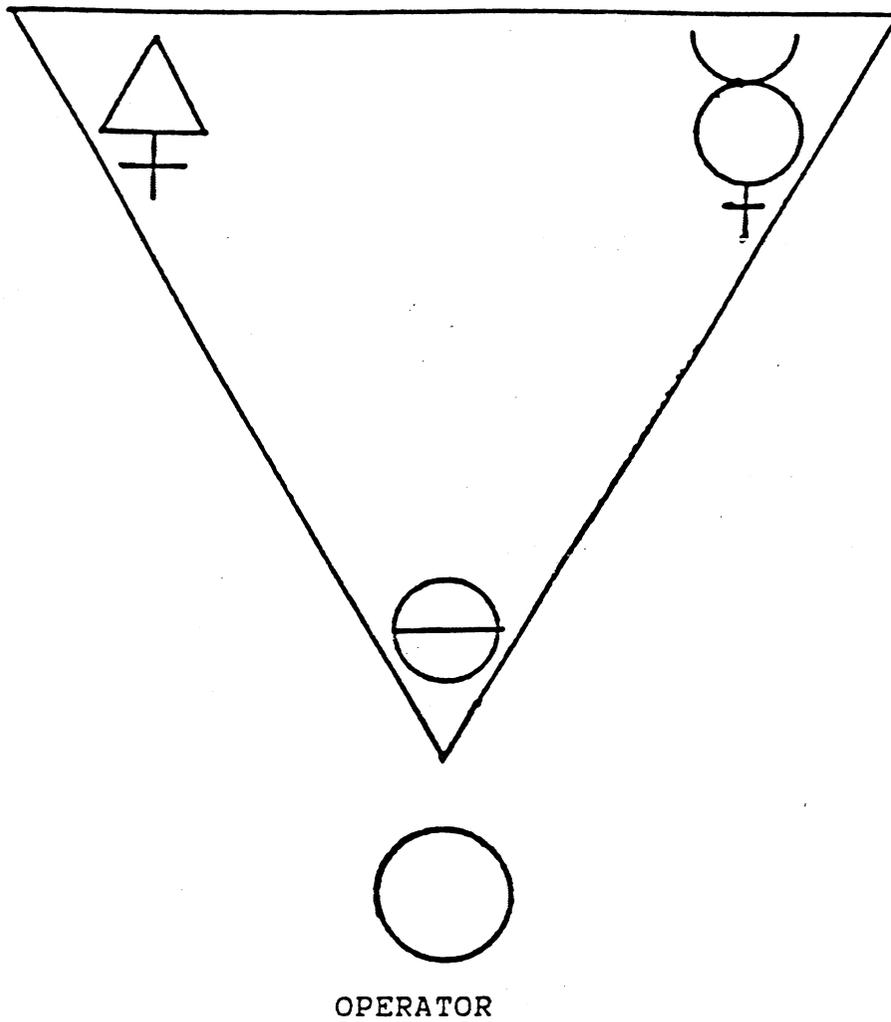
ORA ET LABORA !

ENCLOSED FIGURE:

- FIGURE #1 - Chart of the 3 Alchemical Principles

Figure #1

CHART OF THE 3 ALCHEMICAL PRINCIPLES



MINERAL

Lesson 5

Dear Friend,

Let us talk again about the circulation of elixirs.

Each time we meet there are further questions which we will endeavor to answer.

The circulation of the elixir is a major operation.

Pouring the salt into the tincture is not the point. *If the salt is not spiritualized*, we do not have an elixir but a simple, ordinary pharmaceutical preparation. The main factor indicating the spiritualization of the salt is *the change of color of the original tincture*. In 90% of the cases, the green, yellow and blue tinctures *change to ruby red*. The quantity of solid salt diminishes and sometimes there is a complete dissolution of the salt.

For the method of circulation we can use a pelican (or a flask) placed in an insulated box lightly heated that is, the digestion temperature is held at (40 to 45C. — 104 to 113F.) and be sure to keep the neck of the flask outside the box. This circulation does spiritualize the salt but may take six, seven months, or even a year. The change of color indicates that the operation is complete. Then you decant and the elixir is done.

The method indicated in the preceding Lessons seems to have been misunderstood, therefore we shall resume the subject and bring further explanations.

After digesting the tincture on the salts for a week, you can distill. If you can, it is better to separate the salts before distillation, by filtering them. During the distillation of the tincture, the Mercury passes first, then the essential oils and possibly the volatile salts. The distillate is clear or pale yellow. A greenish, tarry mass which contains part of the vegetable Sulfur and the non-volatile organic salts is left in the round bottom flask. If, after the oils (white thick vapors) have passed, the residue doesn't want to flow, let it cool down and dissolve it again in some ethyl alcohol.

Dry this mixture very slowly in a crucible — this prevents splattering — and calcine it till it turns black. You obtain a greasy black, the treatment of which has been explained (see Spagyrics Lesson #26, page 5: the Salt of vegetable Sulfur). This product becomes white after treatment. Pour the clear distillate on this mixture and leave to macerate for a week. Usually,

by the second digestion, the tincture becomes of a pale rose color. By the second distillation it becomes clear. Again, calcine the salts. Pour the clear distillate on the salt; it takes on a little bit more color at the end of the second digestion. Then, begin the operations again, following the same order. From the second distillation on, the salt remains in the round bottom flask till the end of the distillation.

If everything goes well, you should obtain a ruby red color. If you do a cycle per week, the elixir should be completed after two months to a year. The explanations found in Spagyrics Lesson #34 about the use of the elixirs are valid only for elixirs which are correctly circulated or prepared using a plant Stone.

Finally, an important reminder: always *distill in a water-bath*.

If we do not provide all the elements of an experiment, at least, we always provide the ones needed for a successful experiment. We do not always tell what will result from an experiment, because *only he who works should know*.

Finally, we hope that our method will be correctly understood, in other words and *each one becomes an alchemist who can resolve on his own all the problems he encounters*.

We believe that what precedes can allow you to perform an accurate work on the vegetable realm. However, we shall continue our explanations with the aim of providing complementary information about the vegetable work, or as a second level class. In particular, we are to emphasize the difference between fixed and volatile Sulfur, soluble and insoluble Salt, and the spagyric methods designed to obtain tinctures which, obviously, are different from elixirs. Without being too slow in this work, we wish to allow every one time to breathe.

Do not forget to concretize the Ora part of Alchemy by the given meditations.

ALCHEMICAL MEDITATION

MEDITATION NUMBER 4

Preparations: draw the sign of the Pentagram on a piece of cardboard and in the center, the sign of Mercury (about three to four times the height of the retort). Place the symbol upright behind the retort.

Perform the ritual of entrance into the retort. Strive to sense the inner dissymmetry on the right side, then on the left. Fix your gaze on the left side of the retort, the Mercury, and feel the energy in your left arm and leg; then, on the right side of the retort, the Sulfur, and feel the energy in your right arm and leg.

Do not let the energy reach a high level; maintain it as a light and soft current, *otherwise stop*.

MINERAL

Lesson 5

Put the two principles together again in the retort and consider them as one lunar symbol. Feel the female lunar energy, on the right and left side of your body in its inner dissymetry. These energies essentially concern the brain. Then move to the solar energies, the dissymetry of which is more pronounced; they essentially concern the heart.

Then, take the cross as a terrestrial symbol for the whole body as a vehicle of the terrestrial energy. Feel the different effects of these two energies between the symmetrical organs (like the lungs, the kidneys, the brain) and the asymmetrical organs (such as the heart, the liver, the spleen, etc.).

Never let the energies raise up violently, let it be a progressive awakening.

Exit from the retort, relax and note down your impressions, the day, the hour and the position of the moon.

The aim of the experiment is to make you aware of the influence and the effects of the energies of the Soul and the Spirit upon the body during your incarnation.

ORA ET LABORA !

MINERAL

Lesson 6

Dear Friend,

NOTES ON THE USE OF ALKAHESTS

This lesson which describes the extraction of the Alkahest of Tartar, permits us, because we know how to extract the Alkahest of Sulfur, to consider the manufacture of the seven planetary metallic tinctures.

Study this lesson and constantly refer to the Spagyrics Lesson #41. We repeat that our lessons provide solutions, but that we do not wish to impose them as exact models. Everyone is free to carry out a work program that suits him or her, according to the time you have available or the material you can obtain.

In the part of the non-metallic mineral kingdom, in other words, in the part concerning the Alkahests, we believe in the possibility of more than one practical solution. Either we manufacture the Alkahests of tartar and sulfur which complement each other, or we can produce the vinegar of antimony. As experience will demonstrate, each of these Alkahests has its advantages and drawbacks. Those of tartar and sulfur are volatile, the vinegar of antimony isn't. The action of the tartar or sulfur alkahest is generally quicker than the action of the vinegar of antimony. Tartar is inexpensive and easy to obtain.

As soon as you have mastered the extraction of the Alkahest of tartar, you can use it to obtain the tinctures of iron, copper, mercury, silver and gold starting from dead *but pure* metals. The extractions of lead and tin are done with the Alkahest of sulfur. The manufacture of this Alkahest requires *native* sulfur, a more expensive and rarer product than tartar. It is therefore only used for two metals.

If you possess a sufficient quantity of stibnite, the method of the vinegar of antimony is preferable.

THE EXTRACTION:

If the metals used are pure, the tinctures will also be pure. If the metals are dead, the Alkahest lends its *alchemical life* to revivify the tinctures, but in this case *the Alkahest can't be revived and reused*.

MINERAL

Lesson 6

Which are the different minerals that will provide us with the living elements of the seven planetary metallic tinctures? If we prepare the tinctures from living ores *correctly prepared, we can recover the Alkahest alive*. It can be re-used and the distillation of the tincture yields either another live Alkahest, or a live Philosophical Mercury.

lead	carbonate	CERUSITE
	sulfide	GALENA
tin	oxide	CASSITERITE
iron	carbonate	SIDERITE
	sulfide	PYRITE MARCASITE
gold	native metal	NATURAL NUGGETS
copper	oxide sulfide	CUPRITE CHALCOPYRITE, COVELLITE
	sulfate carbonate	CHALCANTHITE MALACHITE, AZURITE
mercury	oxide	
	sulfide	CINNABAR
silver	sulfide	ARGENTITE

If you choose the Alkahest of sulfur and tartar method, the extraction on pure but dead metals seems preferable. But, if you choose the vinegar of antimony, we believe the method of live ores is the best.

It is not enough to pour the live ore into the Alkahest to obtain the tincture. In this case, you only obtain a horrid mixture without any value and generally *very toxic*. The ore is never pure, it contains many bodies which will react with the Alkahest. It is therefore necessary to *purify the ore without killing it*. There are various methods and they must be adapted to each mineral or ore. This is why we recommend the use of sulfur and tartar to start with, for this problem of purification is very simple for those two materials, at least as far as toxic substances are concerned.

The two mineral substances which present a major problem are free sulfur and arsenic. In galena as for all sulfides, the sulfur is normally chemically bonded to the lead to form a

sulfide. But the quantity of sulfur that yields a sulfide for a same quantity of lead is fixed. If there is more sulfur, this excess doesn't enter into this composition and therefore there is free sulfur.

You should always remember that *alchemical life does not support high temperatures and mineral acids*. If there is free sulfur, sulfuric acid will form on contact with the moisture in the air and the substance will loose its alchemical life. If there is arsenic, the alchemical fermentation or fecundation won't occur. Moreover, arsenic even in minute doses is toxic to the operator.

Later in the work, you'll have to obtain live purified ores.

We do not deal with gold and silver as native metals. In what follows we'll note that the minerals that interest us come under four different forms:

- oxides
- carbonates
- sulfides
- sulfates.

The sulfates, as it is the case with copper, are rare but easier to handle because they are soluble in water. The solve coagula operation with crystallization is possible. The purification is easily obtained, especially if one respects the rule to never crystallize all the liquid at one time, but to remove and gradually dry the crystals as they form.

The next easiest metals to work with are carbonates which are easily transformed into acetates. We can operate by solve coagula as we did with the sulfate. We discuss this question in detail in the lessons about antimony and in the lessons about Saturn.

The oxides usually are difficult to work with unless they dissolve and become acetates after circulation in a Soxhlet with distilled vinegar.

The sulfides must be treated either by purification through slow calcination, or by the extraction of impurities with organic solvents. This doesn't concern the stibnite, the trisulfide of antimony, which takes a wet treatment studied in the lessons on antimony.

In all sulfides, the free sulfur is eliminated through a long calcination at a temperature between 70C. (158F.) and 90C. (194F.). Beyond that temperature, the sulfur becomes fixed (110C. — 230F.) and we incur the risk of not being able to eliminate it. After 10 to 20 hours of calcination, the heat is increased to a temperature of 150 — 180C. (302 — 356F.) and the arsenic is eliminated (Be careful! arsenic vapors are fatal). This calcination happens on the finely pulverized ore that has been spread in a thin layer. If the first phase has been done incorrectly and the sulfur has been fixed, it will definitely be transformed into sulfuric acid in the later stages of the process and will destroy the alchemical life. *Only antimony does not provoke this reaction.*

It is preferable to extract the sulfur and the arsenic before any calcination. The solvent for sulfur is carbon tetrachloride. A Soxhlet extraction of the finely pulverized ore with this liquid extracts the free sulfur. But carbon tetrachloride like all solvents of this kind has a power of alchemical extraction. It can *take away* the Alkahest or the alchemical Sulfur of the ore. During the experiments, we were surprised to see the oil of sulfur swimming over the carbon tetrachloride after the extraction. We believe that leaching with organic solvents containing carbon should not be done during cloudy weather or at night, otherwise there is a risk of alchemical extraction of the ore. This is the case for the two solvents which are mentioned in this lesson. To be safe, it is necessary to distill the solvent before circulation and to redistill it after circulation. If the distillation temperature differs between the two distillations, an extraction has occurred. Generally in this case, a second careful distillation permits us to recover the alchemical Alkahest of Sulfur.

The organic solvent for arsenic is benzene. The arsenic is extracted using the same method as stated above.

The solvents both require careful handling. The first is toxic, the second is inflammable. A circulation with these two solvents does not eliminate the need for a later calcination designed to *open the pores* of the ore. In this case, as long as the temperature is maintained under 200C. (392F.), there should not be any problem, and no longer the risk that the sulfur become fixed, or that a toxic gas be released.

The present lesson opens the doors to genuine mineral alchemical work, and the various paths of separation of the three metallic principles should begin to emerge clearly:

1. purification of the ore without *eliminating the alchemical life*;
2. extraction of the principles of Sulfur and Mercury by the Alkahests or by the vinegar of antimony (Basil Valentine's method);
3. preparation of the acetates which lead to CHAOS — separation of the elements by the COCKREN method, which is probably the method chosen by NEWTON.

The lessons about antimony will describe Basil Valentine's method and the lessons about lead will describe the COCKREN method. The wet method of antimony which is very close to COCKREN's and NEWTON's method do not require the use of the vinegar of antimony. We shall study the broad lines of the wet method of antimony in the next lesson.

EXTRACTION OF THE ALKAHEST OF TARTAR:

The setup for the distillation is a classical one. It is useful to use ground glass for the round bottom distillation flask although it is often destroyed. The tartar will be red and crushed into pieces about 1cm (0.39 inches) thick. Do not use powder or big pieces.

The distillation is extremely delicate. It is necessary to have both *complete air-tightness* and a safety mechanism which will open in case of the build up of pressure. The cooling down of the round bottom flask must be rapid. Put the receiving flask in a bath of salt water which is filled with little pieces of ice.

It is not necessary to refrigerate the receiving round bottom flask for the first phase of the distillation. The distillation proceeds as follows:

Increase the temperature very slowly. A phlegm will pass over. At the end of the passage of the phlegm, the distillation spontaneously stops for a while. The receiving flask is then changed and the refrigerated flask is put into place. *Heat is increased slowly, very slowly.* White smoke indicates the passage of the spirit. This is when the oil of tartar and its Alkahest begin to come over. The round bottom flask is changed again after the black oil of tartar has passed. The black oil is foul smelling. The receiving flask of the spirits must be very carefully plugged and preferably kept cold in a refrigerator.

A new distillation setup is then put together with the *round bottom flask heated in a water-bath.* The receiving round bottom flask is *refrigerated with salted ice or dry ice.* The liquid distills into two parts, one clear, the Alkahest, and a light oil, very light yellow in color, *of an agreeable odor;* we now have the Sulfur of tartar. Each one is left with the task of discovering the properties of this non-toxic oil, on their own. An Alchemist of the German school said that if this oil were better known, the surface of the earth would be changed.

The most delicate phase of this operation is the timing for the changing of the round bottom flask. There should also be total air-tightness, otherwise the Alkahest will escape. A verification of the air-tightness of the distillation train through maintaining a vacuum is very appropriate. A Pauly separator is very useful in this case.

We should remember that with a good thermal insulator and salt and broken ice (out of the freezer) it is possible to keep a temperature of — 10 — 15C. (14 — 5F.) during the passage of the spirit. (Note: — 56C. with dry ice).

Keep the Alkahest either in a ground glass flask, greased with silicon, or preferably in a closed flask with a silicon rubber stopper. Verify then the power of extraction of the tinctures on the metals of the Figure in Lesson #41.

If you experiment in the realm of metallic tinctures, it is a good idea to read *Revelation Des Mysteres Des Teintures Des Sept Metaux (Revelation Of The Mystery Of The Tinctures Of The Seven Metals)* by Basil Valentine.

Note:

This kind of distillation dirties the flasks very much. If you scrape them with a metal rod, you will scratch them and considerably increase the risk of breaking them. The best way to clean them is to fill them with bleach for 24 to 48 hours. With a sponge or a towel placed at the end of metallic stick, you can finish the cleaning process perfectly. This system is also good for cleaning up after distillations of the vegetable tinctures which were overheated.

ORA ET LABORA !

MINERAL

Lesson 7

Dear Friend,

OF THE QUALITIES OF PHILOSOPHICAL VEGETABLE MERCURY ALSO CALLED ABSOLUTE ALCOHOL

The ancients considered this alcohol properly done when black powder, completely saturated with it, would still detonate.

Nowadays, it is better to have a specific gravity hydrometer at one's disposal. (We can use a hydrometer or an alcoholometer. The readings do not generally agree between those two instruments for hydrometers are graduated for a temperature of 20C. (68F.) and alcoholometers for 15C. (59F.). For alcoholometers, there are corrective charts for temperatures between 0C. (32F.) and 30C. (86F.).

Hydrometers are graduated for a temperature of 15C. (59F.) and are, generally, graduated in grams per cubic centimeters of liquid (g/c3). If we take into account the meniscus due to capillary action, the reading of a hydrometer is no better than a gram per liter. Therefore we can use the following (approximate) method, which is precise enough for a degree of alcohol between 90 and 100 and a temperature varying between 15C. (59F.) and 25C. (77F.).

If we take that 96% alcohol weighs 0.800g. and 0.003g. represents one degree of alcohol, we can obtain the degree of the alcohol by adding or subtracting this degree by multiples of 0.003g. Thus at a temperature of 20C. (68F.) we can interpret the measurements of 0.818 and 0.800 in the following manner:

$$0.818 = 0.800 + (0.003 \times 6)$$

$$\longrightarrow 96\% - 6\% = 90\%$$

AND

$$0.788 = 0.800 - (0.003 \times 4)$$

$$\longrightarrow 96\% + 4\% = 100\%$$

If the measurement is made at another temperature, the error is one 25/30th of a thousandth per Celsius degree. (0.0025/0.0030 per C. degree).

At a temperature of 15C. (59 F.) we have 20 — 15 = 5, a 5 degree variation in relation to 20C. that is, 125/30 or roughly 0.004g.

$$0.818 + 0.004 = 0.822 \text{ for } 90\%$$

$$0.800 + 0.004 = 0.804 \text{ for } 96\%$$

$$0.788 + 0.004 = 0.792 \text{ for } 100\%$$

Conversely, at a temperature of 25C. (77F.) we find:

$$0.818 - 0.004 = 0.814 \text{ for } 90\%$$

$$0.800 - 0.004 = 0.796 \text{ for } 96\%$$

$$0.788 - 0.004 = 0.784 \text{ for } 100\%$$

This is an approximate method, but the error is of the same scale as the approximation of the reading on the thermometer and hydrometer.

In the old chemistry books we find the following corresponding in degrees of Baume'

Liquids lighter than water		Liquids heavier than water	
Baume' degrees	Mass of Volume in g/Cm3	Baume' degrees	Mass of Volume in g/Cm3
10	1 000	0	1 000
20	935	10	1 075
30	878	20	1 161
40	828	30	1 262
50	783	40	1 383
60	743	50	1 530
70	706	60	1 712
		70	1 942

To be successful, the distillations of future metallic digestions require a mastery of the distillation procedure. This is why we find it useful, for spagyric preparations, to use an alcohol that is not dried with K₂CO₃ but has been distilled 6 or 7 times. The subtle modifications that occur: the appearance of oil, colors or other signs prepare us to observe even more subtle phenomena later on. It is useful, in this work, to study particularly the aspect of the graphs of the liquids being distilled as a function of temperature. However, it will not be always possible to use a thermometer as a guide. In addition, a few distillations with a retort or a *dead head* will be very instructive, if you have one or the other at your disposal.

ALCHEMICAL MEDITATION**MEDITATION NUMBER 5****Alchemical Meditation Upon the Sun and Moon Archetypes****Preparations:**

Draw on the left side of a piece of cardboard which is about 40 cm x 30 cm (15.7 in. x 11.8 inches) a sun with a dot in the center and 12 rays around it; on the right side of the board, draw the moon; its convex side should be toward the sun.

Proceed with the ritual of entry into the retort.

First phase:

Expansion: the radiating sun. Strive to feel yourself expanding as the rays of the sun are expanding. Inhale air into your lungs as a symbol of your expansion. Feel the energy of your blood increase. Feel, in your heart, a feeling of strength, greatness, gentleness, perhaps Universal Love.

Second phase:

Concentration: start looking at the moon. Feel that the lunar Archetype is contracting, interiorizing. Feel that the tremendous energy of the preceding phase is concentrating in yourself, that it instills into your brain the feelings of your heart.

This cycle must be repeated a few times; it may be that each time a different energy is manifested. This must especially enlighten the dark gates of our unconscious and must increase our communion with nature and with the other men of the creation.

Beware, this exercise can stimulate the energies of Prana or the energies of the Kundalini; in that case, be very careful.

Before the ritual, study the following text which pertains to these energies. Three cycles are good to start with; you can go up to seven later on.

Exit from the retort, relax, note all your impressions, your cognitions, the date, the hour, the lunar period.

THE SECRET FIRE OF THE ALCHEMISTS**PRANA AND KUNDALINI**

Both terms — Prana and Kundalini — which are used in Yoga possess their alchemical correspondences at the level of oratory work.

The fact that the names given to these energies express neither their meaning nor their nature leads to confusion and misunderstanding.

We mentioned in the beginning of our alchemy class that the cycle of the original, undifferentiated energy is divided into two opposed energies: *the active, the Niter — the passive, the Salt*. In addition, we can now say that Kundalini belongs to the energies of the Niter and Prana to the energies of the Salt. The equivalent terms in our language which would conform to our traditions and our culture, would be to call Prana *Vital Energy* and Kundalini *Spiritual Energy*; alchemists call the latter the *Secret Fire*.

These two energies are omnipresent in the universe. They have various mediums through which they operate, the nature of which may vary the quantity and the quality of these energies. By analogy, copper and silver are good electrical conductors and iron a good magnetic conductor.

The Vital Energy manifests in the body as a kind of radiation. Not that the body glows in the dark but it expresses and radiates a certain beauty, a kind of physical harmony.

Vital Energy abounds in plants and in animals; its main role is to maintain their life. If given special care, animals may radiate strongly.

On the other hand, Spiritual Energy, in the world, can only be found in the human species; it is what makes the difference between men and animals. However, we should add that it only exists as a potential in most beings for it is locked at the base of the spine at the extremity of the spinal cord. The strong currents of the Vital Energy maintain it in the state of a prisoner.

Another significant difference between the two energies resides in the nature of their presence. Spiritual Energy has constant presence and strength which are independent from nature's cycles; whereas Vital Energy has presence and strength that vary as a function of both the lunar and solar cycles. Spiritual Energy is compared to the sun insofar as it is a constant source of light, an analogy for consciousness which is a permanent spark. It is both attractive and contractive whereas Vital Energy externalizes itself as do beautiful blossoming flowers.

The Spiritual Energy belongs to the realm of Eternity and nothing of this world can touch it. It should be said that it is not totally locked at the base of the spine. A small portion escapes and this limited portion of energy gives man his self consciousness, his feeling of "I". The thought "I am" is an indication of the activity of the infinitesimal part of the Spiritual Energy that breaks through the barrier of the currents of Vital Energy. The captive Spiritual

Energy, however, is infinite in quantity. In man's body, it is linked to the rhythm of the breathing. With every inbreath, it travels up through the centers of the Sephiroth to a certain height which characterizes the level of consciousness that is reached by the individual; then it travels back down with the outbreath.

The levels thus reached by the Spiritual Energy can be divided into three zones which correspond to the alchemical Salt, Sulfur and Mercury.

— When consciousness resides in the lower parts of the body it is the rule of Salt: consciousness is attached to material pleasures. These individuals usually have a very limited mind and their primitive instincts are powerful. The abstract concepts of truth and virtue are not easily accessible to them and crime does not disturb them.

— In the rule of Sulfur, the consciousness resides in the region of the heart; these individuals are very active and amass wealth easily. Their mind is aroused by everything, whether of this world or religious subjects. These people painfully feel the contradictions in their conscience.

— In the rule of Mercury, consciousness resides in the head, the neck and the throat. Those individuals are attracted to the mystical and occult sides of nature and it is in them that the enlightenment of Spiritual Energy will most certainly occur.

All these levels of consciousness are accessible to people in whom this energy has not been awakened yet; for someone can, with the help of a small amount of Spiritual Energy, escape his lower nature, master it, bring this energy progressively higher and concentrate it in higher levels.

If we manage to first weaken and then momentarily suppress the currents of Vital Energy, the spiritual currents will be liberated and with a tremendous force, they will envelope the body which, for a moment, can be perceived as a limitless, brilliant light.

This experience occurs at death, when the vital currents cease, but it can also be provoked by various methods. Evidently this experience occurs more easily during the winter solstice, around Christmas time, when the Vital Energy is at its lowest in nature. It can manifest in various forms:

— For some individuals the brilliant light can take the form of an angel, the aspect of his "I" or that of a spiritual teacher.

— It can provoke an astral projection with the corresponding perception of the surroundings.

— As a result the intellect can start functioning in a semi-conscious state, without link to normal logic.

— It can also provoke uncontrolled physical movements: shaking, rapid breathing, giddiness, swinging or the hieratic position.

This experience of the awakening of the Spiritual Energy is one of the keys that open up the occult path and corresponds to a rebirth. A short while afterwards, the disruption of the Vital Energy ceases and the Spiritual Energy is locked again in the base of the spine.

After this experience, body and mind readjust themselves to the new light of this initiation. The body changes in a subtle manner and becomes sensitive to various modes of perception, different from ordinary perception. The physical body changes unconsciously but the change of the mental body depends upon consent and conscious effort, particularly at this stage.

A second experiment on this mystical path will be of greatest importance. In effect, the ascent of the Spiritual Energy will occur from its resting position on the top of the head. This is the beginning of spiritual regeneration. In this second experiment, the Spiritual Energy inscribes a path for itself that can no longer be entirely blocked by the Vital Energy.

There is much confusion regarding the various methods used to achieve the ascent of the Spiritual Energy. It is best to remember that this energy is the totality of Intelligence and that the ascent should not be artificially induced unless the proper preparation is completed.

We mentioned in the beginning of this lesson that we translated the word Kundalini into Spiritual Energy. This is not entirely accurate for the word Kundalini is used with two different meanings: the one that we gave Spiritual Energy and the second which is the location where this energy enters and remains blocked.

Before describing the effects of this energy, we must say that its awakening disturbs and de-stabilizes the currents of Vital Energy; this brings about effects which are more dramatic but which should not be confused with the effects of the Spiritual Energy. And so sensations of *light* can occur that accompany very strong, hot currents up and down the spine. The Vital Energy can be strongly concentrated in certain parts, particularly in the top of the head, close to the center of Kether; and this acts as a diamond upon the center, in such a way that the seeker could believe that an awakening of his Spiritual Energy is occurring in this center, whereas the phenomena are only due to the Vital Energy. This confusion, due to misinformation, does not present a real danger except that it may discourage the seeker in his pursuit of enlightenment.

The Spiritual Energy is far less dramatic in its ascending and the following phenomena can occur:

1. a sequence of intense pains that can suggest that one has an illness;
2. a sensation of ants slowly crawling and jumping here and there on the body rather than in the direction of the top of the head;
3. the Energy can, with a feeling of tranquility as the still surface of a lake, and without fear or apprehension, go from one center to the next, to the center on the top of the head;

4. the ascending can happen in a zigzag movement as if it were going along the undulating body of a serpent, hence the name serpent-fire;
5. the Energy can skip a center or two and can stop after only one leap;
6. the Energy can reach the center at the top of the head in a lightningbolt of light.

When the Spiritual Energy reaches the cranium and goes beyond it and forms sort of a flower, there occurs a very definite sensation and consciousness awakens at a high level of bliss, while the vital forces are reinforced again and re-vitalize the body. This state is represented in the Qabala by the head of the serpent which is turned toward Kether with its tongue touching the eleventh Path. This provokes, according to the symbol of this Path, a sparkling of intelligence. Then, the Spiritual Energy retires again to the base of the spine. What follows is a surprise for the candidate, for the body and the spirit are strongly revived and the strengths and the weaknesses of character are considerably exaggerated. It is therefore possible that the candidate be strongly perturbed by his sexual drive the next day.

A long period of gradual progress begins. At this stage of awakening, conscious work on the vital force becomes possible. A spiritual regeneration follows and the intelligence becomes brilliant in various aspects. Sometimes the energy only awakens one center and these are the consequences:

	{Base of the spine	mastery of the 4 elements
	{Genital region	power of pleasure
Centers	{Heart	understanding
	{The throat	clairaudience
	{Bridge of the nose	clairvoyance

Theoretically, none of the centers can be opened before the center on the top of the head. The initial goal of the ascent of the Spiritual Energy is to allow the beginning of conscious work with this energy. The successive openings of the centers is the second goal, but it is dangerous to insist too specifically on the lower centers; in this case the follower's consciousness could be damaged. Each experiment encourages the candidate to persevere on the Path.

We mentioned earlier that the awakening progressively gave a faculty of control and a faculty to use the Vital Energy. However, it is now useful to understand that the revitalization or the awakening of the centers by one or the other of these energies does not provoke the same result.

If the center has not been awakened by the Spiritual Energy the concentration of Vital Energy upon this center will immediately produce a certain number of conscious results such as perceptions of colors and sounds, or perceptions in other domains which are difficult to explain, like all-inclusive sensations that would give at once an identical perception to the simultaneous integration of the five senses. But these experiences will only be temporary and

linked to the active cycle of the Vital Energy. On the other hand, the concentration of Spiritual Energy and the resulting awakening will not provide immediate conscious results: there will be no cycles nor regression but an irreversible progression that will be proportional to the effort of the candidate.

Before regeneration begins through Spiritual Energy, other experiences begin. Mainly a specific feeling of entering another dimension where an inner teaching progressively becomes accessible. A trance-like state of consciousness can also occur which allows the perception of a state which is different from the ordinary physical state. This often ends up by a slowing down of the breathing and a sort of spiritual catalepsy which brings vitality and renewal to the body. This state can sometimes reach a cataleptic state where even speech is impossible. A long preparation is necessary beforehand for the benefit which is brought about lies beyond the physical world, and distress or disorientation of the mind can result.

The Spiritual Energy does not obey the physical man. This omnipresent Energy can be compared to pressure that is on the verge of action.

The changes in the Vital Energy and in the composition of the blood of the candidate (which can be accomplished through the use of the vegetable and metallic elixirs) can provoke a progressive liberation of the Spiritual Energy.

The successive development of the centers, after the Spiritual Energy has reached Kether, leads progressively to a definitive state which cannot be understood or described by words. This can be the state of Grace of some religions but we can also say that the candidate has become a child of God and that he has attained eternal life.

ORA ET LABORA !

MINERAL

Lesson 8

Dear Friend,

THAT WHICH IS PHILOSOPHICAL

When an alchemical experiment is not successful, we must look for the cause of the failure. Perhaps, we'll find a theoretical error, or a practical error; but most of the time it will be due to the fact that one of the components is no longer *philosophical*. To retain the philosophical aspects of things in the vegetable kingdom is a subtle matter and it is even more so in the mineral kingdom. No PH-meter, no instrument can tell you whether an extract is philosophical or not. But the fact that the psychic state of the operator is of prime importance in this respect is certain and no one can obtain philosophically pure products if he is not — more or less — philosophical.

The laboratory — oratory balance is crucial

The cleansing can only occur when the three principles have been separated.

The Sulfur often presents itself in two different forms: oil and salt. If one of the two is lost or if the corresponding proportions are not maintained, the Sulfur is no longer philosophical.

The Mercury is philosophical if it possesses the germinative power of its kingdom. In the vegetable realm, an extraction of caraway seeds, cumin seeds or of any plant in the form of seed gives an intense vegetable life to the Mercury.

The Salt generally doesn't need treatment: it always remains philosophical, but it often requires a lengthy cycle of calcination, solve-coagula, new calcination and so on... before it is philosophically pure.

We mentioned earlier that strong mineral acids are responsible for the loss of the philosophical characteristic of ores, this, however, does not happen instantly. On the other hand, the sea salt acid, HCl — especially if it is made from sea salt — is often so charged with the life principle that not only does it not kill the ore but it can even re-vivify a dead metal.

The philosophical state of the Philosopher himself is also of *great* significance and we shall talk about it in a later lesson.

ALCHEMICAL LABORATORY SECRETS

Extraction with a Soxhlet

If we operate with an electrical flask-heater, it is, to all intents and purposes, impossible not to burn a portion of the vegetable Sulfur, and our product won't be fully philosophical. You can avoid this situation by using a water-bath but it also has drawbacks that can be summarized as follow:

- a significant slowing down of the extraction;
- the obligation to keep a close check on the water level of the water-bath;
- production of steam that will de-absolute the alcohol at the first opportunity;
- leaves a lime deposit on the round bottom flask if you are using anything other than rain water or distilled water for the water-bath. This makes the tincture in the flask hard to see.

To remedy all this, the round bottom flask can be attached to the extractor with a clamp and in this way we can keep the round bottom flask about 5 to 10 mm. (0.196 to 0.393 inches) above the heating mantle; you should make sure that *the round bottom flask does not in any way touch the heating mantle*. The electrical voltage that is applied should be reduced to avoid any overheating of the flask-heater; the best way to achieve this is to use an auto-transformer (variac). Using this method, the quality of extraction is the same as with a water-bath only much faster.

Very often, during a plant extraction with a Soxhlet, the tincture becomes turbid or cloudy and loses its transparent clarity as well as its original color. The alcohol which drips into the thimble is distilled and relatively pure. It dissolves the Sulfur in the plant and becomes charged with the vegetable Mercury, or more specifically with its animating principle. As the siphon is started, these matters go down with the alcohol into the lower round bottom flask; the alcohol is progressively saturated and there comes a point when the distillation of the Sulfur is no longer possible. Small solid particles appear and the tincture becomes cloudy.

What should you do then?

- Increase the volume of alcohol to allow the dissolution of the excess Sulfur: it is simple but it is also expensive.
- Filter the tincture through a glass funnel using a plug of fiberglass, or a porous plate made of nylon, teflon or fritted glass. Filter paper should not be used for it absorbs too much

Sulfur. All the *jelly* that is collected will be treated as has been explained for the Salt of Sulfur. This latter will be added to the Salt of the plant.

If you do not follow these precautions, the preparation will then lose its philosophical characteristic because a portion of the Sulfur will have been eliminated.

ALCHEMICAL MEDITATION

MEDITATION NUMBER 6

Numerical meditation on a symbol - the illustration of Basil Valentine.

Place the enclosed engraving behind the retort. Perform the ritual of entry into the retort. Begin the following meditation:

1 — Everything comes from the unity of consciousness which is symbolized by the head in the center of the drawing. The material aspect of consciousness is Saturn, the lower point of the star. The connection is made by the salt of Saturn which is black.

2 — The duality, the active, the male who is symbolized on the left side of the drawing by the solar King himself who is crowned, seated on his rock with the lion and the dragon at his feet: the element Fire.

On the right side of the drawing, is the passive aspect, the female, the moon: the woman who rules over the waters. She is seated on a dolphin which is swimming in the sea; her head radiates the cerebral lunar energy and her hands hold: one the cornucopia of nature and the other, a symbol of natural harmony.

3 — The triangle of the three principles: the solar Sulfur on the same side as the King, the lunar Spirit on the same side as the Queen; in the lower point, the body with the cube of the earth, surrounded by the five traditional planets: Saturn, Jupiter, Mars, Venus and Mercury.

4 — The four corners of the drawing: the salamander, the Fire; the Eagle, the Air; Water and Earth.

5 — The Pentagram of the Alchemist: a foot in the earth, a foot in the water. The hand which holds the feather of the bird symbolizes the Air, the hand which holds the torch symbolizes the Fire. The central bird of the top symbolizes the quintessence.

6 — The combination of the two triangles:

— The big triangle: Anima-Spirit-Corpus symbolizes the three principles in their outer aspects;

— The small triangle: of the consciousness symbolizes the Sulfur, the Mercury and the Salt in their inner aspects.

7 — The seven planets in the seven points of the star. Notice Saturn, black, close to the earth in the symbol of the Earth element. The wolf, symbol of antimony, which spits his fire. In 3, Mars where Sulfur is hidden, which brings us to say that the secret is in Aries which is ruled by the planet Mars. In 6, the multiplier Mercury in the mercury.

The seven cartouches represent the sequence of the stages of the work. The sequence occurs clockwise. Start with the work in black of Saturn and finish with the birth of the infant king.

The formula in the crown is the one giving the acrostic of **VITRIOL** : **visit the inside of the earth (antimony), rectify (purify), and you will find the hidden stone.**

Exit the retort, relax, note your impressions, the date and the hour. Compare this with the text of the Oraculum.

ORA ET LABORA !

FIGURE ENCLOSED:

- Figure #1 - The illustration of Basil Valentine

Figure #1

THE ILLUSTRATION OF BASIL VALENTINE



MINERAL

Lesson 9

Dear Friend,

The medallion represented on figure #1 contains a sentence in Latin which translates as:

Visit the inside of the earth and you will find the Hidden Stone.

Whoever interprets this sentence literally can attempt to visit all the mines of the earth and he won't find the Hidden Stone. In respect to the drawing as a whole, the interpretation is: *Take a look at what is inside antimony*, for antimony is the symbol of the earth. It can be also formulated as: *Separate antimony into its principles and you will have the elements of the Fire Stone*, thus called by Basil.

Note that the Fire Stone is not the Philosophers Stone; it possesses all its properties but to a lesser degree.

The symbol is clearly divided into two parts. The two escutcheons of the Eagle and the Lion are linked by the Golden chain of Homer, AUREA CATENA HOMERI, the most revealing book of all the Alchemical literature.

The Eagle and the Lion are the guardians of the threshold of the chain, that is to say the Mercury and the Sulfur. Underneath, we notice the cross above the earth, the symbol of antimony, and underneath further the star of the starry Regulus. Right, we can see the rings of the magnetic Sulfur, and left the Fish (Pisces) of Mercury. Above are the two hands of divine influence, or the secret fire, and all the way up, are the alchemical sun and moon, united in the alchemical vase of Mercury.

— We notice that Saturn, in the four accompanying planets, is jumbled for Saturn's lead is replaced by the *philosophers lead*.

The first letters of the words of the latin sentence form the word: VITRIOL, which gives us the starting key. The only two vitriols of antimony are:

- the native vitriol: *stibnite*;
- the vitriol made through the art or in the current terminology, *the acetate of antimony*.

Let us start our study with the vinegar of antimony, according to the commentaries made by the famous alchemist *KERKRING* on the aforementioned vinegar, and from which we'll draw a part of our inspiration.

This vinegar is one of the main preparations of antimony; consequently, we are drawing your attention to the particular points that will enable you to follow Basil's instructions more correctly.

We do not know of any other operation on antimony that those who know its hidden mystery should attempt, for *this one contains them all*.

Finally, this is the substance about which all sages and alchemists wrote: the oil of antimony is the goal of all alchemists for it can be *promptly converted into the Fire Stone*.

VINEGAR OF ANTIMONY, CALLED PHILOSOPHIC VINEGAR OR MINERAL VINEGAR

This vinegar is the alkahest that opens all metals.

We believe that you are now familiar with the processes which are described in Spagyrics Lesson #43. Note that the figure in Lesson #41 will be very useful for our subsequent works. Those of you who experimented with the vegetable circulatum minor or the vegetable Stone know that, except for gross errors, almost the sole cause of failure is the loss of the *PHILOSOPHIC STATE* of one of the three principles of Sulfur, Mercury or Salt.

The problem is similar in the metallic kingdom, but more complex than in the vegetable kingdom.

Our study is involved with the extraction, while maintaining the Philosophic quality of the three metallic principles of Sulfur, Mercury and Salt. There are, in fact, four possible solutions to this problem and we shall carefully study them one at a time in the subsequent Lessons.

The four possible solutions are:

1 — *Metallic fermentation.*

2 — *Extraction by an alkahest.*

3 — *Dissolution by a philosophic Mercury.*

4 — *Special distillation of a correctly prepared vitriol*

The present Lesson will be dedicated to metallic fermentation.

METALLIC FERMENTATION

In the course of our experiments, we successfully fermented two metals only: antimony from stibnite and lead from galena. The latter fermentation requires considerable work, so we eventually rejected it. The method we used was from the *Collectanea Chemica* as described in the handbook of Alchemy.

We do not know if the fermentation of the other planetary metals is possible; all we can say is that to this day, we have not succeeded, perhaps because the quality of the minerals was not adequate. We believe that the easiest and the most interesting fermentation is that of stibnite, the ore of antimony. This is why this lesson is dedicated to the subject.

Stibnite is a *toxic ore*. It must be handled with gloves for it can penetrate the skin. When it is handled in powder form, the respiratory tract must also be protected by a dust filter mask.

It is best to have rather big pieces of the ore at one's disposal and to undertake to crush and reduce them to powder *shortly before using it or at least before the first calcinations*. Manual crushing in a large quantity is practically impossible, therefore, our mode of operation is as follows:

We put the big pieces in a bag made with two or three layers of a thick closely-woven cloth. We can then break up the stibnite with a heavy hammer in such a way that the chips and the dust do not fly all over the place. It is necessary to reduce the pieces to a size smaller than that of a walnut.

For the next reduction in size, we'll use an 8" or 10" long 4" iron pipe nipple with a cap screwed on one end. This will hold the ore to be crushed. The crusher is a 3" pipe cap which has a pipe reducer from 3" to 1" which is screwed to the pipe. Screw in a 12" x 1" pipe nipple to make the crusher part. Put 50 grams of stibnite into the large pipe and slip the 3" crusher into the top of the pipe and smash repeatedly until the ore is reduced to 1/4" or less. This setup will work on stibnite, Galena, cerusite, chalcantite, native sulfur tartar and most other ores used in Alchemy. Put all the ore crushed in this way through a fine sieve to get the powder and place the rest in a barrel style rock tumbler with steel balls or carborundum grindy media and let tumble for a few hours. Periodically take out and run through the sieve and remove the powder. When handling the powder put on masks and gloves. All the pieces that don't go through the sieve are put back in the tumbler and rolled again. If the powder which is produced is not regularly collected, it coats and build up on the balls, and on the pieces of ore and the grinding becomes inefficient.

The powder is immediately stored in air-tight containers, for it is important to protect it from the dampness of the air which would produce sulfuric acid.

Then, the calcination can be carried out as directed in Lesson #6. It is absolutely necessary to ventilate well and carry away all the gases generated during this experiment. Do not be afraid of taking too long for the calcination stage which occurs between 70C. (158F.) and 80C. (176F.). You can add towards the end a plateau of about 10 hours at 90-100C. (194-212F.).

We have now two ways of obtaining the vinegar of antimony:

1 — Circulation, fermentation:

Fill the thimble of a Soxhlet extractor with stibnite *and distilled rainwater*. The extractor should not be filled with a paper thimble but an Alundum or fritted glass thimble or simply with 2 or 3cm. (0.7 or 1.18 inches) of surgical cotton at the bottom of the extractor. The extraction-fermentation lasts from 2 weeks to 2 months. For the best fermentation, it is a good idea to cover the extractor with an insulating layer *including the tube where the vapors ascend*, the stibnite is thus at a better fermentation temperature. If you don't want to have the cooling water running for 2 or 3 months, a closed circuit with refrigeration is necessary. Our refrigerant is a 10mm. diameter and 5m. (16.40ft.) long copper tube, coiled in a spiral and placed in a container, insulated if possible, that contains ice. We will use an aquarium's pump (Figure #2).

In the course of the operation, the pH of the water should be periodically checked; it should start to move during the first two weeks. If you have a pH-meter at your disposal, there is no problem. Otherwise, you should use very sensitive papers. After a decrease in the pH, that is to say an increase of the acidity, a period of stabilization occurs. The first phase of the experiment is then accomplished.

During the entire operation, the upper part of the refrigerant should be stopped up. Then put the liquid and the stibnite in a round bottom flask, and vacuum distil in a water-bath *to the dry point but no further*, to avoid the loss of the spirit. The distillate is then poured into a round bottom flask and we distil one fourth of the liquid at a time and store the four fourths separately. *The last fourth must be vacuum-distilled.* A green gum may appear, towards the end, that does not distil over at 60C. (140F.). Dissolve it in absolute alcohol and put it aside for later use. *This is the GREEN Lion* (which can be obtained in greater quantities in a different manner).

The fourths are taken one by one and again separated in four. We have now 16 flasks. Reassemble them by mixing together the ones with a similar pH, and distill them again in four batches. Thus progressively, the vinegar is concentrated and separated from its phlegm. When the pH is below one, stop. Experience shows that if the vinegar is correctly made, it extracts the tincture of gold (try with a very small quantity of vinegar, a few drops in a test tube). The color generally appears within 24 or 48 hours. At least one moon cycle is required to completely extract the tincture. This method has one drawback, its duration; but it has many advantages. First its simplicity, and the small risk of breaking material. The most important advantage comes from the fact that, as soon as some vinegar is extracted, it circulates with the water and accelerates the extraction process, for, because it is an alkahest, it has the power of extraction. The process is slow, nonetheless, since the vinegar is dissolved in water. Through this method, a long extraction of 2 or 3 months extracts most of the stibnite. Do not discard the stibnite out of which the vinegar has been extracted.

2 — Fermentation — extraction — incorporation of Spirits**self extraction — concentration :**

The stibnite is prepared as before, then poured into a flask *which has an air-tight stopper*, combine seven parts of distilled rain water and three parts of powdered stibnite, by weight.

We constructed a little apparatus that turns the flask upside down every minute. If the mix is not constantly agitated, the flask should be turned at least 10 times a day. This considerably accelerates the fermentation. The flask is placed in a box maintained at a temperature between 40C. (104F.) and 50C. (122F.).

With this mechanism, the fermentation is usually completed in one or two weeks.

The distillation can be performed as mentioned above. But if you wish to obtain a stronger, more abundant vinegar, the operation becomes more complex.

The distillation device must conform to Figure #3 (the various elements drawn in this figure are not to the same scale). Also note that if the round bottom flask B is made of quartz, the device F is not necessary.

Proceed in the following manner:

The fermented stibnite is poured with its water in the round bottom flask B which is put into an enclosed space made of insulating fire bricks. The round bottom flask is supported by an iron tripod. A resistance coil of 500 to 1000 watts insures the heating of the air in the enclosed space. This device is necessary so that the round bottom flask doesn't break during the dry distillation. It prevents stress from being created in the glass, as the entire flask is heated. No liquid can then be deposited in the round bottom flask or in the curved part of the distillation bridge: therefore no liquid is lost and cracks are avoided that could be caused by liquid falling into a round bottom flask heated at 400C. (752F.).

Vacuum is established through tube U, before heating, a first time. The vacuum does not last for the stibnite liberates occluded gas. Two or three hours later, vacuum should again be established. If vacuum has to be established a third time and does not hold, a leak must have occurred and the cause should be sought out.

Heat at 60C. (140F.). At the onset of ebullition, establish the vacuum again. This is an important phase because the vapors of the ebullition allow *the residual air* to be expelled.

If the distillation is slow enough and the cooling of the condenser correct, the round bottom flask G fills up with liquid; the receiver *must remain cold*. Do not forget that, at such weak pressures, the condenser D is not very efficient. If G heats, it must be surrounded with water containing salt and ice *for the spirits of the vinegar are very volatile, at that point*.

H and L are two test tubes which are 20 to 25 cm long (7.8 to 9.8 inches) and 25 to 20

mm (0.98 to 0.78 inches) in diameter. The U-shaped tube that links them is almost closed on the L side; the hole should be of the diameter of a fine needle. If the spirits have not yet been fixed in G, the bubbling in the form of fine bubbles should dissolve them in the water of L which will be added to the vinegar at the end of the distillation. In case the temperature drops in B which would pull liquid from L to G, in the enclosed space of distillation, the tube H is meant to prevent the water from L to rush into G.

The round bottom flask M is a safeguard for the vacuum. When all the liquid of B is distilled, the temperature is progressively increased *during the following three days* so that it reaches 350 to 400C. (662 to 752F.) towards the end of the third day (a thermometer or pyrometer in the enclosed space F is very useful).

Let it cool down *slowly* without opening the enclosed space. When opening, the inside of the round bottom flask B should be partly covered, with a red and yellow deposit. With a piece of *hardwood*, break the block of dry stibnite. The content of the round bottom flask G is poured into B; agitate to obtain the dissolution of the red and the yellow.

Begin again the vacuum distillation as before and heat again for three days. Generally, by the third cycle, there no longer is a red and yellow deposit; in this case the operation is completed.

Mix the water from G and L, distil by fourths as in the first method until the pH is less than 1.

Be aware, in the successive distillations, it is useful to operate with an air-tight circuit, with an outlet into the system of tubes H and L: in this way, you can avoid any loss of vinegar. If, in the course of a distillation, there is bubbling in L, measure the pH of this water and incorporate the water into the circuit of distillation, by fourths.

This second method yields a stronger, more abundant vinegar than the first, in less time. But it requires more equipment and in the case of a mistake, the round bottom flask B is easily broken.

PROPERTIES OF THE VINEGAR OF ANTIMONY

1 — The vinegar of antimony is fixed. One can no longer render it unfixed, just like vinegar cannot be brought back to the state of wine.

2 — *The vinegar of antimony fixes everything that comes in contact with it, including the elements of antimony.*

3 — In the vinegar of antimony *lies the key which opens all other metals and fixes their Mercury.*

4 — After the elimination of the phlegm, the vinegar of antimony is the fixed Pure Spirit of antimony.

5 — Although apparently corrosive, the vinegar of antimony is not toxic.

6 — The vinegar of antimony can also be obtained from the Regulus of antimony. *In this case, the volatile spirit is not fixed.*

7 — When we read putrefaction in Basil Valentine's texts, we should understand preparation of the vinegar of antimony.

8 — The vinegar of antimony directly extracts the oil of antimony (its Sulfur) from the white glass of antimony.

9 — If the vinegar is extracted from non-calcined stibnite, it contains sulfuric acid and it can contain the element arsenic.

10 — Acetic acid is difficult to separate from the vinegar of antimony.

11 — *The sublimate that ascends after the vinegar is distilled over, is the Spirit which is progressively incorporated into the vinegar.*

12 — In the course of repeated distillations, it is possible to obtain the salt of antimony by passing the separated vinegar through dry decantation.

13 — In the course of the previous operation, the Green Lion can sometimes be released; it depends upon the quality of the stibnite.

14 — If the vinegar of antimony does not contain any sulfuric acid, it draws the tincture from the metal mercury, *but does not dissolve it.* Try first on a small bead of mercury and follow a procedure identical to the one used for the alkahest of sulfur.

15 - Another method to detect sulfuric acid: extract the tincture from the glass of antimony and pour a few drops into a solution saturated with barium acetate. If there is a precipitate, there is sulfuric acid and the calcination of stibnite did not last long enough.

16 — The Balm of Life and the vinegar of antimony contain great alchemical secrets. Kerkring says that these preparations can take the place of all others.

17 — The vinegar obtained by the second method is stronger than the vinegar obtained by the first method. This can be verified by pouring a little bit of vinegar in a test tube. Let fall into the vinegar a fourth or 1/2 cm² of a bookbinder's sheet of gold. The extraction of the tincture happens much faster with the second vinegar.

The oily yellow liquid that is obtained is the first form of drinkable gold. Close to a month of maceration is required.

NOTE: about the colors of the gold tincture:

The extraction with the vinegar of antimony of pH 1 or lower yields a golden yellow oil.

With an alkahest, the color evolves according to its concentration and to the quantity of extracted tincture or of dissolved gold. When the concentration is high the color is red, when it is weak, the color is green. That color is the color of gold which becomes transparent when the sheet is thin enough. When the dissolution or the extraction happens, we have, in the beginning, the transparency of the green gold, then it becomes either green then red, or yellow then red. The drinkable concentrated gold is ruby red. Its highest degree can only be obtained by a fixed and purified philosophic Mercury.

ORA ET LABORA !

ENCLOSED FIGURES:

- Figure #1 — Medallion of V.I.T.R.I.O.L. of Basil Valentine
- Figure #2 — Closed Circuit Refrigeration Setup.
- Figure #3 — Distillation Set up.

Figure #1

MEDALLION OF V. I. T. R. I. O. L. OF BASIL VALENTINE



Figure #2

CLOSED CURCUIT REFRIGERATION SETUP

AIR INTAKE TO FACILITATE FILLING
(possible purge with this hose)

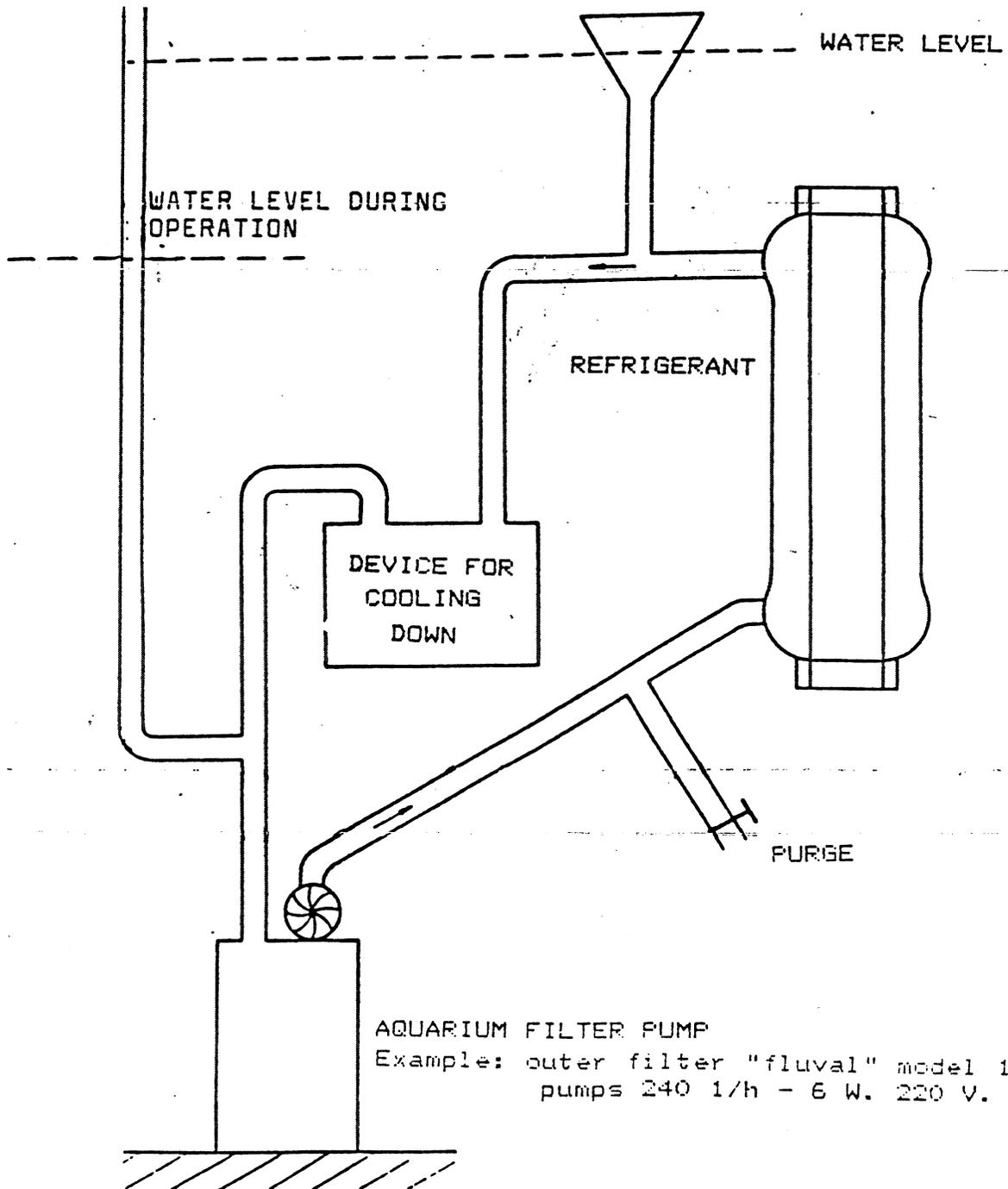
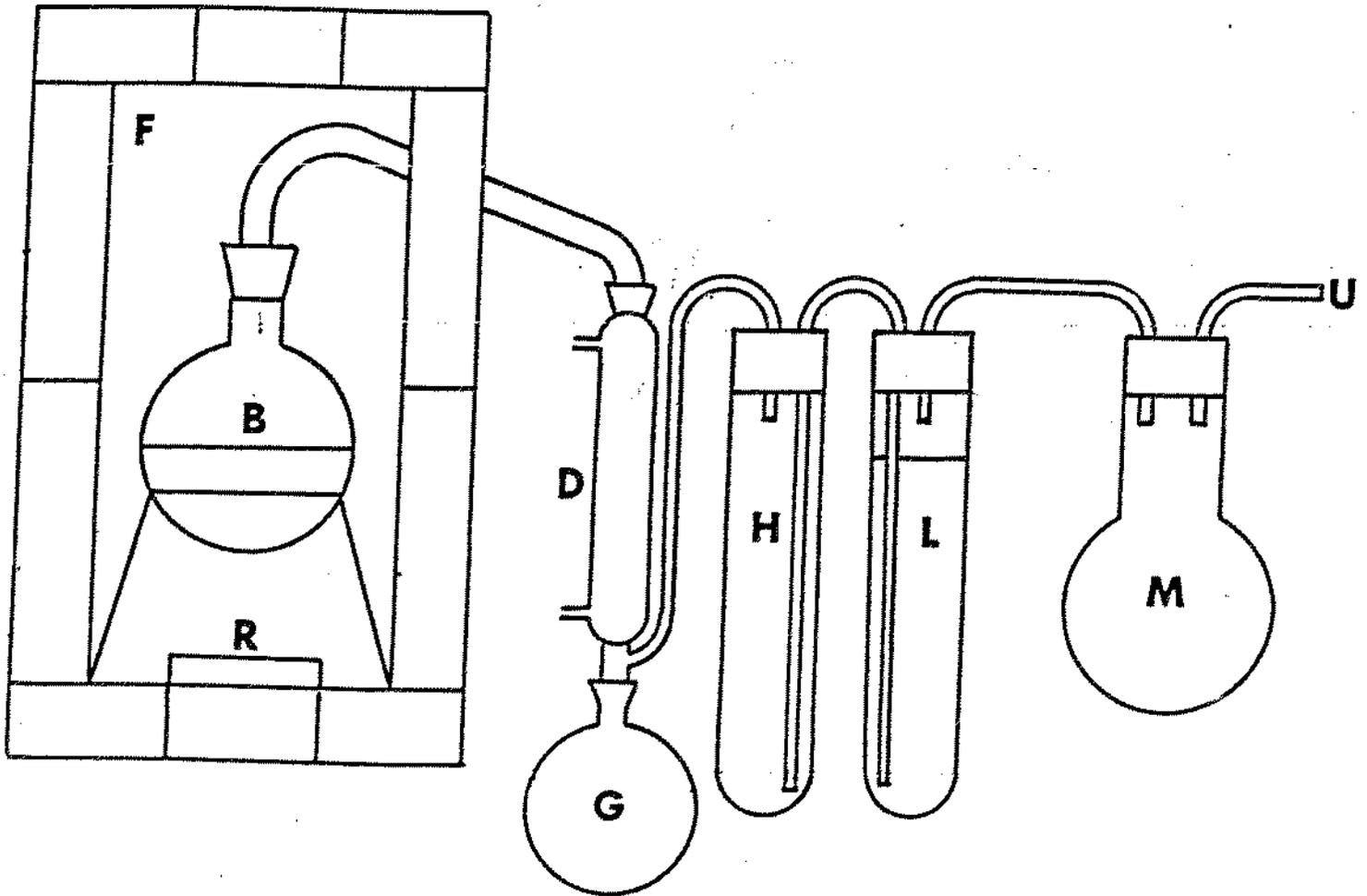


Figure #3

DISTILLATION SETUP



MINERAL

Lesson 10

Dear Friend,

To supplement what we have already said about preserving the philosophic character of the three principles, let us point out that one of the major difficulties in producing the Stone is the considerable number of cycles required of *imbibition* — *maceration* — *calcination*. Time and work are necessary. Moreover, the volume of the stone diminishes as you go through the process because a small amount of product is lost with each cycle. As it is often impossible to have a large quantity of substance at one's disposal in the beginning, there is the risk that you will watch the Stone being reduced to almost nothing before it is completed. The only efficient way to reduce the number of cycles is to pulverize the salt as finely as possible at the very beginning of the operations.

In the course of our experiments we noticed the formation of three layers in the structure of a vegetable Stone in the course of its preparation. One of them is formed in a more advanced stage; *it results specifically from the extreme fineness of the grains of Salt*. Some difficulties must be overcome in order to obtain the optimum particle size. If we operate manually, the grains form a dust that blows away. For example, Kerckring advises us to imbibe the antimony Stone with distilled vinegar to prevent it from blowing away. It is then a paste in the mortar. Unfortunately, such an operation cannot be performed with the vegetable work because it is soluble in water. The only possible imbibition would be with alcohol, but we believe it is not desirable from an alchemical point of view.

To obtain the desired result, we decided to use a ball mill. The salt is pulverized in the ball mill crusher which consists of a porcelain jar closed with an air-tight stopper and a quarter-filled with porcelain balls or rods. A rock tumbler makes the jar revolve. Stop the rotation after an hour or two, and collect the powder with a clean brush, do not forget the powder on the surface of the balls. In order to grind the powder really fine, the jar and the balls should be preheated at 110-120C. (230-248F.) for at least an hour so that the slightest trace of dampness disappears. If you have a sieve with a bottom and a cover — which prevents the loss of the finest powder — you can run the powder through the sieve.

You can get a stainless steel sieve (600 mesh), for instance, that does not let through particles unless they are smaller than 0.04 millimeters. One thing to watch for is that the powder won't pass through if it is allowed to absorb back some of the atmospheric humidity.

Salt thus prepared shortens, by four times at least, the cycles of fixation. Note that after use these sieves must be cleaned with distilled water only and dried with an electric dryer, otherwise the screen will become clogged.

Comment:

Some of our members may feel that all these practical precautions are far from esotericism or spirituality. But the Vegetable Stone is a living, sublimated body which, through its powers, opens our Inner Gates. The Stone may release only a little elixir, except for mercurial plants (Thoth Hermes), however, the elixirs it does produce open the akashic contact either on the level of Hod or on the level of Netzach. This contact brings a direct knowledge that is inaccessible through books, a knowledge of Nature that is not necessarily alchemical but always turns out to be useful, if not indispensable, for the journey along the Path.

USE OF PH PAPERS:

The pH of a solution is linked to its basic or acid character; the balanced or neutral state, is pH 7. From 0 to 7 the solution is acid and from 7 to 14 the solution is basic.

Depending upon your needs, there are various kinds of pH paper available. We can use three scales in the mineral:

- 1) pH paper from 1 to 4.5 for the vinegar of antimony.
- 2) pH paper 4.5 to 7.5 to check and purify vitriols;
- 3) pH paper for general use: from 0 to 14

Do not dip the paper into the liquid when testing, because the reagents might react with the paper and give false results. Dip a glass rod into the liquid and spread a drop or two on the paper.

These papers should be kept in air-tight boxes or bags to avoid dampness. An electric pH-meter is more precise but the price, of course, is higher!

ALCHEMICAL MEDITATION**MEDITATION NUMBER 7**

Alchemical meditation on the Process: the Conjunction — the Mountain of the Adept.

Place the drawing (page 5, Figure #1) behind the retort. Perform the ritual of entry into the retort.

First phase: the beginning alchemist is blindfolded, he is blind and needs a guide for his work. Like the hare, he'll start working in the earth without light.

Second phase: it is one of the seven operations which lead to the threshold of the Temple, inside the Mountain. These operations are: Calcination, Sublimation, Solution, Putrefaction, Distillation, Coagulation and finally the result: *Tincture*.

The Temple is inside the Mountain, it is hidden from the layman. The Temple has seven windows to the outer world, and it is the Temple of laboratory work as shown by the big still (athanor) placed in the center, in the back. On the left side, the solar King holds the scepter in his right hand, on the right side the Queen holds a three leaved plant in her right hand.

Above the roof of the Temple: the Sun and the Moon surrounded with stars. Above, the triumphant Phoenix. This is the path of the follower, but to obtain the result the conjunction must occur.

The conjunction consists in the understanding and mastery of the four elements, the seven double laws (planets) and the twelve signs of the Zodiac. We have in the four corners the four elements surrounding the Zodiac. Here, each sign is assigned to an alchemical symbol, which is:

Taurus	mercury
Libra	verdigris
Scorpio	vitriol
Aries	sulfur
Leo	crocus of iron
Virgo	sal ammoniac
Gemini	cinnabar
Cancer	orpiment
Sagittarius	salt
Pisces	saltpeter
Capricorn	tartar
Aquarius	alum

The planets are placed on each side of the mountain, on four pillars (the four worlds of the Qabala).

Left, the solar planets:

- Venus with her mirror (left hand) and a radiating heart (right hand).
- Mars with a sword (right hand) and a shield (left hand).
- The Sun with the crown and the scepter.

Right, the lunar planets:

- Saturn, the child (right hand) and the scythe (left hand).
- Jupiter, the scepter (left hand) and the thunderbolt (right hand).
- The Moon, Diana the huntress, the hunting horn (right hand) and the spear (left hand).

In the center, Mercury, the hermaphroditic planet, the caduceus (right hand), it symbolizes the secret fire; the star (left hand), the symbol of the mastery of astral energies, the shoes, the symbol of his volatility. He has a foot in a fountain, the access of which is possible only from one side.

ORA ET LABORA !

FIGURE ENCLOSED:

- Figure #1 - The Conjunction - The Mountain of the Adepts

Figure #1

THE CONJUNCTION - THE MOUNTAIN OF THE ADEPTS



MINERAL

Lesson 11

Dear Friend,

THE PHILOSOPHIC STATE OF THE PHILOSOPHER

We explained, in Spagyrics Lesson #34, the effects of the blending of planetary elixirs. In the metallic phase or the preparatory phase of this realm, the experiments should be interesting and profitable. The experiments will be all the more successful provided the two following conditions are met: the elixirs must be of high quality and the experimentation should occur in the alchemical realm only.

The Philosopher prepares himself; he strives to be as *Philosophic* as possible so as to obtain the maximum from his experiments. The elixirs act mainly upon the Mercury of the student; the Sulfur is brought to philosophic condition through theoretical study on the one hand and through meditation in the oratory, on the other hand. Performing the practical work indirectly acts upon the Salt.

Let's consider the same process on another level. To obtain a result at a higher level, we can use a new method in choosing the day which corresponds to the elixirs. First, you must know the day of your birth. Let us consider the second figure of Spagyric Lesson #9 (the Chemical Sky) and suppose we are born on a Tuesday. *This day will be on the MC (Medium Coeli, the cusp of the Xth House)* and in this case, the list of the elixirs will be the following:

<u>Column 1</u>	<u>Column 2</u>
Tuesday	Saturn
Wednesday	Jupiter
Thursday	Mars
Friday	Sun
Saturday	Venus
Sunday	Mercury
Monday	Moon

Note the changes in place in the above chart of the Sun and Moon as compared to their positions in the Chemical Sky. The order of the planetary elixirs is the same as the order of Mezla, the divine energy in the descent down the Sephiroth. The chart is correct for everyone, only start the first column with the day of your birth. This method should only be used with the intention of assisting one's progress. In addition, here are a few details to refine our laboratory process. To start with, there are three better alternatives:

— to direct one's attention toward the Sephira Hod for cognitions about the Qabala or metallic Alchemy;

— to go to Yesod to obtain practical data to obtain improved psychic clarity and no interference;

— to turn toward Netzach in order to gain a better understanding of plant vegetable alchemy and spagyric healings.

The day of operation should be chosen on the basis of the above chart: for Hod we will operate on the Mercury evening, for Yesod on the Moon evening and for Netzach on the Venus evening. Therefore, if you were born on a Tuesday, the evening of contact for metallic alchemy will be preferably Sunday night.

Then, we should achieve a state of resonance on both levels and hold the thought that the elixir will permit Mercury to transmute the knowledge. We shall undertake a theoretical study, and, if necessary, perform the experiment, at least partially, to impress the problem deep into the mind. A passive meditation will allow the Sulfur *to inspire* the substance of the intellect; thus a first stage of resonance will be created.

To understand what will follow, let us examine the figure #1 of Spagyric Lesson #9. We see that the Sephiroth are linked by lines that Qabalists call Paths. Malkuth, the world of the intellect, is linked to the three Sephiroths immediately above it through Paths 29, 31 and 32. These Paths are symbols that represent certain aspects of consciousness at the moment when it is transferred from one Sephiroth to the other.

Our consciousness should be in resonance with the Path that we wish to take. This operation must be performed just before going to bed; no reading should follow. Each Path has many symbols. A meditation about the whole is useful but not necessary. Some prefer to use one symbol at a time.

Contact of Hod, Path 31. The Hebrew letter of this Path is Shin, the letter of Fire which is at once purifying and Divine Love. According to the alchemists, the planet is Vulcan. This could be an intra-mercurial planet, the planet of the alchemist's secret fire. The Tarot card which is assigned to this Path is the Angel of the last Judgement who, on this path of the metallic Art, is the ultimate recommendation for those whose purification is not yet satisfying.

Contact of Yesod, Moon, Path 32. The Hebrew letter is Tav, the symbol of balance and the symbol of the path of the middle pillar. The planet is Saturn, whose metals have the

possibility of opening this Path. Saturn, at the MC (Zenith), is also the DC (Nadir). The Tarot card is the Universe, the World. This Path opens the inner way to the reality of the universe. The four animals of the card are those of the Apocalypse, the four alchemical elements.

Contact of Netzach, Path 29. The Hebrew letter is Qoph, the first letter of the word Qabala. The symbol of this Path is that of the Moon and Pisces. It leads to the watery vegetable nature; it is the world of the vegetable secrets of Nature.

If you use Tarot cards for this exercise, the best is the *Tarot de Marseille* of which you only use the major arcana. *In no event, should this set be used for divination.*

If these experiments are successful, you must immediately be put on guard against all erroneous assumptions. These experiments lead to a teaching that we often call *Night College*. In almost all cases, the experience takes on the appearance of a class held in a classroom led by a teacher and attended by many students all of whom are actually one person. *We must absolutely understand the fact that we are alone at that moment.* The teacher is our Higher self who, by resonance, directly absorbs knowledge from Akasha. The other students are elements of our personality who have participated in the past in the same kind of work.

PREPARATION OF METALLIC OILS WITHOUT ALKAHEST OR PHILOSOPHIC MERCURY

Raw metallic materials:

- | | |
|-----------|--|
| — lead | Lead oxides (red minium $Pb_3 O_4$ or yellow litharge $Pb O$) |
| — mercury | red oxide (Mercuric — $Hg O$) |
| — silver | oxide powder ($Ag_2 O$) |
| — copper | technical grade black oxide (cupric $Cu O$) |
| — iron | technical grade red oxide (ferric $Fe_2 O_3$) |

Extraction liquids:

- sulfuric ether, such as stabilized diethyloxyde (ethyl ether).
- absolute alcohol, *distilled three times.*

Example:

For the metal quicksilver, place into an air-tight flask 35 grams (1.23oz..) of mercuric oxide and 70 grams (2.46oz.) of ether. Close the flask quickly and make it air-tight. Beware, let macerate at a low temperature (below $30^{\circ} C$) otherwise the ether boils and there is a risk of explosion.

A maceration for one moon cycle gives a lightly orange tincture; we obtained an emerald green tincture after 7 to 8 moon cycles. The ether must then be filtered with a funnel and cotton or filter paper, at least three times; this, of course must be done with a covered funnel and a closed flask to avoid any evaporation. **There should be no solid sediment remaining in the ether for the mercuric oxide is a violent poison.** The last filtration is made into a retort. After evaporation of the ether, since the retort is not closed, there is a very small quantity left of an orange-colored oil (or blue in the case of a 7 months maceration).

Then, we attempt the distillation of the oil taking several precautions to prevent the oil from burning. At the end of the distillation, the result is the following: there is nothing in the receiving round bottom flask. A few drops of oil shine at the top and in the spout of the retort. At the bottom a dry residue remains.

With caution, pour a few drops of absolute alcohol in the spout of the retort; this time the retort should be made air-tight. Attempt to dissolve the few drops of oil, in such a way that the alcohol does not make contact with the solid residue which is left in the retort. The alcohol is collected in a flask and slowly evaporated without boiling. In this manner, we obtain a small volume of pure oil.

Note that the alchemical medication is optimum for the three principles when we have:

Sulfur 1/3 Mercury 1/3 Salt 1/3

and in the case of a tincture:

Sulfur 1/3 Mercury 1/3

We then add a quantity of alcohol equal to that of the oil (1/3).

The process is similar for other metals.

They are unfixed tinctures; therefore they are tinctures with a vivifying and energetic effect. The correct dosage is one drop.

Tin and gold will be treated separately. The oil of gold can only be obtained through a Philosophic Mercury or Alkahest.

Example: vinegar of antimony.

**PLANETARY ATTRIBUTION AND MEDICAL EFFECTS
OF NON TRADITIONAL ELEMENTS**

Calcium: attributed to Saturn, has an important effect on the skeletal structure and the spleen.

Magnesium: attributed to Mercury, has an important effect on the cerebro-spinal system.

Aluminium: attributed to the Moon, acts particularly on the sympathetic nervous system.

Potassium: attributed to Uranus, has a significant effect of dissolution on all obstructions, particularly kidney stones.

Sodium: attributed to Jupiter (and associated to tin through Jupiter), has an excellent effect of assimilation on food; *opens the pores* of all matter; excellent fluidizing agent.

Zinc: attributed to Neptune, provokes an increase of the electrical energy in cells particularly in brain cells.

Antimony: symbol of the Earth, is associated to potassium through Uranus.

Lead: is associated to calcium through Saturn.

Magnesium: is associated to the metal quicksilver through Mercury.

Sodium: is associated to tin through Jupiter.

**CHARACTERISTICS OF THE SEVEN METALS AND ANTIMONY
FOR THESE OPERATIONS, IN THE FORM OF A SERIES OF APHORISMS**

Antimony: possesses a fixed Mercury; the vitriol of antimony is the acetate of antimony, its Salt is the magnet of the Philosophers, it attracts and fixes the *Spirits*.

Saturn-lead: it is, through its sparse Salt, the key to metallic fixedness. The work can be done by it alone. Saturn has little Sulfur, little Salt, a lot of crude Mercury. The Salt is easily fusible.

Jupiter-tin: does not abound in Mercury (dissolvent of the seven metals). Possesses a very little Sulfur of a white color. Its Salt has a good degree of perfection. The Salt and the Sulfur of Jupiter joined with Saturn, transmute the lead into Jupiter.

Jupiter: it has no excess of Mercury or Salt, and it possesses little Sulfur.

Mars: is male, in opposition to Venus, female. A white Sulfur which burns, a red Sulfur which does not burn. It is the true Sulfur. In it is locked a permanent Spirit that resists Fire and from which the Sulfur of the Sun is made.

The spirit of Mars is a quintessence soluble in alcohol; it gives then a Lion, victorious over Venus.

The spirit of Mars, united the spirit of Venus transmutes metals.

The Magnet Stone (Lodestone) is the Salt of Mars that ameliorates and increases the tincture of silver.

The tincture of Mars and of Venus is identical to that of gold. This tincture is more perfect and more abundant in Mars than in Venus and exists in other metals only in very small quantities in other metals.

Mars has more Sulfur than Mercury and its Salt is crude and not very fusible. The Sulfur of Mars can be extracted from iron pyrites with Kerkring's extraction liquid (menstruum).

Sun: the elements are balanced and its Mercury is perfectly mature.

Sun, Venus and Mars have a similar tincture. The substance of this tincture is a vapor which penetrates all metallic bodies. If it is made more acid by the Spirit of the Salt of Mars and is conjunct to the Spirit of Mercury, according to weight and in perfect purity, it makes an excellent fermented medicine. With the Sun, we have the secret of metallic transmutation.

The Spirit of Venus can fix itself into the Salt of the Sun.

The Sulfur of Venus is the Sulfur of the Sages.

Venus: has more Sulfur than Mercury and Salt which are in equal quantity.

Mercury: has practically no Salt; it must be revived before each operation. There are two metallic Sulfurs, the crude one and the subtle one. If you eliminate the crude Sulfur, or the combustible, it yields perfect metals.

Silver: The Sulfur of the Moon is sky blue, its Mercury is fixed.

Complementary effects of traditional metals:

Copper acts on sexual organs, kidneys and probably on the thyroid gland.

Iron promotes the oxygenation of blood and favorably influences the gallbladder.

APHORISMS

The Universal Spirit is the same in all bodies of the three kingdoms. The difference is in the substance which carries it: alcohol in the vegetable, blood in the animal, alkahest or philosophic Mercury in the mineral.

The Prima Materia: is the *matter* from which Salt, Sulfur and Mercury are derived. The Philosophic Mercury is also called Prima Materia for, in the laboratory, nothing can be made without it. The Philosophic Mercury is the menstruum metallorum.

The difference between Prima Materia and Spiritus Mundi is the following: Spiritus Mundi is the Spirit of the Earth while the Prima Materia is the substance from which every manifestation takes its origin; it is also known by the alchemists as the Gur.

The four elements: are identical in essence. They exist in various proportions in all substances. The quintessence, the fifth element, is none of the four but it is one of the three alchemical principles. The quintessence is the substance of Akasha, the memory of Nature and part of the Super-Consciousness.

Animal, Vegetable and Mineral Separation: Carbon provides the link between the kingdoms. In the mineral kingdom, the mineral coal is the diamond, in the vegetable kingdom, the organic salts contain carbon; the non-organic, mineral salts contain no carbon.

ORA ET LABORA !

MINERAL

Lesson 12

Dear Friend,

In Lesson #9, we didn't approach the problem of the oil of antimony, or the subject of Basil's Balm of Life. Indeed, that lesson which opened the way to the possibility of obtaining all the metallic tinctures, was sufficiently filled with information.

We shall now move forward in the wet and dry way of antimony through the mineral Kermes.

For this process, you can use either the stibnite used in the extraction of the vinegar, or an *uncalcined stibnite*. The process used here neutralizes the nascent sulfuric acid and chemically eliminates arsenic, the principal alchemical poison in the processing of antimony.

Prepare a solution of a regular caustic soda (Na OH - commercially available) in the proportion of 200 grams (7.05oz.) per liter (0.26gal.) of water. Use a weight of stibnite roughly equivalent to the weight of the caustic soda. There is no fixed rule, for everything depends on how rich the mineral is in antimony.

Heat for an hour at 90°C. (194°F.) and filter. You will obtain a golden yellow liquid. If the ore is rich, do not throw away the residue which still contains some antimony.

In a well ventilated room, outside or under a fume-hood, proceed with the following operation:

Pour commercial acetic acid (not the glacial acetic acid for it is too expensive, but the technical or industrial grade acetic acid often called pyroligneous acid). An orange-red precipitate forms immediately and a gas (H₂S) is released with an unpleasant odor *that you should not breathe as it is poisonous*. Generally, in the beginning, the precipitate redissolves; add more acid and *agitate with a glass rod*.

The pH should be checked with a pH-meter or pH-paper. Definitely stop pouring acid by pH 7, that is to say by the neutral pH, otherwise some precipitate will be redissolved.

Then filter the liquid to collect the red precipitate that should be *dried out under vacuum*. This Kermes will be the basis for the manufacture of the Vitriol of Basil. Thanks to this

precipitate, we can obtain the regulus of antimony. The process, described by Basil, of obtaining the regulus inevitably leads to mini-explosions, (sometimes even bigger ones), which is not the case with the Kermes.

Fill a *very dry* porcelain crucible with Kermes, place into the oven and heat at a temperature of about 600° or 700°C. (1112° or 1292°F.). After it cools down, you will remove a black-brown slag and in the bottom of the crucible a little bump of regulus of antimony which generally carries the star of Basil.

This little piece is our seed to obtain more regulus. It is carefully pulverized. Then, fill a crucible with stibnite (calcined or not, whether it served for the extraction of the vinegar or not). Place the powdered regulus in the center, put the crucible into the oven and heat to about 600°- 650°C. (1112°-1202°F.). Let it cool down and you obtain a mass of cinders or slag on top of the regulus which is melted in the bottom of the crucible. Easily separate the regulus from the cinders by a hammer blow. The regulus thus obtained is not very pure.

It must be finely pulverized and mixed with salt of tartar (potassium carbonate) about half and half by volume. This mixture is placed into a crucible, and put into the oven, at 850°-900°C. (1562°-1652°F.). After cooling down, separate the regulus from the scoria and start again.

Three cleansing cycles are necessary.

Then, the Balm of antimony is obtained by putting the pulverized regulus in to digest with some essence of turpentine. It is important to distill the essence of turpentine before you pour it over the regulus. But beware! this essence is very flammable!

The second method consists in a soxhlet extraction. In either case, the turpentine must *turn red*.

The tincture is distilled till dry, preferably under vacuum. The residual red powder is dissolved into absolute alcohol. In its effects, this liquor is Jovian.

The use of the Kermes prepared according to the method described in this lesson, is not the main one; we shall see later that the Kermes must be used for the manufacture of the Vitriol of Basil Valentine.

In the preparation of the regulus, you must pay attention to two important details. The salt of tartar must be calcined before it is mixed with the regulus, otherwise the gas which is released may cause the matter to overflow in the crucible; the crucible should be only half or a third filled. The furnace floor should be protected by a big flat stone or kaolin on the bottom in case of overflow.

When the temperature is reached, turn off the furnace, and wait until it cools down before you open it, otherwise the crucible will break.

If the heating is too strong or too long, the antimony is converted to an oxide and transformed into the white glass of antimony, which is not the goal of these first experiments. Note, however, that, since antimony has a fixed *spirit*, it does not lose all its alchemical qualities during fusion.

We shall come back to the problem of the extraction of the spirit of Sulfur in later lessons, for the method that we shall present only requires an hour or two.

The new methods resulting from our recent work can be applied, in many cases, to render the production of alkahests and Philosophical Mercury more easy, regardless of its origin. We can build the two devices necessary. They can be made in advance and are represented in the two figures enclosed at the end of this lesson.

Figure #1:

This device is designed so that the gas from the distillation can bubble through the liquid contained in B and C. In practice, when working and in operation, the liquid is in C. A and D are safety tubes that prevent the liquid of C to be lost or to come back into the distillation apparatus, in case the heat drops and a vacuum is created. The tubes are regular chemistry glass test-tubes (very cheap), preferably with a diameter of at least 25mm. (0.98 inches) and, if possible, the length is 25cm. (9.8 inches) long. The bottom is grooved to hold the bottom of the tube, the top has holes drilled through to hold the test tubes in place.

The diameter of the hole for each tube is smaller than that of the stopper, the top board is tightened down by two threaded nuts screwed onto threaded rods. This is important, for the pressure may be increased during distillations, and this device will prevent the stoppers from popping out.

The top curved tubes can be cut to facilitate the fitting; then a piece of vinyl or silicon tubing can make the junction. We shall consider in detail the use of this apparatus when the distillation of the Vitriol of antimony is described.

Figure #2

This distillation setup allows us to quickly extract the spirit of Sulfur (an hour or two), the spirit of the red powder of Basil, etc... Despite its simple appearance, skill is required to set it up.

— Tu is a pyrex tube of a diameter of 30 to 50mm. (1.18 to 1.96 inches) and a length of 20 to 25cm. (7.8 to 9.8 inches).

— Rb is a heating tape or a resistance wire wrapped around the tube. To prevent destroying the stoppers, a certain distance must be kept between Rb and the stoppers at the ends, depending on the degree of temperature and the material used for the stoppers.

Note:

The stoppers should be of silicon or Teflon (expensive).

Dry distillations require a strict control of temperature; so, the voltage of the resistance wire must be controlled by the variac (variable transformer) (Er).

wire must be controlled by the variac (variable transformer) (Er).

At one end of the Pyrex tube, a thermometer (Th) graduated up to 350°C. (662°F.) is pushed into the stopper; have a little fan ready; we'll discuss its use later.

At the other end, there is a connecting tube to the condenser R, it should be slightly slanted toward the bottom and lead up to the zone heated by Rb.

Ee is the inlet of the refrigerant, Se the outlet. The round bottom flask B receives the distillate. D does not lead to a vacuum pump but to a reduced pressure apparatus. The vacuum created by a vacuum cleaner is sufficient, but taking into account the duration of the operation, it is better to use a vacuum pump. This vacuum is used to force the vapors into the condenser and to condense it there. The mode of electrical heating prevents unwanted condensation in the tube Tu.

If we spread two or three spoonfuls of native sulfur in the tube Tu, in the heated zone, the release of the alkali of sulfur will happen around 80°C. to 160°C. (176° to 320°F.). The temperature should be increased very slowly and carefully.

The oil of sulfur will be extracted by circulation of acetone over the sulfur, collected from the dry distillation.

The acetone must be evaporated without boiling. As its vapors are heavy, the neck of the flask should be placed either horizontally or in a downward slant so that the height of the ascent of the vapors is reduced to a minimum. A condenser can recover the acetone.

Research using an apparatus of this type is in progress. We will use ground glass Pyrex fittings which will eliminate the problems created by the stoppers.

ORA ET LABORA !

ENCLOSED FIGURES:

- Figure #1 - Gas Bubbling Apparatus
- Figure #2 - Distillation Apparatus

Figure #1

GAS BUBBLING APPARATUS

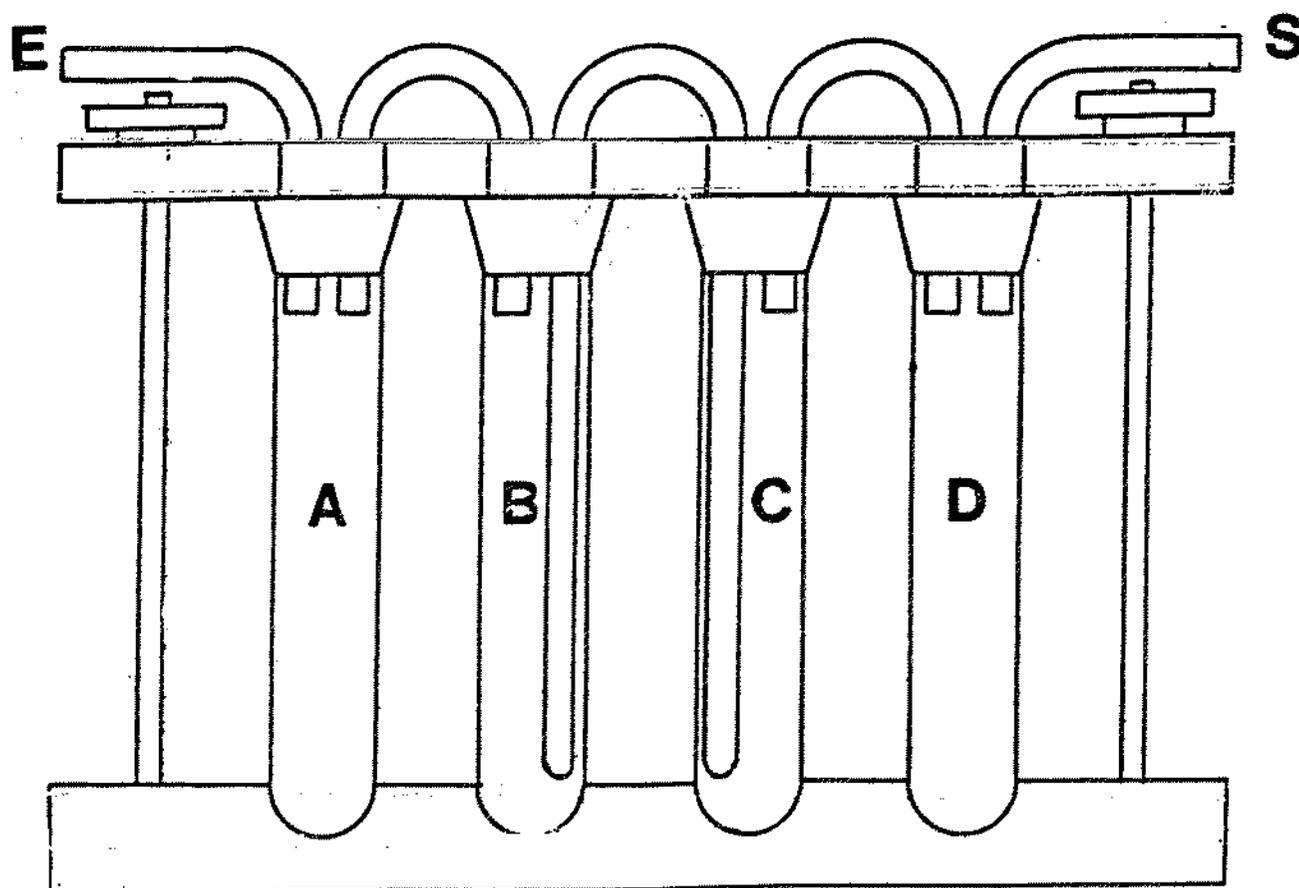
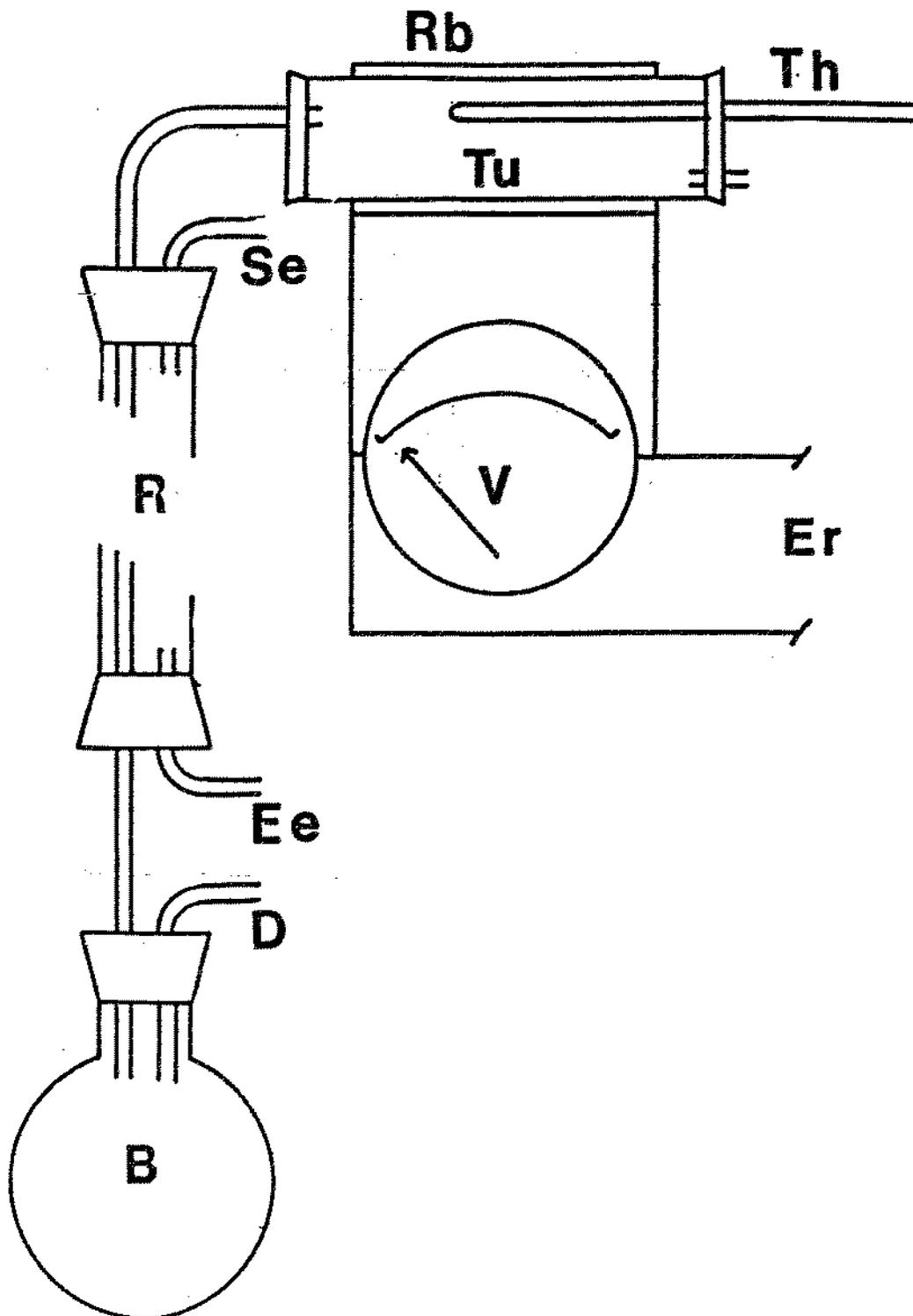


Figure #2

DISTILLATION APPARATUS



Mineral Alchemy Lesson 13

Dear Friend,

Esoteric Interpretation Of The Symbols Of Traditional Metals

The symbols of the seven traditional metals are illustrated in Figure #1 in boxes 1 to 7.

Note, first, that mercury (box #6) is made up of the 3 elementary symbols and that the other metals are made of two of these symbols. The 3 elementary symbols are illustrated in boxes A, B and C. The symbol for the Sun is shown in Box A, that of the Moon in B and the cross of the Earth in C. The metals are divided into two groups:

- those of the triad in Box S, the solar metals: gold, iron, copper. The last two also have the cross of the Earth (the arrow of iron can be replaced by a cross as in S - see below on page 3).
- those of the triad in Box L, the lunar metals: silver, lead, tin: these last two have the cross of the Earth.

The box marked M illustrates the triangles of the two interlinked worlds: the upper world with its three solar metals, and the lower world with its three lunar metals. The two worlds are joined by mercury, an androgenous metal of the Sun, the Moon and the Earth. The metals of the Sun have a male seed, while those of the Moon have a female one.

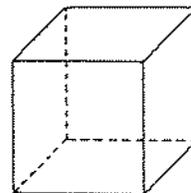
Let's now look at the meaning of each of these metallic symbols.

♄ SATURN - lead (box 1)

The Earth dominates the Moon. Lead has the same nature as silver; buried within the earth it is crucified by the latter's forces. Although a soft metal which tarnishes and melts easily, it is lead which imparts the most strength to other metals. It transmits to the others the cosmic forces that it is first to receive on the Tree of Life, to the point that it cannot ring when struck. Its most important quality arises from its earthly nature which makes it capable of stopping injurious rays such as X-rays and nuclear radiation.

Saturn/lead is the key to metallic fixity through its small quantities of Salt. The alchemical work may be carried out with this metal alone. It contains little Sulfur, little Salt - easily fusible - and much crude Mercury. The Salt of lead is mercurial and lunar, pure and celestial, while its Sulfur is earthly and solar. When purified, Sulfur eats up all metals with the exception of gold and silver. It penetrates them with the help of Vulcan, purifying and regenerating them, and so brings them to the greatest splendor.

- Ore of lead: galena
- Crystal: cubic system
- Cubic: 3 equal axes, 3 right angles



Mineral Alchemy Lesson 13

Symbolism in the work of Saturn

- "Separate the three principles of the Saturnian object: Sulfur, Mercury and Salt."
- "Out of the Salt draw the Menstruum".
- "Dissolve the Mercury into the Menstruum".
- "Fix in this mixture the principle of Sulfur". The two crescents are then joined in the Saturn character.
- "Enclose the cross into the circle and reduce the cross into a point inside the circle and transmute ☿ into ☉."

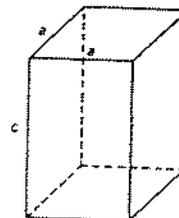


2 JUPITER - Tin (box #2)

The Moon dominates the Earth. Tin is therefore closer to silver than lead. It is harder than lead and doesn't tarnish. Its harmonious relationship with copper - they are on the same side of the Tree of Life - gives an alloy: bronze, which is used in the harmony of sound (organ pipes, bells).

Jupiter/tin doesn't possess much Mercury (the solvent of the seven metals). It contains very little Sulfur, (of a white color). Its salt has a good degree of perfection. The Salt and the Sulfur of Jupiter/tin when joined to Saturn transmute the latter into Jupiter.

- Ore of tin: cassiterite.
- Crystal: tetragonal system.
- Tetragonal: 2 equal axes, 3 right angles.



♂ MARS - Iron (box #3)

Here the cosmic forces of the Sun are dominated by the earth. Iron made the material civilization possible. The industrial revolution and mechanized war would be impossible without iron. If the cosmic forces of gold which are contained in iron were to be liberated, they would yield a very powerful metallic seed. In the Tree of Life, iron is the first metal to receive the cosmic energy of Mezla: the iron is then purified of its passive part by the two preceding metals: lead and tin.

Mars is male, completing the female Venus. It has a white Sulfur which burns and a red Sulfur which doesn't burn (i.e., is incombustible). It is the true Sulfur and it contains a permanent Spirit which resists Fire and which is a component of the Sulfur of the Sun. The Spirit of Mars is a quintessence which is soluble in alcohol: it then gives a Lion victorious over Venus. United to that of Venus, the Spirit of Mars transmutes metals.

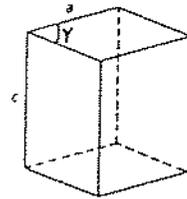
Mineral Alchemy Lesson 13

The Stone of Magnet is the Salt of Mars which improves and increases the tincture of silver. The tincture of Mars, like the tincture of Venus is identical to the tincture of Gold. This tincture is more perfect and more abundant in Mars than in Venus. It only exists in very small quantities in other metals.

Mars has less Mercury than Sulfur or Salt. The Salt is crude and not very fusible. The Sulfur of Mars can be extracted from iron pyrites, using Kerkring's menstruum. The Salt of Mars is more celestial than terrestrial as indicated by the arrow pointing up. The number of iron is 5 whereas antimony \ddagger has the number 10. In antimony, the terrestrial energies dominate even more the solar energies, but adding $\hat{\ddagger}$ to antimony liberates them (stone of Basil Valentine).

Mars has two possible symbols: the symbol in box 3 with the arrow pointing sideways, or as in box S, with the same symbol as antimony. The symbol of the arrow indicates that the terrestrial energies are of a fiery nature and should be extracted in order to be used. The similarity of the symbol with that of antimony explains in Alchemy the question of the regulus of Basil Valentine. In this case, the energies are the seed of gold.

- Ore of iron: marcasite which is an iron sulfide;
- Crystal: orthorhombic system.
- Orthorhombic: 3 different axes, 3 right angles.

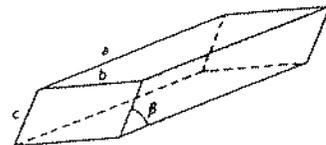


SUN - Gold (box #4)

Gold is the representation of the Sun and the Sun's forces on Earth. It is the noblest of all metals and can never be deteriorated by the four elements. Its principal quality is the wealth of its forces of inner life. It is tender however because its form is not completely set.

In Sun/gold, the principles are balanced. Its Mercury is perfectly mature. Sun, Venus and Mars have the same tincture. The substance of that tincture is a vapor which penetrates all the metallic bodies. If the Spirit of the Salt of Mars makes it sour, and it is joined to the Spirit of Mercury, according to weight and in perfect purity, we obtain an excellent fermented medicine. With the Sun, we have the secret of metallic transmutation. The Spirit of Venus can be fixed in the Salt of the Sun.

- Crystal: monoclinic system
- Monoclinic: 3 different axes, 2 right angles.



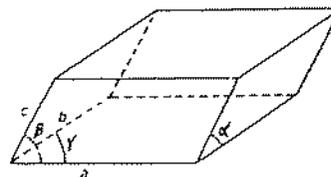
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♀ VENUS - Copper (box #5)

Here we have the opposite of iron: the solar forces dominate the terrestrial forces. Therefore, copper can release a flow of solar energies which are at once richer and more terrestrial than the solar energies of gold. Copper can thus be raised to the level of supra-terrestrial forces like electricity whereas iron, copper's complement is magnetic. Combining the two gives us access to electro-magnetism.

Venus/copper has more Sulfur than it has Mercury or Salt. Mercury and Salt are in equal quantity. The Sulfur of Venus is the Sulfur of the Wise.

- Ore: chalcantite.
- Crystal: triclinic system
- Triclinic: 3 different axes; 3 different angles.

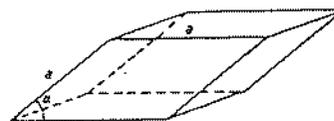


♿ MERCURY - mercury (box #6)

In this metal, the elements Moon and Sun dominate the Earth. This metal cannot descend into the world of form and therefore remains liquid. It is in contact with the archetypes. It can bring the metallic nature into being, therefore it has an important alchemical advantage. (**Beware.** *This metal even when cold gives off vapors that are toxic.*)

Mercury/mercury has practically no Salt. It needs to be re-vivified before any operation. There are two metallic sulfurs: the crude and the subtle. The elimination of the crude, the combustible, gives perfect metals.

- Ore: cinnabar
- Crystal: rhombohedral system
- Rhombohedral: 3 equal axes, 3 equal but not right angles.

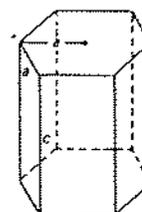


☾ MOON - Silver (box #7)

This metal is harder than gold and is also more receptive to spirituality. It is the sensitivity of the silver salts which resulted in the discovery of the photographic process. It reflects a cold, hard light.

Moon/silver has a celestial blue Sulfur and a fixed Mercury.

- Hexagonal crystal
- Hexagonal: 2 equal axes, 2 right angles, 1 angle = $2\pi/3$



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An astrological perspective may also be taken from these three symbols:

- 5 - copper is analogous to sunrise
- 3 - iron is analogous to sunset
- 2 - tin is analogous to moonrise
- 1 - lead is analogous to moon set

These considerations too may be used in alchemy.

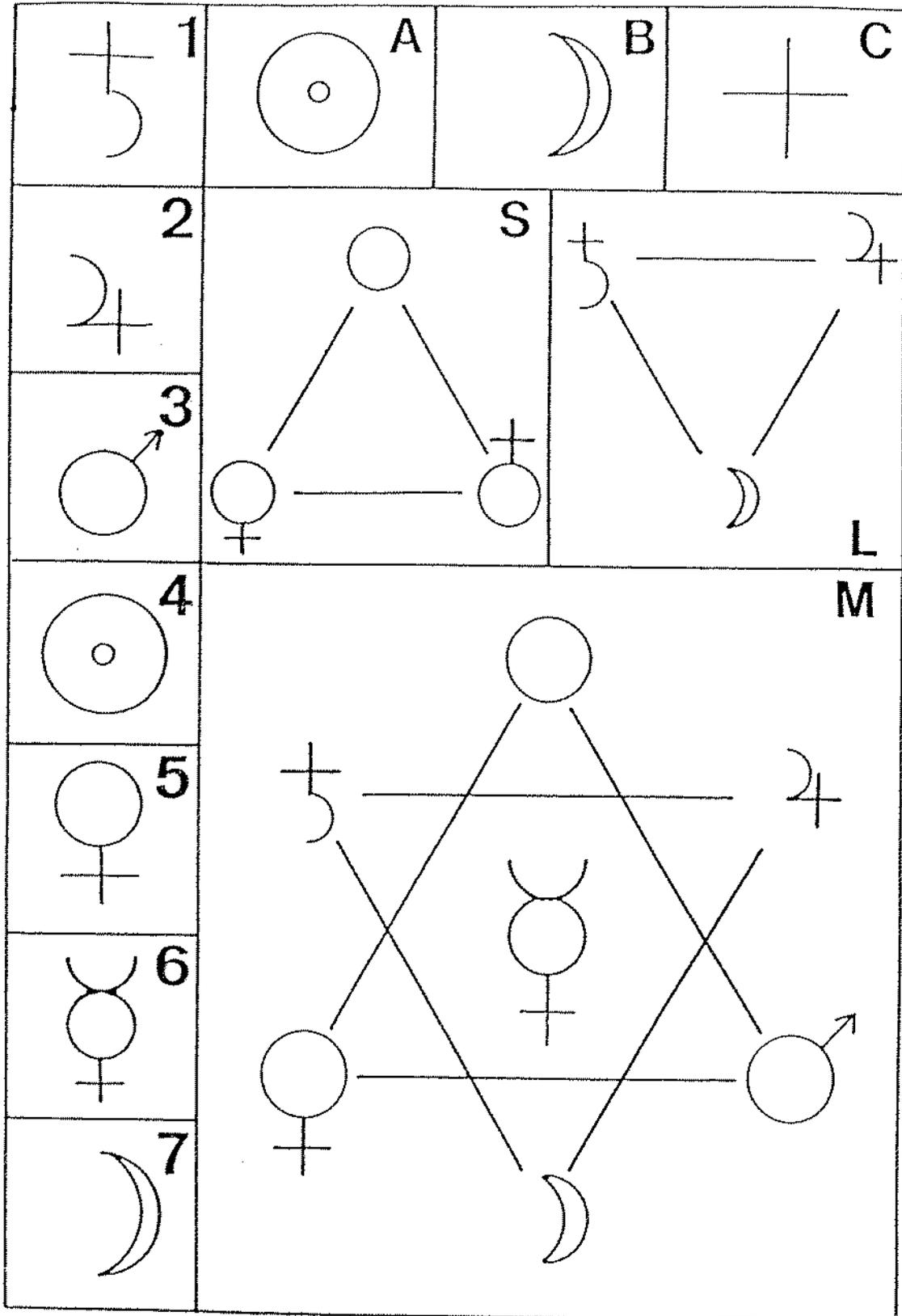
Ora et Labora!

Figures enclosed:

- 1) The Seven Traditional Metals

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THE SEVEN TRADITIONAL METALS



Mineral Alchemy Lesson 14

Dear Friend,

The previous lesson provoked among the members of the association several discussions regarding the various forms into which the ores of the different metals crystallize. The issue of crystallization is very important because the attribution of a mode of crystallization to a particular planet certainly permits us, by careful examination of the Salt of Sulfur in plants and of crystals in minerals, to find out the planetary attribution of a mineral or a plant.

Admittedly, the three books which were of most use to us in this study differ in their planetary attribution of the crystalline system (*C.R.C. - USA - Guide Of Minerals* by V.R. Belot - *Guide Of Minerals* by J. Bauer). However, we always found at least one form of crystallization which follows the attributions we gave.

If we can choose the ore, it is best, for alchemical work, to choose the one which crystallizes in accordance with the system mentioned in *Mineral Lesson # 13*.

We believe that this system is accurate. Indeed, the crystallization of the Salt which is obtained from the Black Lion of metals, is made according to this system. Gold and silver were not mentioned because experimenting with these metals is a difficult and expensive operation. To avoid serious danger, we didn't verify mercury with the same method, but the crystal of cinnabar is unanimously classified in the rhombohedral system.

Consequently, we highly recommend that you experiment several times with the crystals.

Mastering the crystallization problem is very useful for the purification of metallic products. It is also useful to train yourself to recognize the crystalline systems, because the conditions of crystallization often give a crystal an appearance seemingly different from its basic system (for example, an octahedral crystal has the form of two pyramids joined base to base, but it is of the cubic system; see a book of minerals or mineralogy on this subject).

We'll study the Cockren method soon. This method produces lead and antimony crystals which can grow up to 1cm on a side.

In the Mineral Lessons we shall soon mention the Work of Wine, the highest vegetable Stone. The distillation of the Sulfur of wine is not easy in a round bottom flask. Using a retort is better but you should add at the top a thermometer which reads 300°C (572°F). If you intend to distill wine to make the elixirs, you should follow these precautions:

- put aside the distillate which passes over at 100° C (212° F); retain a few liters.
- concentrate the wine to about 1/20 or less of its volume to obtain the "honey" which presents two advantages:

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- 1) the volume to be kept is reduced
- 2) putrefaction doesn't occur.

Consider keeping the honey of 100 liters of wine in order to obtain a Stone of a useful size.

A portion of the texts of an old book follows. The proposed method is interesting but carefully read the part concerning the properties of the spirit of tartar.

Ora et Labora!

Mineral Alchemy Lesson 14

THE PREPARATION OF THE ALKAHEST OF TARTAR OR SPIRIT OF PHILOSOPHICAL TARTAR ACCORDING TO AN OLD BOOK

Tartar crystals are tartrates, i.e., acid salts of tartaric acid. These crystals should be prepared without using iron, as stated on p. 38. Salt of Tartar should be philosophical, i.e., prepared starting from grapevine shoots, as indicated at the end of the *Spagyric Lessons*.

* * *

TREATISE ON THE CHEMICAL ELEMENTS

*Wherein is shown to those curious about the Art,
the knowledge of salts, solvents, menstrua,
melting and precipitating agents.*

by

*Jean Char. de Marsignys
From his laboratory, the 2nd June, 1670*

*

*Printed in Grenoble by Louis Galuti, printer and bookseller
rue Galanterie, in the Court du Fer a Cheval*

ABOUT TARTAR

Tartar is generally considered in pathological medicine to be a "*lapidescent*" matter, i.e., a substance which can be coagulated and hardened into stone. In chemistry, it is considered a terrestrial salt which can be extracted and separated from some plants. After a simple extraction of their juice (made by the same process as the starches of Brione, of Aron, etc) by either natural or artificial means, these juices are clarified and then evaporated to prepare their essential salt, none other than their Tartar. Properly speaking, in the laboratory, it is considered a hard, saline, somewhat acid substance which adheres to the walls of the vats after the wine has been allowed to rest in them for a while. The sign of good tartar is that when you break it into pieces, it is brilliant and crystalline, and when ground to powder it yields an agreeable acidity. We prefer using white tartar rather than red because it partakes less of the earth and is purer as a result. The tartar from Montpellier should be chosen, as it

Mineral Alchemy Lesson 14

has the repute of being the best, although the tartar from the Rhine region, called German tartar is not the lesser than it.

The main preparations carried out with tartar are the purifications, distillations and the salifying processes (conversion into a salt).

Of The Purification of Tartar

The purification of tartar is simply made by dissolving it with water or wine according to some, to deprive it of its feces and its superficial impurities; or by a solution where we obtain either a cream, or the simple, compounded crystals.

To make simple tartar crystals, bring 10 pounds of water to a boil in a large varnished terra cotta pot. Little by little pour in 11 ounces of white tartar ground to a fine powder, making sure to continually stir all the while with a wooden spatula to prevent it from sinking to the bottom (this would prevent its dissolution). Then, when your tartar is dissolved, you filter the hot liquid through the Hippokras sleeve or on the still. Let it rest for 24 hours in a cold place, and a thin coat will form, called by some the cream of tartar. While pouring the liquid by slanting the container, you'll notice the tartar on its bottom and sides in the form of small, clear sparkling crystals. These should be dried between two sheets of paper and stored for future use. The action of tartar is to incite and attract crass, tartarous fluids in the epigastrium, hence it is destined to treat all liver and spleen obstructions. It is a universal digestive, and it is for this reason that it is often followed by purgation: it prepares and thins out the injurious substances which are to be evacuated. It gently causes bowel movement, mainly when accented by Diagrede seeds or Gamandra gum. The dose is between one scruple and two drachms. It enters into the composition of the famous Cornachine powder which will be discussed below in the treatise on Scammony.

N.B. Where crystals of tartar are prepared in large quantities, namely in Germany along the Rhine river, a quicklime wash is used so as to accelerate and facilitate dissolution; to make the process of crystallization quicker and easier, they add certain amounts of Alum.

To produce compound crystals, take 12 ounces of finely powdered white tartar, and mix it carefully with 1 1/2 ounces of steel filings (that of Aiguille is the best). Then proceed to dissolution, crystallization, etc., in the same way that we discussed of the simple crystals, and in this way you will obtain the greenish, sparkling crystals which are incomparably more aperitive than the crystals mentioned above. The dose should not exceed two scruples: it is an admirable remedy in all chronic diseases such as obstructions of the spleen and hypochondrium, quartain fever and cachexia due to menstrual retention in young girls, etc..

Concerning the dissolution of tartar, we shall explain here the exact method for preparing this famous martial Syrup of Tartar, also known as Extract or Syrup of Tartarised Mars. Exactly eight ounces of very fine white tartar powder are mixed with four ounces of nail filings, and added slowly to boiling water. The pot should be made of crude iron and only

Mineral Alchemy Lesson 14

filled to one-third with water, to allow for the ebullition caused by the dissolution of the substances. This should be well boiled for three or four hours until the liquid begins to thicken and take on a greenish colour with red veins; it is then poured and allowed to cool. Next it is filtered with grey filter-paper, turning it a beautiful red, and evaporated to a somewhat oily consistency, and finally set aside for future use.

It is important in this process to stir the substances often and to add water as it evaporates. Hot water should therefore be prepared in readiness for a successful operation.

Martial Syrup of tartar is strongly recommended not only for all those uses for which Crystals of Tartar (simple and composite) are put to, but also for the first stage of dropsy, for scirrhus tumors of the spleen, for all obstructions of the lower abdominal region, for kidney and bladder ailments, and for all congealings of tartarous matters wherever they may be found in the body. The dose is between ten and thirty drops drunk with soup or other suitable liquid.

Of the Distillation of Tartar

The distillation of Tartar makes these five different substances, or the principles of composing mixed remedies, received in Spagyric Philosophy up to today very clear to the Artist. To satisfy oneself fully concerning this question, one pound of roughly beaten Tartar is used to half-fill a retort, and then distilled by open fire on the bottom. The fire should only be applied by degrees in such a way that at the end the retort becomes perfectly red. First a little insipid phlegm or water is distilled, then the spirit will pass over to the collecting vessel as white clouds and then gradually the oil will also become distilled. Once the procedure is finished and the vessels cooled down, two different substances will be found in the recipient, namely a black oil, thick and with stenching smell; and a reddish, sour spirit. The oil is separated from the spirit with pre-moistened grey filter-paper; in this way only the spirit will pass through while the oil remains on the filter. If desired the spirit may be rectified; however, since it finds little use in medicine, this is hardly worthwhile. Although the main use of the oil is for toothache, some nevertheless use it internally to appease the pains and spasms of colic as well as the suffocations of the matrix/womb. The dose is between 2-5 drops. A very red and quite pleasant tincture may also be extracted from it by pouring wine spirit onto it and letting them digest together for three or four days. This is better for practical use than the pure oil, whose scent is unbearable.

In order to fully satisfy the curiosity of certain spirits concerning the excellent and egergerious remedies to be made from Tartar, I shall explain the method of extracting from it the true Suave and Aromatic Spirit. Its admirable affects astonish the physician who sees in his practice the most inveterate disease being cured through its use. I will also explain how its preparation is entirely philosophical, and hence will call it Spirit of Philosophical Tartar.

Mineral Alchemy Lesson 14

Of the Spirit of Philosophical Tartar

Take four ounces of well purified Salt of Tartar, dissolve it in four ounces of water, and filter. Next, heat it in an open sandstone container in a sand-bath until the liquid is half-boiled off, and then add six ounces of fine powder of Crystals of Tartar through a sieve. This will boil a little, after which the whole is evaporated until it becomes dry. The remaining matter is then reduced to powder and distilled using the glass retort with an open flame on the bottom and by degree, according to the art, in such a way that at the end the snout of the retort becomes red and incandescent; the spirits will pass over in white clouds with a certain amount of red oil with an aromatic scent, like the spirit. Once the distillation is finished and the vessels have cooled, the oil should be separated from the spirit by the glass funnel. The oil is set aside, as we will see, the spirit is joined with an equal part in weight of good wine spirit and distilled using the cucurbit with its top on. Then it is rectified three times at low temperature in the sand-bath. In this way, you will obtain its subtle and permanent spirit, able to produce the beautiful and wondrous effects that all the philosophers have recognized in the volatilized Salt of Tartar. This is fairly well expressed by Vannh in his works, mainly in his above-mentioned preface, where he says "*si ad Liq., etc.*". In fact, this marvellous spirit not only serves to cure sickness, but it also cures the leprosy of metals through its subtle and enlivening dissolving virtue. The curious-minded philosopher will recognize more in it, *intelligenti pauca*.

This spirit powerfully causes sweating, it purges and adjusts the mass of blood, given in 8-15 drop doses in a broth or other suitable liquid. It is specific for malignant, rotten fevers, and I may vaunt it as one of the most noble remedies that the Chemycal Store can furnish for scurvy, an illness that ravages the Northern countries, mainly England and Holland. If the spirit has its virtues, the oil has none less in actual practice, as shown us by its aromatic taste and odor: it is given in 1-4 drop doses.

Mineral Alchemy Lesson 15

Dear Friend,

In this lesson, we'll go over a part of the previous method described in *Mineral Lesson #12*. There will be a few variations because we no longer use the Kermes as a seed for the Regulus but in the aim to obtain the Vitriol.

In this case, calcine the antimony at a low temperature for a long period of time (see *Mineral Lesson #6*) in order to avoid strong smelling odors as well as the formation of what the Ancients called the *liver of sulfur*, which may become an inconvenience.

Next, the process is identical to the one described in *Mineral Lesson #12* until you obtain the Kermes:

- the Kermes should be thoroughly drained, but not completely dried by the heat. As a matter of fact, neutralizing the soda with acetic acid produces sodium acetate which is water-soluble and therefore it can be drained out with the water.
- in order to remove the remaining sodium acetate, you can leach the Kermes a second time with *cold* distilled water and drain it again.
- next, obtain some acetic acid, preferably derived from the distillation of wood. This acid, which is easy to obtain, is relatively inexpensive. Distill it at least once.
- fill a Soxhlet with the drained Kermes and the acetic acid. The circulation will give the acid a golden yellow color. Take the acid out and refill with some fresh acetic acid for as long as the acid takes on a color. Usually twice is enough.
- pour the acid into a distillation train and distill off about 1/4 of the volume. The acid you distill over can be recycled for the same use. The acid at the bottom of the round bottom flask is cooled down. Here, several results are possible:
 - 1) the acid remains liquid and black deposits remain at the bottom of the round bottom flask. Decant or filter. Be careful for the acetic acid can solidify in the course of the operation.
 - 2) the acid remains liquid and there is no deposit. Pour it into a beaker and leave it for a night or two. Then, it either "*takes*" as a white mass or crystals start forming. In this case, collect them, dry them on paper and put them into an air-tight container.
 - 3) the liquid doesn't crystallize and doesn't take as a white mass. Reduce its volume again through distillation. Remove 1/3 or 1/4 of the volume and you'll find yourself back to either one of the previous alternatives.

Mineral Alchemy Lesson 15

In the case that it takes as a white mass in the beaker, slant the beaker (a lot if necessary) in order for the acid between the crystals to escape. Generally with this acid we obtain beautiful transparent crystals.

In both cases, crystals or white mass, you should pour out the entire solution. What doesn't take as a white mass and doesn't crystallize is kept to be used in the next experiment.

For our first experiments with dry distillation, it is better to use the white mass which is easier to obtain than the crystals. As a matter of fact this mass is a block of tiny crystals and their reduced size creates the opacity.

In all previous cases, it is better to end the distillation too soon than too late otherwise everything is lost including the round bottom flask.

To fill the distillation flask with the white mass, melt it first using a water-bath and then pour it into the flask. It doesn't matter whether the mass forms crystals or not.

The distillation apparatus consists of the following: an electrical flask-heater and the round bottom flask (not with ground-glass) of a half-liter or a one-liter capacity, topped with a silicone stopper which is pierced with two holes: one for a 300°C (572°F) thermometer, the other for a 3 mm-diameter glass tube. The vapors will be lead first into a spiral condenser with a flask at the bottom, then they'll pass into a second simple condenser and, finally, into a bubbling system filled with absolute alcohol like in Figure #1 *Mineral Lesson #12*.

You should increase the heat in a very long and slow progression. If it takes as a mass again, heat very slowly until everything has returned to the liquid state. Then, increase the temperature to a light boil. The phlegm passes over and is collected in the first flask. Sometimes, a new solid phase occurs of a short duration and without any volume change, then a new liquid phase follows. White smokes start to pass and suddenly everything passes to the solid state and the volume of matter is increased threefold or fourfold. Quickly, change the first receiving flask. The red oils pass and progressively a thick, heavy, white smoke, giving an impression of viscousness, fills everything, flasks and condensers and dissolves into the alcohol.

The red oil is the Sulfur of antimony. The Mercury, or spirit of antimony, is dissolved by the alcohol which can increase 10 to 20% in volume in a single operation. Maintaining the bubbling tube in a very cold bath clearly improves the outcome of the operation. With a regular condenser it is impossible to condense these vapors. Put the oil aside in an air-tight flask, preferably away from the light.

If the operation has been taken to completion, a crumbly black matter remains in the flask; it is the Black Lion. Grind it finely and place it in an earthen crucible (grog style). In turn, place the crucible on a kaolin surface. The layer of kaolin itself is in a flat, stainless steel container. Place it in the oven and heat to 1000° C (1832° F).

Mineral Alchemy Lesson 15

Once it has cooled down, a hard white mixture is obtained, which generally has partially penetrated the earthen crucible. Be careful of this salt for even if it is spilled in small quantities, it can ruin the muffle of the furnace. Place the crucible, without detaching what is attached to it, into a glass or a porcelain container and place the whole into a thermally insulated box. The crucible is submerged in boiling distilled water. The next day, withdraw the water and if all the salt is not dissolved, start again.

Slowly evaporate the water, without boiling, and continue until very small white flakes appear in the solution. Let it cool down and you obtain magnificent cubic crystals which can be up to 10 mm on a side. Separate these crystals, dry them and keep them away from the air. They are the Magnets of the Philosophers. They have the property of fixing the Philosophical Mercury, which we'll see later.

The alcohol charged with the Mercury possesses part of the qualities of the Circulatum minor but it has one drawback which makes it difficult to use. The Mercury is not fixed by the alcohol and, at the first false maneuver, it escapes and the alcohol regains its ordinary properties. However, by cooling down the flask containing the alcohol in a freezer along with the flask containing the matter to be extracted you can successfully complete at least one extraction. This alcohol draws the essence of any metal. WARNING: Do not try it on mineral salts because with some metals there can be an explosion.

Here is a first use of the salts:

- Dehydrate the crystals at about 130°C (266°F) and grind them in a mortar to obtain a white powder.
- Start the dry distillation again with a fresh product.
- Replace the system for bubbling in the alcohol with a system that makes the Mercury pass through the salt, which then takes on a red color.

Several operations are needed to obtain saturation. The Mercury is now fixed by the salt.

Now, re-imbibe this red salt with the red oil and put it into an incubator at 42°C (107.6°F).

If no error has been made, everything becomes black within 15 days to a month.

Good luck for everything. At another time, we will present another method for recollecting the Mercury.

Ora et Labora!

Mineral Alchemy Lesson 16

Dear Friend,

One out of three lessons will be exclusively dedicated to the metallic or mineral realm. However, since most of you haven't completed or ceased working on the vegetable work, we shall devote for some time, two lessons out of three to a second level of vegetable work. Lesson #16 is treating the subject of the main devices needed to take the Alchemical work farther and with more ease.

The first point we shall examine is the capture of the Universal Spirit, as opposed to its extraction.

The Universal Spirit animates the Stone; the more undifferentiated it is, the more rapid the outcome. As soon as it is embodied, it is determined in the realm or kingdom of its incarnation. The Universal Spirit is most abundant on earth during the time period between the spring equinox and the summer solstice, mainly when the sun is in the sign of Aries and Taurus.

We have already explained that a Salt is a magnet for the Universal Spirit. The operation is as follows: glue (use epoxy glue) two small wooden rods on adjacent sides of a glass plate in a V form but make sure to leave a small opening at the bottom junction of the two rods. Slant the glass so that the deliquescent salt is directed to this opening where a container catches it. The deliquescent salt is dried in vacuo, at a temperature as low as possible, preferably less than 60°C (140°F). Collect the distilled water. Reduce the salt to powder in a mortar if necessary, and expose it again. Do this again until the salt becomes saturated with this universal spirit, if possible.

For the vegetable realm, we use potassium carbonate, and for the metallic kingdom, the salt of antimony as described in Lesson #15. The salt of antimony, when saturated in that way, only needs the oil σ_{σ} of antimony. All the extraction liquids are only supports which are more or less charged with Universal Spirit. When the Universal Spirit is embodied without a support it looks like a very fusible salt of a silvery white color.

The second point of this lesson is dedicated to the question of the fire for heat, which is not natural.

In Lesson #9, we described an oven which was designed for distillation but could easily be adapted to the desiccation of salts or the calcination of ores.

You can plug a voltage regulator with a triac on the resistance, so that you can regulate the power (a Variac will do). Then make stainless steel trays for example. Bend the edges up and screw one 3 to 4 cm screw close to each of the four corners (as spacers), and as a result you can stack the trays without trouble and better utilize the oven because you can spread a thin layer of the ore to be calcined on each tray. Most ores will calcine easily if you spread a layer thicker than 5 mm.

Mineral Alchemy Lesson 16

For the stones, the issue of the heating is essential. All the stones fecundate and form at the temperature needed to incubate a hen's egg, that is 42°C (107.6°F). But any cooling down slows down the Work, if it doesn't downright destroy it. Later we'll see, in a text concerning the most simple stone, that the ancient alchemists would use a liquid in fermentation in place of an incubator. This is not very convenient because the liquid must be changed every 2 or 3 weeks.

The simplest incubator consists of a polystyrene box: place inside the box a 5 to 10 watt electrical resistance heat, or a light bulb of the same wattage, and let the neck of the round bottom flask go through the cover. Also, place a thermometer going through the cover which should indicate the inside temperature. This incubator has a drawback: the inside temperature progressively varies with the room temperature but it is good enough for the elixirs; on the other hand, it is not suitable at all for the stone unless it is placed in a room where the temperature is truly constant, like a cellar for instance.

The second incubator we created is made of an old refrigerator: remove the refrigerator compressor etc., and replace it with a 20 to 30 watt resistance heater or a light bulb and a thermostat. The variations of temperature are much smaller here and there is a significant volume of space which is available to allow several experiments at once. To avoid the thermal shock caused by the opening of the door, leave a heat sink inside which consists of a flask filled with 4 to 5 liters of water. A thermostat regulates the temperature at the heat you wish. However, if it cuts off the power, for instance at 44°C (111.2°F), it only re-establishes it at 40°C (104°F) or even 38°C (100.4°F) which is a variation of temperature that is too great for incubation.

We shall now describe a device which enables us to consider long term operations, a year long for example, with very small temperature variations. The principal element is a metallic reservoir of cubical shape, without cover, with a 20 cm (7.87 in.) side for instance. The thermal insulation is made with polystyrene foam. This material cannot take a high temperature. But the passage from the white stage of the Work to the red stage, with an undetermined spirit, doesn't require a temperature higher than 70°C (158°F). The insulated box will be made so that there is a 10 cm sealed space under the cube, so the air won't be able to circulate between the lower cavity and the top of the reservoir (see Figure #1).

In a 20 x 20 cm container, you can put four 250 to 500 ml round bottom flasks. You should add some mechanical system to hold the flasks in place. Of course, the reservoir will be filled with water up to 2 or 3 cm from the top. Methyl alcohol should be added to the water to avoid its putrefaction. The flasks can have three possible positions: so that the necks are out of the water, or just above the surface of the water or totally submerged. Place on the top a very thick cover made of polystyrene into which you bore a hole for the thermometer. Since the flasks are going to be in water, the cover can be removed for a few moments without any risk of a serious temperature drop in the flasks.

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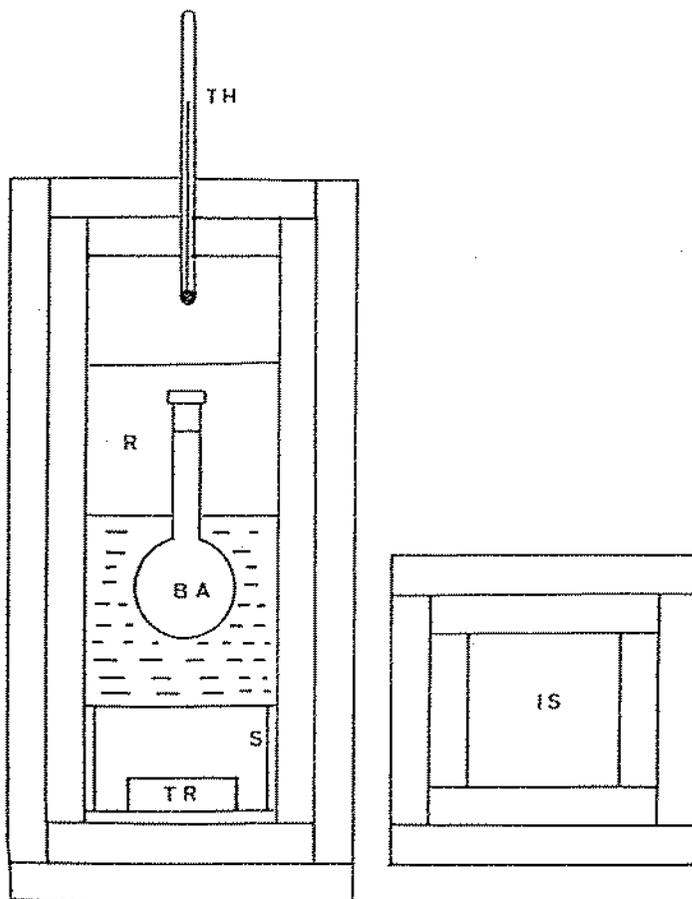
Heating: the use of a thermostat in the lower cavity is acceptable because the thermal inertia of water will considerably reduce the variations of temperature of the air of the lower cavity.

If you are a good electronic technician you can set up a completely regulated system. We prefer the solution of heating using 12 volts or less because it allows us to safely incorporate a car battery in this circuit. This way, a 3 or 4 days power failure won't inconvenience us. *We do not give any details on these two last solutions because those of you who choose them must be able to realize them.*

Since the wattage used in the heating is low, the increase of the temperature is very slow. It is better, in the beginning of the operation, to pour in water already at the temperature you wish. A thin layer of oil on the water prevents evaporation. Anticipate beforehand that submerging four 500 ml flasks will raise the water level by 5 cm, in a 20 x 20 cm cube.

Ora et Labora!

Figure #1



Mineral Alchemy Lesson 17

Dear Friend,

As we announced in *Mineral Lesson #16*, we are going to devote this lesson to the vegetable work. We are approaching practical methods that we already attempted, taking the operations one at a time, rather than as a whole.

DISTILLATION: For the metallic realm, as well as for the Circulatum or the vegetable stone, you need to obtain a high quality absolute alcohol. Operate with moderate quantities, 5 liters of wine, for example. Use a Kjeldahl sphere and two spheres equipped with spherical reflux, one of a 2-liter capacity, and the other of a one-liter capacity. The distillation is pushed to its maximum, which means that the temperature of the vapor is 93° or 94°C (199.4° or 201.2°F).

Then, while you are preparing the Work of Wine, distill the phlegm *without any* reflux and put a few liters aside. Continue the distillation until the residue reaches the consistency of honey. Distill a second time the alcohol which you collected, using a "Vigreux" column for reflux. The alcohol is between 90 and 93 percent.

Macerate this alcohol on calcined calcium carbonate; the volume of the carbonate is half that of the alcohol. Without removing the carbonate, distill in a water-bath and with only a Kjeldahl sphere as reflux. The percentage of alcohol varies during the distillation and ranges between 96 and 98%. We recommend that you perform the same operation again and then the degree of the alcohol can attain the 99% mark.

Calcine the carbonate and save for the next series of operations.

Macerate this alcohol on quicklime which was recently calcined at 1000°C (1832°F). The volume will be in the ratio of 1/10 to 1/20 of the volume of alcohol. This last distillation should occur slowly, in a water-bath, with no entry of air into the apparatus. The alcohol is then very close to 100% absolute alcohol. The lime will eliminate the residual water better than carbonate does, and it neutralizes the unwanted acids contained in the alcohol. This alcohol is excellent for the making of the Kerkring Menstruum and for extractions on dry plants.

VEGETABLE EXTRACTION: Experience shows two important points in the course of this operation. You need several circulations to obtain a perfect product. With each circulation, you lose a little bit of the product, and so you should start with a good quantity of product and use the methods which yields the greatest quantity of the three principles ☿, ♁, ☾.

Let's start with a plant which yields a little or no oil, and which is *very dry*:

1) Fill the thimble of a soxhlet with the plant which you ground to as fine a powder as possible. It is practically impossible, unless you have the help of several people, to grind a

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sufficient quantity of the plant to the right fineness of powder. Therefore, use an electric blender; a blender with bearings is better than one with blades.

2) Fill it with a lot of alcohol. For example, in the case of 200 cm³ soxhlet, mount a one-liter round bottom flask and fill it to about 600 cm³ of alcohol.

3) Plug the upper outlet (a balloon will do) of the condenser and heat with a water-bath, using the water you collected from the wine distillation so as to not mark the flask with chalk deposits. If you use a water-bath with a silicon oil, you definitely need a thermostat so as not to heat the oil above 90°C (194°F).

4) Circulation in a water-bath takes a long time. It could require up to a week to complete the extraction which may pose a problem in refrigeration which we'll see next.

5) When the circulation is complete, collect a maximum of the alcohol and operate as follows, not to lose time: The thimble is hanging in a glass tube which is rather high and tightly closed. (It is good to place a small container in the tube above the thimble in which you place a small quantity of a water absorbent - silica gel or quicklime). Allow the thimble to drain as much as possible.

Distill the tincture contained in the round bottom flask. This is a critical operation. This distillation occurs in a water bath at 90°C (194°F) until nothing passes any longer. The round bottom flask should have a short neck and be slanted so we can obtain a maximum of reflux. The residual honey remains in the closed flask. Use the distillate right away to refill the soxhlet and start the extraction again with a second thimble which you filled with the plant.

When the second extraction is started, take the first thimble and distill in a water-bath the residual alcohol it contains, while the thimble is kept enclosed in a big test tube or in a sealed jar, for example.

In all these manipulations, avoid as much as possible a contact between the vapor-filled air and the alcohol. As much as possible, desiccate the air preferably, with quicklime. The alcohol in the thimble is poured into the flask which contains the previous residual honey or into the soxhlet where the extraction is in progress.

Pour the powdered plant you collected from the thimble into an air-tight flask. Fill the thimble again with more of the powdered plant and repeat the operation until the alcohol is saturated by the Vegetable-Mercury-Principle. To obtain this result, for balm and caraway, you need about 20 extractions with the same alcohol.

By the last distillation, the process changes. The distillate obtained in a water-bath at 90°C (194°F) is poured into a flask with ground-glass fittings. The residual honey is distilled at a higher temperature, that is *in a water-bath with silicon oil or in a sand-bath.*

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The distillation setup should be made up of an upright condenser (hard to clean), a flask and two bubbling tubes which are filled with a few cm³ of the previous distillate. As a matter of fact, while an oil is being distilled, white vapors pass over and don't condense. Dissolve into the alcohol and put aside. The black residue is treated in the way explained in the spagyrics lesson about the Salt of Sulfur. The oil can be distilled several times, but generally, it is better to wait for more information before you continue this operation.

CALCINATION: 1ST PART:

Place all the dry residues in an earthenware, porcelain or quartz container if you own one. The important point is that you can place an air-tight stopper on it, but it has to have a tube to lead the gases to the condenser, the round bottom flask and the two bubbling tubes, as before. Here, conduct the calcination slowly and cease to calcine as soon as the smoke no longer passes. As before, we obtain an oil and smoke like vapors which do not condense but dissolve in the alcohol obtained from previous distillates. Note that you can, with a minimum of inconvenience, use the bubbling tubes of the previous distillation, with the alcohol that it contained. This prevents unloading these tubes but the inlet and outlet should be sealed between uses. This distilled alcohol will yield an oil residue, generally in a small quantity. This oil and the "oil of honey", and the one directly recollected from the condensation of vapors, are mixed and distilled several times. Although distillations degrade the oils which are extracted with vapor, the successive distillations here should bring to these oils a quality equivalent to the oils extracted with vapor. If you used a plant like lavender or caraway, the matter to be calcined has two origins: the residues coming from the soxhlet extraction and the residues coming from the vapor distillation of $\frac{A}{T}$. For the latter, carefully desiccate them before you mix them with the first ones.

There are two methods for that:

- 1) vacuum distillation in a water-bath;
- 2) desiccation in the air (be careful), through a slow heating, and by constantly stirring the matter being desiccated.

Then mix the two matters and operate as previously.

CALCINATION: 2ND PART:

When the smoke ceases, you'll find a blackish mass in the container. It should be reduced to a fine powder and spread as a thin layer, on a refractory tray, for example, or on several flat crucibles. The whole is put into an oven and heated at 1000°C (1832°F). Do not open the oven, and wait for a natural cooling down afterwards.

Fill a soxhlet thimble with all this powder. The soxhlet itself is filled with *distilled rain water*. Circulate a dozen times. Evaporate the water but do not bring it to a boil. Calcine the

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salt you collect at 1000°C (1832°F). Then, if it is not perfectly white, dissolve it, filter it, coagulate it and calcine again at 1000°C (1832°F). You have then separated and purified the Sulfur, the Mercury, and the Salt. And you enter the reunion phase.

REUNION:

First principle: Reduce the Salt to the finest possible powder; this is the best means by which to speed up the sequence of operation.

Second principle: The best method is to open the Salt with the Sulfur, particularly for the red elixirs, the circulatum, or the Stone.

Third principle: The Salt is opened easily if it is mixed with an equal weight of Salt of Sulfur.

Fourth principle: As soon as the Salt starts to open, it is like a sick person without defense. It can be contaminated with bacteria (we are dealing with life here) or by all the $\frac{\Delta}{\Gamma}$ parasites which exist in the lab. *The Sulfur present when the Salt opens should be the only Sulfur present* and nothing should contaminate it.

The quantities of plant you should plan for are important:

- 1) for plants without oil, by vapor, such as lemon balm (*melissa officinalis*):
 - Plan to fill the Soxhlet 20 times and plan for an additional quantity of plant to obtain oil through dry distillation (possibly).
- 2) for plants with oil, by vapor, such as lavender or seeds of caraway:
 - Plan to fill the soxhlet 20 times and plan for 3 to 4 kg of the plant for the vapor extraction.

To be continued in Mineral Lesson #19.

Ora et Labora!

Mineral Alchemy Lesson 18

Dear Friend,

We are going to refine the information presented in *Mineral Lesson # 15*.

For the material part, we should make the following preparations:

- Antimony from stibnite;
- Saturn from galena or cerussite.

First, distill some wine vinegar, using a device with a *strong reflux* (Vigreux column). Do not keep the first two thirds of the distillate.

Then, distill, *without reflux* until dry. Calcine the residual salts, pour on the last third of the distillate again and circulate it on the salts, to render the vinegar "*nitrous*". Distill it again.

For the rest, several solutions are possible:

First solution: Place the vinegar in a freezer and stir once in a while to prevent it from solidifying as a mass. The mother waters are separated at -25°C (-13°F). Their acid concentration is about 60%, which is high enough.

Second solution: Mix plaster with ground up brick, using a lot of brick because it prevents the plaster from setting as a mass. You need to eliminate the chalk present in regular plaster, otherwise it neutralizes the vinegar. Dissolve the plaster with regular acetic acid. The chalk is soluble and is eliminated through leaching. Next, dry the plaster by calcining it to eliminate the residual water and the vinegar. Pour the distilled vinegar, that is the last third of the distillate, on the calcined plaster/brick mixture. The plaster absorbs the water of the vinegar. Recollect the acid by a *sand-bath* distillation. This distillation is delicate, because the water is liberated by an excess heat. Some authors affirm that they obtain a 96% acid through this process.

Third solution: The solution named after its result: radical vinegar. We already mentioned this process. To sum it up, you circulate the distilled vinegar once on copper oxide. Concentrate the liquid and conduct a dry distillation of the crystals of copper acetate. The acid obtained should be redistilled. It is close to 100% acid. Be careful, it can freeze as a mass at 18° C (64.4° F) and break the flask.

When the vinegar is done, prepare the metals or rather the ores. Let's also examine three interesting ores:

STIBNITE GALENA CERUSSITE

In the three cases, the ore is reduced to as impalpable a powder as possible (blender with bearings).

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Stibnite: The ore should be placed in very thin (1 or 2 cm) layers for this work. The drying cabinet should be an uninhabited, well ventilated room. The most effective method is to start with a temperature of 70°C (158°F) and wait until the odors of sulfur cease. Increase the temperature by 15° or 20°C and wait again until the odors of sulfur cease, and so on, until you reach the temperature zone between 160° and 200°C (320° to 392°F) where the odors of sulfur definitively cease. The other impurities - chalk among others - are eliminated by the Kermes method which we studied recently. The soda-stibnite solution is reduced into Kermes by regular acetic acid. But the circulation of the Kermes in the soxhlet should occur with "nitrous" vinegar. The next operations are common to the 4 salts and will be studied afterwards.

Galena: Galena cannot be purified like stibnite in the Kermes method, because it is not soluble in potash or soda solutions. The calcination is identical to that of the stibnite, but it takes longer. It is good to reach 300°C (572°F) in the final stage of calcination. **Be careful**, there may not be any odor of sulfur but rather a *smell of garlic*. In this case, do not breathe the vapors, because it is a **release of arsenic** which can be fatal.

A slow calcination transforms the galena (lead sulfide) into an oxy-sulfide, and this part is transformed into acetate by "nitrous vinegar", in a soxhlet circulation. In the same way, you can recycle the residual Kermes after circulation with the nitrous vinegar. Calcine the residue of galena and circulate it again. In one case as in the other, a maximum of the vinegar should be recollected.

Cerussite: Requires only a light calcination. Generally, not much odor is given off.

The circulation with "nitrous vinegar" first yields a green extract, then a red extract. It is best to separate the two extractions.

Thus, we'll have now 4 liquids which *shouldn't* be mixed:

- 1) yellow for stibnite;
- 2) red or reddish for galena;
- 3) green for cerussite;
- 4) blood red for cerussite.

For the four liquids the treatment is the same:

- Thicken the liquid by distilling off excess vinegar;
- Crystallization by cooling down;
- Separation of the crystals;
- Repeating the three first stages to exhaust the liquid;
- Dissolution of the crystals in distilled water.

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Start the Solve-coagula again until the water which evaporates from the crystals no longer contains acid. The crystals are then carefully melted and the liquid is poured into a 1/2 liter round bottom pyrex flask carefully stoppered. The flask(s) are placed into an incubator at 42°C (107.6°F) for at least 40 days.

Ora et Labora!

Figure enclosed:

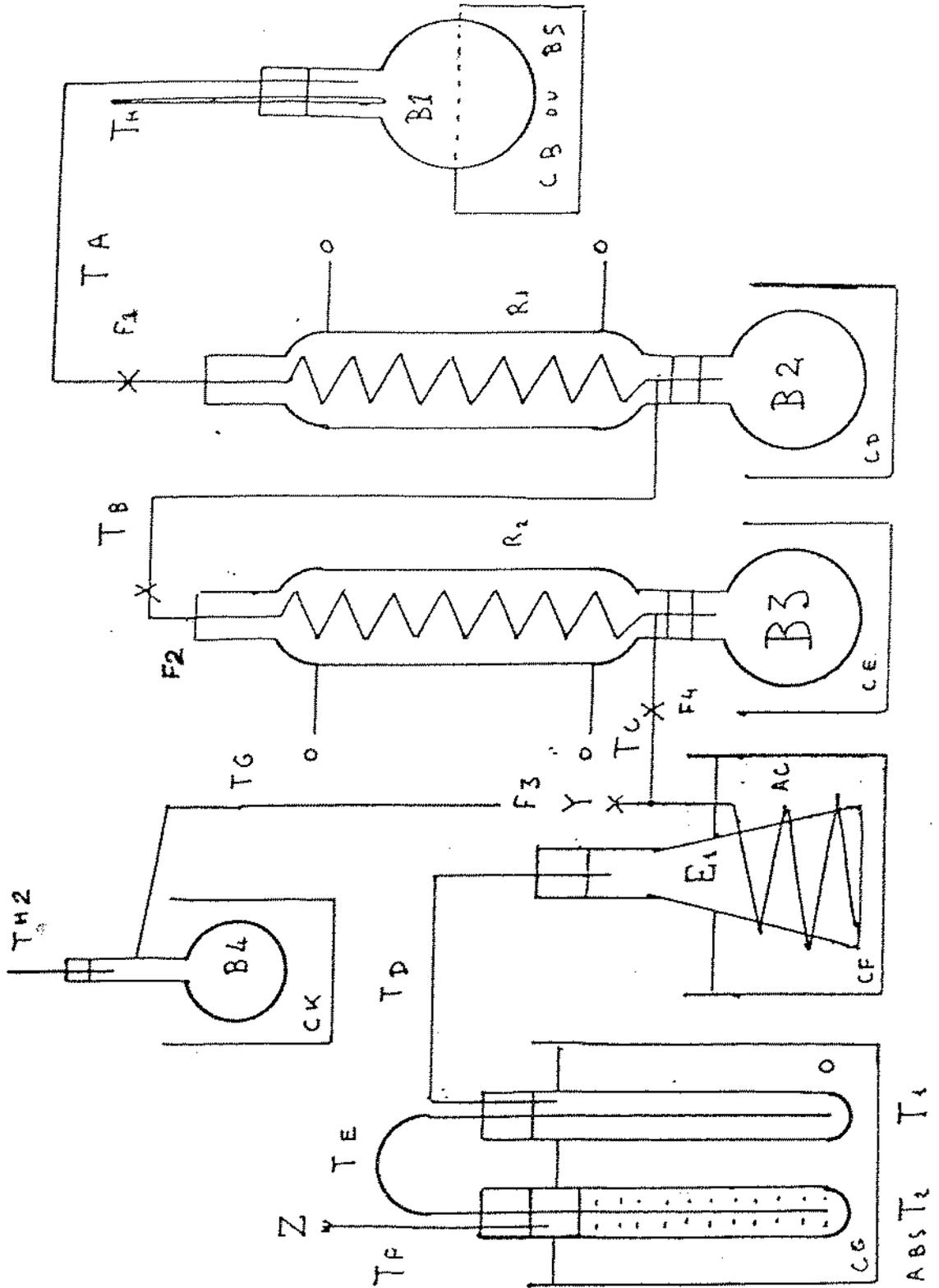
Figure 1:

Description of the installation for the separation or preparation of the metallic elements

- B1 - flasks containing the salts
- R1 - condenser maintained at 80-90°C (176-194°C), so is CD
- B2 - recollects the phlegm
- R2 - refrigerates the ice at 0°C (32°F), so does CE
- B3 - recollects the metallic A .
- F3 - F4 - parting of the vapors, from B1 or B4
- E1 - flask surrounded with a glass coil
- CF - AC - alcohol maintained at -20° to -25°C (-4° to -13°F)
- TF - TE - Bubbling tubes
- CG - casing at 0°C (32°F)
- B4 - flask for the redistillation of A or B . E1 is the receiving condenser
- B4 - can also be used to produce Basil Valentine's synthesized B .

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Figure 1



Dear Friend,

ELIXIR - CIRCULATUM - STONE

ELIXIR: is the simplest process. It doesn't require the opening of the Salt. Place the Salt \ominus in a round bottom flask; pour the distillate g over it. To the flask add a condenser with a check-valve. Do not boil violently. Generally, the distillate takes on a more or less golden yellow color. After about 10 hours of circulation, when the color becomes fixed, stop. Dry distil everything. Be careful not to overheat otherwise the round bottom flask is destroyed. If there are any white vapors, mount on to the device the bubbling tubes which you fill with the distillate obtained at the beginning of the distillation.

The Salt \ominus is recollected with a wooden spatula and placed in a crucible. Calcine it at 1000 C (1832 F). When it cools down, start the cycle again.

After a few cycles of circulation, the Salt \ominus looks like a gum. During the calcination, it forms a hard, compact stone which is difficult to remove from the crucible. At this point, pour some Mercury g from the previous distillation into the crucible to a depth of about 1 cm above the Salt. Cover the crucible with a glass plate and every day, with the wooden spatula scrape the surface of the Salt \ominus which becomes dough-like. Place the Salt \ominus into the flask for another circulation. From that moment on, the quantity of Salt \ominus diminishes quickly, because it becomes volatile.

Two or three more circulations and the elixir is complete. *It shouldn't be distilled after the last circulation.*

CIRCULATUM: (Liquid stone):

1) *Opening of the salt:* The Circulatum (liquid Stone) and the Stone (solid) require, at the start, the "opening" of the Salt \ominus . This happens through imbibitions with Sulfur g (the oil of the plant). *The oil obtained by vapor extraction can be used directly.* The oil obtained by distillation of the tincture should be distilled several times.

The Salt \ominus is imbibed until its surface becomes damp but it shouldn't flow like a liquid.

The container has a wide opening and the stopper is pierced with two holes: one in the center in which a glass rod with an elbow at the bottom will pass through, the other traversed by a small stoppered glass tube which enables you to introduce the oil ⚗ without opening the flask. This type of container reduces to a minimum the risk of contamination by bacteria or parasite Sulfurs ⚗ which are always present in an alchemical laboratory.

Place the whole into an incubator at 42 C (107.6 F), and stir the composite with the elbow rod every day. The Salt ⊖ will change color and dry out. As soon as it dries, reimbibe it with the oil ⚗. Be careful, because if there is an accidental excess of oil, the Work is compromised, because if the flowing oil isn't reabsorbed, it can only be removed by distillation: in this case, never recollect it by decanting. As soon as the Salt ⊖ ceases to absorb the oil ⚗, it is ready to be made into the Stone (solid) or the Circulatum (liquid stone).

2) *Circulatum*: Pour onto the Salt 10 to 12 times its volume of a Mercury ⚗ strongly charged by 20 cycles of extraction. Seal it well and leave it in an incubator for a week. Distil without reflux in a water-bath at 90 C (194 F) as long as something is distilling over. Let it cool down, pour the distillate over the Salt ⊖. Put into the incubator for a week.

SPECIFIC RECOMMENDATIONS: As much as possible, use the same container for distillation as the one you used for the opening of the Salt ⊖. The fact of not opening the latter prevents contamination risks. Preferably, distil and pour the distillate on the day of the planetary attribution of the plant. Preferably start after passing the ascending node of the Moon (Head of the dragon). Complete 7 to 9 distillations during two moon cycles, that is to say that the head of the dragon will have been gone through twice after the start of the process.

The Circulatum should have an acid taste, it should separate the elements of a plant quickly in less than an hour.

The residual salts should not be discarded. Generally, if you pour Kerkring's Menstruum or absolute alcohol on it, you obtain in 2 or 3 days, the essence of the plant; this is verified by the red color the extraction liquid takes on. This liquid, taken in small doses, a few drops in a glass of water, manifests at a very high degree the properties of the plant.

THE STONE (solid): Obtaining the solid vegetable Stone is more difficult because of the great risk of contamination by the parasite Sulfurs ⚗. It is best to transfer, with infinite

precautions, the opened Salt into a porcelain crucible which is tall enough to be closed.

The Salt ⓔ is imbibed with the Mercury ☿ just to the point of saturation like for the sulfur Ⓐ. After 8 days of being in the incubator, calcine at 1000 C (1832 F); let it cool down *without opening the furnace*. The Salt ⓔ is reimbibed, next, put it in an incubator for a week - calcine - let it cool down -- imbibe.

The Salt ⓔ evolves into a color according to the plant: blue, brown, etc... - *Be careful for the critical phase occurs when the salt becomes pale and approaches the white color*. At this phase: always place the crucible containing the Salt ⓔ into another crucible, because it could break. The Salt ⓔ melts like glass, but it is still rigid and adheres to the walls; its contraction can cause the crucible to break.

As soon as there is glass formation, the risk of contamination becomes reduced; but at each cycle, you should again grind the Salt ⓔ to a powder.

The white stage indicates the end of the operation. The Stone is completed, but for the curious and patient alchemist the cycle can be continued past the the yellow stage where the Stone takes on a red color: *This is the the red stage of the vegetable work*.

This stage will be resumed with the work on wine.

Ora et Labora!

Dear Friend,

This lesson contains a synthesis of several translations of the *Golden Chain* of Homer.

This text is to be compared later with the work on the Gur in the vegetable lessons.

We shall return to this text particularly in its relation to the *Mutus Liber*.

Note: With experience, we recommend for your future work that you get equipped so that you can make your own vinegar, as the wine vinegar you can buy is not consistent enough for this work.

Ora et Labora!

THE GOLDEN CHAIN OF HOMER

This text is also known as:

- The Platonic Ring
- The Above and Below of Hermes.

There is a French Translation at the Bibliotheque Nationale (Paris) under the name of *La Nature Devoilee* (Nature Unveiled).

This text surely is the best known text of *Alchemical Theory*. The earliest version which is known seems to have been written around the year 1700.

The whole text is based on a series of 10 symbols (same number as the sephiroth of the Qabala). With the exception of the last one, which contains a point in the center, these symbols only carry vertical or horizontal lines within a circle. The circles are the symbols of Venus, the universal female receptacle. The lines are the symbol of Mars, the symbol of the male seed. The vertical line is acid, the horizontal one basic. The 10 symbols represent the 10 steps of the universal fecundation.

Before the study of the text, we present a direct explanation of the symbols.

THE GOLDEN CHAIN OF HOMER
A DESCRIPTION OF THE NATURE OF NATURAL THINGS
OF THE GENERATION OF THINGS

I

THAT WHICH IS NATURE

Nature is comprised of the totality of the visible or invisible creatures of the Universe. What we call nature is specifically the Universal Fire or Soul of the world which fills the totality of the system of the Universe. It is therefore a universal agent, omnipresent and gifted with an unfailling instinct which manifests in Fire or Light. It is the first creation of the Divine Omnipotence. The soul of the world shouldn't be understood as animal soul but as the cause of the universal principle of life.

II

HOW ALL THINGS PROCEED FROM THE ANIMA MUNDI

Thus, God created the first invisible fire and gave it an unfailling instinct and the ability to manifest by itself into three principles.

A. In its universal and original state, it is perfectly invisible and immaterial, it is cold and does not occupy space. In this state of tranquillity it has no use for us, although in its immobility it is omnipresent.

B. In its second state, it manifests through the motion or agitation within Light. When in this state, it was separated from Chaos when God spoke: "Let there be Light" and there was Light. In this state, it is still cold. Later, when it is slowly stirred and agitated, it manifests as warmth and heat, which is the case in all frictions, and in the fermentation of humid things.

C. When it is collected in a sufficient quantity and violently agitated, it manifests as a burning fire. It continues to burn as long as the subject activates it. If the agitation ceases, it resumes its primitive state of universal tranquillity. In the characteristic state of burning fire, it manifests as light and heat.

Therefore, we may say that in its first state it is perfectly invisible and immaterial.

In the second state, it is visible Light.

In the third state, it is heat and burning fire. It is visible and can sometimes become material and occupy space or a room while in that state.

We have now the three states of power of the Universal Spirit, but it possesses other powers which are perfectly inconceivable.

We said that the Universal Spirit has an unfailing instinct, always working through the simplest and most direct process. But we should mention two obvious, occult qualities, which are the attraction and repulsion of a very great power.

In more familiar domains, the thunderbolt, the light, the earthquakes, the storms and the properties of gunpowder result from the powers of Niter, the condensation of the Universal Fire.

When God created the Universal Fire, He gave it the power to become material. That's how it became vapor then humidity, water and earth, but regardless of the nature under which it appears, it fundamentally remains the same.

In the beginning of the four elements, the Burning Fire, the Vapor and Humidity mixed with the Cold Fire formed the atmospheric air which by condensation became water, which in turn became Earth.

*Originally there is only one element: **FIRE***

The Universal Fire expanded into an immense vapor which, as it thickened, became the *CHAOTIC WATER* and from this water the Creator separated the Light. In this separation, the invisible Universal Fire became visible Light. Thus, we see that the invisible Fire manifests in the form of two principles: Light and Humidity, and from these two things God created all things.

Water was the first condensation of the Universal Fire and nevertheless, in its belly, it remains Fire, filled with life and motion and if it is balanced by an equal quantity of Light, it has then all that which is necessary for the creation of material or immaterial beings and for their maintainance for the remainder of time.

As we previously mentioned the separated Light, we should now consider its first body: Humidity. The subtle nature of water changes as a function of its density. If it is rarefied to a certain degree it constitutes the air in which fire predominates over water. But if it is condensed another degree, it becomes the Humid water in which water predominates over Fire. Nonetheless, in both is hidden the Universal Fire or the Spirit of the Universe.

As soon as the air is deprived of the Universal Fire which animates it and makes it plastic, it immediately becomes putrid and transforms into humidity, then solid earth. It is the same thing

with Water which, deprived either of Fire or Animated air, becomes putrid and condenses into Earth.

God commanded that the Universal Spirit, by means of humidity, could work all things.

Because humidity easily mixes with things, the Spirit can often penetrate, generate, destroy or regenerate all things. Thus, humidity is the body, the vehicle and the Spirit, or Fire, is the operator, the Universal Agent, the Anima Spiritus Mundi.

It is, par excellence, God's worker with its powers, the Universal Seed, the only genuine agent which makes the things of nature.

The Universal Fire fills the immense stellar spaces between the celestial bodies, and, since it has the power to become material, it generates a subtle vapor, an invisible humidity, the first passive principle. It provokes thus a weak reaction and the most subtle of fermentations takes place in the Universe. Through this reaction, the Universal Acid is generated everywhere and we cannot name it differently than: the subtle, disembodied Niter. It is then:

*fire inside
cold outside.*

Thus, this spiritual Niter, which we name the second invisible transformation of the Universal Fire which generates Chaotic and invisible humidity, becomes progressively more material as it approaches the atmosphere of celestial bodies, until it encounters the alkaline passive principle. It then fixes itself, on its own, and forms native Niter. Thus the Spiritual and Universal Niter becomes the material niter.

We say, not without good reasons, that the rays of Light of the Sun are none other than a very subtle Spiritual Niter which becomes more and more nitrous as it approaches the earth to finish as salt of the sea, thanks to rains. Then it can animate the atmosphere with the fire and the life which gives elasticity to air and water: life and its preservation.

Between the firmament and our earth, we continually see vapors, clouds, fog which rise as a transpiration of the earth and are sublimed by its central heat. The chaotic waters and vapors are at once raw matter of all things and their container. Although they seem simple before our eyes, they have a double aspect because they contain Fire and Humidity: the invisible in the visible.

The Fire or Spirit is the motor agent and water, the mother.

Those who wished to arrive at the Fountain of secret Wisdom should reach the central point as well as the circumference of truth; they must imprint in their memory that all things of the world are generated, preserved, destroyed from Fire and Water or from the Spirit enclosed in Humidity.

Those who understand this won't have any trouble analyzing natural things. They will easily volatilize the fixed and fix the volatile. From a poison, they'll make a salutary medicine, from a putrid body, a refined perfume, because they know that all things proceed from a root and return to the root. Matter can only be distinguished by its outer aspect: its modification is due to the fact that its essence is more or less digested or fixed. That is why Philosophers know that their prima materia is in all things: they only select a subject where Universal Spirit is most abundantly present and concentrated, or easier to obtain.

III

HOW ALL THINGS ARE THEN GENERATED

We demonstrated that the primordial Vapor, or Fire and Water, is, after God, the Prima Materia of all things. This double vapor, as it thickens, becomes water. In the beginning, this water is perfectly pure and subtle. Through the inner action of the Universal Spirit it becomes diffused, troubled, and starts to ferment thus generating the Earth. The water is thus subdivided:

- into a more spiritual and more subtle air than common air
- into a less subtle air than common air
- into a half-embodied water
- into a body: the earth.

Thus, in the beginning, we have unity then duality. This transforms into three and in the same way into four and five (*quintessence*).

- 1) We have a simple humidity
- 2) A water containing a Spirit
- 3) They are separated into volatile, fixed and half-fixed, or into an acid volatile and an alkali (Anima Spiritus Corpus).
- 4) When this is divided into the four elements Fire, Air, Water, Earth, then nature, aided by the Art, transforms the whole into a quintessence of Fire ☿.

When water, through changes, becomes putrid we can separate the principles one after the other. The more volatile rises first and so for the four elements, and the denser last. God commanded that the different modifications produced in the four elements by the Universal spirit, constantly generate a Universal Seed. For this reason, He gave each thing its own agent and sphere of activity to provoke the appropriate result. This can be seen through the evaporation of various subjects which expel the excess of unnecessary humidity. This evaporation, if it comes from above (without) is called influence and if it comes from below (within) effluence or emanation. God gave each thing His particular Seed which depends upon rules of proportions of elements in the Universal Seed.

IV

HOW THE UNIVERSAL SEED IS GENERATED

BY THE FOUR ELEMENTS

After God has divided the Anima, or Spirit of the World, or simply Chaos, into four elements of predominant principles, he spoke: "*Grow and multiply*". Heaven and air are both animated by Universal Fire, the Father, the Male, the acting Operator.

The Water and Earth are the Mother, the passive principle fecundated by the Father. However, the four are only two that is, Fire and Water which constantly generate the Chaotic Water or Primordial Chaos by the reciprocal action resulting from their inner principles, upon which depends the generation and conservation, the destruction and regeneration of all things. This will continue as long as the Entire earth hasn't been regenerated by God.

These four elements produce the Universal Seed through the action of their various affinities and antipathies.

There is a philosophical axiom relating to Nature which says that it is impossible to join the extremes without the help of a medium, an axiom that should be constantly present in the mind of whoever wants to understand how extremes are reunited.

Fire cannot become Water without Air and Earth cannot become Air without Water. Likewise, it is impossible to unite Fire with Earth without a mediator, as one is volatile and the other solid (fixed). Therefore, if you wish to accomplish this, you should unite Fire with its closer volatile mediator, Air and they unite immediately. When this is done, provide Water as a mediator between Air and Earth and then they will unite. Thus, you have united Fire with Earth and fixed the volatile. The reverse is possible; then the fixed will be volatilized.

Fire is extremely subtle, air which is also subtle but is more embodied than Fire. Water is at a greater degree of embodiment than Air and Earth and one degree more embodied than Water. We should proceed as Nature does if we want a satisfactory result. If this is not present in your mind, nothing can be accomplished.

In a chemical analysis, we observe that the volatile passes first and denser matter last. Nature regulates its operations in this way. For example:

Take some earth from a meadow, pour water on it to dilute it well. Let sit for a few days, the gross earth deposits at the bottom of the container. Then stir it three to four times a day. The water, in due time, will dissolve the most subtle earth which is the Salt of the Earth or the Virgin earth. When this Salt or Virgin Earth is extracted from common earth, the Water cannot dissolve anything else.

Now distill the Water containing the Salt to make a Spiritual Water and repeat the cohobation with the Salt and distill again into Spiritual Water until the solid residue at the bottom of the container passes over during distillation (volatilizing the fixed).

With this water you can repeat the operation until the whole quantity, through distillations and cohobations, is volatilized and transformed into Spiritual Water. This is a painstaking operation but a great revelation.

In the same way, Nature operates by distillations and coagulations until the seed of all things is generated, which we call Prima Materia ⊕.

The artist must observe the processes of nature, which are gradual and methodical, according to the weather, the weight, the measure. And the operator must transpose this from the outer to the inner.

V

*THROUGH WHICH PROCESS THE DIVIDED CHAOTIC WATER
IS REGENERATED AND BECOMES THE UNIVERSAL SEED
OF EVERYTHING CALLED ANIMA OR SPIRITUS MUNDI*

The four elements have been separated from Chaos and proceed from One.

The form is Fire, the matter is Water, but the form is One and Matter is One. The difference only exists in the outer appearances. Through fermentation, Fire becomes Air and Air becomes Water and Water, Earth but when Fire is fixed through the Art or by Nature it

becomes Earth and when the Earth is volatilized by Water it becomes Air and Fire.

One element can be converted into another. This could not be true if they were innerly different, but it is not the case.

In the beginning, the Chaos which produces these elements was only Fire and Water, and has been divided into four later by a sequence of volatilizations and concentrations. Through volatilizations and rarefactions, Humidity becomes Air animated by Fire. But, through condensation and thickening of the primordial Humidity, the Earth was formed with the Fire which has been directed toward the center of the Earth. The hieroglyphic characters of the elements explain their nature exactly.

There is no substance under the heavens, either dry or humid, which doesn't contain the Universal Fire and the Primordial Humidity. The First is called Innate Fire, the second Radical Humidity.

The Universal Fire becomes Humidity outwardly but remains Fire inside. As it is internally extremely spiritual and volatile, it is naturally extremely active and mobile, and this primitive mobility initiates heat and fermentation, and through this fermentation the Universal Acid Spirit is continuously generated. Then, when it encounters its own body (its adequate material support) or mediator, whether in Water or Earth, the Universal Seed is embodied and becomes visible. But if it only remains in the state of vapor in the atmosphere, it is then the embodied Astral Seed. This is the influence we receive from Heaven through the channel of Air. The Heavens give their influence and thus Air, Water and Earth unite their efforts and continually produce the Universal Germ of the World (*GUR*).

VI

Of the Heavens and their Influence.

Heaven, after the separation of the Chaos, is the first principle, and became visible in Light: It is the most subtil and the highest, as well as the most universal, when it generated Humidity it became a most subtil Vapour, pure and extremely Volatile, for that reason occupies the highest Station, or the remotest from the atmospheres of the heavenly Bodies.

This most subtil principle is full of Life and the most active for which reason we call Heaven the first Agent, the Male Sperm the Soul, a subtle air, a subtil water, a volatile earth. Heaven and air have their influence not upwards, but downwards, towards water and earth, but earth and water ascends upwards to meet them. They mix thus in the state of vapours in order to fabricate the Chaotic regenerated, and impregnated water or the Universal, Semi-material Sperma Mundi. As soon as the air is impregnated and animated with Heaven, it communicates immediately with water and earth to impregnate them also. This communication is done in a moment, as the Elements are gradually prepared to meet and mix with each other, by a continual circulation. There is no doubt but our atmosphere is continually loaded with Vapours, exhalations and clouds for the sake of communication of the Elements; as soon as these Vapours become condensed into Rain, Dew, Snow or Hail and fall down that same moment the volatilisations and exhalations of water and earth take place and are ready to succeed and meet those, which come down; so that there can never be no want of generation of such Vapours, which when sufficiently dilated or extended constitute our common air, which is more or less pure according as it is more or less animated by Heaven or fire.

The Heavens receive the ascending Vapours, which as they recede from the atmosphere become more and more subtil and spiritual until they are actually returned to their first Universal state of Ether or Spiritus Mundi. The atmospheric air also receives continually the volatilised water and succeeding Vapours, until it is satiated and overloaded, when the superfluous Humidity is forced down again in Dew, Rain, Hail, Snow.

Thus fire and air come down into the Waters and impregnate them; the Waters dispose their thickest part and give it to the Earth; the Earth thereby becomes overloaded or saturated, which superfluity of earth and water is again volatilised and sublimed upwards by the fire, inverted fire or Central Heat, into Vapours, which ascension and descension God has implanted into the Universal fire, as the Great and only Agent of nature, or rather Nature herself which causes this perpetual circulation by its attracting and repulsing power, as we have demonstrated in the Second Chapter.

The Lover of Natural Knowledge may clearly learn here how the Effluvium of one Element becomes the food and nourishment of the others, until converted therein; the same takes place with us and our food, as, for instance, we eat Bread and drink Wine, we discharge the superfluities of our food, which are used for manure on the land; seed is sown therein and out of such superfluities grows again our food.

A Tree loses its leaves during Winter, the leaves fall to the Root, where they putrify and become humidity which penetrates to the Root and feeds the Tree again. Observe this well and you will fully comprehend the Superius and Inferius of Hermes, and our Catena Homeri or Platonic Ring. Thus you will see a continual transmutation of Matter,

that is a conditional change or modification, whilst the inward central fire of Nature remains always the same, as it was in the beginning.

All things were water at first, and return to water. Apply this throughout our Book, which is no small step towards our Art.

VII

OF THE ATMOSPHERE OR AIR, AND ITS INFLUENCE

Air is the second principle after the separation of the Chaos, and is the Vehicle or Instrument of the first i.e. fire; We mean here the genuine animated air. This we call Male, Manly, Sperm, and first Operator in all Things. The Heavens or fire is the Anima and Life whilst the air or extenuated, rarefied Humidity is the spirit and Receptacle of the Soul and Principle of Life, and consequently animated fire ought to be named Spiritus Vitalis Macrocosmi, or the Vital Spirit of the Earth which we inhabit.

Air is a most subtil humid vapour or rarefied water wherein fire dwells abundantly. This is more corporeal than the Ether beyond the Atmosphere, which Ether is totally unfit for Inspiration, as being too subtil to fill the air vesicles in the lungs of animals: Air being the genuine Medium between fire and water, as it partakes of both, is therefore capable to receive the most subtil celestial fiery influences as well as the sublimed vapours from below, and by a continual motion or circulation, more and more vapours are converted into air, and more and more of such air becomes animated by fire, and as soon as it is saturated, the superfluous humidity is condensed again and comes down in the character of animated water, such is Rain, Dew, Hail, and Snow.

By this you see that atmospheric air is the first Medium to unite fire with water and earth, and without it the Heavens could never communicate with water and earth. Thus air becomes vapour and water, and the thicker the water gets, the better it mixes with the Earth, as on the contrary the Earth by Subtilisation by means of water is again converted into air, Nature operating these perpetual changes and conversions from one extrem to the other: When they unite in Vapours they fabricate the Universal Sperm of the World Spiritus Mundi, which is partly resolved in Dew and Rain etc. and partly remains in the air for the sake of animation; the atmospheric animated Waters fall down upon the Earth, as the Receptacle of all Celestial virtues, and fertilises it, for the growth and nourishment of Animals, Vegetables and Minerals.

The Earth itself is a condensed or fixed Heaven, and Heaven is a volatilised earth, air is a rarefied water, and water is condensed air. We have here to note that one Element differs

from the other only in this, that the One is volatile, the Other fixed, the one is fluid or dissolved, the Other is condensed or coagulated, and yet every one is and remains centrally and inwardly what they all were at first, i.e. prima materia or fire; Lastly, the Air may be called Renes, or the Kidneys of the Macrocosm, because in the air is chiefly found the conflux of all radical substantial. macrocosmical fluids, and the pure Extract of Essence of the World does meet there, where that ancient primordial Chaos is daily and hourly generated and regenerated for generation, preservation, destruction and regeneration of all Natural Things.

What are Dew, Rain, Snow, or Hail else but a regenerated Chaos? Out of which Animals, Vegetables, and Minerals receive part of the vivifying principle and nourishment: and all this is generated in the Air.

VIII

OF WATER AND ITS EFFLUVIUM

Water and earth belong together, as fire and air do, nay, all four stand in need of each other; the earth wants water, and fire cannot do without air; air without or deprived of fire becomes a putrid humidity, and water without animated air becomes mud and earth.

Water is the third principle, but the first passive Element, the Female Sperm and Menstrum of the Macrocosm, which does the Office of conveying food and nourishment to all Sublunary Creatures, and is, with the Earth, the Mother of all Things. Water is condensed air and a fluid earth. Water is a Medium between air and earth. As soon as fire is become air, and air been converted into water, Dew, Rain, or Snow, they fall down on the inferior grosser waters and earth and mix therewith, begin to ferment by means of the primogenial implanted spirit or fire, and one Element operates into the other, until they have produced their Fruit from convenient Matrixes.

Here the Artist may learn Wisdom from Nature, which is not satisfied with one Medium of Union, viz: air to convert fire into earth, but makes use of water also. Thus the Artist must follow Nature, if he wants to unite and fix his principles together; Let him look for a Medium of Union, which is easily found; and if one Medium is not enough, let him employ two, and if two prove inadequate, let him take three, but homogenials and not heterogenials, as minerals agree with minerals, vegetables with vegetables etc. Minerals agree also with Vegetables, and Vegetables with Animals, as the Vegetables stand between Animals and Minerals. The difference between them all is but external, not central, as they proceed originally all from one and the same Universal spirit; Minerals

are fixt Vegetables, Vegetables are Volatile Minerals, and one kingdom is transmutable into the other, in regard to its internal qualities.

Men and Beasts make use of Vegetables for food, and by their inward nature, they change those Vegetables into flesh and Blood; now when man and beasts die, they are buried underground, and Vegetables are again produced, which receive by means of their fibres and roots mineral Vapours, which are thus converted again into Vegetables.

This is the true Pythagorean Metempsychosis. Vegetables again. when they putrefy, assume a nitreous saline nature which is dissolved by rain and carried downwards through the pores, into the earth, or into the Sea. If near hand, from whence it ascends again as a mineral vapour, and thus Vegetables are frequently changed into Minerals, as well as into Animals, although more frequently into animals. Heaven and Air are Male Sperm, water is the Female Sperm and Menstrum, the Earth is the Womb or Matrix, wherein the two first, by means of the third operate every Generation.

IX

OF THE EARTH AND ITS EFFLUVIUM

Earth is the fourth and last principle of the Chaos. It is the second passive Element, the Matrix, and Mother of all sublinary Creatures; earth is a coagulated fixt Heaven a coagulated fixt water, and condensed air. The Center and Receptacle of all the heavenly Influences and of the Universal Sperm, which takes here a Body as well as in the Ocean.

Heaven by its extream subtility, is of all Elements the most moveable and omnipresent; its own motion, on account of its subtility is imperceptible, although visible in Light; This Universal fire is never idle, but perpetually active, pervading all things, although its action is generally imperceptible. This is the original cause of all Motion in Nature it moves the most subtil Air on the outward superficies of the atmospheres of the opaque celestial Bodies. This outward subtil air set in Motion, moves the next towards the region of Clouds and Vapours, yet as the atmospheres grow gradually thicker, i.e. more loaded with Vapours, the nearer to Sea and Land, the Motion is successively and gradually slower.

That the air is moved by the Ether or fire, is observable on account of the constant motion of the atmosphere; that Air set in Motion moves the Waters is well known to those who navigate the Seas and Rivers. That Water moves the Earth appears by the Sand, Mud and Stones which the Waters move continually from one place to the other. Here the Water carries off, and in other places accumulates Sand and whole Shores: now every Motion manifests warmth of the omnipresent cold, Universal fire, where it be perceptible or imperceptible as this depends on circumstances; In living Animals this warmth occasioned by moving the omnipresent fire is perceptible enough, whilst that same

Motion is imperceptible in Vegetables and in Minerals. All Life proceeds from a Motion of the Universal fire, as a total privation of action and warmth extinguishes Life. From this let the Student collect that there exists a perceptible and imperceptible warmth.

This we tell you because in all the Elements exist Innate Heat, which is sometimes observable at other times not, this is not always dependent on the collected Rays of Light, nor on the Central Heat of the Earth. Every Subject under the Sun, although invisibly small contains Life or fire, and of course the four Elements.

Now if every Subject contains Heaven or fire, so every Subject has a Motion, whether visible and perceptible or not, yet there is a Motion in it.

Heaven never rests: it must have a Motion, let it proceed from what means it will; and although this principle may seem to be inactive or at rest, yet it has its invisible influences, virtues, and powers.

For instance, a plant, root, or herb, ore or mineral tore from the Spot where it grew, seems to be dead, because it is hindered from growing to a further perfection; But as Heaven is within which is never at rest, it still continues to show its powers and virtues, when that plant or ore is rendered medicinal.

The Lover of Natural Truths sees here, from whence each Concrete derives its power, viz. from the implanted Heaven within as from without, from its perpetual Motion, warmth and heat. Therefore you will look in vain for a Subject big, or even so small which is deprived of Life, that is of Heaven air, water and earth. It stands to reason that the Children resemble Father and Mother, now as all Things did proceed from the Primeval Chaos, they must partake of the same properties. This property was fire and Humidity, but fire is the mover.

Thus fire or the spirit is diffused through the whole system of Nature, so that the meanest drop of water, or the smallest atom of Sand or Earth is filled with that Universal spirit.

Observe here that the whole difference of Things consists only in volatility or fixity; that is: volatility and

fixity causes the changes and different modulations of Matter, and the whole scope of Nature is to corporify and fix Heaven, in order to become useful and salutary; which, Heaven could not effect if it were not by the gradual Mediums of Vapours, as it must communicate with the Earth by means of air and water. God has ordained it wisely, that Heaven must become corporeal and be converted into all the Elements, as vice versa, the inferior Elements are by subtilisation converted into air and fire or Heaven, in order to be reimpregnated and renewed by the Celestial Influences, for the sake of generation, preservation, destruction, and regeneration of all Things. We have explained to you how Vapours are converted into air and air into fire, we will now examine the nature of these Vapours.

We have told you that there exists in the Earth an Innate Heat, which we believe to be the strongest in the

Center of the Earth, by reason of its swift motion. This Celestial Heat causes a continual transpiration and sublimation of Vapours; such Vapours are Dews and Fogs; these Vapours are two-fold and four-fold.

Two-fold because they consist of water and earth, fourfold as they contain the 4 Elements, which four

Elements cannot do without each other's assistance; that I call these Vapours water and earth is, because they contain those two Elements volatilised and subtilised, and if they ascend they are still further subtilised and converted into air and fire or Heaven.

Such Vapours have been water will be easily admitted, but that they also contain a subtilised earth, may perhaps be doubted; but note, that I have said before, that one Element is the conductor of the other, and that one Element dissolves and subtilises the other.

Fire dissolves and subtilises air, air dissolves and subtilises water, water dissolves and subtilises and mollifies the earth, vice versa, the earth condenses the water, water condenses air, air condenses or corporifies Heaven or fire, by which means air becomes animated, as we have explained before, and becomes this Spiritus Mundi. Thus one Element is the others Magnet, solvent, volatilising, condensing, coagulating and fixing principles.

You are to note here that Nature has its degrees of Volatility and Fixity; as for instance, that part of fire which is nearest to the atmosphere is not so highly pure or subtil, as that which is a thousand leagues remote from it: In the same manner, the highest atmospheric air is purer, colder and more subtil as well as dryer than that air near us, which we breathe. The superfluities of the water is also lighter, more aerial and more subtil than the thick slimy ground waters, which settle on pebbles, stones corals, and covering them with a slime or subtil mud.

The Earth has also its degrees of subtility and fixity: We have therein earth juices, sulphurs, bituminous substances, such as the pitcoal, clays, loams, minerals, ores and metals, rocks, stones, and flints, and the precious gems of a wonderful fixity. The most volatile earth is mollified and dissolved by water, further volatilised into air and fire. Vice Versa the lowest fire sooner mixes and corporifies itself with the air, than the remote, whilst the lowest atmospheric air sooner mixes with, and becomes water, than the pure and highest air, the Inferior slimy ground waters become earth sooner than the superficial lighter waters.

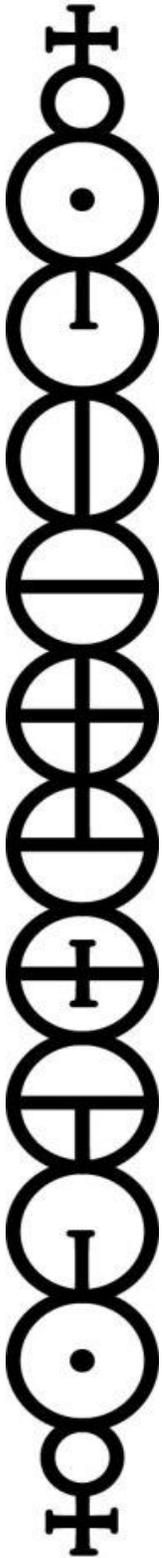
The Volatile soluble Earth, in particular its Virgin earth, i.e., its salt is sooner dissolved by water than a pebble or Sand. The volatile water is sooner converted into the lower air than the ground waters can possibly be.

If you understand us right, we shew you here the first beginning of Nature, and the true First Matter. As the 4 Elements proceed from the primordial Vapours, they are forced to

generate continually such a Vapour, of the very selfsame principles and substances, which Vapour is converted by Nature into a Chaotic water, and falls down in Showers of Rain. In this Chaotic water is invisibly contained the Universal Sperm for the generation, preservation, destruction and regeneration of all Things.

Now we have treated of the regeneration of the Chaos or Universal Vapours: we shall further show you its power and virtue so that you may touch it with your hands, as well as see it with your eyes.

Ora et Labora!



1 After differentiation of the CHAOS a Volatile Fire is separated.

2 It is named Spirit of the World. Dew, hail, rain, snow and all that comes from the atmosphere are its faithful companions. In them is hidden the volatile Essence of the worlds of the Upper Regions which undertakes a palpable and visible aspect when it comes down to the Inferior Regions.

3 Niter is known by the world but the amount of its virtues is not. All things are made with Niter. The Inferior Regions are under its domination. The Superior ones can do nothing without it. Niter is the father of all of nature. It is the cause of earthquakes. Its powers were given to it by the Creator. It dominates the heavens, the earth and the sea. It is the ADAM of all things from which EVE has her origin. Its goal is met when the earth is fertilized, when ADAM has been fixed and can no longer fulminate and that EVE is sitting by his side. The movements of the Sun, of the Moon, of the Earth and of the sea continuously bring ADAM and EVE closer.

4 Through heat and cold and through the tides of the sea change what comes from the rain in common salt and in alkali. Feeding the children of the earth with its blood.

5 When the male and the female meet, a perfect fruit is created.

6 The volatile animal world demonstrates this.

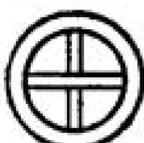
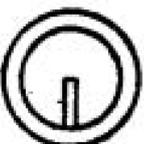
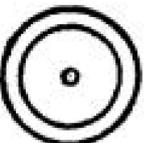
7 The hermaphrodite plant world is between the fix and the volatile and also shows this

8 The fixed earths, the stones, the gems are proof that they belong to the Niter and to the Salt. Air, water and earth hold their active principle solely from niter.

9 When now the noble sperm of the world has been fixed and that the vapors and water have been converted into a fixed earth, then is accomplished all that the wise esteem the most. The volatile has become fixed and vapors and humidity have become earth and a Dry Red Blood. This is the highest benediction and the treasure of the world.

10 Perfect perfection chases away disease and poverty.

THE GOLDEN CHAIN OF HOMER

		
		CHAOS CONFUSION.
Volatile Spirit of EARTH incorporeal.		Spiritual incorporeal Nitre containing the universal Fire without a Basis or alkaline Body.
EARTHY acid spirit corporeal.		Nitre, or corporified Spiritus Mundi in earth. Sulphur ♁. Nature, <i>Male</i> .
Fixed EARTHY Spirit- ual Alkali corporeal.		Sea salt or corporified Spiritus Mundi in Water ♀ and salt. Nature, <i>Female</i> .
Primary substance of all Bodies.		Nitre and salt united.
Regnum Animale.		The most volatile.
Regnum Vegetabile sive Acidum.		Between Volatile and Fixed. The mediator.
Regnum Minerale.		Fixed. The volatile spirit is here downwards.
Pure concentrated Fixed EARTHY tincture, Extractum chaoticum.		The unfermented tincture.
Perfect concentrated universal Quintessence.		Fermented and specified with Gold or Sun. Lapis philosophorum.

Dear Friend,

This lesson is devoted to the separation of the three alchemical principles, namely ☿, ♃, ♁, of the mineral or metallic kingdom.

We already said that there are several possible methods. In this lesson, we shall describe the method of the acetates.

The setup we used is the same as the one which is described in Mineral Lesson #18. It has the advantage of permitting a clean separation and also allowing for variations within the process, depending on the result sought.

The salt is prepared according to the directions given in Lesson #18. The formation of the acetate itself should be undertaken with *Nitrous Radical Vinegar*.

The explanations already given are sufficient for our work at present. However, we shall resume the question of the *Nitrous Radical Vinegar* and that of the preparation of acetates later, and particularly on the subject of alkahests.

Fill the round bottom flask B1 half way with salt. Flask B1 should preferably be of a 1/2 liter capacity, without a ground-glass joint. The flask-heater CB should be coated with moist kaolin shaped exactly to the form of the flask. Let it dry by reducing the voltage otherwise the flask sticks to the casing of the flask-heater and everything is lost.

You can also heat in a sand-bath. The main points are: first, to maintain the flask B1 in the same shape, because it could become soft, and second, to increase the heat progressively.

The stopper is made of silicon. The condenser R1 can function with a 1-liter or 2-liter water reservoir at about 40C. This water can circulate

in a closed circuit with a small electrical pump (windshield wiper, aquarium etc...).

The flask B2 is also maintained at 40C. by the liquid of CD (CD can be used as a water reservoir for the condenser R1). The aim of this first part of the system is to condense the phlegm in B2 and to prevent the A from condensing there also. The vapors of A are often volatile at 35C. In this case, when the temperature drops from 40 or 50 in the condenser, it condenses the phlegm but prevents the A from condensing.

The condenser R2 can also function if cooled from a water reservoir with a small pump and CE of the B3 flask can be used as a reservoir for it. However, in R2, the water temperature will be 0C. (32F.), so A will condense in B3 and the vapors of B will be already cooled.

These vapors are circulated through the glass coil of E1 which is immersed, with its round bottom flask, in a liquid AC, the temperature of which is at least — 30C. This can be obtained with alcohol or another low freezing point liquid, with the help of a deep-freeze or refrigerated lab circulating cooler.

It is also possible to reach — 70C. by filling CF with acetone and by throwing small cubes of dry ice into it.

Caution:

Dry ice should not be picked up with the hands, but with tweezers. Its extreme cold causes serious burns.

The setup TE-TF is a bubbling tube filled with absolute alcohol and maintained at 0C. (32F.) during the operation. Its role consists in dissolving the vapors of B which did not condense in case either the refrigeration of E1 was not sufficient or the extreme heat of B1 caused an overly rapid release of vapors.

Operatory mode:

For copper or lead, work alone in the laboratory; for antimony, several people may be present.

In the case of lead or antimony, the crystals begin to melt. After this fusion, the phlegm escapes and the solid state is reestablished.

A thick, white smoke progressively forms, which is viscous and fills the whole apparatus. In B3, a red oil condenses. In E1 a ♀ is condensing which is often pinkish. If the distillation is very slow, the yield of ♀ will be better. White smoke passes for about one to three hours.

The white vapors should give off a slight apple scent which permeates the whole premises.

If you don't obtain a condensate in E1, the alcohol of TE-TF will be somewhat colored. It should be kept at a maximum of 10C. with the flask open and at 30C. with a closed flask. If the operation is successful, then the alcohol can extract the tincture of gold and dissolve the metal within a year to 18 months.

The ♀ of B3 and the ♀ of E1 should be redistilled separately. In effect, the ♀ has fixed some ♀ and a sensible quantity of ♀ has been carried away by ♀ . Later, we shall look more closely at how these products are used and handled.

These two products, one clear and one red, are the white and red philosophical wines described by Weidenfeld and by Brouant in his book *Anatomie du vine* (Anatomy of Wine).

The solid residue is copper in the case of copper, and the black lion in the case of lead and antimony.

Several possible methods will be studied later. However, in the case of antimony, a calcination at 1000C. (1832F.) yields a white, slightly bluish glass, slowly soluble in water.

Careful:

This glass penetrates through the crucible, therefore place the crucible on a bed of kaolin in a stainless steel container. When it is cold, place the crucible in a container filled with distilled water. After fifteen days, collect the salt by coagulation. This salt, if it is placed so as to deliquesce on a glass slab during the signs of Aries and Taurus, produces the spagiric oil of antimony of Basil Valentine.

The flask B4 is to be used for the making of the synthesized alkhaest of Basil Valentine, a very delicate experiment which is explained in a future lesson. In this case, the vapors of B4 crosses over into E1, the tap TC being closed.

In a forthcoming lesson on the subject, we shall give the difference between the fixed salt of the metal and its essential salt. The extraction described in this lesson only concerns the fixed salt.

The Black Lion of lead requires a different treatment than that of antimony.

Ora et Labora!

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Dear Friend,

A R T E P H I U S

The operative alchemists agree on the fact that the alchemical writings of Artephius are amongst the most open secret and most sincere. The treatise presented here confirms the significance of the work on antimony.

This text deserves a long and patient study.

Ora et Labora!

THE EPISTLE

OF

JOHN PONTANUS

Mentioned in the Preface of

Artephius his secret

Book.

Wherein he bears witness of the Book translated out of the Latin copy Extant in the third of Theatrum Chymicum at the 775th Page.

Faithfully re-typed by a meer student of
the Hermetic Art. 1976

I John Pontanus have travelled through many Countrys that I might know some certainty of the Philosophers Stone, and going through as it were all the world I found many false deceivers but no true Philosophers yet continually studing and making many doubts, at the length I found the truth, but when I knew the matter in general, I yet erred two hundred times before I could attain to the true matter with the operation and practice thereof.

First I began to work with the matter by putrefaction nine months together and I found nothing, then I put it into Balneum Mariae for a certain time and therein I likewise erred, afterwards I put it into the fire of calcination for three months space and I wrought amiss, I tried all kinds of distillations and sublimations (as the Philosophers Gibor Archolaus and all the rest either say or seem to say) and I found nothing. In short I assayed to perfect the subject of the whole Art of Alchemy by all means possible to be devised as by dung baths, ashes and other fires of divers kinds which are found in the Philosophers Books, but I found no good in them; wherefore I studied three whole years in the Books of the Philosophers, especially in Hermes, alone whose brief words do comprehend the whole Stone, though he spoke obscurely of the Superior and Inferior (of that which is above and that which is below) of heaven and earth therefore our instrument which brings the matter into being in the beginning, second and thrid work, is not the fire of a bath nor of dung, nor of ashes, nor of the other fires which the Philosophers have put in their Books. What fire is it then which perfects the whole work from the beginning to the ending? Surely the Philosophers have concealed it, but I being moved with pity will declare it unto you together with the compliment of the whole work.

The Philosophers Stone therefore is one, but it has many

names and before you know it, it will be very difficult, for it is watry, airy, fiery, earthy, phlegmatic, choleric and melancholy. For it is Sulphurous and it is likewise Argent-wive and it has many superfluties, which by the living God are turned into the true essence, our fire being the means and not separate anything from the subject thinking it to be necessary, he truly knows nothing at all in Philosophy, for that which is superfluous, unclean, filthy, feculent and in short the whole substance of the subject is perfected into a fixed spiritual body by the means of our fire, and this the wise men never revealed, and therefore few do come unto the Art thinking there is some such superfluous or unclean thing.

Now we must see and find out the properties of our fire, and whether it agree to our matter after the manner that I have said, to wit, that it may be transmuted, whereas that fire does burn the matter, it separates nothing from the matter, it divides not the pure parts from the impure, as all the Philosophers say, but it turns the whole subject into purity. It does not sublime as Geber makes his sublimations; Arnold likewise and others speaking of sublimations and distillations to be done in a short time. It is mineral, equil, continual, it vapours not except it be too much stirred up, it partakes of Sulphur, it is taken from elsewhere than from the matter, it pulls down all things, it dissolves and congeals, likewise it both congeals and calcines and it is very artificial to find out and is a compendious and near way without any cost, at least with small cost, and that firing is it with a mean firing, for with a soft fire all the whole work is perfected and it performs withall, all the divers sublimations. They that should read Geber and all the other Philosophers, tho they should live an 100,000 years, could not comprehend it, because that fire is found by deep and profound meditations only, and then it may be gathered

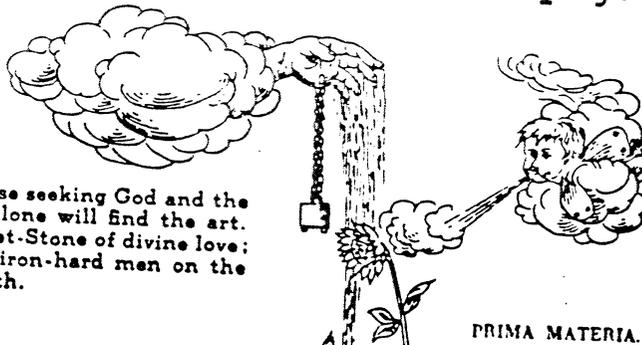
out of books and not before and therefore the error of this Art is not to find the fire which turns the whole matter into the true Stone of the Philosophers, and therefore study upon it, for if I had found that first, I had never erred 200 times in my practice upon the matter, wherefore I do not marvel if so many great and wise men have not attained to the work; they do err, they have erred, they will err because the Philosophers have not put the proper agent, save only one which is named Artephius, but he speaks for himself or by himself, and unless I had read Artephius and let him speak, I had never come to the compliment of the work, but the practice is this: Let it be taken and ground with a physical confusion as diligently as may be, and let it be set upon the fire, and let the proportion of the fire be known, to wit, that it only stir up the matter, and in a short time that fire without a laying on of hands will accomplish the whole work, because it will putrify, corrupt, engender and perfect and make to appear the three principle colours, black, white and red, and by the means of our fire the medicine will be multiplied if it be joined with the crude matter, not only in quality but also in virtue; with all thy strength therefore search out this fire, and you shall attain your wish, because it does the whole work and is the key of the Philosophers, which they never revealed but if thou muse well and profoundly upon these things that have been spoken concerning the properties of the fire you may know it, otherwise not.

I being moved with pity have written these things, but that I may satisfy you fully, this fire is not transmuted with the water; these things therefore I thought it to say and to warn the prudent that they spend not their money unprofitably, but know what they ought to look after, by this means they may come to the truth of the Art and not otherwise. Farewell.

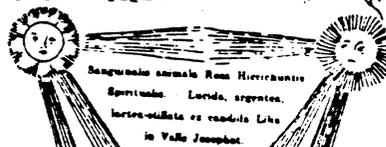
FINIS

The Hermetic Philosophy.

I attract all those seeking God and the truth; those alone will find the art. I am the Magnet-Stone of divine love; attracting the iron-hard men on the road to the truth.



PRIMA MATERIA.

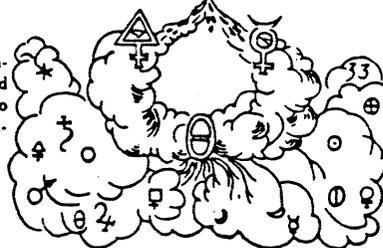


FONS
MIRABILIS

I am the moisture which preserves everything in nature and makes it live. I pass from the upper to the lower planes; I am the heavenly dew and the fat of the land; I am the fiery water and the watery fire; nothing may live without me in time; I am close to all things yea; in and through all things, nevertheless unknown. Nevertheless I only am in the grasp of the Philosophers.

I unfold and fold up again, Bringing contentment to the artists, Without me thou canst do nothing Furthering any of your affairs. Therefore fear God, pray and work in patience, if you find me your want would cease and you have a merciful God who befriendeth thee and giveth thee whatever thy heart may desire.

This moisture must be caught, lest it should change into vapor or fume.



The two vapors or fumes are the roots of the art.

The Prima Materia derives its existence from the Fiat, the Word of creation. And this Word comes from the Father who is the creator of all things, and the Spirit radiates from both: This is God's life giving air. Then, too, air brings to life everything within the elements. The fire warms all things, the water refreshes, delights and saturates all things: And the nitrous earth, Mother-like, nourishes and sustains all things; the air was born out of fire, and in turn makes the fire burn, that it may live, but air in the form of water is food for the fire, and the fire burns into this element: Water and dew of the ground, the greasy fat dew of the ground, the earth as keeper of nitrous salt nourishes it. For the womb of the earth is the sulphuric nitrous-salt of nature, the one good thing God has created in this visible world.

The same Salt-Mother of the elements is the nitrous, aluminous and spiritual gumosic water. Earth or crystal, which has Nature in its womb, a Son of the Sun, and a Daughter of the Moon. It is a Hermaphrodite, born out of the wind, a phoenix living in fire, a pelican, reviving his dear young ones with its blood; the young Icarus, drowned in the water, whose nurse is the earth, whose Mother is the wind; whose Father is the fire, the water her caretaker and drink, one stone and no stone, one water and no water, nevertheless a stone of living power and a water of living might; a sulphur, a mercury, a salt, hidden deep in nature, and which no fool has ever known nor seen.

Deus vendit sua dona pro labore.

ARTEPHIUS



translated out of Latin

by

WILLIAM SALMON, prof. of physick

CHAPTER III

OF THE COMPOSITION OF OUR ANTIMONIAL VINEGAR, OR SECRET WATER.

I. Antimony is a Mineral participating of Saturnine parts, and has in all respects the nature thereof: This Saturnine Antimony agrees with Sol and contains in it self Argent Vive, in which no metal is swallowed up, except Gold; and Gold is truly swallowed up by this Antimonial Argent Vive.

II. Without this Argent Vive no Metal whatsoever can be whitened; it whitens Laton, i.e, Gold; and reduceth a perfect Body into its *Prima Materia* or first Matter, (viz. into Sulphur and Argent Vive) of a white Colour and out-shining a Looking-Glass.

III. It dissolves (I say) the perfect Body which is so in its own Nature, for this Water is friendly and agreeable with the Metals, whitening Sol, because it contains in itself white or pure Argent Vive.

IV. And from both these you may draw a great Arcanum, viz., a Water of Saturnine Antimony, mercurial and white; to the end that it may whiten Sol, not burning but dissolving it, and afterwards congealing to the consistence of likeness of White Cream.

V. Therefore, saith the Philosopher, this Water makes the Body to be volatile; because after it has been dissolved in it, and in frigidated, it ascends above, and swims upon the surface of the Water.

VI. Take (saith he) crude Leaf-Gold, or calcined with Mercury, and out it into our Vinegar, made of Saturnine Antimony, Mercurial, and Sal Armoniack, (as is said) in a broad Glass Vessel, and four inches high, or more; put it into a gentle heat, and in a short time you will see elevated as a Liquor, as it were Oyl, swimming a top, much like a scum.

VII. Gather this with a spoon, or a Feather, dipping it in; and in so doing often times a day, till nothing more arise; Evaporate away the Water with a gentle heat, *ie*, the superfluous humidity of the Vinegar, and there will remain the Quintessence, Potestates or Powers, of Gold, in form of a white Oyl incombustible.

VIII. In this Oyl the Philosophers have placed their greatest Secrets; it is exceeding sweet and of great virtue for easing the pains of Wounds.

CHAPTER IV

OF THE OPERATIONS OF OUR ANTIMONIAL VINEGAR OR MINERAL WATER.

I. The whole, then, of this Antimonial Secret is, That we know how by it to extract or draw forth Argent Vive, out of the Body of Magnesia, not burning, and this is Antimony, and a Mercurial Sublimate.

II. That is, you must extract a living and incombustible Water, and then congeal or coagulate it with the perfect Body of Sol, *ie*, fine Gold, without allay; which is done by dissolving it into a nature and white Substance, of the consistency of Cream and made thoroughly white.

III. But first this Sol by putrefaction and resolution in this Water, loseth all its light or brightness, and will grow dark and black, afterwards it will ascend above the Water, and by little and little will swim upon it, in a substance of a white colour.

IV. And this is the *whitening of Red Laton*, to sublime it philosophically, and to reduce it into its first matter, *viz.* into a white incombustible Sulphur, and into a fixed Argent Vive.

V. And so, the fixed moisture, to wit, Gold, our Body, by the reiterating of the Liquification or Dissolution in this our dissolving Water, is changed and reduced into a fixed Sulphur, and fixed Argent Vive.

VI. Thus, the perfect Body of Sol, resumeth life in this Water; it is revived, inspired, grows, and is multiplied in kind, as all other things are.

VII. For in this Water, it so happens, that the body compounded of two bodies, viz., Sol and Luna, is puffed up, swells, putrefies, is railed up, and does increase by receiving from the Vegetable and animated Nature and Substance.

VIII. Our Water also, or Vinegar aforesaid, is the Vinegar of the Mountains, ie, of Sol and Luna; and therefore it is mixed with Gold and Silver, and sticks close to them perpetually; and the Body receiveth from this Water a white Tincture, and shines with an inestimable brightness.

IX. Who so therefore knows how to convert, or change the Body into a medicinal white Gold, may easily by the same white Gold change all imperfect Metals into the best and finest Silver.

X. And this white Gold is called by the Philosophers *Luna alba Philosophorum, Argentum Vivum album fixum, Aurum Alchymiae, and fumus albus*: And therefore without this our Antimonial Vinegar, the Aurum Album of the Philosophers cannot be made.

XI. And because in our Vinegar, there is a double substance of Argentum vivum, the one from Antimony, the other from Mercury Sublimate; it does give a double weight and substance of fixed Argent vive. and also augments therein the native colour, weight, substance and tincture thereof.

CHAPTER V

OF OTHER OPERATIONS OF OUR SECRET MINERAL WATER AND ITS TINCTURE.

I. Our dissolving Water therefore carries with it a great Tincture, and a great melting or dissolving; because that when it feels the vulgar Fire, if there be in it the pure or fire bodies of Sol or Luna, it immediately melts them, and converts them into its white Substance, such as it self is, and gives to the Body colour, weight and tincture.

II. In it also is a power of liquifying or melting all things that can be melted or dissolved; it is a Water ponderous, viscous, precious and worthy to be esteemed, resolving all crude Bodies into their *Prima Materia*, or first Matter, viz, into Earth and a viscous Pouder; that is, into Sulphur and Argentum vivum.

III If therefore you put into this Water, Leaves, Filings, or Calx of any Metal, and set it in a gentle Heat for a time, the whole will be dissolved, and converted into a viscous Water, or White Oil, as aforesaid.

IV. Thus it mollifies the Body, and prepares it for fusion and liquification; yea, it makes all things fusible, viz., Stones and Metals and afterwards gives them Spirit and Life.

V. And it dissolves all things with an admirable solution, transmuting the perfect Body into a fusible Medicine, melting or liquifying, moreover fixing, and augmenting the weight and colour.

VI. Work therefore, with it, and you shall obtain what you desire, for it is the Spirit of Sol and Luna; it is the Oyl, the dissolving Water, the Fountain, the Balneum Mariae, the praeternatural Fire, the secret, hidden and Invisible Fire.

VII. It is also the most acrid Vinegar, concerning which an ancient Philosopher saith: I besought the Lord and He showed me a pure clear Water, which I knew to be the pure Vinegar, altering, penetrating and digesting.

VIII. I say a penetrating Vinegar, and the moving Instrument for purifying and reducing Gold or Silver into their *Prima Materia* of first matter.

IX. And it is the only agent in the Universe, which in this Art is able to reincrudate Metallick Bodies with the Conservation of their Species.

X. Is is therefore the only apt and natural medium by which we ought to resolve the perfect Bodies of *Sol* and *Luna*, by a wonderful and solemn dissolution, with the conservation of the species, and without any destruction, unless it be to a new, more noble and better form or generation, viz., into the perfect Philosophers Stone, which is their wonderful Secret and Aracatum.

XI. Now this Water, is a certain middle substance, clear as fine Silver, which ought to receive the tinctures of *Sol* and *Luna*, so as they may be congealed and changed into a white and living Earth.

XII. For this Water needs the perfect Bodies, that with them after the dissolution, it may be congealed, fixed and coagulated into a White Earth.

XIII. But their solution is also their Coagulation, for they have one and the same operation, because one is not dissolved but the other is congealed: Nor is there any other Water which can dissolve the Bodies, but that which abideth with them in the matter and form.

XIV. It cannot be permanent unless it be of the nature of the other bodies, that they may be made one.

XV. When therefore you see the Water coagulate itself with the Bodies that be dissolved therein, be assured that thy knowledge, way of working and the Work itself are true and Philosophick, and that you have done right according to art.

CHAPTER VI

OF WHAT SUBSTANCE METALS ARE TO CONSIST IN ORDER TO DO THIS WORK.

I. Thus you see that Nature is to be amended by its own like Nature; that is, Gold and Silver are to be exalted in our Water, as our water also, with those Bodies, which water is called the medium of the Soul, without which nothing is to be done in this Art.

II. It is a Vegetable, Mineral and Animal fire, which conserves the fixed Spirits of *Sol* and *Luna*, but destroys and conquers their Bodies: for it destroys, overturns, and changes Bodies and Metallick forms, making them to be no Bodies but a fixed Spirit.

III. And it turns them into a humid substance, soft and fluid, which hath ingression and power to enter other imperfect bodies and to mix with them in their smallest parts, and to tinge them and make them perfect.

IV. But this they could not do while they remained in their Metallick forms or Bodies, which were dry and hard, whereby they could have no entrance into other things, so as to tinge and make perfect, what was before imperfect.

V. It is necessary therefore, to convert the Bodies of Metals into a fluid substance; for that every tincture will tinge a thousand time more in a soft and liquid substance

then when it is in a dry one, as is plainly apparent in Saffron.

VI. Therefore, the transmutation of imperfect Metals, is impossible to be done by perfect Bodies, while they are dry and hard: for which cause sake, they must be brought back into their first matter, which is soft and fluid.

VII. It appears therefore, that the moisture must be reverted, that the hidden treasure may be revealed. And this is called the reincrudation of Bodies, which is the decocting and softening them, till they lose their dry and hard substance or form; because that which is dry does not enter into, nor tinge anything besides itself.

VIII. Therefore, the dry terrene Body doth not enter into nor tinge, excepts its own body, nor can it tinge except it be tinged; because (as I said before) a thick drie earthy matter does not penetrate nor tinge, and therefore, because it cannot enter or penetrate, it can make no alteration in the matter to be altered.

IX. For this reason it is, that Gold coloureth not, until its internal or hidden Spirit be drawnforth out of its bowels by this our white water, and that it be made altogether a spiritual substance, a white Vapour, a white Spirit and a wonderful Soul.

CHAPTER VII

OF THE WONDERFULL THINGS DONE BY OUR WATER IN ALTERING AND CHANGING BODIES.

I. It behoves us therefore by this Water to attenuate, alter, and soften the perfect bodies, to wit Sol and Luna, that so they may be mixed with other imperfect Bodies.

II. From whence, if we had no other benefit by this our Antimonial Water, than that it rendered Bodies more subtil, soft and fluid, according to its own nature, it would suffice.

III. But more than that, it brings back Bodies to their first original of Sulphur and Mercury, that of them we may afterwards in a little time (in less than an hours time) do that above ground, which Nature was a thousand years ago a doing of underground, in the Mines of the Earth, which is a work almost miraculous.

IV. And therefore, our ultimate, our highest Secret is, by this our water, to make Bodies volatile, spiritual, and a Tincture, or tinging water, which may have ingress or entrance into other bodies.

V. For it makes bodies to be meerly Spirit, because it reduces hard and dry Bodies, and prepares them for fusion, melting, or dissolving, that is, it converts them into a permanent or fixed water. (*Aqua Permanens--hwn*)

VI. And so it makes of Bodies a most precious and desirable Oyl, which is the true Tincture, and the permanent or fixed white water, by nature soft and moist, or rather temperate, subtile, fusible as Wax, which does penetrate, sink, tinge, and make perfect the Work.

VII. And this our water immediately dissolves Bodies (as Sol and Luna) and makes them into an incombustible Oyl, which then may be mixed with other imperfect Bodies.

VIII. It also converts other Bodies into the nature of a fusible Salt, which the Philosophers call *Sal Alebrot Philosophorum*, better and more noble than any other Salt, being in its own nature fixed, and not subject to vanish in fire.

IX. It is an Oyl indeed by nature hot, subtile, penetrating, sinking through and entering into other Bodies: it is called the Perfect or Great Elixir, and the hidden Secret of the wise Searchers of Nature.

X. He therefore that knows this Salt of Sol and Luna, and its generation and preparation, and afterwards how to commix it, and make it hetrogene with other imperfect Bodies; he in truth knows one of the greatest Secrets of Nature, and the only way that leads to perfection.

CHAPTER VIII

OF THE AFFINITY OF OUR WATER, AND OTHER WONDERFULL THINGS DONE BY IT.

I. These bodies thus dissolved by our Water, are called Argent Vive, which is not without its Sulphur, nor the Sulphur without the Redness of Sol and Luna; because Gold and Silver are the particular mean, or medium in the form through which Nature passed in the perfecting and completing thereof.

II. And this Argent Vive is called our esteemed and valuable Salt, being animated and pregnant, and our fire, for that it is nothing but Fire: yet not fire, but Sulphur; and not Sulphur only but Quicksilver drawn from Sol and Luna by our water, and reduced to a Stone of Great Price.

III. That is to say, it is of the matter or substance of Sol and Luna, or Silver and Gold, altered from vileness to Nobility.

IV. Now you must note that this white Sulphur is the Father and Mother of the Metals; it is our Mercury, and the Mineral of Gold; also the Soul and the ferment; yea, the Mineral Virtue, and the living Body; our Sulphur, and our Quicksilver; that is Sulphur of Sulphur; Quicksilver of Quicksilver, and Mercury of Mercury.

V. The property therefore of our Water is, that it melts or dissolves Gold and Silver, and increases their native Tincture or Color.

VI. For it changes their Bodies from being Corporeal, into a Spirituality: and it is this Water which turns the Bodies, or corporeal substance into a white vapour, which is a Soul that is whiteness itself, subtile, hot and full of fire.

VII. This water is also called the tinging or blood-colour making stone, being the virtue of the Spiritual Tincture, without which nothing can be done: and it is the subject of all things that may be melted, and of liquification it self, which agrees perfectly, and unites closely with Sol and Luna, from which it can never be separated.

VIII. For it is joynd in affinity to the Gold and Silver, but more immediately to the Gold than to the Silver: which you are to take special notice of.

IX. It is also called the medium of conjyning the Tinctures of Sol and Luna with the inferior of imperfect Metals; for it turns the Bodies into the true Tincture, to tinge the aforesaid imperfect Metals: also it is the water which whiteneth, as it is whiteness itself; which quickeneth as it is a Soul, and therefore (as the Philosopher saith) quickly entereth into its body.

X. For it is a living water which comes to moisten the Earth, that it may spring out, and in its due season bring forth much fruit; for all things springing from the Earth, are educed through Dew or Moisture.

XI. The Earth therefore springeth not forth without watering and moisture: It is the water preceding from *May Dew*, that cleanseth the Body; and like Rain it penetrates them, and makes one new Body of two Bodies.

XII. This *Aqua Vitae*, or Water of Life, being rightly ordered and disposed with the body, it whitens it, and converts or changes it into its white colour.

XIII. For this water is a white vapour, and therefore, the Body is whitened with it.

XIV. It behoves you therefore to whiten the Body, and open its infoldings: for between these two, that is, between the Body and the Water, there is a desire and friendship, like as between the Male and Female because of the propinquity and likeness of their Natures.

XV. Now this our second and living water is called *AZOTH*, the Water washing the Laten, viz., the Body compounded of Sol and Luna by our first Water: It is also called the Soul of the dissolved Bodies, which Soul we have even now tied together, for the use of the wise Philosopher.

XVI. How precious then, and great a thing is this Water! For without it the Work could never be done or perfected: it is also called the *Vas Natura*, the Belly, the Womb, the Receptacle of the Tincture, the Earth, the Nurse. (see *Hermes--hwn*)

XVII. It is the Royal Fountain in which the King and Queen

bathe themselves; and the Mother which must be put into and sealed up within the belly of her Infant; and that is Sol himself, who proceeded from her, and whom she brought forth; and therefore they have loved one another as Mother and Son, and are conjoynd together, because they come from one and the same Root, and are of the same substance and Nature.

XVIII. And because this Water is the Water of the Vegetable Life, it causes the dead body to vegetate, increase and spring forth and to rise from Death to Life, by being dissolved first and then sublimed.

XIX. And in doing this, the Body is converted into a Spirit, and the Spirit (afterwards) into a Body; and then is made the Amity, the Peace, the Concord and the Union of the Contraries, to wit, between the Body and the Spirit, which reciprocally, or mutually change their Natures which they receive, and communicate one to another through their most minute parts.

XX. So that that which is hot, is mixed with that which is cold, the dry with the moist, and the hard with the soft; by which means there is a mixture made of contrary Natures, viz. of cold with hot, and moist with dry, even a moist admirable Unity between Enemies.

CHAPTER IX

OF SUBLIMATION: OR, THE SEPARATION OF THE PURE, FROM THE IMPURE, BY THIS WATER

I. Our Dissolution then of Bodies, which is made such in this first Water, is nothing else, but a destroying or overcoming of the moist with the dry, for the moist is coagulated with the dry.

II. For the moisture is contained under, terminated with, and coagulated in the dry body, to wit, in that which is Earthy.

III. Let therefore, the hard and the dry Bodies be put into our first Water in a Vessel, which close well, and there let them abide till they be dissolved, and ascend to the top; then may they be called a new Body, the white Gold made by Art, the white Stone, the white Sulphur, not inflammable, the Paradisical Stone, viz., the Stone Transmuting imperfect Metals, into fine white Silver.

IV. Then have we also, the Body, Soul and Spirit altogether; of which Spirit and Soul it is said, That they cannot be extracted from the perfect Bodies, but by the help of our dissolving Water.

V. Because it is certain That the thing fixed cannot be lifted up, or made to ascend, but by the conjunction or help of that which is volatile.

VI. The Spirit therefore by the help of the Water and the Soul, is drawn forth from the Bodies themselves, and the Body thereby is made Spiritual; for that at the same instant of time, the Spirit, with the Soul of the Bodies, ascend on high to the seuperior part, which is the perfection of the Stone, and is called Sublimation.

VII. This Sublimation saith *Florentius Cathalanus*, is made by things Acid, Spiritual, Volatile, which are in their own nature Sulphurous and Viscous, which dissolve Bodies, and make them to ascend, and be changed into Air and Spirit.

VIII. And in this Sublimation a certain part of our said first Water ascends with the Bodies, joying itself with them, ascending and subliming into one neutral or complex Substance, which contains the nature of the two, viz., the nature of the two Bodies, and of the Water.

IX. And therefore it is called the Corporeal and Spiritual Compositum, Conjust, Cambar, Ethelia, Zaardarith, Dueneck, the Good; but properly it is called the permanent or fixed Water only, because it flies not in the Fire.

X. But it perpetually adheres to the commixed or compounded Bodies, that is, to Sol and Luna, and communicates to them the Living Tincture, incombustible and most fixed, much more noble and precious than the former which those Bodies had.

XI. Because from henceforth this Tincture runs like Oil, running through and penetrating Bodies, and giving to them its

wonderfull Fixity; and this Tincture is the Spirit, and the Spirit is the Soul, and the Soul is the Body.

XII. For in this operation the Body is made a Spirit, of a most subtile nature; and agin, the Spirit is corporified and changed into the nature of the Body, with the Bodies, whereby our Stone consists of a Body, a Soul and a Spirit.

XIII. O God, how thro' Nature dost thou change a Body into a Spirit! Which could not be done, if the Spirit were not incorporated with the Bodies, and the Bodies made volatile with the Spirit, and afterwards permanent or fixed.

XIV. For this Cause sake, they have passed over into one another, and by the Influence of Wisdom are converted one into the other. O Wisdom! How thou makest the most fix'd Gold to be volatile and fugutive, yea, though by nature it is the most fixed of all things in the World!

XV. It is necessary to dissolve and liquifie these Bodies by our Water, and to make them a permanent or fixed Water, a pure golden Water, leaving in the bottom the gross, earthy, superfluous and dry Matter.

XVI. And in this subliming making thin and pure, the Fire ought to be gentle; but if in this Sublimation with a soft Fire, the bodies be not purified, and the gross or earthy parts thereof, (note this well,) be not separated from the impurities of the Dead, you shall not be able to perfect the Work.

XVII. For thou needest nothing but that thin and subtil part of the dissolved Bodies, which our Water will give thee, if thou proceedest with a slow or gentle Fire, by separating the things homogene, from the things hetrogene.

CHAPTER X

OF THE SEPARATION OF THE PURE PARTS FROM THE IMPURE.

I. This Compositum then has its mundification or cleansing by our moist Fire which (as *Azinabam* saith) by dissolving and subliming that which is pure and white, it calls forth or rejects it feces or filth, like a voluntary Vomit.

II. For in such a dissolution and natural Sublimation or lifting up, there is a loosening or untying of the Elements, and a cleansing and separation of the Pure, from the Impure.

III. So that the pure and white substance ascends upwards, and the impure and earthly remains fixed in the bottom of the Water and the Vessel.

IV. This must be taken away and removed because it is of no value, taking only the middle white substance, flowing and melted or dissolved, rejecting the foeculent Earth, which remains below in the bottom.

V. These foeces were separated partly by the Water, and are the dross and *Terra Damnata*, which is of no value, can do any such service as the clear, white, pure and clean Matter. which is wholly and only to be taken and made use of.

VI. And against this Capharean Rock, the Ship and Knowledge or Art of the young Philosopher is often (as it happened to me also sometimes) dashed together in pieces, or destroyed

because the Philosophers for the most part speak by the contraries.

VII. That is to say, That nothing must be removed or taken away, except the moisture, which is the blackness; which notwithstanding they speak and write only to the unwary, who without a Master, indefatigable Reading, or humble supplications to God Almighty, would ravish away the Golden Fleece.

VIII. It is therefore to be observed, That this separation, division, and sublimation, is (without doubt) the Key of the whole Work.

IX. After the putrefaction then and dissolution of these Bodies, our Bodies also ascend up to the top, even to the surface of the dissolving Water, in a whiteness of Colour, which whiteness is Life.

X. And in this whiteness the Antimonial and Mercurial Soul, is by a natural compact infused into, and joyned with, the Spirits of Sol and Luna, which separation the thin from the thick and the pure from the impure.

XI. That is, by lifting up, by little and little the thin and pure part of the Body, from the Foeces and Impurity, until all the pure parts are separated and ascended.

XII. And in this work is our natural and philosophical Sublimation compleated.

XIII. Now in this whitness is the Soul infused into the Body, to wit, the mineral virtue, which is more subtil than Fire, being indeed the true *Quintessence and Life*, which desires and hungers to be born again, and to put off the defilements and be spoiled of its gross and earthy foeces, which it has taken from its Menstruous Womb, and corrupt place of original.

XIV. And in this is our Philosophical Sublimation, not in the impure, corrupt, vulgar Mercury, which has no properties or qualities like to those, with which our Mercury (drawn from its vitriolick Caverns) is adorned. But let us return to our Sublimation.

CHAPTER XI

OF THE SOUL WHICH IS EXTRACTED BY OUR WATER, AND MADE TO ASCEND.

I. It is most certain therefore in this Art, That the Soul extracted from the Bodies, cannot be made to ascend, but by adding to it a volatile Matter, which is of its own kind.

II. By the which the Bodies will be made volatile and spiritual, lifting themselves up, subtilizing and subliming themselves, contrary to their own proper nature, which is corporeal, heavy and ponderous.

III. And by this means, they are unbodied, or made no bodies, to wit, incorporeal, and a Quintessence of the nature of a Spirit, which is called *Avis Hermetis* and *Mercurius Extractus*, drawn from a Red subject or Matter.

IV. And so the terrene or earthy parts remain below, or rather the grosser parts of the Bodies, which can by no Industry or Ingenuity of Man be brought to a perfect dissolution.

V. And this white Vapor, this white Gold, to wit, this Quintessence, is called also the *Compound Magnesia*, which like Man does contain, or like Man, is composed of a Body, Soul and Spirit.

VI. Now the Body is the fixed solar Earth, exceeding the most subtile Matter, which by the help of our divine Water is with difficulty lifted up or separated.

VII. The Soul is the Tincture of Sol and Luna, proceeding

from the conjunction of these two (to wit, the Bodies of Sol and Luna, and our Water).

VIII. And the Spirit is the mineral power, or virtue of the Bodies, and of the Water which carries the Soul or White Tincture in or upon the Bodies, and also out of the Bodies; like as the Tinnctures or Colours in Dying Cloth are by the Water put upon, and diffused in and through the whole Cloth.

IX. And this Mercurial Spirit is the Chain or Band of the Solar Soul; and the solar Body; is that Body which contains the Spirit and Soul, having the power of fixing in itself, being joyned with Luna.

X. The Spirit therefore penetrates, the Body fixes and the Soul joyns together tinges and whitens.

XI. From these three united together, is our Stone made; to wit, of Sol, Luna and Mercury.

XII. Therefore, with this our Golden-Water, a natural substance is extracted, exceeding all natural subtsances; and so, except the Bodies be broken and destroyed, imbibed, made subtile and fine, thriftily and diligently managed, till they are abstracted from of lose their grossness or solid substance, and be changed into a thin and subtil Spirit all our labour will be in vain.

XIII. And unless the Bodies be made no bodies, or incorporeal, that is, be converted into the Philosophers Mercury, there

is no Rule of Art yet found out to work by.

XIV. The reason is, because it is impossible to draw out of the Bodies all that most thin and subtile Soul which has in itself the Tincture, except it be first resolved in our Water.

XV. Dissolve then the Bodies in this our Golden-water, and boil them till all the Tincture is brought forth by the Water, in a white Colour, and a white Oil; and when you see this whiteness upon the Water, then know that the Bodies are melted liquified or dissolved.

XVI. Continue then this boiling, till the dark, black, and white Cloud is brought forth, which they have conceived.

CHAPTER XII

OF DIGESTION, AND HOW THE SPIRIT IS MADE THEREBY.

I. Put therefore, the perfect Bodies of Metals, to wit, Sol and Luna, into our Water, in a Vessel, Hermetically sealed, upon a gentle Fire, and digest continually, till they are perfectly resolved into a most precious Oyl.

II. Digest (saith *Adfar*) with a gentle Fire, as it were for the hatching of Chickens, so long till the Bodies are dissolved, and their perfectly conjoyned Tincture (mark this well) is extreacted.

III, But it is not extracted all at once, but it is drawn out by little and little, day by day, and hour by hour, till after a long time the Solution thereof is compleated and that which is dissolved always swims on top.

IV. And while this dissolution is in hand, let the Fire be gentle and continual, till the Bodies are dissolved into a viscous and most subtile Water, and the whole Tincture be educed, in colour first black, which is the sign of dissolution.

V. Then continue the digestion till it becomes a white fixed Water; for being digested in *Balneo (Marae)* it will afterwards become clear, and in the end become like to common *Argent vive*, ascending above the first Water.

VI. When therefore you see the Bodies dissolved in the first viscous Water, then know that they are turned into a Vapour,

and that the Soul is separated from the dead Body, and by Sublimation, brought into the order of Spirits.

VII. Whence both of them, with a part of our Water, are made Spirits flying up into the Air; and there the compounded Body, made of the Male and Female, viz, of Sol and Luna, and of that most subtile Nature, cleansed by Sublimation, taketh Life, and it is made Spiritual by its own humidity.

VIII. That is, by its own Water; like as a Man is sustained by the Air; whereby from thenceforth it is multiplied, and increases in its own kind, as do all other things.

IX. In such an ascension therefore, and philosophical Sublimation, all are joyned with one another, and the new Body subtilized, or made living by the Spirit, miraculously liveth or springs like a Vegetable.

X. Wherefore, unless the Bodies be attenuated, or made thin, by the Fire and Water, till they ascend in a Spirit, and are made, or do become like Water and Vapour, you labour wholly in vain.

XI. But when they arise or ascend, they are born or brought forth in the Air or Spirit, and in the same they are changed and made Life with Like, so as they can never be separated, but are as Water mixt with Water.

XII. And therefore it is wisely said, That the Stone is born of the Spirit, because it is altogether Spiritual.

XIII. For the Vulture himself, flying without Wings cries upon the top of the Mountain, saying, I am the white, brought forth from the black and red, brought forth from the white, the citrine son of the red; I speak the Truth and lye not.

CHAPTER X I I I

OF THE BEGINNING OF THE WORK, AND A SUMMARY OF WHAT IS TO BE DONE.

I. It sufficeth thee then to put the Bodies in the Vessel, and into the Water once and for all, and to close the Vessel well, until a true separation be made.

II. This the Obscure Artist calls Conjunction, Sublimation, Assation, Extraction, Putrefaction, Ligation, Desponsation, Subtilization, Generation and etc.

III. Now that the whole Magistery may be perfected, Work as in the Generation of Man, and of every Vegetable; put the seed once up into the Womb, and shut it up well.

IV. Thus you may see that you need not many things, and that this our great work requires no great Charges, for that as there is but one Stone, there is but one Medicine, one Vessel, one order of working, and one successive Disposition to the White and the Red.

V. And altho we say in many places, take this, and take that; yet it behoves us to take but one thing, and put it once into the Vessel until the Work be perfected.

VI. But these things are so set down by the Obscure Philosophers, to deceive the unwary, as we have before spoken; for is not this *Ars Cabbalistica*, or a secret and hidden Art? Is it not an Art full of Secrets? And believest thou O Fool,

that we plainly teach this Secret of Secrets, taking our Words according to their literal Signification?

VII. Truly, I tell thee (that as for myself, I am no ways of self-seeking or envious as others are; but) he that takes the Words of other Philosophers, according to their common Signification; he even already (having lost the thread of *Ariadnes*) wanders in the midst of the Labyrinth, multiplies errors, and casts away his Money for nought.

VIII. And I *Artephius*, after I became an *Adept*, and had attained to the true and compleat wisdom, by studying the books of the most faithfull *Hermes*, the speaker of Truth, was sometimes Obscure also, as the others were.

IX. But when I had for the space of a Thousand Years, or thereabouts (Which are now passed over my Head, since the time I was born to this day, through the alone goodness of God Almighty, by the use of this wonderful Quintessence)

X. When I say for so very long a time (as a Thousand Years) I found no man that had found out or obtained this Hermetick Secret, because of the obscurity of the Philosophers Words.

XI. Being moved with a Generous Mind, and the integrity of a good Man, I have determined in these latter days of my Life, to declare all things truly and sincerely, that you may not want anything for the perfecting of this Stone of the Philosophers.

XII. (Excepting one certain thing, which is not lawful for me to discover to any, because it is either revealed or made known by God himself, or taught by some Master, which notwithstanding he that can bend himself to the search of, by the help of a little Experience, may easily learn in this Book.)

XIII. And in this Book I have therefore written the naked Truth, also clothed or disguised with a few Colours; yet so that every good and wise man may happily gather those desirable Apples of the Hesperides from this our Philosophers Tree.

XIV. Wherefore praises be given to the most high God who has poured into our Soul of His Goodness, and through a good old Age, even an almost infinite number of years, has truly fill'd our Heart with His Love, in which (methinks) I embrace, cherish and truly love all Mankind together.

XV. But to return to our Business. Truly our Work is perfectly performed, for that which the heat of the Sun is an hundred Years in doing of, for the Generation of the Metal in the bowels of the Earth; our Secret Fire, that is, our Fiery and Sulphurous Water, which is called Balneum Mariae (!!--hwn), doth (as I have often seen) in a very short time.

CHAPTER XIV

OF THE EASINESS AND SIMPLICITY OF THIS WORK, AND, OF OUR PHILOSOPHICK FIRE.

I. Now this Operation or Work is a thing of no great Labour to him that knows and understands it; nor is the matter so dear (considering how small a quantity does suffice) that it may cause any Man to withdraw his hand from it.

II. It is indeed a Work so short and easie, that it may well be called a Woman's Work and the Play of Children.

III. Go to then, my Son, put up thy Supplications to God Almighty; be diligent in searching the Books of the Learned in this Science; (for one Book openeth another;) think and meditate of these things profoundly; and avoid all things which vanish in, or will not endure the Fire, because from those adustible, perishing or consuming things, you can never attain to the perfect matter, which is only found in the digesting of your Water, extracted from *Sol and Luna*.

IV. For by this Water Colour and Ponderosity or Weight, are infinitely given to the matter; and this Water is a white Vapor, which like a Soul, flows through the perfect Bodies, taking wholly from them their blackness, and impurities, uniting the two bodies in one, and increasing their Water.

V. Nor is there any other thing than *AZOTH*, to wit, this our Water, which can take from the perfect bodies of *Sol and Luna*

their natural Colour, making the red Body white, according to the Disposition thereof.

VI. Now let us speak of the Fire. Our Fire then, is Mineral, equal, continuous; it fumes not, unless it be too much stirred up, participates of Sulphur, and is taken from other things than from the Matter; it over-turns all things, dissolves, congeals, and calcines, and is to be found out by Art, or after an Artificial manner.

VII. It is a compendious thing, gotten *without cost or charge*, or at least without any great purchase; it is humid, vaporous, digestive, altering, penetrating, subtile, spiritous, not violent, incombustible, continent and one only thing.

VIII. It is also a *Fountain of Living Water*, which circumvolveth and contains the place in which the King and Queen bathe themselves; through the whole Work this moist Fire is sufficient; in the beginning, middle, and end, because in it the whole Art does consist.

IX. This is the natural Fire, which is yet against Nature, not natural and which burns not; and lastly, this Fire is hot, cold, dry, moist; meditate on these things and proceed directly, without anything of a foreign Nature.

X. If you understand not these Fires, give ear to what I have yet to say, never as yet written in any book, but drawn from the more abtruse and occult Riddles of the Ancients.

C H A P T E R X V

OF THE THREE KINDS OF FIRES OF THE PHILOSOPHERS IN PARTICULAR.

I. We have properly three Fires, without which this our Art cannot be perfected; and whosoever works without them, takes a great deal of Labour in vain.

II. The first Fire is that of the Lamp, which is continuos, humid, vaporous, Spiritous, and found out by Art.

III. This Lamp fire ought to be proportioned to the enclosure; wherein you must use great Judgement, which none can attain to, but he that can bend to the search thereof.

IV. For, if this Fire of the Lamp be not measured, and duly proportioned or fitted (to the Fornace) it will be, that either for want of heat you will not see the expected Signs, in their limited times, whereby you will lose your hopes and expectation by a too long delay: Or else, by reason of too much heat, you will burn the *Flores Auri*, the Golden Flowers, and so foolishly bewail your lost Expence.

V. The Second Fire is *Ignis Cinerum*, and ash heat, in which the Vessel hermetically sealed is recluded, or buried; Or rather, it is that most sweet and gentle heat, which proceeding from the temperate Vapours of the Lamp does equally surround your Vessel.

VI. This Fire is not violent or forcing, except it be too much

excited or stirred up; it is a Fire digestive, alterative, and taken from another body than the matter; being but one only moist also, and not natural.

VII. The Third Fire is the natural Fire of our Water, which is also called The Fire Against Nature, because it is WATER; and yet, nevertheless, it makes a mere Spirit of Gold, which common Fire cannot do.

VIII. This Fire is Mineral, equal and participates of Sulphur; it overturns or destroys, congeals, dissolves and calcines; it is penetrating, subtil, incombustible and not burning, and is the Fountain of Living Water wherein the King and Queen bathe themselves; whose help we stand in need of throughout the entire Work, through the beginning, middle and end.

IX. But the other Two above mentioned, we have not always occasion for, but only at some times.

X. In reading, therefore, the books of Philosophers, conjoin these Three Fires in your Judgement, and without doubt, you will understand whatever they have wrote of them.

CHAPTER XVI

OF THE COLOURS OF OUR PHILOSOPHICK TINCTURE, OR STONE.

I. Now as to the Colours, that which does not make black cannot make white, because blackness is the beginning of whiteness, and a sign of putrefaction and Alteration, and that the body is now penetrated and moritified.

II. From the Putrefaction therefore in this Water, there first appears blackness, like unto Broth wherein something bloody is boiled.

III. *Secondly*, The black Earth by a continual digestion is whitened, because the Soul of the Two Bodies swims above upon the Water, like white Cream; and in this only whiteness, all the Spirits are so united, that they can never fly one from another.

IV. And therefore the Latten must be whitened, and its leaves unfolded, i.e., its body broken or opened, lest we labour in vain; for this whiteness is the perfect Stone for the white work, and a body enobled toward that end; even the Tincture of a most exuberant glory, and shining brightness, which never departs from the body it is once joyned with.

V. Therefore you must note here, that the Spirits are not fixed, but in the white Colour, which is more noble than the other Colours, and is more vehemently to be desired, for

that it is as it were the Complement of Perfection of the whole Work.

VI. For our Earth putrefies and becomes black, then it is putrified in lifting up or Separation; afterwards being dried, its blackness goes away from it, and then it is whitened, and the feminine dominion of the darkness and humidity perisheth; then also the white Vapour penetrates through the new Body and the Spirits are bound up or fixed in this dryness.

VII. And that which is corrupting, deformed and black, through the moisture, vanishes away; so the new body rises again, clear, pure, white and immortal, obtaining the Victory over all its enemies.

VIII. And as heat working upon that which is moist, causeth or generates blackness, which is the prime or first Colour, so always by decoction, more and more heat working upon that which is dry, begets whiteness, which is the second Colour; and then working upon that which is purely and perfectly dry, it produces Citrinity and Redness. Thus much for Colours.

IX. We must know therefore, that the thing which has its Head, red and white, but its feet white and afterwards red; and its eyes before hand black, that this thing, I say, is the only matter of our Magistry.

CHAPTER XVII

OF THE PERFECT BODIES, THEIR PUTREFACTION, CORRUPTION, DIGESTION AND TINCTURE.

I. Dissolve then Sol and Luna in our dissolving Water, which is familiar and friendly, and the next in nature unto them; and is also sweet and pleasant to them, and as it were a Womb, a Mother, and Original, the beginning and the end of their Life.

II. And that is the very reason why they are meliorated or amended in this Water, because like nature rejoiceth in like nature, and like nature retains like nature, being joined the one to the other, in a true marriage, by which they are made one nature, one new Body, raised again from the dead and immortal.

III. Thus it behoves you to join Consanguinity, or sameness of one kind, by which these natures, will meet and follow one another, purifies themselves, generate, and make one another rejoice; for that like nature, now is disposed by like nature, even that which is nearest, and most friendly to it.

IV. Our Water then (saith *Danthin*) is the most beautifull, lovely and clear Fountain, prepared only for the King and Queen, whom it knows very well, and they it.

V. For it attracts them to itself, and they abide therein for two or three days (to wit, two or three months), to wash

themselves therewith, whereby they are made young again and beautifull.

VI. And because Sol and Luna have their Original from this Water their Mother; it is necessary therefore that they enter into it again, to wit, into their Mothers Womb, that they may be regenerate or born again, and made more healthy, more noble, and more strong.

VII. If therefore, these do not die, and be converted into Water, they remain alone (or as they were) and without Fruit; but if they die, and are resolved in our Water, they bring forth Fruit, and hundred-fold; and from that very place in which they seemed to perish, from thence shall they appear to be that which they were not before.

VIII. Let therefore the Spirit of our Living Water (with all care and industry) be fixed with Sol and Luna; for that they being converted into the nature of Water become dead, and appear like to the Dead; from whence afterwards, being revived, they increase and multiply, even as do all sorts of Vegetable Substances.

IX. It suffices then to dispose the matter sufficiently without, because that within, it sufficiently disposes itself for the Perfection of its own work.

X. For it has in itself a certain inherent motion, according

to the true way and Method, and a much better order than it is possible for any man to invent or think of.

XI. For this Cause it is, that you need only to prepare the matter, Nature herself alone will perfect it, and if she be not hindered by some contrary thing, she will not overpass her own certain motion, neither in conceiving or generating nor in bringing forth.

XII. Wherefor, after the preparation of the matter, beware only. lest by too much heat or fire, you inflame the bath, or make it too hot. Secondly, take heed, lest the Spirit should exhale, lest it hurts the Operator, to wit, lest it destroys the work, and induces many infirmities, as sadness, trouble, vexation and discontent.

XIII. From these things which have been spoken, this Axiom is manifest, to wit, that he can never know the necessary course of Nature in the making or generation of Metals, who is ignorant of the way of destroying them.

XIV. You must therefore join them together that are on one consanguinity or kindred; for like natures do find out and join with their like natures, and by putrifying themselves together, are mixed together and mortifie themselves.

XV. It is needful therefore to know this Corruption and Generation, and how the natures do embrace one another, and are brought to a fixity in a slow or gentle fire; how like

nature rejoiceth with like nature; how they retain one another and are converted into a white subsistencie.

XVI. This white substance, if you will make it Red, you must continually decoct it in a dry Fire, till it is rubified, or becomes red as blood, which is then nothing but water, fire and the true tincture.

XVII. And so by a continual dry fire, the whiteness is changed, removed, perfected, made citrine, and still digested till it comes to a true red and fixed colour.

XVIII. And consequently by how much more is this red decocted in this gentle heat, by so much more it is heightened in colour, and made a true Tincture of perfect Redness.

XIX. Wherefore with a dry Fire, and a dry Calcination, (without any moisture) you must decoct this Compositum, till it be invested with a most perfect red Colour, and then it will be the true and perfect Elixir.

CHAPTER XVIII

OF THE MULTIPLICATION OF THE PHILOSOPHICK TINCTURE.

- I. Now if afterwards you would multiply your Tincture, you must again resolve that Red, in new or fresh dissolving Water, and then by decoctions first whiten, and then rubifie it again, by the degrees of Fire, reiterating the first method of operation in this Work.

- II. Dissolve, coagulate, and reiterate the closing up, the opening and multiplying in quantity and quality at your own pleasure.

- III. For by a new Corruption and Generation, there is introduced a new Motion.

- IV. Thus can we never find an end, if we do always work by reiterating the same thing over and over again, viz., by Solution and Coagulation (*Solve et Coagula--hwn*), by the help of our dissolving Water, by which we dissolve and congeal, as we formerly said, in the beginning of the work.

- V. Thus also is the virtue thereof increased and multiplied, both in quantity and quality; so that, if after the first course of Operation you obtain an hundred-fold; by a second course, you will have a thousand-fold; and by a third, ten-thousand fold.

- VI. And by persuing your work, your projection will come to infinity, tinging truly and perfectly, and fixing the greatest quantity how much soever.

VII. Thus by a thing of an easie or small price, you may have both colour, goodness and weight.

VIII. Our Fire then, and Azoth of sufficient for you. Decoct, decoct, reiterate, dissolve and congeal, and continue this course, according as you please, multiplying it as you think good, until your Medicine is made fusible as Wax, and has attained the quantity and goodness or fixity and colour as you desire.

IX. This then is the compleating of the whole work of our second stone (observe it well) that you take the perfect body, and put it into our Water in a glass Vesica or Body well closed with cement, lest the air get in, or the inclosed humidity get out.

X. Keep it in digestion in a gentle heat, as it were of a balneum, or the most temperate Horse-dung, and assiduously continue the operation or work upon the fire, till the decoction and digestion is perfect.

XI. And keep it in this digestion of a gentle heat, until it be putrified and resolved into blackness, and be drawn up and sublimed by the water, and is thereby cleansed from all blackness and impurity, that it may be white and subtil.

XII. Until it comes to the ultimate or highest purity of sublimation, and the utmost volatility, and be made white both within and without: For the Vulture flying in the air

without Wings, crys out, that it might get up upon the Mountain, that is upon the waters upon which the *Spiritus Albus*, or Spirit of whiteness is born.

XIII. Continue still a fitting fire, and that Spirit, which is the subtil being of the Body, and of the Mercury will ascend upon the top of the water, which quintessence is more white than the driven snow.

XIV. Continue yet still, and toward the end, encrease the fire, till the whole spiritual substance ascend to the top.

XV. And know well that whatsoever is clear, pure, and spiritual ascends in the air to the top of the Water in the substance of a white vapor which the Philosophers call their *Virgins Milk*.

CHAPTER XIX

OF SUBLIMATION IN PARTICULAR, AND SEPARATION OF THE PURE FROM THE IMPURE.

I. It ought to be therefore (as one of the *Sybillis* said) that the Son of the Virgin be exalted from the Earth, and that the white Quintessence afters its rising out of the dead Earth, be raised up towards Heaven; the gross and thick remaining in the bottom of the Vessel and of the water.

II. Afterwards, the Vessel being cooled, you will find in the bottom the black Faeces, scorcht and burnt, which separate from the Spirit and Quintessence of Whiteness and cast them away.

III. Then will the Argent vive fall down from our Air or Spirit upon the new Earth which is called Argent vive sublimed by the Air or Spirit, whereof is made a viscous Water, pure and white.

IV. This Water is the true Tincture separated from all its black Faeces, and our Bras or Latten is prepared with our Water, purified and brough to a white Colour.

V. Which white Colour is not obtained but by decoction, and coagulation of the Water: Decoct therefore continually, wash away the blackness from the Latten, not with your Hands, but with the Stone, or the Fire, or our second Mercurial Water which is the true Tincture.

VI. This separation of the pure from the impure is not done

with hands; but Nature herself does it, and brings it to perfection by a circular Operation.

VII. It appears then, that this Composition is not a work of the Hands, but a change of the Natures; because Nature dissolves and joyns itself, sublimes and lifts itself up, and grows white, being separate from the Faeces.

VIII. And in such a Sublimation, the more subtil, pure, and essential parts are conjoyned; for that with the fiery nature or property lifts up the subtil parts, it separates alwaies the more pure leaving the grosser at the bottom.

IX. Wherefore your Fire ought to be a gentle and a continual Vapour, with which you sublime, that the matter may be filled with Spirit from the Air, and live.

X. For naturally all things take Life from the inbreathing of the Air; and also our Magistery receives in the Vapour or Spirit, by the sublimation of the Water.

XI. Our Bras or Laten then, is to be made to ascend by the degrees of Fire, but of its own accord, freely, and without violence; except the body therefore be by the Fire and the Water broken or dissolved, and attenuated, until it ascends as a Spirit or climbs like Argent vive, or rather as the White Soul, separated from the Body, and by sublimation de-lated or brought into a Spirit, nothing is or can be done.

XII. But when it ascends on high, it is born in the Air or

or Spirit, and is changed into Spirit; and becomes Life with Life, being only SPiritual and incorruptible.

XIII. And by such an Operation it is, that the Body is made Spirit, of a subtil nature, and the Spirit is incorporated with the Body, and made one with it; and bu such a sublimation, conjunction, and raising up, the whole, both Body and Spirit are made white.

CHAPTER XX

OF DIGESTION, SUBLIMATION, AND SEPARATION OF THE BODIES, FOR THE PERFECTION OF THE WORK.

I. This Philosophical and Natural Sublimation therefore is necessary, which makes peace between (or fixes) the Body and Spirit, which is impossible to be done otherwise, than in the separation of these parts.

II. Therefore it behoves you to sublime both, that the pure may ascend, and the impure and earthy may descend, or be left at bottom, in the perplexity of a troubled Sea.

III. And for this reason it must be continually Decocted, that it may be brought to a subtil property, and the Body may assume and draw to itself the white Mercurial Soul, which it naturally holds, and suffers not to be separated from it because it is like to it in the nereness of the first, pure and simple nature.

IV. From these things it is necessary to make a separation by Decoction, till no more remains of the purity of the Soul, which is not ascended and exalted to the highest part, whereby they will both be reduced to an equality of properties, and a simple or pure Whiteness.

V. The Vulture flying through the Air, and the Toad creeping upon the Ground, are the Emblems of our Magistry.

VI. When therefore gently and with much care, you separate the

Earth from the Water, that is, from the Fire, and the thin from the thick, then that which is pure will separate itself from the Earth, and ascend to the upper part, as it were to Heaven, and the impure will descend beneath, as to the Earth.

VII. And the more subtil part in the superior place will take upon it the nature of a Spirit, and that in the lower place, the nature of an earthy body.

VIII. Wherefore let the white property with the more subtil parts of the body, be by this operation, made to ascend, leaving the faeces behind, which is done in a short time.

IX. For the Soul is aided by her associate and fellow, and perfected by it.

X. My mother (saith the body), has begotten me, and by me, she herself is begotten: now after I have taken from her her flying, she, after an admirable manner becomes kind, nourishing, and cherishing the Son whom she has begotten, till he comes to be of a ripe or perfect age.

C H A P T E R X X I

OF THE SECRET OPERATION OF THE WATER AND SPIRIT UPON THE BODY.

I. Hear now this Secret: keep the Body in Mercurial Water, till it ascends with the white Soul, and the Earthy part descends to the bottom, which is called the residing Earth.

II. Then you shall see the water to coagulate itself with its Body, and be assured that the Art is true; because the Body coagulates the moisture into dryness, like as the rennet of a Lamb or Calf turns Milk into Cheese.

III. In the same manner, the Spirit penetrates the Body, and is perfectly commixed with it in its smallest Atoms, and the body draws to itself his moisture, to wit, its white Soul, like as the Loadstone draws Iron, because of its nature; and then the one contains the other.

IV. And this is our sublimation and Coagulation, which retaineth every volatile thing, making it fixt forever.

V. This Compositum then, is not a mechanical things, or a work of the Hands, but (as I have said), a changing of Natures; and a wonderful connection of their cold with hot, and the moist with dry: The hot is also mixed with cold, and the dry with the moist.

VI. By this means is also made the mixtion and conjunction of body and spirit, which is called a conversion of contrary Natures; because by such a dissolution and sublimation, the

spirit is converted into a body and the body into a spirit.

VII. So that the natures being mingled together, and reduced into one, do change from one another: And as the Body corporifies the Spirit, or changes it into a Body: So also does the Spirit convert the Body into a tinging and white spirit.

VIII. Wherefore (as the last time I say) decoct the body in our white water viz. MERCURY, till it is dissolved into blackness, and then by a continual decoction, let it be deprived of the same blackness, and the body so dissolved, will at length ascend or rise with a white Soul.

IX. And then the one will be mixed with the other, and so embrace one another, that it shall not be possible any more to separate them, but the Spirit (with a real agreement) will be united with the body, and make one permanent or fixed substance.

X. And this is the solution of the Body, and coagulation of the Spirit which have one and the same operation.

XI. Whoso therefore, knows how to conjoyn the principles, or direct the work, to impregnate, to mortifie, to putrifie, to generate, to quicken the species, to make white, to cleanse the Vulture from its blackness and darkness, till he is purged by the fire, and tinged, and purified from all his spots, shall be possessor of a treasure so great, that even Kings themselves shall venerate him.

Dear Friend

DILUTION AND PRESENCE

During the course of a recent seminar we found that certain of our members were very concerned with the question of dilution and dosage when using spagyric or alchemical products.

In alchemy, it is necessary to forget about the allopathic and homeopathic approach, and to replace the concepts of dosage and dilution with that of *presence*.

The question of the healing of body or soul is one of purification. Moreover, the only really healing element is fire.

Having studied the text of *Nature Revealed* in depth we should realize that fire is a spiritual energy, and specifically an etheric energy in the solar world. The element fire loses its power and purity when it combines with the earthly elements. One can find it in a high degree of perfection and strength in the seed of Gold, or in human blood.

The invisible etheric Fire energies are condensed into visible light by the sun; on earth, light gradually condenses itself into seed of Gold.

The human being nourishes himself directly with the fire element by absorbing the subtle elements of air in breathing.

It is the presence of a high degree of Fire in Gold and in human blood that gives these two substances the ability to accumulate and store etheric and spiritual energies. These two substances alone possess this property in nature.

Moreover, in the process of accumulating the seed of Gold in material form, the alchemical Art can also impart to the Seed of Gold the property of accumulating and storing etheric and spiritual energies.

At this stage, it is no longer quantity that matters, but quality. A few atoms charged with the seed of Gold have the same power as several grams. As soon as matter has achieved the desired quality, quantity itself is of little importance.

However, it is advisable to take only small quantities, albeit in a single dilution. In fact, a significant dilution does not reduce the presence of Fire, but largely eliminates a possibly injurious residue which can remain in the preparation (generally insoluble in alcohol, allowing it to be eliminated by filtering). One must avoid the successive dilutions of homeopathy, which could give Fire a determination when its indetermination ensures *a general effect* — always preferable to a *particular effect*. This explains why one or two drops of alcoholic dissolution of the tincture is a sufficient dose, to be taken in half a glass of water.

If the seed of Gold is extracted from Gold, it will be indeterminate, but if it is extracted from another metal or body (since it is present in everything) it will be determined and will have a particular effect. However, if its determination is taken away through a long series of repeated distillations, a process identical to that of alcohol in the vegetable realm, it will have a general effect.

Enclosed is a text taken from an old chemistry manual. It should be studied intensively before our next lesson.

Ora et Labora!

OF ACETATES

PYRO-ACETIC ACID

1312.

Pyro-acetic spirit is clear and colorless; its taste is at first pungent and burning, and then cool and somewhat like urine; its scent is a bit like peppermint mingled with bitter almonds; its specific gravity is 0.7864; it burns with a flame that is blue on the inside and white on the outside; its boiling point is 59C. and its freezing point -15C.; it combines with water in all proportions, as well as with alcohol and most essential oils; it hardly is able to dissolve sulfur and phosphorus, but dissolves camphor in very large quantities.

Caustic potash has but a little effect on pyro-acetic spirit. Sulfuric and nitric acids will decompose it; however, hydrochloric acid will create a combination with this substance that is not acid, and in which the presence of hydrochloric acid can only be demonstrated by decomposing it through fire. Hence, pyro-acetic spirit is an entirely peculiar substance, and rather close to ethers, alcohol and essential oils.

To obtain pyro-acetic spirit, one may successfully use commercial lead acetate. Having distilled this salt in a sandstone retort, and after collecting the liquid products via a tube in a flask connected with a solution of potassium or sodium; after which the spirit is separated again by another distillation taking care at all times to keep the heat under control. Since invariably a little water is brought out, it is always a good idea to rectify it on calcium chloride.

We owe the first observations on pyro-acetic acid to Courtanvaux, Monnet and Lassonne. Later, Derosnes devoted more detailed studies to it (*Annales de Chimie*, Volume LXIII, p.267); and finally, Chenevix has put it to a large number of tests, from which he concluded that this liquid was a

new substance, and it is his thesis which has served us as guide (Annales de Chimie, Volume LXIX, p.5).

1313.

Nearly all the acetates are soluble in water; there are only those of mercury and silver which are only slightly so; several, and notably the alkaline and earthly acetates, when dissolved will decompose within a few months; they become covered with a greenish mold and transform into carbonates.

1314.

No acetates exist which will not decompose through sulfuric acid, hydrochloric acid, nitric acid, hydrofluoric acid and phosphoric acid; a new salt results from this, and the acetic acid will partly vaporize. (For its other properties, see Histoire Generale des sels vegetaux, 1295).

1315.

Natural condition. — Only two acetates are found in nature, potassium acetate and ammonium acetate; the first is present in small amounts in the sap of almost all trees, while the latter is only found in decaying urine.

1316.

Preparation, etc. — All acetates are formed directly, i.e., by treating oxides or carbonates with acetic acid. However, the acids of zinc and iron are normally obtained by treating metal shot directly using a sufficient amount of acid. It is also possible to obtain several others through the path of double decomposition.

1317.

Composition. — In the neutral acetates, the quantity of oxygen of the oxide is proportional to the quantity of acid as 1 to 6.414. (Berlezius). Since the composition of oxides is known (504), it is easy to determine that of acetates.

1318.

Uses — The total number of acetates used in art and in medicine is nine; these nine have as their base potassium, lime, ammonia, aluminium, iron oxide, lead protoxide, copper deutoxide, and mercury deutoxide. We shall study each of these particular salts, as well as also studying the acetates of baryte, strontium and magnesium.

Lime Acetate

1323.

Lime acetate is prepared like magnesium acetate, i.e., by treating powdered lime or lime carbonate with distilled vinegar or acid derived from distilled wood.

This salt will easily crystallize in prism-shaped needles, with a brilliant and satinous appearance; it is colorless and has no action on litmus; its taste is acrid and very spicy; it is highly water soluble; and has a red color (1311).

It has never yet been found in nature. When prepared with muted lime and pyro-lignious acid, it may be used to dissolve soda sulfate and thus obtain concentrated acetic acid (1308)...are the soda sulfate by the lime acetates made with pyro-lignious acid (1323).

About Ammonium Acetate

1329.

Formerly called Spirit of Mindererus, this salt which is only used in medicine, exists in small quantities in decaying urine. It is obtained by soaking sal ammoniac (ammonium chloride) with distilled vinegar or acetic acid derived from the distillation of wood, and then by evaporating the dissolution appropriately. However, as it passes over during the evapo-

ration in the form of acetic acid, when it is almost finished it should be neutralized by the addition of a suitable alkali.

Ammonium acetate does not crystallize. By distilling it in a retort, some water and some ammoniac will separate from it, and an acid acetate will be sublimated, of which one part will be found in the form of long, loosened, flattened crystals. Its taste is highly spicy, and very soluble in water and alcohol. When dissolved and mixed with dissolved hydrochlorate of deutoxide of mercury, it becomes muddy after a little while, according to Planche, assuming a milky appearance and causing a white, luminous, pearly substance to be deposited, which seems to be an ammoniac-mercurial salt. (Journal de Pharmacie, I.I, p.59).

About Iron Acetate

1330.

Iron acetate can contain this metal in three states of oxidation: first, in the state of protoxide, second, in the state of deutoxide; and third, in the state of tritoxide. Protacetate of iron is obtained by treating iron turnings with concentrated acetic acid, with the help of heat and without contact with air. The water is decomposed, its oxygen is applied to the iron, and its hydrogen is released. As to the deutacetate and to the tritacetate, these are prepared by dissolving in the same acid the deutoxide and the tritoxide of iron. The tritacetate of iron may also be obtained by treating iron turnings with acetic acid with air contact; in this case, the water and the air will both contribute to the oxidation of the metal. In the same way, using ordinary vinegar or pyro-acetic vinegar, however, tritacetate of iron is obtained, which is used in the manufacture of painted canvas. The barrel in which this triacetate slowly matures at normal temperature is called black barrel. The tritacetate will strongly dye the tincture of litmus red; it does not crystallize; has a ruddy brown blue; it is very soluble in water, etc. (1311); it is only used in dying.

Iron filings when sprayed only with vinegar will not fail to become rusty through contact with the air, and will become so solid that it may be used for sealing iron in stone, etc. Is it not possible, then, for an acetate to be obtained with an extreme excess of oxide?

About Copper Acetate

1331.

Here we will cover only two acetates of copper: subdeutacetate and neutral deutacetate. The latter is called crystallized verdet or crystals of Venus in commerce; and when mixed with the former it is also known as verdigris, or simply verdet.

1332.

Sub-deutacetate is powder-like, and has a rather pale color. While being tasteless, when taken internally in a small dose it can still cause vomiting and violent colics. Its action on litmus is zero. Through distillation one is able to extract the same substances from it as from verdet (1333). Air does not alter it in any way, and it is insoluble in water and alcohol.

It is composed of 60.25 copper oxide, 25.98 acid and 13.77 water. Consequently, for the same amount of acid it contains three times as much oxide as neutral acetate.

Sub-deutacetate is obtained by grinding verdigris in water. The latter is a mixture of about equal parts of sub-deutacetate and of neutral deutacetate (Proust). Sub-deutacetate being soluble remains in the liquid, whereas the other precipitates.

1333.

Verdigris is produced in Montpellier and its surrounding area. One takes the grounds of grapes and makes from them a more or less wide and always thin layer. This layer is covered with a lamina of copper, on top of

which one makes another layer of grounds, and so on, always finishing the pile with a layer of grounds. At the end of four to six weeks the copper lamina will be found to be covered with a fairly substantial quantity of verdigris. This should be separated in order to expose the unaffected copper once more to the action of the grounds. This operation is carried out by nearly all ordinary people in their cellar. Its theory is not difficult to understand. The grounds always contain a certain quantity of wine which becomes sour upon contact with air; at the same time copper absorbs the oxygen of this liquid, doubtless because of the affinity of its oxide for acetic acid. As oxide and acid are formed, they join up, and the result is verdigris. (For further details see *La Chimie appliquee aux arts* by M. Chaptel).

Verdigris is used in medicine as a weak cathartic, and in pharmacy for the Divine Plaster, etc. It is also employed in oil painting, but above all to make verdet.

It should not be confused with the green substance which grows on copper vases that are left unpolished. This substance, also called verdigris, is actually sub-half carbonate.

1334.

Verdet has a sweet and astringent taste; its crystals are rhomboid, and of a bluish-green color; it is more toxic than subacetate, somewhat efflorescent, and soluble in water and alcohol. When the action of fire is applied to it, it decomposes rapidly. While heating it in a glass retort, Mr. Vogel observed that towards the middle of the operation the upper walls of the retort became covered with innumerable white snow-like flakes, while the bottom became covered with satinous crystals. Moreover, he noticed that both these crystals and the white substance were an anhydrous acetate (an acetate lacking water). He realized that this substance could also be obtained by placing a verdet in concentrated sulfuric acid for only a few minutes, and that this anhydrous acetate always promptly became blue on exposure to air. Verdet is prepared by treating verdigris with vinegar, a process carried out on a large scale at Montpellier. Here men

called *leveurs* collect the verdigris from individual producers and take it to the factory where verdet is produced. There, it is dissolved in vinegar at high temperature, and the liquid is then concentrated and poured into vases where it crystallizes through cooling. In order to promote this crystallization, long sticks which have been split in four from the base almost to the top are plunged into the liquid. It is on these sticks that the acetate collects, normally in the form of very regular rhomboid prisms, and in very large numbers: out of 100 sticks, 39.5 will contain oxide, 51.29 acid, and 9.06 water.

There are not many uses to which this salt is put to. It is mainly used to obtain radical vinegar, and also enters into the composition of green water, a green liquid used for the coloring of drawings.

About Lead Acetates

1335.

There are at least two types of acetates of lead: a neutral acetate, and a subacetate. Both merit closer examination, as well as do the acetate and subacetate of copper. It is the first of these salts which are known in commerce as Salt of Saturn, sugar of Saturn, or sugar of Lead.

1336.

Neutral Acetate. — Neutral acetate is a salt which is used in vast quantities in the arts, and which are produced in several large factories. Out of all the processes that may be employed to prepare it, the best consists in treating the litmus or the oxide derived from the calcination of lead with either distilled vinegar, or with purified pyrolignous acid (a).

The operation is easily performed in lead or tin-plated copper burners; the oxide is placed into the burner with a greater amount of distilled vinegar, and the liquid is heated up. Dissolution will soon occur; it is concentrated and poured into vases, where it is allowed to slowly cool and where the salt will crystallize in brilliant white crystals. Next, the mother water is decanted and submitted to another evaporation in order to

extract further crystals from it. The last parts of acetate that are obtained are normally yellowish; these are purified by further crystallizations.

The crystals of lead acetate are long four-sided prisms ending in dihedral tops; they may be extremely thin or quite large. They contain 14.30% water. They have a sweet taste at first, which becomes astringent later. They do not turn the litmus red; through distillation the same substances may be won as from copper acetate (1311); when exposed to the air, they gradually become efflorescent, but never deliquescent; they are very water soluble since at 100C. they can dissolve several times their weight. Water charged with acetate boils at the same boiling point as pure water, which explains why this salt is never deliquescent.

Sulfuric acid, as well as soluble, produces in it at the very same instant a precipitate of lead sulfate in the form of white powder. When liquid carbonic acid is poured onto it, a slight precipitate of lead subcarbonate may be determined (a). However, of all the properties of this salt, the most remarkable is being able to dissolve a very large quantity of lead protoxide, thus being able to produce the subacetate which will be examined below (1311).

Lead acetate has important uses: it is used in medicine for external use for its calming and resolvent action, and internally as anti-aphrodisiac. In the manufacture of painted cloth it is used to prepare the large amount of aluminium (alumine) acetate used as fixative (1321); finally, it is used in the creation of white lead, as we shall see in a moment.

1337.

Subacetate. This salt crystallizes in opaque white blades; its taste is the same as that of the acetate, being somewhat less sweet, however; it turns violet syrup distinctly green, while reddening curcuma paper, behaving in such a way with colors like alkaline salts; it does not alter in the air, and is far less water soluble than the preceding substance. Carbonic acid will immediately precipitate a large quantity of lead car-

bonate of a very beautiful white hue. However, all dissolutions of neutral salts, even those of potassium and potassium nitrate, immediately disturb it. In every case, insoluble subsalts of lead are produced. Equally, it is decomposed by dissolutions of rubber, of tannin, and by most of the animal substance dissolution.

To obtain lead subacetate, one should take one part of neutral acetate, and two parts of litmus deprived of carbonic acid through calcination and reduced to a fine powder; the whole is placed in a copper pan with twenty to twenty-five parts of water, allowed to boil for fifteen to twenty minutes, and then filtered and concentrated (a).

For the same quantity of acid, this subacetate contains three times as much oxide as neutral acetate.

The extract of Saturn, which is prepared by supersaturating lead vinegar oxide and allowing it to evaporate up to a certain point, is apparently a similar lead subacetate to the one we have just described. When water is added to it, it becomes white and constitutes white water, orvegeto-mineral water, or Goulard water. Distilled water itself causes this effect as long as it has had air contact for several days; while that deriving from ordinary water may also contain a little sulfate.

Lead subacetate in particular is used to prepare those substances known in commerce under the names of lead white, white of ceruse and which are none other than lead subcarbonate. However this substance is also won through other methods, and we shall examine them all carefully.

We should note, however, that independently of the preceding lead subacetates, Bernellius admitted another type which contains six times as much oxide as neutral acetate; no doubt the second subacetate is obtained by dissolving the first in water, and adding weak ammoniac in such a way as not to decompose all of the salt: the new subacetate, which is absolutely insoluble, will immediately precipitate.

1338.

White of lead — The creation of lead white with lead subacetate is very simple; it consists first, of passing a stream of carbonic gas across the dissolved salt until this dissolution is brought back to a neutral state, or rather, until no more lead carbonate is formed; secondly, of passing this acetate with lead oxide to return it to its subacetate condition; and thirdly, of decomposing it again with carbonic acid, etc. From this it is clear that if during the operation it were possible not to lose any acetate, it would then be possible with the same salt to produce a very large quantity of subcarbonate or lead white. As the white is formed it deposits at the bottom of the vases which one is using after being sufficiently washed, it is gently dried and then ready for sale, being of first quality. It is with this process that at Clichy, Roard and Brechoz prepared lead white which then goes out in commerce.

Several pots of eight liters capacity. At the bottom of these pots a layer of barley vinegar several inches thick is placed; immediately above this sheath and upon the supports run and non-laminated blades of lead are laid next to each other, with very little space between them. Having closed each pot with a lid normally made of lead, they are then placed inside layers of dung or tanbark in such a way that they are entirely covered up. After about six weeks the pots are opened, and the lead blades will be found to be completely converted into a large quantity of lead subcarbonate and small amount of acetate. These two salts are separated from the sections of lead which are still metallic; they are mixed and washed; all the acetate dissolves, while all the subcarbonate deposits in the form of very dense sheaths of one or two centimetre thickness.

The lead white thus produced is always greyish, a hue which undoubtedly comes from a small amount of sulfurized hydrogen gas coming from the tankbark or the manure. In fact, at Krems or rather near Vienna, lead white is also prepared by exposing the lead to vinegar steam; nevertheless, the major part of lead white obtained is of first quality. It is important here to avoid encircling the pots with manure or tanbark: they are artificially brought up to the suitable temperature. The finest lead white

is sold separately under the name silver white (see the preparation of lead white of Krems by Cadet Gassicourt, Bulletin de Pharmacie, Vol 1, p.392).

1340.

Montgolfier has proposed a new way of creating lead white by using this metal, vinegar, carbonic acid and air. To this end, using a connecting tube, he sets up a connection between the lit furnace and the barrel containing a certain quantity of vinegar, and which also links up via another tube with a box filled with non-run and non-laminated lead blades. The carbonic acid coming from the combustion of coal, mixed with azote and oxygen gas that has escaped the action of fire, arrives in the barrel, charges itself with vinegar vapors, and thence arrives in the box filled with blades. These are promptly affected, resulting in a mixture of acetate and subcarbonate, as in the Dutch procedure, which are then separated by washings. The theory of Montgolfier's process is easy to grasp: without the presence of the carbonic acid only lead subacetate would be obtained; since however, this salt may be decomposed by carbonic acid, one must necessarily also obtain subcarbonate. It is highly likely that in the procedures practiced in Austria and in Holland the carbonic acid derives from the decomposition of the acetic acid. For the remaining part, something similar to Montgolfier's process occurs.

Lead white is used in painting to stretch colors, to obtain all possible nuances and to facilitate the drying of the oil. It is primarily used to paint the wood paneling of apartments, in which case it normally assumes the name ceruse; merchants often add chalk or baryte sulfate to this.

Dear Friend,

The present Lesson arises, in fact, from our four years on a common path. We hope that its very important contents will assist you to progress on the alchemical path. It seems to us useful to recall here two fundamental notions:

1. The preceding study of the *Chain of Homer* shows the process of condensation of matter. But we should not lose sight in our work that, that which is important is the seed. That is why the symbolism of agriculture is found in numerous alchemical texts. In vegetable seeds, the matter is a support, but the actual seed is an *ethereal energy not perceptible to man*. This is further demonstrated by the fact that the germinative power of the grain cannot be estimated, except by sowing.

We should not, therefore, lose sight that in all the processes described in the lessons the ethereal energy, the seed, should be conserved, reinforced and if possible, determined like the seed of Gold.

2. Another important point to consider in our experiments is that the ascent towards the best should be progressive. It is useless or even harmful to start with too sophisticated experiments. The practical, intellectual and mystical aspects should progress in phases.

The process described may seem complex but one must realize that it envisions diverse methods for extracting the principles of antimony with the exception of vinegar of antimony.

The plan is constructed following a form composed of 10 columns and 7 rows. The squares symbolize the operations, the circle the products. Each column is devoted to an operation or to a section of the operation, that is:

— 1 and 2 : preparation of radical vinegar

- 3 : preparation of copper
- 4 : preparation of the spirit of wine
- 5 : preparation of the salt of tartar
- 6 : preparation of the Kermes of antimony
- 7 and 8 : purification and coagulation of the vitriol
- 9 and 10 : dry distillation; separation of the principles.

COLUMN 1:

preparation of the vinegar.

Commercial vinegar often is not satisfactory for our work. This column is supplied by red wine (RW)

- 1A: fermented RW
- 1B: filtered RW
- 1C: ordinary vinegar obtained from RW
- 1D: distilled vinegar
- 1E: distillate and salt of RW.

1D, 1E, 1F, 1G symbolize the fact that the vinegar is distilled many times with its salt to obtain in G the *nitrous vinegar* which is directed to Column 2.

COLUMNS 2 and 3:

— 2A: a pelican is illustrated here, but for this kind of circulation a soxhlet is better. The circulation of nitrous vinegar on the oxides yields a solution of copper acetate.

- 2B: coagulation of copper acetate
- 2C: dry copper acetate
- 2D: dry distillation of copper acetate which gives:

- 2E: a blue radical vinegar
- 3E: a red oil
- 3C: powdered copper
- 2F: the blue-green radical vinegar is distilled
- 2G: colorless radical vinegar

The powdered copper of 3C is calcined in 3A and gives the copper oxide in 3B that supplies the soxhlet of 2A.

Remark:

Copper possesses a large quantity of the seed of Gold. The radical vinegar obtained by the copper is then charged with seed. The copper cannot be recycled indefinitely because the seed there is fairly quickly spent. This is established by the diminution or the disappearance of the red oils of 3E; in this case, one must take new copper to supply Column 3.

COLUMN 4:

Preparation of rectified Wine Spirit. This column is supplied by red wine (RW) distilled once.

- 4A: RW distilled once
- 4B: RW distilled a second time
- 4C: RW macerated with salt of tartar
- 4D: RW distilled in a water bath to obtain
- 4 E : rectified wine Spirit.

The cycle 4C, 4D, 4E can be repeated many time to obtain absolute alcohol.

COLUMN 5:

is supplied by tartar of red wine.

- 5A: calcination of tartar
- 5B: dissolution of tartar in water
- 5C: coagulation of the water solution after filtration
- 5D: calcination of coagulated salt
- 5E: salt of tartar (potassium carbonate)

The cycle 5B, 5C, 5D is repeated many times in order to obtain a pure carbonate.

COLUMN 6:

supplied by stibnite

- 6A: ground stibnite
- 6B: calcined stibnite. The calcination should be made progressively (see Lesson #18) 2 to 3 weeks of calcination are necessary.
- 6C: the stibnite is dissolved in a solution of one of the three following products: soda, potash, or potassium salt. From the traditional point of view, the potassium salt extracted from tartar is preferred.
- 6D: the solution is filtered.
- 6E: the solution is neutralized. It is not useful here to utilize the expensive radical vinegar, but the acetic (pyrolignious) acid obtained

from the zero column and distilled once in 1F. In G, it is satisfactory.

— 6F: the solution is filtered.

— 6G: one has the impure Kermes.

COLUMN 7:

purification of Kermes.

— 7A: circulation of the Kermes in a soxhlet with distilled water. Between 12 and 20 hours of circulation.

In the case of the usage of the soda in 6C the coagulation of the circulation water shows that the acetate of soda created by the neutralization of the last by acetic acid, was well extracted. The long crystals of the sodium acetate are characteristic.

In the case of the usage in 6C of the salt of tartar or of the potash, the coagulation of the circulation water produces the *terra falita tartari* (extremely deliquescent).

Experiment shows that there is very little oxysulfide washed from the Kermes into the water and that production of the antimony acetate would be feeble or not at all. But this washing was necessary to eliminate the sodium or potassium acetate.

— 7B: the kermes is calcined 24 or 48 hours at about 150 — 170C, which enriches the oxysulfide considerably.

— 7C: enrichment of Kermes in oxysulfide by mild calcination

— 7D: the circulation with the radical vinegar gives an acetate.

— 7E: this acetate coagulates

- 7F: coagulated acetate
- 7G: drying of the acetate

Remark:

So that the purification will be achieved, it should not have only one partial crystallization. The crystals are then separated in liquid and dried by calcining slowly in 7G. Temperature: about 50 to 60C.

COLUMN 8:

extraction of the acetic acid of vitriol of antimony (see Oraculum).

- 8A: the vitriol (antimony acetate) is circulated in a soxhlet with absolute alcohol as in 7E and 7F.
- 8B and 8C: partial crystallization and drying.
- 8D: purification of antimony acetate.
- 8E: digestion of the alcohol salvaged in 8B — 8C on the calcined lime.

COLUMNS 9 AND 10:

dry distillation of the antimony acetate

Three given products:

- 1 — a red oil
- 2 — the white metallic vapors of the antimony
- 3 — a black residue, the Black Lion

The distillation device is the same as in Lesson #18. The red oils 9B are collected in flask B of the figure of Lesson #18.

The vapors are condensed by cold in C10 — C or in F1 in the figure in Lesson #18, are collected by bubbling in the radical vinegar in 9C — 9D (Tube TF in Lesson #18). The acid then becomes capable of dissolving Gold.

The Black Lion can be treated in four different ways. By calcination A10 gives in B10 the fixed salt of antimony.

The Black Lion can be circulated by soxhlet, level E, Column 9—10. Coagulation at level F. We have: circulation of radical vinegar — fixed salt — circulation of absolute alcohol — volatile salt — circulation of water — mixed salt.

Ora et Labora !

The practical details will be given in the next lesson.
Figure enclosed (page 6)

