

# T H O E L



EXPERIMENTAL CHEMISTRY

TRANSLATED BY:

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It is highly appropriate to acknowledge the many persons who have either materially or philosophically contributed to the present effort and future ones. For some this might well be the first indication that they are considered as members of R.A.M.S. or that such a group even exists! While the list is long, it includes: C. Collins, Rick Stern, Doris Edlein, Arp. Joo, D. and J. Nintzel, N. Ogle, G. Price, F. Regardie, W. van Doren, K. von Koenigseck and especially David Ham. For their labors and contributions, grateful thanks are given. Let their unselfish efforts inspire others to light the fires of Alchemy.

To obtain copies of these materials, or to contribute in some way to this work, contact: **R.A.M.S.** c/o Hans W. Nintzel  
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SOME PROCESSES

OF

JOHAN GOTTFRIED TUGEL'S

*EXPERIMENTAL CHYMISTRY etc.*

LEIPZIG 1766

(Tugel was Director of the Mines in Saxony)

Translated from the German

BY: SIGISMOND BACSTROM, M.D.

1798

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P. 24 speaking of  $\textcircled{O}$  and  $\frac{\Delta}{\mp}$ .

Our atmosphere rightly considered is of a temperate humid consistence, under which external appearance the active power of  $\textcircled{O}$  and  $\frac{\Delta}{\mp}$  remains hidden to us, which in this uncoagulated fluid Essence represent to us neither more nor less than the two principal subjects of nature, that is HEAT and COLD; but as soon as the temperate Humidity is dried up, which happens very frequently in the Air, the Cold is coagulated into  $\textcircled{O}$  and Heat into  $\frac{\Delta}{\mp}$ , as these two are mixed mineral acting Spirits on account of their contrary Natures an Inflammation easily takes place with Lightning and Thunder.

Heat and Cold were the first principal Subjects of Nature which are moderated by radical Humidity, by which medium, although they are the two greatest Contraries in the World, they are able to act and to become corporeal; as other wise without this medium, their operation could not have produced Bodies.

The greatest Heat was manifested in  $\frac{\Delta}{\mp}$ , and the greatest Cold in  $\textcircled{O}$ . These are the Corporeal matter containing our Superior  $\frac{\Delta}{\mp}$ , our animated  $\frac{\Delta}{\mp}$  or universal  $\frac{\Delta}{\mp}$ , but as yet in a fluid Subtile Essence; as we easily conclude in hot weather that our Atmosphere is filled with  $\textcircled{O}$ eous and  $\frac{\Delta}{\mp}$ eous Vapours, which frequently break out into Lightning and Thunder, whilst the Atmospheric Humidity prevents a Total Conflagration of the Air, although there is no want of  $\textcircled{O}$ eous and  $\frac{\Delta}{\mp}$ eous Vapours anywhere.

The Wise Creature of the Universe has permitted us to know, how the Elements in their simple watery Appearance not only, but also in their concentrated operating State become Visible and may be obtained, and has

given us an Example in  $\nabla$  and Ice and in  $\triangleup$  and  $\odot$  .

The operating power of the Elements in the mineral Department can not be brought to action but by  $\triangleup$  and  $\odot$  , as We know by Experience. that all metallic and mineral productions consist of a Sulphureous Essence and the Superior preserving power originates from the same principles

Nature has placed in the mines, in the Laboratory for minerals and metals A CERTAIN  $\nabla$  , wherewith a total destruction and Resolution of them can be effected by means of  $\triangle$  .

We have only to consider the first principles of metals in that State, wherein they generate Minerals and metals, and we may abandon the first Watery Mercurial Essence, because metals require in the mines a certain active concentrated  $\triangle$  , which in this department lays hidden in SULPHUR.

(This confirms the Truth of the process from BECHER, mentioned by STAHL P. 417; where a  $\psi$  of  $\odot$  is converted into the  $\mathcal{R}$  by the Universal  $\text{H}$  of  $\triangleup$  ; this is also in favour of DE LA BRIE'S Works: & likewise what MONTANUS relates of a  $\triangleup$  action in melted  $\ominus$  , which was partly converted into  $\odot$  , see STAHL P. 172. and GLAUBER'S Works.)

The Species of  $\triangleup$  in the mineral Department are various and of different properties, therefore it is necessary to chuse such a Species of  $\triangleup$  , as will answer your Intentions.

Now as SULPHUR is in the whole mineral Department A GENERATOR of all Creatures, and CONTAINS ITS ACTING POWER WITHIN so on the Reverse  $\triangleup$  is also THE DESTRUCTOR and death of the whole mineral and metallic Composition, as it operation and Effect proves in their Resolution, first in its Superior Aereal Dominion. and Secondly in its corporified State, when

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it acts in the shape of a mineral  $\triangle$  during Calcination. It remains as yet a Mystery to many, what WONDERFUL SECRET<sup>S</sup> LAY HIDDEN IN  $\triangle$  !

The superior  $\triangle$  y matter in the  $\triangle$  is the genuine Sperm of Minerals and Metals, whereof they have their Origin and by whose Influence they are preserved and destroyed again.

### Of $\textcircled{1}$ in Particular.

In  $\textcircled{1}$  we see a wonderful Subject of Nature, which according to its origin, does neither belong to the Vegetable nor Mineral Department, as its parents are of a higher Nobility, and as it is generated by Superior Influence.

The Father of  $\textcircled{1}$  is beyond dispute the potent universal Mercury, a Ruler of the upper Regions and preserver of this visible World, born of a Vegetable Female, whom we call ALCALI, which the Universal  $\infty$  or Nature herself previously has prepared in the Earth.

During his Manhood, he ( $\textcircled{1}$ ) is become a Hero and Conquror of the Whole Earth, as his Father has made him governor of the 3 departments of Nature, to govern and reign over them, with his Brother Sulphur.

ALL VOLATILE MINERALS tremble at the Rage of  $\textcircled{1}$ , and none of them dare to approach him; to pacify him, when he is angry, as they cannot get clear of him without their own Destruction, as is proved by THE FULMAN OF  $\textcircled{1}$  with such volatile  $\triangle$ eous or  $\infty$ cal minerals, which Fulman deserves a serious consideration! /:see Glauber re: Fulman Jovis:/

When we consider  $\textcircled{1}$  with attention, we find it to be a Subject of

Wonder, because it possesses HEAT and COLD at once, because externally the greatest Cold is manifested, whilst the Internal principle is nothing but  $\Delta$ . (Dilated in  $\frac{\text{---}}{\text{---}}$ ; if the  $\textcircled{O}$  of  $\textcircled{S}$  of  $\textcircled{Q}$  could be so highly concentrated so as to be divested totally of Humidity, they would become real  $\Delta$ , by the contact of  $\Delta$ , and go off in a large flame, the concentrated  $\frac{\text{---}}{\text{---}}$  of  $\textcircled{O}$  especially! We have a (so called) concentrated  $\frac{\text{---}}{\text{---}}$  of Sea  $\ominus$  as well as of  $\textcircled{Q}$  in the  $\frac{\text{---}}{\text{---}}$ , which according to common notion is without Humidity; but if it really was so, it would be real  $\Delta$ ! Pray what is  $\frac{\text{---}}{\text{---}}$  else but the Metallic Humidity or METALLIC  $\nabla$ , which holds here these concentrated  $\frac{\text{---}}{\text{---}}$  in the  $\frac{\text{---}}{\text{---}}$  and prevents their manifestation as real  $\Delta$ ? I believe I am right!)

No subject in all Nature's productions, is like  $\textcircled{O}$ , because it possess two contrary properties. It destroys and breaks every Thing, AND BRINGS EVERY THING TO FIXATION! We mean to say; all what is of a fixt Metallic property as Experience teaches us by its Fulman and Inflammability, therefore the Conclusion is just that the Inward power of  $\textcircled{O}$  is inexpressible and inexhaustible! A POOR MEAN SUBJECT! Which not one in a Thousand takes sufficient notice of, nor does he know what to do with it, therefore its Mysteries remain unknown! (after having heard so much of MR. TUGEL of GLAUBER and others I think we need not be at a loss to discover THE HEAVENLY SALT OF HEAVENLY PROPERTIES of the Copper Smith! If we do not immediately succeed with it, it is because we do not yet know how to use it, TO OPEN and TO FIX with it!)

The  $\Delta$ y Mercurial  $\frac{\text{---}}{\text{---}}$  of  $\textcircled{O}$  forced out of it by distillation, is that very SATURN mentioned by OVID, who devoures his own Children or

that very Menstruum which dissolves all metals and minerals, as we see by the  $\nabla$  and  $\nabla$  .

Its Alkali, when fixt, is of such a  $\Delta$  y quality, that it dissolves in Via Sicca every mineral or metallic Subject and devores it in a moment. (read GLAUBER'S APOLOGY AGAINST FARNER, where he Speaks of his ALKAHEST; I know that when you evaporate a  $\Delta$  y  $\textcircled{1}$  cous Lye to a fat  $\ominus$  , neither glass nor China or glazed  $\nabla$  en Vessels can resist, they are all dissolved). You must either take a polished iron Bason, or one made of fine  $\textcircled{D}$  without alloy, or the Evaporation plagues one to death).

The  $\text{—}$  of  $\textcircled{1}$  is as yet of an unknown property, it is such a Solvens, as Nature rejoices in, but very few know it.

Many Philosophers who wish to be looked upon as, possessed of every knowledge, have told us that a menstruum for metals must be homogenous to them and not corrosive and thus they reject the  $\text{—}$  of  $\textcircled{1}$  and  $\nabla$  , and pretend that it is good for nothing, for the true Solution of metals and minerals: and they do not consider that all metals and minerals are generated from  $\textcircled{1}$  cous and  $\Delta$  Vapours, and that the atmosphere is filled with such matter: therefore nothing is more homogenous to metals then  $\text{—}$  of  $\textcircled{1}$  , but the fault lays, that the metals are not rightly and previously prepared for such a Solution.

In all Nature's productions only one universal Salt is generated which proceeds immediately from Celestial Influence, which is called NITRE, and therefore is the Universal Menstruum of the whole mineral Department, and by its power the same subjects are dissolved and destroyed, which were generated before by that same power, if we do but understand how to make a proper use of that power, you may safely believe.

that in  $\textcircled{D}$  a glorious heavenly  $\sim$  is hidden of a ruby red fiery Essence, to whom nothing in the whole universe is comparable! SB!

(See what STAHL quotes after BECHER, when he speaks of the immortal Soul of  $\textcircled{D}$ , in his Treatise on the Philosophical Stone.)

(The above words of TUGEL seem extremely weighty! The author has certainly known more about it than he has openly communicated! It all confirms us in the knowledge of the Coppersmith's heavenly Salt!)

The Superior astral Influence descending constantly into our Earth generate Various Sorts of Salts, amongst which the Saltpetre on account of its perfection in imitating the powerful active principles above is the Masterpiece, as a particular Ray of the Superior Influence in its whole Essence inconceivable!

It is demonstrable that in  $\textcircled{D}$  the superior  $\Delta$ y principles of Light are infused in the surest and most perfect State, and are hidden under a Veil of the greatest external Cold, but speedily manifested, when placed in the  $\Delta$  and a sulphureous adustible matter is added.

Among the mineral Salts,  $\textcircled{A}$  is the most perfect, and is the Subject which conveys to minerals and metals the Influences and fiery Saline Emanations from above. The metals have their growth from this Subject. In  $\textcircled{A}$  we find the first metallic  $\nabla$  formed, which by nutriment of  $\textcircled{A}$  is perfected more and more in its metallic Exaltation, until it becomes a fixt metal; Wherefore  $\textcircled{A}$  is deemed a metallic  $\ominus$ , in which the first Seminal power of the metals lays perfectly inclosed; This Saline quality is conspicuous by the transparency and Crystallisation, because its metallic  $\nabla$  is so subtil, that it passes through the Filtre. The

mysteries hidden in  $\textcircled{A}$  shall be mentioned hereafter.

(As MR. TUGEL has spoken concerning  $\textcircled{1}$  and its Anima, it will be useful some time or other, to find here an Experiment, which I worked once in Mary le Bone after Mr. Tugel, but could not succeed, as the Subject came over all at once into the Receiver with the greatest Violence, when I attempted to distill it, per. Retort in order to obtain THAT GLORIOUS RED AMIMA, whereof STAHL says that it may be treated with  $\textcircled{C}$  etc. see STAHL'S Treatise concerning the Philosophic Stone.)

#### MR. TUGEL'S EXPERIMENTS

Zillau and Gorlitz 1768.

To obtain a blood red  $\text{—}$  from  $\textcircled{1}$  ;

An Arcanum.

As it is as yet very little known amongst the Lovers of the sublime part of Chymistry how to distil a blood-red  $\text{—}$  of  $\textcircled{1}$  , I will communicate this Process, which is my own Discovery.

Take good refined crystallised  $\textcircled{1}$   $\frac{1}{2}$   $\text{℥}$  , reduce it to a fine  $\textcircled{O}$  , mix this with  $\frac{1}{2}$   $\text{℥}$  of finely powdered and sifted Stone Lime fresh from the Kiln, fill a large  $\nabla$  with this mixture, and Lute a Cover on the  $\nabla$  , which must have a small hole in the middle, when the Lutum is thoroughly dry, if it has any cracks, fill them up carefully and let it dry.

Then place your  $\nabla$  in the Wind furnace, whose  $\triangle$  place must be no

less than 8 Inches Square. Light your  $\triangle$  in the morning, by placing lighted Coals on the grate round the  $\nabla$ , and dead Coals on the Top, until you are level with the Lid or upper part of the  $\nabla$  and the  $\triangle$  will light gradually to season the  $\nabla$  and the matter within.

After it has stood thus half an hour, cover the  $\nabla$  with Coals, and keep a good  $\triangle$ , without the blast of bellows, during 4 hours more or 5 or 6, so much the better, then, towards Evening let the  $\triangle$  die away of itself, and when the  $\nabla$  has lost its red heat you may take it out to cool.

Break it and you will find a Cake which is of a most beautiful parrot-green Colour on the outside, but of a pale purple within and grey in the Centre.

(I have done this several times in Mary le Bone and am doing it at present here, the success depends upon a gradual and at last a Strong Heat, and it will always Succeed; In Maryle Bone I used to take very fiery stone Lime fresh from the Kiln, here I took stone Lime, which was 3 months old and had by attraction fallen into a Snow white powder, which I sifted, and I have succeeded all the same, because the Lime  $\oplus$  becomes reanimated by the  $\triangle$  and  $\odot$  during the Calcination in the  $\nabla$ , although I must allow a fiery Lime from the Kiln to be the best, if it can be got.

My Luting is Windsor Loam  $1 \frac{1}{2}$ , sifted bone ashes  $\frac{1}{4}$   $\frac{1}{2}$ , mixed up with cold  $\nabla$ .) (This burns very hard in the  $\triangle$ .)

(I make use of this Luting, to besmear the Inside of the  $\triangle$  hole in my Wind furnaces, about  $\frac{1}{4}$  or  $\frac{1}{2}$  Inch thick; if you neglect this.

the furnace soon tumbles to pieces, after every operation, I lute my  $\triangle$  holes with fresh Luting, as above, and it keeps them in good order.)

Reduce the  $\oplus$ ous Cake to a Coarse  $\odot^m$ , and pour boiling hot  $\nabla$  upon it, stirring it from time to time, and your Lye will be as green as grass, but gradually loses that Colour, and becomes clear like  $\nabla$ .

Let it stand 24 hours to cool and to extract every thing out of the powder. Then filter your Lye until it is perfectly clear like Rock  $\nabla$ .

Evaporate this Lye, until there remains a fat moist very fiery  $\ominus$ .

(Here is a great difficulty, no glass will stand this Evaporation, as soon as the Lye becomes concentrated, all glasses crack. I found a China bason stand best, although it is in time dissolved; glazed  $\nabla$ en basons get gradually perforated, and the  $\triangle$ y Liquor runs through it. A polished iron Bason, or a fine  $\odot$  Bason, made without any alloy, would be an everlasting Evaporating Vessel, for this purpose; Consider that this is a  $\triangle$ y alcahest, which dissolves all Sulphurs, all  $\nabla$ , Stones, Minerals, glasses and Calxes of Metals. It is GLAUBERS ALCAHEST!)

(If you evaporate in polished Iron, you get a Subtil Crocus  $\odot^m$  mixed with your  $\triangle$ y Salt.) (As far as here, I have done with good success, but what follows of Mr. Tugels process, I could not succeed in.)

Take your fat moist  $\triangle$ y  $\oplus$  and pour it thru the tube into a glass  $\rho$ , which bury in the  $\dots$ . Apply a Receiver, which lute to the  $\rho$ .

Distil first with a small heat, until all the humidity is come over, then increase your  $\triangle$  gradually, and continue the distillation until red drops come over, and proceed with a very strong heat until all the red  $\rho$  is passed into the Receiver. This distillation, after the  $\triangle$  is

gone out, must be dephlegmated in Baln: Vap. and the  $\nabla$  will come over by itself: The remaining red  $\omega$  must then be rectified per se in a small glass  $\rho$ , and this red  $\omega$  will come over with a small heat, and leave a little  $\nabla$  behind.

This is a curious red  $\omega$  of  $\textcircled{D}$ , which Every Artist is not acquainted with.

As the  $\Psi$  vive is here become a Key to unlock and open the  $\textcircled{D}$ , you may be assured that  $\Psi$  viva is a valuable Subject to open and unlock mineral bodies. (Thus far Mr. Tugel) (I have attempted this in my Laboratory in Mary la bone, however I could never do it, following MR. TUGEL perhaps too literally, as my humid fat Salt came over all at once, and pushed the Receiver away with an Explosion and so much Violence, that, the Receiver rolled to the further side of the Room without breaking, as I had not luted the Rec: to the  $\rho$ .)

(It is my opinion that the fat  $\ominus$  ought to be evaporated as dry as possible, although it will remain fat in spite of the strongest heat, and then mixed with  $\bar{a}\bar{a}$  Native  $\triangle$  in fine  $\sigma^{\#}$ , or Flores  $\triangle$ s. and one part of calcined powdered and sifted Flints or pebbles, that is to say, of Each  $\bar{a}\bar{a}$ . I think this mixture distilled in a gradual Strong  $\therefore$  heat per glass  $\rho$ , would yield MR. TUGEL'S RED ANIMA OF  $\textcircled{D}$ .

I add the  $\triangle$  in order that the fat  $\ominus$  of  $\textcircled{D}$  may take to itself and extract from the  $\triangle$  its anima, which is also the universal  $\omega$  as well as that of  $\textcircled{D}$ : and thus one might obtain as much after of this wonderful red  $\omega$ ; by adding the  $\sigma^{\#}$  of pebbles, I wish to prevent THE MELTING and TOO CLOSE COHESION of the fat  $\textcircled{D}$  with the  $\triangle$ , which would prevent their parting with the anima.) (as MR. TUGEL gives it to us, it cannot be done. /: The fat  $\ominus$  is the Alcahest and dissolves oil  $\triangle$  <sup>S</sup>:/

(After having demonstrated that the universal principle is corporified in Sea-  $\ominus$  ,  $\oplus$  etc. as well as in  $\odot$  , by means of animated  $\triangle$  , MR. TYGEL gives us the Sweet  $\omega$  of Sea-  $\ominus$  , which I need not repeat here. as I have already translated and wrote it in a former Msc: where FACHSENS green  $\omega$  of  $\ominus$  is mentioned.)

I mixed once equal weight of Sea  $\ominus$  and  $\Psi$  vive in subtil  $\odot$  , which  $\odot$  I put into a  $\nabla$  and luted a Cover upon it. Then I calcined it in my Wind furnace during 4 hours time, and after that let the  $\triangle$  go out.

I powdered the Cake warm, and poured Sharp Wine  $\ddagger$  upon it, and obtained a high Saffron Coloured Tincture of a Sweet Taste and pleasant Smell. I filtered my Solution, and evaporated the  $\ddagger$  from it, and obtained a fixt  $\ominus$  , and that part which would not crystallise ran per deliquium into a blood red Sweet Liquor.

This Liquor is a wonderful External Remedy in healing of Cancers, if not too old.

Observe that the operation of Nature of magnetical Subjects RUNNING PR. DELIQUUM BY ATTRACTION is of the first Consequence. NAY THE WHOLE MASTER PIECE OF ART LAYS HERE, as it is impossible that the universal  $\omega$  can work in a Subject, if it is not magnetically attracted, either before or during the operation, which universal  $\omega$  dwells in the  $\triangle$  , and is nothing else but  $\triangle$  .

(How nobly this agrees with our ANONYMOUS LETTER, with CRAMER, SEND-IVOGIUS, URBIGERUS, HERMETICAL-TRIUMPH and others!)

Another time I mixed 3 parts of Sea-  $\ominus$  with 1 part of  $\Psi$  vive and melted this mass in a luted  $\nabla$  in my wind furnace, extracted the  $\ominus$  with

Wine  $\ddagger$ , and filtered and evaporated until it became fit to crystallise and I obtained not CUBICAL but SPHERICAL CRYSTALS like small shot.

Every Experiment I made with Sea-  $\ominus$  snowed a different Effect; Endeavour to bring the Salts to a diaphanous State and separate the  $\nabla$ .

If you wish to obtain their Inward Sweetness and Fixation, make use of  $\Psi$  viva, and you will be able to perform curious and useful operation in Medicinal and Metallic Works.

### Of the Secrets of the Microcosm.

The Animal Department has its Origins from the Superior Principles as well as the two other Departments of Nature.

The Secrets of the Animal Department lay concealed in their own Magnets, which is also the case with the other two.

Animals manifest their magnetical power by drawing the  $\triangle$  into their Lungs, whereby they obtain the  $\omega$  of Life; but the body must be nourished by Victuals and drink, to replenish what is Wasted, the powers from above alone are not sufficient to nourish the body.

The principal Creature in this Department is Man, but on account of his Inward immortal principle he is above the animal Department and is called Microcosmus, or the lesser World, which Signifies that man was created out of a Matter, wherein all the 3 Departments of Nature were essentially concealed, independant of the Breath of Life that Divine Emanation of Divine Light our immortal Soul inspired into the first Man by the Almighty Himself.

Now as Man in regard to the universal matter, out of which he was created, may be deemed an universal and fixt Creature, it is easily to be comprehended, that He possesses a prerogative above other Creatures, and a UNIVERSAL MAGNET to attract the universal  $\curvearrowright$  in a perfect State.

We say that in man a Magnet is hidden, which is capable to attract the universal  $\text{\textcircled{Y}}$  in full perfection; Man surpasses all terrestrial Things in this Respect.

This wonderful magnet of Man is in the Mouth or rather in the Wind-pipe. (Alluding to the Inspiration of the Breath.)

THE EXPIRATION OF THE BREATH and THE SALIVA collected, are an astral  $\nabla$ , impregnated with the universal Mercury.

I collected once the Saliva of a healthy young man in great quantity, and set it in a warm place to putrify during 6 weeks time, which stinks abominably; When putrifaction is over; and the Slime and Impurities are settled, it becomes clear and transparent again and of a grateful smell. Then you must pour the clear into a high glass body and in a very gentle Heat distil the clear Volatile  $\curvearrowright$  off into a Receiver luted to the Tube of the Alembic. You distil until there remains a thickish yellow Solution behind in the body. During the distillation of this volatile  $\curvearrowright$ , great attention is necessary to regulate the heat very gently, as this Subject ascends in large bladders and is apt to come over all at once into the Receiver, which must be prevented by proper care.

(I found by experience, that when you distil putrified  $\square$ , which does exactly the same, if you oil the inside of the glass body, with a feather dipped in good Olive Oil, all round up to the Top, and then pour

the putrified  $\square$  into your body and distil with an equal gentle heat in Baln: Vap; the  $\square$  remains quiet below and does not offer to ascend all at once; the same method would do here and succeed with the putrified Saliva.)

The  $\phi$  of the Philosophers is contained in the volital  $\omega$ , which is come over, although in an extended and not in an Concentrated State.

The volatile  $\omega$  obtained in the Receiver, I put by corked, and in the space of 26 Weeks I observed on the bottom and sides a Number of Various red, yellow, blue and white Crystals of  $\textcircled{1}$ , about as thick as a grain of Oats.

That these Crystals deserve to be deemed the  $\textcircled{1}$  of the Philosophers, need not be doubted.

The Saline Essence of this Liquor has caused me many Thoughts!

Another time I took a quantity of putrified Saliva collected from healthy men, and distilled it out of a high glass body per alembicum until dryness. The next day, what was in the Receiver I poured back into the body, and distilled it over again until dryness; having done this several times I found that my clear  $\omega$  diminished but a Saline matter increased in the body, thus I continued during several weeks, until all my  $\omega$  was dried up by Cohobation, and I obtained this way a foliated grey  $\ominus$ ; thus I experienced that a  $\textcircled{1}$ ous or universal  $\ominus$  was contained in my Saliva. This cost me 6 months Labour and I distilled it once every day, and it cost me many Coals.

DOCTER FABER AT MONTPELLIER encouraged me in this process and I know that he has made a tinging Medicine from this Subject, but I could not

succeed at that time.

BAREN DE WELLING led me again into the right path, that I might obtain a fixt Medicine, independent of my volatill microcosmical  $\ominus$ .

BARON DE WELLING wrote; expose the distilled  $\ominus$  every day to the Sun's Rays, and at night to the Moon, that it may be dried up and liquified again.

I did so and poured my Liquor into a China bason, which I covered with a large glass bason, in the shape of a Watch-glass, and placed it the whole day in the Sun Shine, and at night in the Moon Shine, so that the Rays of Sun and Moon could perfectly fall on the Liquor through the glass; and I observed that in one Month time, my Liquor was mostly dried up, all but a red  $\odot$  which remained, in which  $\odot$  a yellow  $\ominus$  grew, as big as a hazle nut; this  $\ominus$  liquified every night, and became a dry  $\ominus$  in the Sun, and my  $\ominus$  increased from day to day, but the red  $\odot$  became thick like honey and at last like wax, so that I could cut it with a knife. I was obliged to abandon this Labour on account of a Journey I was obliged to go, and at my Return my valuable matter was missing in the Laboratory, and I never saw it again.

Nevertheless you are to observe, that if by dissolving (by the Moon) and coagulating (in the Sun) you can make your  $\ominus$  so fixt, so that it melts like wax on a Candle, without the least smoke, it is a Sign that it is not sufficiently maturated!

But when it obtains its proper fusibility and Fixity, it is then A KEY TO OPEN RADICALLY AND CENTRALLY BOTH  $\odot$  AND  $\lrcorner$  AND TO VITRIFY THE SAME IN THE  $\nabla$ ; which degree of Fixation the upper part of my  $\ominus$  had

attained, when I was forced to leave it, as the Experiment proved I made therewith in the presence of a Friend and Lover of this Art; therefore I call this  $\ominus$  VALUABLE!

(This must have been one of MR. TUGELS great Works; his journey I suppose is a Fiction, to deceive the Ignorant! He has said enough for us

Some time after my Return I ordered a good quantity of Saliva to be collected in the Spring Season, and I obtained 12 quarts.

A certain Artist came to see me and persuaded me not to distil my putrefied  $\nabla$  at all, saying that this tender matter could not bear common  $\triangle$ .

I followed his advice, and after having putrified my matter and filtered the clear and transparent  $\nabla$ , I poured thereof into a great number of Tea-Saucers and dried it up in the Sun, filling the Saucers from time to time as the Liquor evaporated, this I continued until I obtained, as before, a Red  $\circ\circ$  and therein a White  $\ominus$ .

I poured the red Liquor into a glass and had the Vexation to see it knocked to peices by a Servant, so that the Liquor was spilled on the Floor. I took it up with clean Cotton as fast as I could and Saved the greatest part thereof, which by standing quietly became clear and pure again.

This saved red Liquor I placed again in the Sun in a Bason, covered with a glass Bowl, but it was overset a second time during my absence and was mostly spilled and lost. A Small quantity of the remaining red Liquor, I mixed with  $\odot$  fulminans, after having taken the fulminating power from it, and ground this mixture in a glass mortar, and found that

my  $\Psi$  of  $\odot$  became invisible and dissolved; this I wanted to reduce into a body again, but my  $\odot$  evaporated in a Smoke.

Part of the same  $\underline{I}$  evaporated to dryness only and became a brown Crocus. This I dissolved with my Sweet  $\omega$  of Sea-Salt, and became a Ruby-red  $\mathcal{N}$ , and abstracting the  $\omega$  of  $\ominus$  very gently, A RUBY-RED  $\omega$  OF  $\odot$  remained behind. What power this may have I leave to the philosophical Reader to judge. I shall say no more about it.

It is a tedious operation, but if you have leisure time sufficiently and patience, you will not repent of your Trouble. SAPIENTE SAT.

#### Of the Superfluties of the Microcosim.

Of  $\odot$  and  $\square$ .

To prepare a Medicinal  $\mathcal{N}$  from  $\odot$  and  $\square$ . This I process I have seen and assisted in the Working of it at a Friend's House.

We collected our own Excrements and  $\square$  being both in perfect Health and put it into a small Tub, which we placed under the Roof of the House in the beginning of Spring and let it stand to ferment, and it smelled abominably.

We let it stand 3 months to putrify and stirred it very often and it became a thick Liquid.

Then we put this stinking substance in brown glazed earthen dishes and during this same summer we dried it all up by the heat under the Tiles, as the Sun shone the whole day on that roof.

Then we rubbed the dried Substance to a fine  $\odot$  in a Stone mortar.

The feted smell was gone.

#### DISTILLATION

We filled a glass  $\rho$  half full with this  $\odot^{+++}$ , and distilled, the  $\rho$ , placed deep in the  $\therefore$ , until all the Vapours and drops had passed into the Receiver.

During this distillation you receive first some phlegma, then a Volital  $\sim$  and an  $\odot\odot$  totally in Fumes, and in the remaining Coal or  $\odot$  a fixt  $\ominus$ .

You must rectify the  $\sim$  per alembicum, and distil the phlegma from it, and then the volitale  $\sim$  must be rectified per Se, once more.

The  $\sim$  and  $\odot\odot$  come over together. From the  $\odot$  of the first distillation you extract the fixt  $\ominus$  with hot  $\nabla$ , which must be filtered, evaporated and dissolved, filtered and evaporated again several times until it is clean. It does crystallise after it has been evaporated.

We separated the  $\odot\odot$  from the  $\sim$  by means of a glass funnel; this  $\odot\odot$  was brown red; when you rectify your vol:  $\sim$  per Se, observe that this cannot be done above once or twice because if you venture a third Rectification the  $\sim$  is coagulated into Salt-crystals, and then you would have much unnecessary Trouble.

#### Composition and Coagulation.

We took the elixiviated fixt and purified  $\ominus$  out of the first  $\odot$ ,

as much as we had obtained; you must take great Care to loose nothing of either of the 3 principles; We put this  $\ominus$  into a convenient digesting globe with a long neck, and poured our rectified volatil  $\curvearrowright$  upon it, and we shut the glass with a glass stopper; We placed the globe in a gentle digesting  $\therefore$  heat, and we regulated the heat so gently, that we could always bear the hand on the glass; the first hour the matter became as black as pitch. We let it continue in that same gentle heat, and the matter became grey and at last as WHITE AS SNOW.

Now we opened the phial, and poured some of our brown-red  $\circ$ , previously warmed, into the phial, and within a few days a solution of the White  $\ominus$  and union of the  $\circ$  with the same  $\ominus$  took place and the most beautiful Colours in Nature appeared in the glass, particularly predominated a Colour of fine  $\odot$ ; as if the Inside of the glass had been gilt with fine  $\odot$ , at last it became coagulated and RED. We now added the Second quantity of our Sulphurous  $\circ$  previously warmed, as we had divided it before hand into 3 equil parts, and we proceeded as before, in the same gentle degree of Heat, and we saw the same glorious Colours, and when all was dried up again we projected the 3rd. and last part of our  $\circ$ , and put the phial again in the same place and same heat; We saw the same phenomena, and if possible more glorious Colours, until it became again coagulated and a Tincture, which was extremely fusible. This was a glorious and most universal Medicine for the human Body, 2 or 3 gr. for a dose.

We proceeded no further with it. My good Friend told me that this was the Process of ZOROASTER and that it was the Lapis Philosophorum and a very ancient Work. I believe it might easily be carried further: but

this Subject is so very feted, whilst in putrifaction, that it requires a convenient Out-House to manage it.

#### Concerning Borax.

Borax, by every genuine and Natural analysis is nothing else but a dissolved and subtilised Flint or pebble Stone. (Silex)

Those that disbelieve it, let them observe its nature and Properties, when it boils in a  $\nabla$ .

What is more fusible and more fixed than the Flint, particularly a Flint thus subtilised and prepared as Borax is. Which in a moment makes things fusible and promotes Vitrification.

Consider about this, it is a fundamental truth.

(In Flint pebbles or Silex is the matrix of the metals, wherein Vol-ital metallic  $\nabla$ s can be fixed, and wherein metallic  $\Psi$ s grow and increase)

To effect a Metallic or Mineral growth or increase, by means of the Universal principles of Nature.

The Key which I am going to communicate is proper to open many Natural Locks in the Mineral Kingdom, and thereby to discover many hidden Secrets in Nature.

We know from numberless Experiments that in the Alcaline  $\ominus$  of Nature

all growth and Increase in the 3 Kingdoms lays hidden.

Though that  $\ominus$  alcali of Nature is as yet an unknown Subject, because it resides in an invisible  $\nabla$ , wherein it manifests itself at last, is a truth well known to those that search after this  $\ominus$ .

But we will say no more of that Universal heavenly  $\ominus$  and speak of the known Visible  $\ominus$ s, wherein the above mentioned is also hidden.

All fixt Salts and Alcalies give proofs of this Secret  $\ominus$  of Nature and demonstrate, that they all proceed therefrom and that they have all taken a body by means of that universal  $\ominus$ .

It is a Doctrine in Chymistry, that in melted metals, such as  $\odot$  and  $\circlearrowright$ , no sperm or first beginning is to be found, and that that principle has departed during the fusion.

But in order to comprehend that axiom, I say this: that metals in their ores or marcasites in the Veins and Shafts give sufficient proofs of Life, Growth, Increase and Decrease, and that their nourishing  $\triangleup$ ous and  $\infty$ al Vapours undoubtedly are driven off and from them when the metals are melted out of their ores; Yet the melted metals,  $\odot$ ,  $\circlearrowright$ ,  $\♂$ ,  $\♀$  etc. are not dead for all that, nor destroyed, nor altered in their Essence, during fusion; they are only refined, and their Life or moving  $\curvearrowright$  is turned inwards, and locked up in their Centre. Although such fused metals are deprived of Natural Encrease in the Vein in the mines, so that if they were in this fused state replaced in the mine, they could not grow any further, but might decrease in progress of Time, as  $\♂$  and  $\♀$  are resolved into  $\oplus$  in the mines as well as by Art.

Yet if the artist knows what to do, TO RECOVER THE VOLATILITY IN

METALS! Particularly is ☉, ☽ and ♂ he may in his Laboratory restore them to Life and cause them to increase, even faster than they can grow in the mines, if he knows how to reunite such volatilised metals to the alkaline ⊖ s. and metallic matrix. (SILEX, FLINT, PEBBLE.)

#### Experiment 1.

Take purified Sea ⊖ 3 parts, perfectly dry, mix therewith 1 part powdered, sifted, 3 or 4 times heated and extinguished Flints or pebbles and let this mixture flow and melt well in a large roomy ▽ in a good Wind furnace; it must flow thin, so that the Flint or pebbles may be thoroughly dissolved by the ⊖.

After it has flowed thin for a while, about 1 1/2 hour, take the ▽ out of the △ and let it cool; then break it and take out the mass, which pound in a clean iron mortar, and place the powder in a glass body with a large opening; expose it to the moon and Stars, and let it flow per deliquium, and the flint will flow into a penetrating Liquor. This Liquor must be filtered by a worsted or cotton thread from its subtile white ▽.

This is the famous Liquor Silicus of GLAUBER and this is the true metallic matrix.

#### Its use.

If you put metallic ores powdered and sifted, or subtilised Volatil Calxes of ☉, ☽ etc. in this wonderful Liquor and expose it at ♀ to the Influence of moon and Stars and in summer time to the Sun Beams, or

in Winter in a digesting furnace, you will in 2 or 3 months observe a considerable Increase and growth of your  $\Psi$  of  $\odot$  or  $\ominus$ ,  $\♂$  or  $\♀$  in weight, so that it would well pay you, if you was to work that way with 20 or more glasses, which observe to leave open, access of  $\triangle$ .

The best  $\odot \Psi$  I found by Experience to be an Aurum fulminans. I dissolved my  $\odot$  in  $\nabla$ , and  $\nabla$ ted it with  $\circ\circ \square$  per deliquim, washed and edulcorated my  $\Psi$ , and left it moist.

The best  $\ominus \Psi$  is  $\ominus$  dissolved in  $\nabla$ , and  $\nabla$ ted with  $\omega$  of Sea  $\ominus$ , this is Luna Cornea.

Rich Lead, or Silver ores must be poudered and sifted and placed in the above Liquor Silicis in a digesting Globe, the neck left open.

That this mineral and metallic Encrease is conformable to Nature according to Nature's principles will appear by Experience as well as its utility if it is done in a reasonable sufficient quantity.

#### Experiment 2.

If you alcalise  $\odot$  by  $\Psi$  viva, according to my way, or with Charcoal, extract the fixt  $\ominus$ , and melt it with Flints or pebbles, glowed, extinguished poudered and sifted, exactly in the same manner as I have shown in the first Experiment and let it flow per deliquim, which Liquor you filter by Threads, in order to separate it from its subtile  $\nabla$ , you will thus from  $\odot$  obtain a Liquor Silicis equally as good as the first from Sea  $\ominus$ .

Or you may make a fixt  $\ominus$  of  $\square$ , either by calcining the  $\square$  in a

Wind furnace, or potters Kiln, or you may alcalise the  $\odot$  and  $\square$  together by detonnation and from this fixt  $\ominus$  and pebbles you may again obtain the same Liquor Silicis, as efficacious as the former.

Remember that the pebble or Flint in its first beginning was formed of  $\nabla$ , wherein the metallic Seminal principles are introduced by Nature. In every place where metals are found in the Ore, you, also find flints, pebbles, or quartz; but I refer you to Nature itself, and you will soon comprehend the meaning of these things. I think I have communicated a Thing of infinite Utility, and I repeat there are great mysteries in this Subject.

To give a Coral-Red  $\mathcal{R}$  to  $\odot$ , which red  $\odot$  tinges a  $\circlearrowright$  fixa into  $\odot$ .

That the Colour of  $\odot$ , as the most fixt subject in the Mineral Kingdom, is meerly accidental and not centrally congenial to  $\odot$ , appears from two Circumstances: 1. that that yellow colour can be taken from the  $\odot$ , 2. that when the yellow colour is gone, it can be immediatel given to the white  $\odot$  again.

1. If you Copell  $\odot$  several times with  $\bar{h}$ , the  $\bar{h}$  extracts finally all the Colour and leaves it white. A Saturnine menstruum does the same in via humida. By frequent separations by  $\nabla$ , the  $\odot$  may also be robbed of all its yellow tinge.

2. The Colour is immediately returned to the White  $\odot$ , if you fuse it with  $\oplus$ , when the white  $\odot$  lays hold of the  $\oplus$ ial  $\triangle$ , assimilates that  $\triangle$  to its own fixt Nature and tinges itself therewith; this

is well known to Refiners, who easily give the proper tinge to pale  $\odot$  by  $\oplus$  ----  $\oplus$  has the power to tinge  $\odot$  with a Coral Redness, which Superfluity of Colour can be given to a white fixt Silver, but no more than just what such over coloured  $\odot$  has too much.

The process is this.

Mix filings of  $\ominus$  with a equal quantity of good facticious  $\text{33}$ , put the mixture in a Coated glass  $\rho$ , adapt a Receiver half full of Cold  $\nabla$ , and lute it, the  $\rho$  must lay in  $\therefore$  and be buried therein so that only the upper part and neck appears. Raise your  $\Delta$  gradually until the  $\ominus$  comes over into the  $\nabla$ , and in the upper part of the  $\rho$  and in the neck a Red  $\rho$  will settle. This is a New  $\text{33}$ .

When the operation is ended, which requires a strong heat at the End, then let the  $\Delta$  go out.

Take the red  $\rho$  or  $\text{33}$  out of your  $\rho$  and weigh it; rub it in a glass mortar with 2 parts of  $\otimes$ , and place this in another glass  $\rho$  in your  $\therefore$  heat, buried in the  $\therefore$  as before, and raise your heat gradually and another  $\text{33}$  will rise Within the Superficies and neck of the  $\rho$ , mixed with  $\otimes$ , you must have a Receiver as before but unluted.

Take this  $\text{33}$  out of the  $\rho$ , and pour clean  $\nabla$  upon it, grinding it in a glass mortar, in order to wash all the  $\otimes$  from this  $\text{33}$ , and in this  $\text{33}$  you have the anima or  $\triangle$  of  $\ominus$ , which wash by grinding it with fresh  $\nabla$ , and then dry it.

This red  $\otimes$  gradually projected upon  $\odot$  in fusion, enters and tinges the  $\odot$  as red as Coral.

This red  $\odot$  has now a Superfluous Colour, which it communicates to

a Luna Fixa. ( ☽ fixa is compact ☽ , which ♁ will not dissolve, but must have ♁ , in fact it is White ☉ .) (see Digby's Secrets.)

This process leads to higher Things and is given here as a philosophical Hint to the Wise.

This Experiment is not conducive to Riches, but it is a Key to things of a higher Nature.

#### Experiment 4

#### Concerning ☉ and Fertility.

In ☉ , which proceeds from astral Influence, Superior and Inferior Fertility lays hidden; this is manifest by its fertilising volatil ♁ , as well as fixt alcali, which Secret is not unknown to a true philosopher

Whosoever understands to make a proper use of these two properties of ☉ (even it need not proceed always from ☉ only) will have it in his power to effect curious Things.

If you infuse Seed-Corn in the Brown Liquor which runs from dung-Hills, in which Liquor you dissolve previously a little powdered ☉ , and sow such a seed corn, you will perceive a wonderful Increase of fertility. Observe here what the ☉ produces when dissolved in the animal alcali of the Dung-Liquor. Try it, and Experience will convince that I have told you a valuable Truth. Compare this Truth with that, which lays hidden in the Liquor Silicis.

If you imbibe an ♁ or garden Mould with the distilled phlegma of ☉ and alcalise the ♁ therewith, and sow any seed in such an ♁ and

leave it to God and Nature, you will experience in a short time a Wonderful Fertility.

(The author does not mean the  $\text{⊕}$  of  $\text{⊙}$ , but its  $\text{▽}$ , or  $\text{⊙}$  dissolved in  $\text{▽}$ , will produce the same.)

You must observe that if you make use of those alcalies, that you do not over do it; because they are COLD FIRES ( $\text{⊕}$ s are hot  $\text{△}$ s) which can burn and destroy as well as hot fires.

(this I have often observed last Summer, when I emptied the old dung out of the bath, and found the bottom fairly burnt like ashes, BY THE COLD ALCALINE  $\text{△}$ )

Consider about the cause of this fertility and you will discover other valuable Truths.

#### Experiment 5.

Concerning the Liquor Silicis. That process clearly explained.

Take fine white River pebbles, make them red hot in your wind furnace, and throw them into cold  $\text{▽}$ , repeat this operation 3, 4 or even 6 times until your pebbles become soft and brittle, so that they tumble to pieces. Reduce them to  $\text{⊕}$ , which pass through a Seeve.

Weigh of this  $\text{⊕}$  one pound or one part, and mix it by grinding, with 3  $\text{⊗}$  or parts of good fixt  $\text{⊖}$  of  $\text{♀}$ .

Of this mixt mass project 2 or 3 table spoonfulls into a  $\text{▽}$ , standing

in a good wind furnace, and let them flow well; then add 2 or 3 spoonfulls more, and let it melt with the first, and so continue projecting gradually until the  $\nabla$  is  $\frac{2}{3}$  full.

As soon as it flows thinly, stirr it with a red hot iron Rod or poker, and after it has melted well during one hour, take the  $\nabla$  out of the  $\triangle$ , and let the mass cool gradually.

Or let the  $\triangle$  die away, and the  $\nabla$  remains in the furnace until it is cooled.

Whilest it is yet warm, break the  $\nabla$  and take the matter out, which resembles a white glass or white Scoria. Beat this to a coarse  $\odot$  and place it in glass or glazed basons, which set on a free  $\triangle$ , or in a Cellar with a good draught of  $\triangle$ , and it will liquify; and you will find that the pebbles are dissolve by the power of the alkaline  $\ominus$ , and run into a fat oily Liquor.

This Liquor contains the Seminal powers of the first metallic principles; not that I mean to say, that this putrifying  $\nabla$  is the Sperm of Metals, no! but it is truly their matrix in the Earth wherein we may Sow volatilised metallic Calxes, and bring them into a New Life. In pebbles and quartz the metals are generated, particularly  $\odot$ , and pebbles frequently and commonly contain volatil  $\odot$ . Nay there is no  $\therefore$  without such volatil  $\odot$ .

Into this wonderful Liquor Silicis, you lay metallic Calxes, and expose your vessels to the influence of the  $\triangle$ , uncovered, and you will soon perceive the Operations of the Universal  $\omega$  therein.

## Experiment 6.

To prepare arsenic so as to become a dry  
Menstruum to unlock metals and minerals in  
the  $\Delta$ , by the via  
Sicca.

$\infty$  possesses a subtil penetrating property, enters greedily into metals, lays hold of them, but for want of fixity cannot do much good. When  $\infty$  is fixed by  $\textcircled{D}$  or by borax it becomes a Key to dissolve and open metals in fusion. /: see Summers Process in Baron Schroeder: /

Do not think that I pretend to teach here the Philosophical  $\mathcal{R}$ , I only intend to discover its use on metals; it is taken from them and can be re-introduced into them.

Take 1  $\mathcal{L}$  of white  $\infty$ , reduced to a subtil  $\infty^+$ , and as much  $\textcircled{D}$ , mix the pouders carefully, bewareing of the subtil poisonous dust.

Put some of this mixt pouders into a roomy  $\nabla$ , which must be filled only half, place the  $\nabla$  in a good furnace, which has a good draught, to carry the poisonous fumes out of the Chimney. Raise your  $\Delta$  gradually, and the mixture will melt as soon as the  $\textcircled{D}$  does flow; the melted mass will ascend in the  $\nabla$  with Ebullition, and the pot will seem quite filled; But as soon as the volatility of the  $\infty$  is conquered and the poisonous fumes are most gone, and when the  $\textcircled{D}$  is alcalised by the  $\infty$ , the mass will sink down again in the  $\nabla$ , flows quickly, yet with continual fuming and ascends no more. Those fumes smell like garlick and are mortal, if received by Inspiration.

After it has melted quickly 15 or 20 minutes, take the  $\nabla$  out of the  $\triangle$ , and let it remain under the Chimney to cool gradually.

When not quite cold, break the  $\nabla$ , and you will find a white opake brilliant mass, like mother of pearl.

This  $\circ$  is only about half fixt. It flows very soon per diliquium into a (so called)  $\circ$  of fixt  $\circ$ .

But for this purpose keep it in a glass with a wide mouth, closely corked, that it may not flow per diliquium.

Its use in Via Sicca.

Of this so called fixt  $\circ$  take 3 parts of Crocus  $\sigma$ , Crocus  $\rho$ , or  $\triangle$  of  $\sigma$ , or of the first black Scoria of the  $m \sigma \sigma$  1 part, and melt the mixt  $\sigma^s$  together in a  $\nabla$ ; then pour it out or let it cool in the  $\nabla$ , which break and take the mass out.

Beat this mass, before it is quite cold, into a Coarse  $\sigma$  and expose it to the  $\triangle$  to attract the Influences, and a Red  $\circ$  or Liquor will flow containing such a  $\mathcal{R}$  or  $\triangle$  as you made use of.

(MR. TUGEL breaks off short, but I think this Red  $\circ$  might produce Summers  $\mathcal{R}$  on  $\rho$  mentioned by Baron Schroder, if this red  $\circ$  was filtered by a Cotton thread to separate it from its  $\nabla$ , and then Coagulate it in a gentle Heat, let it attract and flow again; filter it again to spiritualise it more and more, -- and, coagulate it again by digestion; repeat this 5 or 6 times, or perhaps oftener, and try it on  $\rho$  in fusion; or try it on  $\odot$  in the  $\nabla$ , and then on  $\rho$ ,  $\odot$  or  $\bar{h}$ .)

(The HEAVENLY MARRIAGE OF ATTRACTION should be performed very often, and the filtration should not be neglected in order to subtilise it.)

(Confer this with SUMMERS  $\mathcal{R}$ .)

## Experiment 7.

Of a burning pyrophorus or fiery substance.

Pyrophorus is a substance which takes  $\triangle$  of itself, by the contact of  $\triangle$ , and is not easily extinguished with  $\nabla$ ; therefore it is a dangerous  $\triangle$  as it burns every Combustible it meets with. It consists of a Vegetable  $\triangle$  and a Volatile  $\omega$ . It is so strongly magnetical, that it attracts almost immediately the  $\triangle$  out of the  $\triangle$  and thereby inflames itself.

Its preparation is mean, but its Effects are astonishing.

## Process.

Take very dry Bean - or Rye flower and alum  $\ddot{a}\ddot{a}$ ;  $\int$ ; the alum must be in  $\odot^{**}$ , which mix with the flower.. stir this up in good liquid honey into a thick massa. Put this mass into a  $\nabla$  which has a lid that shuts well, and has no hole in it. Place the  $\nabla$  on a Charcoal  $\triangle$ , and keep stirring it continually with an iron Rod, whilst it melts; the  $\nabla$  need not be red hot all over, a moderate heat is best.

Observe carefully as soon as A SMALL BLUE FLAME appears on the Top of the matter; it is a Sign that it is finished. Take the  $\nabla$  this moment from the  $\triangle$ , having shut it previously with its cover to extinguish the small flame on the matter, and have a Lump of Soft Loam ready to lay on the Cover and squeeze it tight over the Lid, to keep the  $\triangle$  out of the  $\nabla$ .

Let the matter cool of itself, then put it quickly into a wide mouthed glass, and cork it immediately, that it may not inflame suddenly, and break the glass!

It is a black Substance, which looks like a Cinder. It keeps its  $\triangle$  several months if it is kept perfectly dry and free from  $\triangle$  or moisture.

Experiment 8.

Concerning Vinegar.

As good Vinegar is of infinite use in Chymistry as well as in private Families, I'll here communicate one of the best methods to make it.

The genuine making or brewing of Vinegar, must from the first beginning be done with malt, in the same manner as if you wanted to brew beer.

Let your dried malt be ground finely into flower, then put this malt flower into a large brew-kettle, and to one pack of such malt add about 4 galls of  $\nabla$  and a couple of ounces of pot ash or pearl ash, and let it boil well together; you must have a Cask, standing on one end upon bundles of Straw, with a cork in it near the bottom, and a Cover which fits on the Top of the Cask. Pour the hot Liquor into this Cask and put into it a little sour Ferment or Leaven and a handfull of Crude Tarter in powder, and stirr it up together, Cover the Cask with its Cover and lay or hang a Cover of Bed Blankets over the Cover and Bundles of Straw on the top of them and all round the Cask, to keep it as warm as possible; if this is done in fine warm summer weather the Liquor will soon ferment and become essentially acid. In this manner in 2 or 3

weeks time you may have a very good Sharp and wholesome Vinegar, which you draw off and put it into a smaller Cask so as to fill it, and bung it up and let it lay in a cool place.

### Experiment 9.

#### Addition concerning the Liquor Silicis.

During the melting of the pebble powder with the fixt  $\ominus$  of  $\text{♀}$  or fixt  $\text{①}$  or fixt Sea  $\ominus$ , the purest Virgin  $\nabla$  of the pebble unites with the fixt alcali; both their purest parts remain united and flow together per deliquim into a fat  $\text{∞}$  Liquor.

The gross  $\nabla$  of the Stones as well as of the fixt alcali remains as faeces, and is entirely unfit for this work; therefore the fat  $\text{∞}$  must be filtered by Cotton Threads.

In this Liquor Silicis you place a Luna Cornea, or an aurum fulminans, or  $\text{①}$  ore in fine  $\text{⊕}$ , or  $\text{②}$  ore in fine  $\text{⊕}$ , or glass-ore or Lead-ore, into a convenient digesting glass or glasses, so that the Liquor Silicis may over top the Calx an inch high; Cover the glass with paper tied over it, only to keep the dust out but leave access to the  $\triangle$ . In summer time I placed the glasses in the Sun Beams, in Winter on a digesting furnace in a gentle warmth like the Sun Shine.

Your  $\text{①}$  or  $\text{②}$   $\Psi$  will in this its new ground and Metallic Matrix not only be increased but likewise exalted and ennobled, so that you will be surprised, if you can do this with a number of glasses. If during the digestion the Liquor Silicis dries up or decreases, you must add

some fresh, that it may never get too dry.

In one month time I found half an ounce of Luna Cornea increased to half and a 1/4 of an ounce, which Silver was become goldish also.

There is the same Increase with the  $\odot \Psi$ .

Note well what I tell you.

It is known to every Chymist that all Salts, when they are deprived by a strong Calcination of their volital  $\omega$ s, become fixt alcalies, which flow per deliquium. They become thus MAGNETICAL, after having lost their former corrosive  $\omega$ s, to attract the astral Influence in form of  $\nabla$ . As long as a  $\ominus$  remains united with its own  $\dagger \omega$  it can not do much good, but when by  $\triangle$  the first Lodger is departed and the Magnet is at Liberty, it attracts another and better  $\omega$ , which unites with the Magnet in Love and Harmony, not like the first, in a fiery inimical union.

Therefore in such a Liquor Silicis, on account of its attracted astral and heavenly  $\omega$ , many Mysteries lay concealed, and the industrious GLAUBER has not written half enough in its praise!

I do not mean to insinuate that such an attracted  $\nabla$  (by the Liquor Silicis) be THE MOST UNIVERSAL MATTER, no! But it is certainly the nearest Succedaneum.

#### Experiment 10.

Consideration of Native Bismuth-Ore. Called  
peacocks-Tail-Bismuth.

Bismuth-ore classes amongst the ☽ ores, as it generally contains ☽ ; it is a Lunar production, and is fulminated by ∞, which is the Realgar of ☽ .

It melts into a half fixed brittle  $\mathcal{M}$ , and contains a Lunar  $\triangle$ , which, if united into a volitale ☽  $\Psi$ , such as Luna Cornea, shows a tinging power.

I am not unwilling to communicate here what I have done myself with this curious Ore.

But I cannot promise you great Riches from it, as this kind of Bismuth-Ore required in this process is so extremely scarce in Saxony, that I could never meet with it but once in my whole Life, and therefore I succeeded only once.

The Native Bismuth here required is called peacocks-Tail-Bismuth-Ore, if you break it it is dotted all over the Inside with small gold Atomes, and the general Tint of it is a pale Lilac Colour. Outside it plays with beautiful Shades of the most glorious Colours, like the Rainbow or a peacocks Tail.

We have enough of it in Saxony, but it is adulterated by Nature with Cobalt-Ore, and all such Bismuth fails in this process.

#### Arcanum.

Calcine the right Sort of Bismuth-Ore in an open  $\nabla$ , to drive off the ∞ in Fumes.

Then dissolve it in good  $\nabla$ , and you will obtain a high  $\odot$  coloured solution, equil to any  $\odot$  dissolved in  $\nabla$ . The Ore must be in a Coarse  $\odot$  for Calcination as well as for Solution.

Pour the clear Solution off into a phial and pour fresh  $\nabla$  on the Subject, in order to extract as much Colour as you can.

The tinged  $\nabla$  weaken with clear  $\nabla$ , and then filter it through filtering paper.

Put the filtered Solution into a small glass Body, apply an alembic and receiver, and distil all the humidity and the  $\nabla$  from it by a moderate  $\triangle$ . When it is dry, increase your  $\triangle$ , take off the alembic and receiver, and evaporate the mass still further until there remains a kind of blue Glass like Smalta.

Take this blue matter and Luna Cornea  $\bar{a}\bar{a}$ , put it into a small glass body, which place in a Large  $\nabla$  with  $\therefore$  at the bottom and all round, burried pretty deep in the  $\therefore$ .

The blue matter must be finely powdered and mixed with the Luna Cornea, before it is put into this body.

This prepared place your  $\nabla$  in a wind furnace, and lay lighted Coals all round the  $\nabla$ , and dead Coals on the Top, but not quite so high as the upper Brim of the  $\nabla$ , or the flame would break your glass body, shut the draught or ash-hole of your Furnace and your Coals will light gradually without any Flame, and your  $\nabla$  will in time get red hot, keep a quiet glowing heat in this manner and the mixture in the glass body (which must be left open) will fairly melt, keep up a moderate glowing heat without flame, until you perceive a natural Separation in the matter: a White glass, similar to white China will ascend and flow at the Top. At the bottom settles a Coarse blue-glass, like Vitrified Smalta; this is good for nothing.

After the White glass has flowed half an hour in the body, you may let the  $\triangle$  die away, but disturb nothing by moving it.

When Cold, break the glass body, and beat off the blue glass from the white, which is easily done.

#### Use of the White Glass.

Project the white glass upon fine  $\odot$  in fusion gradually, until the  $\odot$  becomes a fine deep red glass, like a red Granate-Stone from Bohemia.

#### Projection.

With one  $\frac{3}{4}$  of this Medicine I have tinged 20  $\frac{3}{4}$  of fine  $\odot$  in fusion into  $\odot$  of 24 Carats.

#### Observations of the Author.

If you do not get the right Bismuth, expect no success. I could never get it but once.

If the Solution of your Bismuth-ore is not equil to that of fine  $\odot$ , i.e. of a beautiful Orange Colour, your Labour will miscarry.

If your Solution is white, green or blue, you get no tinging glass. I have had the most beautiful peacocks-tail-Bismuth-Ore to all appearance, but generally had a green or blue green Solution and never succeeded but once.

#### My Thoughts on this process.

(The foregoing process is upon the same foundation as the  $\pi$  made of  $\odot$  by sulphuration, mentioned by STAHL.

The blue-mineral or Smalta which comes from Saxony is used for enamelling and painting on China, because it vitrifies in the  $\triangle$ s. The The Saxon Smalta is a  $M$  of the peacock-Tail-Bismuth-Ore, and as this

Smalta brings a great Revenue to Saxony, the peacocks- tail-bismuth ore is prohibited to go out of Saxony under pain of death. If we could get  $1/4$   $\&$  of genuine Saxon Smalta, which is a ponderous very delicate Sky- or Firmament-blue powder, but they adulterate it here and make it heavier with white  $\bar{h}$ . /: Vitrum and ~~MM~~ are the same thing:/

I would melt such a Smalta with Luna Cornea and try, whether such a WHITE GLASS would separate itself, as the author requires.)

#### Experiment 11.

A fixt  $\circ$  of  $\text{G}$ .

Dissolve a quantity of hungarian  $\text{G}$  in  $\nabla$ , boil the solution in a copper Kettle, which must not be tinned, as soon as it boils, throw into the solution small quantities of finely powdered and sifted fiery  $\Psi$ , and all the  $\nabla$ ly particles of the  $\text{G}$  will be  $\bar{r}$ ted in a green massa, which when dry, is a yellow  $\nabla$ .

The clear solution, which is no longer green, but clear and white, you must pour off into a clean glass.

Filter this solution through paper, and put it into a China bason, which place in  $\therefore$ , in a Charcoal Furnace, and evaporate it gently, until it is almost dry, or until a beautiful white entirely metallic  $\ominus$  settles at the bottom of the bason.

Take this  $\ominus$  and expose it to the Moon and Stars in a clear Serene  $\triangle$ , and it will flow per deliquium into an  $\circ$ .

This is a fixt wonderful  $\circ$ , very different from common  $\circ$  of  $\text{G}$ .

If you make a Luna Cornea, and imbibe it with the above fixt  $\circ$ , and then melt it together in a small glass body, placed in  $\therefore$  in a  $\nabla$ , set in the  $\triangle$  hole of a Wind furnace, you will see what will delight you.

The purer and clearer this fixt  $\circ$  of  $\oplus$  per deliquium is, the richer is its  $\mathcal{K}$  on  $\cup$  Cornea into  $\odot$ ; But I found that no other but hungarian Vitriol would do this.

#### Experiment 12.

A Particular experiment with  $m\oplus\oplus$  Stell.  
and the first Scoriae.

Make a  $m\oplus\oplus$  stellat. and take the first Scoriae for use. Expose the first Scoriae to the  $\triangle$ , until they become a black  $\oplus$ . Wash the alcali of the  $\odot$  from this  $\oplus$  with  $\nabla$ , and dry the  $\oplus$ .

Pour good  $\nabla$  upon this driededulcorated  $\oplus$ , and you will obtain a solution like  $\odot$  dissolved in  $\nabla$ . Dilute this solution with  $\nabla$  and filter it, then evaporate it gentle in a bason, and there will remain a subtil deep red Crocus. This Crocus or  $\oplus$  is fixt and  $\triangle$  proof. Sublime this  $\oplus$  with  $\bar{a}\bar{a}$  of  $\otimes$ , wash the  $\otimes$  from the  $\oplus$ , which ascends with the  $\otimes$  of a beautiful red Colour and more subtil and pure than it was at first.

Repeat this sublimation with new  $\otimes$  twice more and the 3rd. time wash all the  $\otimes$  from it and dry this subtilised Crocus  $\oplus$  et  $\oplus$ .

This subtilisation gives it penetration and Ingress, mix it with

āā Luna Cornea,  $\overline{\text{w}}$ ted with  $\overline{\text{r}}$  of Sea  $\ominus$ , and put it into a small glass body buried in  $\therefore$  in a large  $\nabla$ , which place into a Wind furnace, and observe the same precautions of account of maneging the  $\triangle$  as I told you when I wrote of Bismuth, and thus the Crocus will unite with the Luna Cornea and melt into a tinging Glass, give it sufficient time, and leave the little glass body open.

Project this glass, which will be red, upon  $\circlearrowright$  in fusion; upon 10 parts, or perhaps a little more.

Whilst you prepare these first Scoriae, observe that you fulminate the *M* well with  $\oplus$ .

If you take your  $\overline{\text{w}}$ ed washed and dried subtilised Crocus  $\text{♂}$  et  $\text{♀}$  before mentioned and dissolve it again in  $\nabla$ , evaporate again to perfect dryness, you will now obtain a most beautiful deep red Crocus, which will per se without any addition, melt (if treated in a glass body placed in  $\therefore$  in a  $\nabla$ ) into a most fixt ruby red glass.

This glass can be fermented with  $\oplus$  in an open  $\nabla$ . This I discovered once accidentally; or rather providentially.

### Experiment 13.

To obtain a fixt Ruby Glass from  $\text{♂}$ , 1 part of which fixes a 100 parts of  $\text{♀}$  into a substance which is neither  $\circlearrowright$  nor  $\oplus$ ; Such a fixt  $\text{♀}$  can be melted without evaporating; it also makes a white  $\text{♀}$ , which is not  $\circlearrowright$ , but as beautiful.

I give you this Experiment not for the sake of any great Benefit, but because I think there is something very great in it.

Take fixt  $\textcircled{D}$  alcalised with Charcoal dust, or fixt  $\ominus$  of  $\square$ , 1  $\textcircled{6}$ , put it into a roomy  $\nabla$ , placed in a wind furnace, raise the  $\triangle$  gradually until the  $\nabla$  gets red hot and the fixt alcali melts.

Then project into the melted  $\ominus$ , pulverised good  $\textcircled{+}$  by small spoonfulls, until about 10 or 12  $\frac{1}{2}$  of  $\textcircled{+}$  are incorporated, by melting, with the fixt alcali.

You must keep a strong  $\triangle$  all the time, so that the matter may fuse thereby freely. Let the  $\triangle$  die away gradually, but do not Stir the matter. When the  $\nabla$  is cold, break it, beat the  $\underline{M}$  from the bottom, which looks brown.

The Scoriae standing at the top of the  $\underline{M}$ , break to peices, and expose them to the night  $\triangle$ , or in a dry cellar, and they will flow per deliquium.

The  $\underline{M}$  which looks like a dark brown glass beat to a fine  $\textcircled{+}$ , which put into a glass body.

When the Liquefaction of the Scoriae is fully accomplished, pour this Liquor, which is very  $\triangle$ y, upon the poudered  $\underline{M}$  into your glass body.

Extract as much out of the  $\underline{M}$  as you can, then filter the Extraction by Cotton Threads from its  $\nabla$ ly foeces.

The clear filtered Tincture put into a small glass body, which place buried in  $\textcircled{+}$  into a roomy  $\nabla$ , which set into a wind furnace, observe proper precautions about maneing the  $\triangle$ , which must be gentle at first and gradually stronger until the  $\nabla$  is of a red heat and the  $\textcircled{+}$  glowing.

In this last strong heat the  $\nabla$  must be kept 10 or 12 <sup>hr.</sup> time.

Then let the  $\triangle$  die away and let all cool. The next day, when you come to break the glass body, you will find a ruby red vitrified mass at the Top.

#### Its Use.

Beat this glass to  $\text{O}$   $\ddagger$ ; 1 part of this fixes a 100 parts of  $\text{O}$   $\text{+}$ , so that it can be melted and does not evaporate, but is brittle like a M.

As much of this  $\text{O}$   $\ddagger$  or a small bit of this glass of the size of a pea, tinges 4  $\frac{3}{4}$  of  $\text{O}$   $\text{+}$  into a fine white metal, which is not  $\text{D}$ , and cannot bear Copellation.

I discovered this when I worked another process.

(I think this glass should be projected upon  $\text{O}$  or  $\text{D}$  in the  $\nabla$ , to give it a ferment and metallic Ingress; this, MR. TUGEL has Kept a Secret.)

#### Experiment 14.

(This following Experiment is the same as the foregoing. I give it to you here, on account that one process often illustrates another. Our author does this very frequently, whereby he often hints at some valuable Truth or other.)

#### The Process.

Let good crude  $\text{O}$   $\text{+}$  in fine  $\text{O}$   $\ddagger$  be successively projected into alcalised  $\text{O}$   $\text{+}$ , or into fixt  $\text{O}$   $\text{+}$  of  $\square$   $\text{+}$ , melting in a  $\nabla$  in the wind furnace.

Let them melt together until you have obtained a brown scoria, break the  $\nabla$ , and beat the scoria into small Bits, which expose to the Moon

during a serene night, and in the ☞ time in a dry Cellar, and the Scoria will liquify by attraction and flow into a fat ♀ eous Liquor, very △ y.

Filter this Liquor from its gross ▽. Evaporate the filtered Liquor to dryness. This mass put into a small glass Body, which keep 12 hours in a ▽ with ⋮ in the wind furnace, in a moderate △ in the wind furnace, yet strong enough to make and keep the ▽ red hot, but not to excite your △ by draught or blast of Bellows. And the mass will melt and become a brown red glass.

Project this glass projected upon running ♀, as soon as it begins to fume in the ▽, fixes it; the ♀ remains and melts, but becomes a kind of brittle ☾ white ~~///~~, which is not ☾, nor can it bear the Copell.

If you consider this process attentively, when common ♀ is thus detained and instantaneously fixed by this ♀ of ♂, vitrified? You will come at a very great mystery, and you will have it in your power to transmute metals into ☉ or ☾. These my Experiments are not mere opinions but practical operations performed by my own hands.

#### Experiment 15.

Which is equally interesting.

Take good ♂ and ♀ āā, mix the 2 ♂, make therewith S.S.S. in a large ▽, and ♀ in thin Lamels, cut small with Cizars, so that the ♂ lays at the bottom and on the Top.

Lute a cover on your ▽, and when perfectly dry, place the ▽ on a harth, between 4 bricks set on edge; lay lighted Charcoal round the ▽,

let your  $\Delta$  be very gentle the first 2 hours, and then increase it gradually every 2 hours, so that the last 2 hours, during 8 in the whole, your  $\nabla$  may glow of a red heat, but not of a white heat all over; this is called Cementation, or a gradual Calcination.

Let the  $\Delta$  die away; when cold break your  $\nabla$  and you will find a green glassy or  $\oplus$  ric mass.

Reduce this green massa to a fine  $\odot$ , and dissolve it, as much as will dissolve in good  $\nabla$ , dilute and filter your Several Solutions, and then evaporate to dryness, until there remains a blue  $\oplus$  ric Stone of  $\ominus$ .

Reduce this to  $\odot$ , and pour a highly rectified  $\omega$  of brandy of genuine S.V. upon this  $\odot$ , and extract again as much as you can, in a  $\therefore$  heat over a Lamp; but observe that into one quart of such a rectified S.V. you must previously dissolve 1/2 an  $\mathcal{Z}$  of Borax in  $\odot$ .

Filter all your Extractions or Solutions, and then distil the S.V. off per alembicum until there remains a pale blue Stone or massa at the bottom.

Try this whether it flows on a red hot Copper or Iron plate, without fuming; if it does so, it is right, but if it fumes yet, you must pour new prepared rectified S.V. upon the powdered mass and extract it again in order to subtilise it further, and then coagulate it as before, after having filtered it, from its foeces, if there should still be some. Subtilisation gives Ingress and penetration.

#### Its Use.

As soon as it flows without fuming in the least, mix it with  $\bar{a}\bar{a}$  Luna Cornea and melt these two united  $\odot$  in the same manner, as I have taught before, in a small glass body, placed in a  $\nabla$  with  $\therefore$  at the bottom and all

round it. Let it stand 10 or 12 hours in a well graduated  $\Delta$  in the wind furnace and it will become A FIXT WHITE GLASS.

Its Further Use.

Melt some fine  $\textcircled{D}$  in a  $\nabla$ , and as soon as it flows clear, project some of your glass, reduced to  $\textcircled{\ddagger}$ , envelopped in wax, and let them melt well together for half an hour; 1 part of the medicine to 20 parts of  $\textcircled{D}$ . Let it cool. Dissolve the  $\textcircled{D}$  in  $\nabla$ , and you will find the new generated  $\textcircled{\odot}$ , which will fall in the form of a black Calx; which you may wash, dry and melt with borax in a small  $\nabla$ .

(This WHITE GLASS, I think should first be melted with  $\textcircled{\odot}$  in a  $\nabla$ ; before projection.)

Experiment 16.

A Particular Process with  $\textcircled{\ddagger}$ ,  $\textcircled{\text{♂}}$  and  $\textcircled{\text{♀}}$ .

Prepare a fine  $\textcircled{\text{♂}}\textcircled{\text{♀}}\textcircled{\ddagger}$ s Stellatus, out of  $\textcircled{\ddagger}$  12 parts,  $\textcircled{\text{♂}}$  4 parts,  $\textcircled{\text{♀}}$  2 parts, fulminate it well with  $\textcircled{\odot}$ , then melt the  $\textcircled{\text{♂}}\textcircled{\text{♀}}\textcircled{\ddagger}$  again with  $\bar{a}\bar{a}$  crude  $\textcircled{\ddagger}$ , and fulminate it well with  $\textcircled{\odot}$ . Purify this  $\textcircled{\text{♂}}\textcircled{\text{♀}}\textcircled{\ddagger}$  2 or 3 times more; fulminating each time with  $\textcircled{\odot}$  until you obtain Scoriae of a  $\textcircled{\odot}$  Colour, and your  $\textcircled{\text{♂}}\textcircled{\text{♀}}\textcircled{\ddagger}$  will be finely laminated and Stellated. /: when fulmen stops, it sign that  $\textcircled{\text{♂}}\textcircled{\text{♀}}\textcircled{\ddagger}$  has enough  $\textcircled{\odot}$

Reduce this  $\textcircled{\text{♂}}\textcircled{\text{♀}}\textcircled{\ddagger}$  to a fine  $\textcircled{\ddagger}$ . Take  $\textcircled{\odot}$  of  $\textcircled{\text{♀}}$  or  $\textcircled{\odot}$  of  $\textcircled{\text{♂}}$ , well rectified, pour this gradually and with great caution into an equal quantity of well rectified and attracted or liquified butyruum  $\textcircled{\ddagger}$  after the Efferescence and terrible heat has ceased, distil these 2 mixed Corrosives over per Retortam and what comes over will be a  $\textcircled{\text{♀}}$  as red as Blood. /: Mineral Bezoar

(There remains a WHITE CALX behind in the  $\rho$ )

In this double Menstruum dissolve as much as you can of the above purified and powdered  $M \oplus \oplus$ . Weaken it with clear  $\nabla$  and filter it nicely through paper. Evaporate the filtered solution in a glass body placed in a  $\therefore$  pot, in a Charcoal-distilling furnace.

Evaporate until there remains a hard mass or Stone--I have this process of an intimate friend, who tells me that 1  $\mathcal{Z}$  of this Stone does convert 10  $\mathcal{Z}$  of fine  $\odot$  in fusion into a tinging glass or Medicine.

I have not yet had time to work this process to the End; it seems to me to be perfectly rational. I would have the Curious Artist try the hard mass (if fusible) with Luna Cornea first, in the room of fine  $\odot$ , and He will soon see, whether this  $\mathcal{R}$  obtains Ingress from the Luna Cornea; then it might be projected upon  $\odot$  in the  $\nabla$ .

(I think this is a broad hint of Mr. Tugel, for this and other such like Medicines, he is afraid to say too much, yet he is sufficiently generous.)

My Friend says: that you must prepare all the materials your self, with your own hands.

#### Experiment 17.

This process I have obtained of the same friend but have not yet tried it. It is many years ago since I obtained a few processes of him, and as he is no more, I think it is not ungenerous to insert his processes amongst my own Labours.

A Tinging Medicine made from the Lapis de  
Tribus.

Take  $1/2$  ℥ of fine pure ☉, such as Venetian Chequines or Vinetian Ducats, cut them small with Cizars and dissolve the ☉ shreds in a good  $\nabla$ , made of  $\text{—}$  of ☉ and well rectified  $\text{—}$  of Sea-☉  $\text{—}$   $\text{—}$   $\text{—}$ . Then dissolve  $1\ 1/2$  ℥ of good pure Common ♀ in good  $\nabla$ . Make both solutions over a Lamp heat, and keep in the Spirits.

Both Solutions, yet warm, pour together into a capacious glass body, I mean a large glass receiver, and shut it.

Now put 2 ℥ of good purified ☉ with 4 ℥ Lapis de Tribus, both powdered and well mixed into a roomy glass  $\text{—}$ , which place in  $\text{—}$ , and apply the Receiver which contains the two Solutions, of ☉ and ♀. Lute the Receiver to the  $\text{—}$ , whose Bill must go pretty far into the Receiver, at least 3 or 4 Inches far.

Now distil with a heat, raised moderately, carefully and gradually and the fumes or  $\text{—}$  s will ascend and pass over into the Receiver, and the Solutions of ☉ and ♀ will be thickened by these spirits.

When the distillation is ended, let the vessels cool, by suffering the  $\triangle$  to die away.

What is found in the Receiver, put into a glass body, apply an Alembic and adapt an empty Receiver. Distil in a  $\text{—}$  heat gradually all the humidity comes over into the Receiver, until the matter becomes quite dry.

Then take it out, and put it into a small glass body, placed in a  $\nabla$  with  $\text{—}$ . Set this  $\nabla$  into a wind furnace and regulate your  $\triangle$  so as to

avoid the flame breaking the glass.

Increase your  $\triangle$  gradually and moderately, until the  $\nabla$  is red hot, and your dry matter will flow together to a red glassy Stone.

In this process the  $\textcircled{\ominus}$  is fixed with the  $\textcircled{\odot}$  by the medium of the Lapis de Tribus.

Of this red glass 1  $\text{℥}$  transmutes 6  $\text{℥}$  of fine  $\textcircled{\odot}$  in fusion into good  $\textcircled{\odot}$

It does more if the red glass is first projected upon fine  $\textcircled{\odot}$  in fusion.

The Lapis de Tribus is made thus.

Take 2  $\text{℥}$  of good crude  $\textcircled{\ominus}$ , 2  $\text{℥}$  of white  $\text{—o—}$ , and 2  $\text{℥}$  of  $\triangle$  each in fine  $\textcircled{\ominus}$  and well mixed. Melt these together in a glass body, placed in  $\text{⋮}$  in a roomy  $\nabla$ ; you place the  $\nabla$  on a hearth and set 4 bricks round it, on edge, and lay live coals round the  $\nabla$ , and dead Coals on the Top of them, and thus let the  $\triangle$  increase gradually until the  $\nabla$  glows, and the  $\textcircled{\ominus}$  s begin to melt.

As soon as you perceive that the mixture begins to inflame in the glass, you must cover it immediately with a Lump of moist and warm Loam. When it is thoroughly melted together, the Lapis de Tribus is made. Which take out when cold, by breaking the glass body.

MR. TUGELS Observations.

Beat your Lapis de Tribus into small bits, like a pea, and not in  $\textcircled{\ominus}$ , which is an Error in the process; put the  $\textcircled{\odot}$  by itself into an  $\nabla$  en tabulated  $\text{P}$ , which must hang over a naked  $\triangle$ , and gradually be heated, until it glows red as the bottom, so that the  $\textcircled{\odot}$  may melt in the  $\text{P}$ , which must

be kept there in constantly flowing; As soon as the  $\textcircled{1}$  melts in the  $\textcircled{P}$ , open the stopper, and throw into the  $\textcircled{P}$ , a Single Bitt or two of the broken Lapis de Tribus, and the  $\textcircled{1}$  will gently fulminate and the united  $\textcircled{1}$ eous,  $\Delta$ eous,  $\textcircled{O}$ al and  $\textcircled{O}$ al  $\textcircled{r}$ s will pass over in very corrosive fumes into the Receiver; the moment the projection is made into the  $\textcircled{P}$ , the  $\nabla$ en stopper or a piece of warm Soft Loam must be put upon the hole, or else the poisonous  $\textcircled{r}$ s will escape stright upwards and not pass into the Receiver. Be careful!

Thus far MR. TUGEL.

(Keep projecting Lapis de Tribus, until the fulmen ceases, or until no more  $\textcircled{r}$ s can be raised or will come over into the Receiver.)

#### A Gradating Oil.

Take Hungarian  $\textcircled{O}$  1 p., good  $\textcircled{O}$  2 p., both in subtil  $\textcircled{O}$  and carefully mixed, on account of the fumes. Distil the dry  $\textcircled{O}$  in a glass  $\textcircled{P}$ , which bury deep in the  $\textcircled{P}$  so that only the neck appears; lute a receiver to it & beware of the poisonous vapours. Distil by a well regulated gradual heat. The  $\textcircled{O}$  melt first in the  $\textcircled{P}$  and looks like  $\textcircled{O}$ ; thin as butter  $\textcircled{O}$  i sublimes itself & sticks in the neck of the  $\textcircled{P}$ . (Compare this with Wallachins Gradating  $\textcircled{O}$ .) The neck must be intently hot so that you cannot bear your finger upon it, else the butter will coagulate in the neck in the form of a  $\textcircled{O}$  and not come over. When the process is over cover your nose and mouth with a Towel, that you may not breathe the poisonous vapours, but wait until the vessels are so far cooled that you can just handle them. (When quite cold the butter in the receiver shoots into square oblong tables of  $\textcircled{O}$ .)

sweep the ~~33~~ carefully out of the neck back into the  $\rho$ , and what sticks fast loosen with a narrow hollow sharp chisel or other fit instrument. Pour the yet fluid butter through the tube into the  $\rho$  upon its own ~~33~~: stop the mouth of the  $\rho$  with a cork, and now it may coagulate in the  $\rho$  overnight.

Next morning distil again as before & the butter will come over purer, a little animated with its own ~~33~~, nevertheless the ~~33~~ will sublime again in the neck. This is the first animation & rectification of the butter from its own  $\triangle$  contained in the ~~33~~ from the  $\odot$ . This labour you must repeat twice more, with the same care: that is you are to rectify your butter 3 times from its own ~~33~~, sublimed into the neck of the  $\rho$ .

Then take such ores or subjects as contain Solar Tinctures, such as RED CALAMINARIS, RED BOHEMIA GRANATES, CROCUS  $\odot$ , CROCUS  $\odot$ , HUNGARIAN  $\odot$  & HAEMATITES etc. and extract as much colour out of them as you can, with  $\nabla$ ; which is easily to be done. Then evaporate the  $\nabla$  from the extracted Solar  $\triangle$ , to perfect dryness. (to a dry  $\odot$ .)

Upon those dry  $\odot$  pour rectified Butyrm, animated by its own ~~33~~, and digest for 2 or 3 weeks. (in a  $\therefore$  heat.)

Then distil per glass  $\rho$ , cohobating what comes over, upon the Residuum, until by STRONG HEAT, YOUR BUTYR: COMES OVER AS RED AS BLOOD.

This is a double or animated Sophic  $\odot$ ; and a divine gradating  $\odot\odot$  upon a well prepared Luna Cornea, which by digestion becomes fine  $\odot$  of 24 Carats.

(Confer: URBIGERUS HIS APHORISMS concerning this very same ANIMATED SOPHIC  $\odot$ .)

To fix ☾, or to make LUNA FIXA, which is soft and looses its Sound, and cannot be  
 — dissolved in ▽.

You must prepare the following Cementing ☉. Take crude White ☐, powdered and sifted, melt Sea ⊖ in a ▽, when cold powder it finely. Of your ☐ take 1 ☽ of the ☉, Sea ⊖ 2 ☽, and fiery Stone ♀ 3 ☽, mix these things together and keep them in a glass Jar well closed to keep the △ out.

This is your Cementing ☉.

Now take fine Copelled ☾ in thin Lamens, and of your Cementing ☉ āā. Lay a Stratum in a roomy ▽ of your ☉ first, then a Stratum of the thin Lamens. Which you must dip previously in Stall □; these Lamens of ☾ must lay singly, so that the ☉ can touch them every where; you may either lay them flat or on edge, it is enough, if they do not touch each other. Above this a Stratum of the ☉, above that again some ☾ Lamens, and so you continue, laying vice versa or alternating S.S.S. powder and Lamens, until you finish with ☉, the bottom and upper Stratum of ☉ are the thickest. Let there be some room at the Top for a covering of powdered glass; and take no less ☉ than ☾, if more, there is no harm. Lute a strong Cover on the ▽, and when thoroughly dry, and you have filled all the Crevices or Cracks and it is thoroughly dry again, put the ▽ in a little Cementing Furnace, built on purpose on a Hearth. Observe the following Degrees of △. It is the most difficult Thing in Chymistry, and I have never seen no Master yet in the Art of Cementation. But I will tell you my Rules as nearly as I can.

First lay lighted Charcoal all round, and dead Coals at the Top, but this first  $\triangle$  must not touch the  $\nabla$  by 2 Inches. Keep it in this heat the first 6 hours; this degree cannot cause the  $\nabla$  to glow, although it becomes intensely hot; the first 6 hours past, increase; that is approach your  $\triangle$  close to the  $\nabla$  all round, yet keep it low, so that the  $\nabla$  may glow at the bottom and become red hot all over, but not of a bright or white Heat, but only of a dull, dark, glowing Heat. Keep the  $\nabla$  6 hours more in this <sup>2nd</sup> degree of Cementing heat. These 6 hours also past, lay the Coals to the Top, that is level with the Cover of the  $\nabla$ , but none upon the  $\nabla$ , and govern your  $\triangle$  nevertheless with so much moderation and Discretion, that although the  $\nabla$  glows now all over, yet it must never be of a bright Heat but must remain of a dull red Heat, and no more, because your  $\circlearrowright$  must not melt, but only be cemented; I can describe it not clearer. (6 hours more is 18 hours.)

Then open the  $\nabla$ , take the mass out, the Lamella must look black and be brittle, if they are so, you will Succeed, if the  $\circlearrowright$  melts, you do nothing.

Brush the Lamels with a wire brush, and lay them again in stale  $\square$ . Take a New  $\nabla$ , and weigh the Lamels, take  $\bar{a}\bar{a}$  new Cementing  $\odot$  and lay S.S.S. in the  $\nabla$ , exactly as you did before, and lute the  $\nabla$ .

Cement again during 18 hours as you did the first time exactly, using every precaution as before. Repeat this whole operation a third Time, and then break the  $\nabla$ ; Take the  $\circlearrowright$  Lamels out, (makes 54 hours cementation) and boil them in  $\nabla$ , until they are perfectly clean from the  $\odot$  and  $\ominus$ .

This is a LUNA FIXA, which no  $\nabla$  will dissolve. Such a Luna fixa is soon transmuted into  $\odot$ , either by a Tincture of  $\text{♂}$ , of  $\text{♀}$  or of  $\text{♂}$  and  $\text{♀}$ , or by a gradating  $\nabla$ , or by OUR ANTIMONIAL GRADATING  $\text{♁}$ , as I know from Experience. T.G. Tugel.

(If you use glass, the Cementing  $\text{♁}$  must be pressed down in the  $\nabla$ , that the glass may flow on a firm substance; when I use no glass, I press it gently down all the same; says Mr. Tugel.)

"To produce a prima-material Vapour by distillation out of Lapis Calaminaris, wherein are concealed the 3 metallic principles

$\text{♁}$ ,  $\text{♀}$  and  $\ominus$ .

Fill a large  $\nabla$  en  $\text{♁}$ , about half, with 6  $\text{♁}$  of fresh Calaminaris from aix la Chapille, which is of a deep red Colour, powder it finely. Place the  $\text{♁}$  in a wind furnace on two iron Bars, over a naked Charcoal  $\Delta$ . Adapt a glass balloon Receiver, and a glass tube to the  $\text{♁}$ , fitting into the Receiver, by means of a good Cork, with a hole cut through the middle of the Cork.

Light your  $\Delta$  and distil gently and successively, and a little Phlegma will come over first, increase the  $\Delta$  gently and gradually, and a strong mineral  $\text{♁}$  will follow.

You must put previously into the Receiver a quart of  $\nabla$ , in order that the corrosive  $\text{♁}$  may be extinguished and detained in the  $\nabla$ , as every drop which falls into the  $\nabla$  hisses, as if you dropped melted

Lead into the  $\nabla$ . Strong white Vapours come over in clouds, therefore you must continue the distillation and animate your  $\Delta$  gradually as you perceive the matter and those Vapours requires it, which distillation must be continued during 3 days and nights until all the Vapours are come over.

Then let the  $\Delta$  die away of itself. You have now obtained a Chaos, which must be dephlegmated in Balneo vaporis.

The remaining  $\sim$  you distil over in a glass  $\text{P}$ , into a Receiver without  $\nabla$ , and there remains now behind, a fixt  $\ominus$ , which first came over like a Fume or Vapour.

If you pour the  $\sim$  upon this  $\ominus$ , it dissolves the  $\ominus$  first, and coagulates itself afterwards with the  $\ominus$ .

What may be done with this coagulated mass, when fixed, I leave to the curious Enquirer; enough, that more can be done therewith, than we would wish to say openly, as this  $\sim$  is a genuine  $\sim$  of  $\text{♀}$ ; and will perform every operation.

#### Concerning the Via Sicca.

To dissolve  $\odot$  and  $\text{D}$  and reduce them into metallic ashes by Native Cinnabar.

I take corporeal fine  $\odot$  or fine  $\text{D}$ , beat into thin leaves, or filed, or dissolved, the  $\odot$  in  $\nabla$  or the  $\text{D}$  in  $\nabla$ , and the Corrosive distilled from it to a dry Calx, it is the same which you take.

Now take Native ~~33~~<sup>33</sup>, beat it coarsely into bits of the Size of peas or small Beans, dip them into the White of an Egg, and roll them about in the filings or  $\Psi$  of  $\odot$  or  $\circlearrowright$ , so that the ~~33~~<sup>33</sup> bits may be well covered therewith, and let them dry.

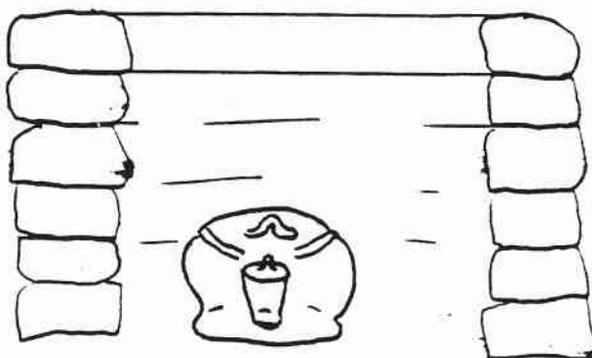
For this wonderful Operation, I take equal quantities of ~~33~~<sup>33</sup> and  $\odot$ , or ~~33~~<sup>33</sup> and  $\circlearrowright$ , i.e.  $\bar{a}\bar{a}$  in weight.

Now lay them in a  $\nabla$ , cover the ~~33~~<sup>33</sup> bits with the remaining  $\odot$  or  $\circlearrowright$ , and strew it over them. Then lute a Cover on it, and when the Lute is dry, put the  $\nabla$  on a hearth, and cover the  $\nabla$  with an  $\nabla$  en pan or pipkin, and set 4 bricks round the pipkin, so as to form a small furnace or Oven round the pipkin. Now fill the space round with dead Charcoal, and light your Charcoal at the Top, over the reversed Bottom of the pipkin or pan, and keep supplying the Top with Charcoal, so that there is always a good  $\triangle$  at the Top.

Entertain your  $\triangle$  8 hours, and then let it go out of itself.

(I do not know whether an english  $\nabla$  en pan or pipkin would stand the  $\triangle$ , otherwise a small Cast iron pot with 3 legs, turned over the  $\nabla$ , bottom upwards, would become of a red heat during the Cementation, and answer wonderfully well.)

This is what MR. TUGEL means:



When all is cold and you open the  $\nabla$ , you will find the ~~33~~ Bits converted into fine  $\cup$ , if you have used that metal, and that the  $\cup$  of  $\cup$  has forsaken its own body and has entered that of the ~~33~~; your  $\cup$ , in this Cementation is entirely reduced into ashes, and totally retrograded from metallic Splendor.

This operation may appear Common and silly to some inconsiderate men, but it proves as one of the greatest wonders in nature, which cannot be performed by no other Thing in the world.

Examine now these metallic  $\cup$  ashes, or  $\odot$  ashes and try to reduce them into  $\cup$  or  $\odot$  again, by every art or knowledge, and I assure you that all your Endeavours will be in Vain.

Have you not by this simple process and by means of the mineral  $\triangle$  ( $\triangle$  and  $\cup$  in the ~~33~~.) destroyed the fixed metals radically, and reduced them to dead ashes? And by the same Wonderful Operation you have fixed the Volatil ~~33~~ into a fixt metal, into  $\odot$  or  $\cup$  !

But as the foregoing simple Experiment seems to promise no Benefit, most men have thought no further about it! But now, open your Eyes, and consider what might remain to be done?

The dead shall rise and live in a glorified regenerated Spiritual Body! Consider whether this same Resurrection might not be effected with your dead <sup>5</sup> <sup>4</sup> <sup>6</sup> <sup>3</sup> <sup>1</sup> <sup>2</sup> into ashes reduced metallic bodies? A Consolation will appear! The dead ashes will come to a new Life and will be invested with an everlasting Essence!

Call the Anima or  $\cup$  back out of that Chaos, where all metallic and mineral  $\cup$  s are confounded and can be had, which  $\cup$  you must know from

my Description of Nature!

Whether you take this  $\sim$  FROM THE AIR, (the attracted  $\sim$  of  $\triangle$  of  
 ABBE' ROUSSEAU, WOULD DO THIS) or whether you take it from the  $\nabla$ ,  
 it will be the same here, if you do but rightly prepare and apply it  
 properly. (from the  $\nabla$  alludes to a well made  $\sim$  of  $\ominus$ , or such a  
 $\sim$  as is obtained, when you fulminate  $\ominus$  with  $\triangle$  )

Such a  $\sim$  will be a proper menstruum, to extract A RED ANIMA or  
 TINGING  $\triangle$  from the destroyed fixed Bodies, or LUNAR or SOLAR METALLIC  
 ASHES, along with the fixt incombustible metallic  $\ominus$ ; whereof the Philo-  
 sopers have written: SAL METALLORUM EST LAPIS PHILOSOPHORUM.

I repeat it, there is a great mystery in the foregoing simple oper-  
 ation with  $\frac{33}{21}$ ; viz: to obtain in so short a time the  $\ominus$  and tinging  
 $\triangle$  of the fixed metals, for the amelioration of the unfixt.

This is the greatest Treasure, which lays concealed in the whole  
 mineral Kingdom.

T.G.Tugel.