Mark House - Newton And Flamel On Star Regulus Of Antimony And Iron

Newton And Flamel On Star Regulus Of Antimony And Iron...Part 1

Gale E. Christianson[1] in his scholarly book subtitled "Isaac Newton & His Times," in chapter 9 entitled: The Treasures of Darkness, presents excerpts from Newton's alchemical writings.

Principally, the quotations are from the early to late 1670s, focussing specifically on making regulus of iron and antimony to further produce a philosophic double mercury that was animated by several distillations and subsequently caused swelling and putrefaction in gold.

Nicolas Flamel, in his Breviary, a division of his book "Abraham the Jew," gives essentially a straightforward description of the same process for the Great Work.

This article will attempt to sort out in part, Newton's path, while also touching upon Robert Boyle's related experiments, and making some comparison to the Flamel Work.

Commentary on these two paths may be helpful to receive some details where they are missing in Newton's writings and in Christianson's additional notions, since some details seem to have their appearance in Flamel's study.

Here in this chapter on Newton's breakthrough experience, is evidenced interesting parallels that also prescribe much of LPN's up-to-date research to convey more fully the apparent omitted details. Included are Newton's proportions in the processes to obtain the Starry regulus of antimony and iron; Lunar Regulus, and Lunar Venusian Regulus.

By 1670 Newton's attention had focussed on the regulus of antimony, a substance that was to remain near the center of his thoughts for as long as he pursued the hermetic art.

We know antimony as a metallic element, a hard, extremely brittle, glistening, silver-white, crystalline material used in a wide variety of alloys.

Christianson here speaks as the chemists of our time do by using the term alloys to employ the use of antimony [sulfide] i.e. the ore Sb_2S_3.

It should however be noted that the iron must not be used in excess, therefore the regulus is not an alloy at any stage.

Christianson's next comments show that it's not the trisulfide we need, but the metal stibnite. LPN has shown that it's necessary to separate the free sulfur from the stibnite by heating the broken up antimony ore in a heat resistant tube where it's melted and dropped as small pellets into distilled water to obtain the desired material for regulus.

To the alchemists, however, antimony was not the metal itself but stibnite, the lead-gray ore from which it was extracted by heating it with charcoal or some other mild reducing agent.

The metallic antimony sinks to the bottom, and this (our element) is what the alchemists called the regulus of antimony.

The last two paragraphs speak of a reducing agent [this should be done in a furnace in a crucible] saltpeter or potassium sodium nitrate acts as a fluxing agent and iron and eventually silver will act as the reducing agents. When the regulus is poured into the warmed mold the metal sinks down [you may tap on the mold with a hammer to help it sink down to the bottom while the scoria solidifies as it cools on top of the metal.] A button of metal is obtained this way, which must undergo further purifications to reach the star regulus.

The name probably derived from the Latin regulus, meaning petty king. Because the regulus of antimony combines readily with gold (the king of metals) it became important to the process of refining the precious metal and an object of considerable experimental interest to seventeenth-century adepts.

The regulus was also separated from stibnite by the introduction of various metallic reducing agents, in which case it became the regulus of Venus (copper), the regulus of Jupiter (tin), the regulus of Saturn (lead), or most importantly, the regulus of Mars (iron).

It was thought, quite erroneously, that the "seed" of the metal used to reduce the regulus from the ore remained embedded in the regulus itself, thus raising all sorts of tantalizing possibilities in Newton's mind.

The seed of course is in the scoria and also in minute quantity in the metals applied in the work. The seed is the sperm of the metals and Newton probably knew that he was to locate this seed and to cultivate it; sew it in the Duplex or animated, philosophic mercury.

The star regulus to which has been added silver; its ensuing purification to purple or violet color; additionally triple distilled Hg is incorporated, its then washed and ground, and washed again until it is a pure and shining mirror...the black particles that are washed away from the amalgam is kept for further research.
The earliest evidence of his interest in the different reguli had surfaced in the form of notes copied into the chemical dictionary between 1666 and 1667. [2] Now, some two years later, the young adept felt sufficiently emboldened to compose his own essay on their preparation. As usual, he wrote with the confidence born of firsthand experience:
Isaac Newton
"These rules in general should be observed. 1st if the fire be quick. 2nd if the crucible be thoroughly heated before anything be put in; 3rd if metals be put in successively according to their degree of fusibility [iron], copper, antimony [stibnite], tin, [lead]. 4thly That they stand some time after fusion before they be poured off accordingly to the quantity of regulus they yield [iron] to keep it from hardening. 6th That if you would have the saltpeter flow without too great a heat, you may quicken it by throwing in a little more saltpeter mixed with 1/8 or 1/16 of charcoal finely powdered."
Clearly Newton had prepared many reguli and had found the right proportions and timings; both by waiting to pour the regulus, and probably discovered the correct appearance of the ready matter and manipulated the technique at the right moment.
Newton went on to enumerate the many telltale "signes" of failure that, in their turn, had disturbed the rapt tranquility of his laboratory. But with the perfection of his experimental technique success was soon assured:
Isaac Newton
"Thus with a good quick & smart fire - 4 of [iron] to - 9 of [stibnite] gave a most black & filthy scoria & the Regulus after a purgation or two, starred very well." [3]
LPN has suggested several mixes of nitrate and tartrate, purified stibnite, and iron nails. Newton directly refers to the black scoria [the crow] and 2 purgations (purifications) with the potassium nitrate (can take up to 3-4 purifications), that will obtain a 60 degree angled star. Note that unless you go over the star you will not have the right regulus for the work.
The term "starred' was here employed by Newton in its most literal sense. For if the antimony has been properly purified as in this instance, it forms long and slender crystals. During cooling the crystals in turn form triangular branches around a central point, taking on the aspect of a silver star.
Masters of the symbolic, the alchemists named this heart of antimony ore after Regulus, the bright double star near the heart of the constellation Leo. When the star regulus of antimony was achieved with the aid of a metallic reducing agent in the above experiment, Newton had produced the star regulus of Mars.
Further confirmation of his success is contained in a letter to Oldenburg of January 1672: "What the stellate Regulus of Mars (which I have sometimes used)...will do" as a reflecting mirror in a telescope "deserves particular examination. [4] Yet it was for profounder reasons than the fashioning of better telescope mirrors that Newton long remained concerned.
To obtain a very shining mirror-like surface Newton must have found just the right mixture, thus using silver he obtained the Lunar regulus. Newton and Flamel amalgamated this regulus with thrice distilled mercury. Once washed, it is a reflecting mirror.
At exactly what point and under what circumstances Newton began to contemplate seriously the principle of attraction between physical bodies is impossible to say. The general idea of gravity, though far from well developed, is certainly hinted at in the "Hypothesis of Light," the controversial paper he sent to the Royal Society in December 1675. It has been observed that the lines of crystals that appeared to radiate out from the center of the star regulus "might just as well be considered as radiating into the center, which gives them the character of attraction rather than the character of emission."
If, indeed, Newton viewed the star regulus in this light, then the very concept of gravitation "in which the lines of attraction run in to and converge in a center point" may have suggested itself to him. [5]
Present in this diminutive terrestrial orb was the invisible cosmic glue that binds the planets to the stars and the solar systems to the galaxies of the macrocosm. Most probably, however, the idea of gravitation had not taken such definite form in Newton's mind in the early 1670s, though there is no question that at its roots eventually found ready nourishment in the fertile field of his alchemical thought.
It's extremely interesting to note that gravity is compared to the central point of geometric crystallization. Newton must have recognized as Flamel did that through the numerous 7-9 eagles or distillations that the crystalline structure of the regulus amalgam was progressively adjusting and rising in a set pattern towards a cubic fundamental matrix. Above this pattern is the absolute or inter atomic energy which surpasses the atomic material energy. To distill the amalgam above 9 times generally leads to an explosion. The cubic structure is the most perfect of the crystals having perfect right angles and equilateral triangles in its arrangement. This matter is the seed risen to its

highest purity.
Nor, if Newton's notes on Basil Valentine are accepted at face value, did he mistake the star regulus for the philosopher's stone, as had more than a few bedazzled adepts.[6] Instead, Newton looked upon the star as a most promising step in the creation of the philosophical mercury, the materia prima or first matter from which all substances are formed.
Robert Boyle obviously experimented much with the reguli, including the regulus of antimony and iron.
Excerpt from text on British Royal Society:
Robert Boyle, in his book "On Unsuccessfulness of Experiments"[7] says: "And it may perhaps also be from some diversity either in antimonies or irons, that eminent scientists (chemists) have (as we have observed) often failed in their endeavors to make the starry regulus of Mars and Antimony.
In so much that diverse artists fondly believe and teach (what our experience will not permit us to allow) that there is a certain respect to times and constellations requisite to the producing of this (I confess admirable) body."
On a clear, uncloudy, and windless day, the regulus will become starred quite easily when you're ready, and sufficiently skilled in the process. The clear weather helps considerably, but then so does the bond between the matters and the operator.
In the mid-1670s, Newton composed a paper of some 1,200 words entitled "Clavis" ("The Key"). This intriguing document, so concise and polished, gives evidence of being the last in a succession of drafts, the compilation of which had by then become one of Newton's distinctive intellectual trademarks.
The contents represent the distillate of years already spent in the meticulous study of the star reguli in the hope of extracting philosophical mercury from common metals. It was clearly Newton's belief that he had succeeded in doing just that.
It was not extracting philosophic mercury from common metals that Isaac Newton was after, but THE Philosophic Mercury or amalgam that would make the little trees of tiny crystalline branches grow, the sophic gold, so that he could bathe his gold in it, to multiply it, and animate it, for its magical properties.
Newton began with the star regulus of Mars (Iron) which was fused with a small quantity of pure silver, the "Doves of Diana." To this he added common mercury, amalgamating the mixture in a sealed vessel over a "slow fire." The amalgam was then ground for "1/8 of an hour in a mortar...until it spits out its blackness."
Repeated flushings, grindings, and washings left an alloy "like shining and cuppellated silver." A series of seven to nine more distillations and washings produced a mercury seemingly capable of dissolving all metals, especially intractable gold. The cauda pavonis, the multicolored tail of the peacock described by ancient alchemists, unfolded before Newton's very eyes:
Note that Nicolas Flamel experienced the same things while manipulating the amalgam, the gold, and the silver.
Below Newton writes:
Isaac Newton
"I know whereof I write, for I have in the fire manifold glasses with gold and this mercury. They grow in these glasses in the form of a tree, and by a continued circulation the trees are dissolved again with the work into a new mercury. I have such a vessel in the fire with gold thus dissolved, but extrinsically and intrinsically into a mercury as living and mobile as any mercury found in the world. For it makes gold begin to swell, to be swollen, and to putrefy, and to spring forth into sprouts and branches, changing colors daily, the appearances of which fascinate me every day. I reckon this is a great secret in Alchemy."

The Philosophers Of Nature excerpt from Guelph, Ontario, Canada, 1992.
Martial Regulus is not good enough...
We can make an amalgam of [Star] Regulus and silver which equals the Lunar Regulus, or a [Star] Regulus of silver and copper which = the Lunar Venusian Regulus. When this last amalgam Lunar Venusian Regulus is well prepared it is a light purple color.
Make a fine powder from this Lunar, or Lunar Venusian Regulus, add triple distilled Mercury (i.e. distilled Hg, caution must be exercised when handling Hg, even when cold its vapors are very toxic), and place the fine powder with the triple distilled {Hg} mercury into a tumbler to mix together thoroughly.
When you stop the tumbler, (leave on for 12 hours) you will have a butter [e.g. a buttery-like amalgam]. Note: Remove the butter from the tumbler with (surgical) rubber gloves and wear goggles (caution - this butter is very corrosive), clean the tumbler with distilled water right away otherwise it hardens in an hour. The water turns black and a black powder forms. Wash the amalgam thoroughly, persist until it is mirror-like. Set this water and black powder aside in dark vessels.

There are three products which can be obtained from these amalgams i.e. sophic mercury, live mercury, and

animated mercury.

Distill this amalgam (butter). This [according to Flamel's Breviary] is known as the Philosophical Sublimations and the Chores of Hercules, or the Flying of the Seven Eagles, the result will be an Animated Mercury.
The double mercury or duplex [animated mercury] is then seeded {this is known as Sowing to obtain the Elixir.} (note: seeding can be done with the seed contained in the scoria of the first fusion or with live mercury, with animated cinnabar, with native gold, the black powder, or live sulfur) and placed into an incubator.
Obtaining the Elixir is when the colors come; black; white; orange; red.
At this high stage of the work Multiplication becomes a next step using the red stone in the same fire and same vessel and animated mercury.
Then comes the Revolutions of the Wheel where the power of the red stone increases by powers of ten. Even leading to an eternal lamp diffusing an eternal light...
CARES TO BE TAKEN FOR THE AMALGAM
1. Proportions: The triple distilled mercury Hg weight will be from 3 to 5 times the Lunar Venusian Regulus weight, generally.
2. Proportions are not crucial, as the animation occurs during the successive eagles. At each eagle (distillation) the mercury animates by taking the metallic life from antimony through silver (the medium silver is a transfer metal, the transfer occurs when the metals are melted). Absorption of the energy is more important in the first eagles than in the latter. In an eagle the life of the regulus weakens silver this is called the Dead Doves of Diana, and this same silver can be used indefinitely for more amalgams. An eagle means: amalgam with mercury Hg, and regulus and distillation of the amalgam.
The dissolution of gold, not its multiplication, is what most interested Isaac Newton. He measured the magnitude of his supposed achievement against Boyle's oft-repeated alchemical dictum: "It is easier to make gold than to destroy it." In other words, once someone has solved the knotty riddle of what a substance is made of, producing that substance should be comparatively easy, a familiar enough notion to the student of modern chemistry.[8]
Newton's pursuit of the true philosophical mercury had caused him to draw heavily upon the works of George Starkey, who, as previously noted published under the pseudonym Eireanaeus Philalethes. Nine of Starkey's books graced the shelves of Newton's library when he died, a number matched only by the indispensable treatises of Count Michael Maier.[9] The mediation of special mercuries were set forth in a manner strikingly similar to those expressed by Newton in the "Clavis" manuscript.[10] Moreover, Starkey sought to put this knowledge to a practical use by effecting the process of transmutation.
Philalethes (see An Open Entrance to the Closed Palace of the King) gives the process for making regulus and amalgam that Newton and Flamel do. It being so similar that without doubt Newton knew that Starkey was an adept in the work, and after reading an article published by Oldenburg, and written by Robert Boyle in the Philosophical Transactions of the Royal Society entitled "Of the Incalescence of Quicksilver with Gold, generously supplied by B.R.":
Newton, who did not get around to reading his issue of the transactions until April 1676, had no trouble identifying the author as Robert Boyle. Boyle wrote of having discovered a special mercury that grows hot (incalescent) when mixed with gold. He considered it a breakthrough in the preparation of medicines, but he was also wary of the great harm its disclosure might do. For if Boyle had refined a true philosophical mercury, a discovery Newton privately claimed as his own, it could be used by "ill hands" to multiply gold, thus lifting the lid from a Pandora's box of endless "political inconveniences."
Boyle sought advice from the "wise and skilful" as to whether he should make known to the world the specific ingredients of his recipe for the mercury.[11]
Newton, it seems was the only adept who chose to reply, at least in writing [to Oldenburg]. He cautioned Oldenburg to "keep this letter private to your self."
His usual desire for secrecy was underscored by the knowledge that the attempted transmutation of metals was legally punishable by hanging. As an alchemist, Newton could not but question Boyle's optimistic conclusion regarding the mercury. He had explored methods similar to Boyle's, only to abandon them for more encouraging prospects. Still, Newton counseled caution, partly perhaps to avoid alienating a respected colleague, and partly because Boyle might know more than he had let on:
Isaac Newton to Oldenburg
"It may possibly be an inlet to something more noble, not to be communicated without immense damage to the world if there should be any verity in the Hermetic writers, therefore I question not but that the great wisdom of the noble Author will sway him to high silence till he shall be resolved of what consequence the thing may be either by his own experience, or the judgment of some other...that is of a true Hermetic Philosopher... there being other things

beside the transmutation of metals (if those great pretenders bragg not) which none but they understand." End of quote.

While Newton doubtless shared Boyle's concern for the dire economic and social consequences that must follow from an easy transmutation, one senses that this cautionary advice was rooted in other than altruistic grounds.

No common "goldmaker," Newton's personal anxiety surfaced when he employed the self-revealing phrase "there being other things beside transmutation of metals." If Boyle were to disclose this great secret of the ancients, Newton's belief in his special relationship with the Almighty must suffer irreparable harm. The gates of the prisca sapientia would have been breached, and to the vulgar materialists would belong the desecrated spoils.

Flamel and Newton, like all true adepts of alchemy revered the Most High and Divine Will of God. Boyle may too have held a faith denying the philosophy of the times that Descartes put forth, "separating body from spirit in nature, to deny, as it were, that any "occult" forces, such as attraction and repulsion, are manifest in this great chain of creation. Though a mechanist tried and true, Newton could never be persuaded that spirit was absent from the operations of nature."

As a member of the inner circle that directed the general course of Royal Society activities, Boyle was surely aware of Newton's reticence in scientific correspondence. Yet it seems doubtful that Boyle was taken aback when Oldenburg informed him of the Lucasian Professor's response to his recent paper.

Indeed, he had good reason to think that his newfound friend might have written even more.

Boyle, after all, was the seventeenth century's most astute practitioner of "chymistry," and he had been present some months earlier during the reading of Newton's much-debated "Hypothesis of Light." Interpreted by most as the treatise on mechanical philosophy Newton meant it to be, the paper's equally profound if veiled alchemical implications could hardly have escaped Boyle, especially considering that Newton accepted and elaborated on a number of his ideas.

The study of alchemy for spiritual quickening lost its romance and adventure in the 17th century, particularly for the vogue chemists that would turn away from the past to embrace an unknown but promising future of enterprise and commerce.

Robert Boyle and Isaac Newton were two individuals important to the art in a century replete with nascent discovery. This renaissance period of practicality, inspired men of conscience to the design of the Royal Society's objectives:

"The business and design of the Royal Society," as Robert Hooke wrote, is "to attempt the recovery of such allowable arts and inventions as are lost," and "to examine all systems, theories, principles, hypotheses, elements, histories, and experiments of things natural, mathematical and mechanical, invented, recorded, or practiced by any considerable authors ancient or modern." Nor will the Society "own any hypothesis" until "by mature debate and clear arguments, chiefly such as are deduced from legitimate experiments, the truth of such experiments be demonstrated invincibly."

1. Free Press, 1984 In the Presence of the Creator.
2. MS. Don. b. 15, ff. 4v-5r
3. U.L.C. ADD. ms. 3975, p. 82.
4. I.N. Corres., I:82.
5. B.J.T.D., p. 150.
6. Keynes MS. 64, f. 4r.
7. Opera, ed. 1772 i, 325.
8. B.J.T.D., p. 185.
9. J.R.H., pp. 65, 215, 243
10. One student of Newton's alchemy has argued that he probably copied "Clavis" from a lost manuscript of Starkey. Karen Figala, "Newton as Alchemist," History of Science, XV (1977): 107. For an opposite view, see Richard S. Westfall, "The Role of Alchemy in Newton's Career," p. 207, and B.J.T.D., pp. 175-78.
11. Philosophical Transactions, X (1675-76): 515-33.