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# ALCHEMY AND NUMISMATICS.

BY

HENRY CARRINGTON BOLTON, PH. D.



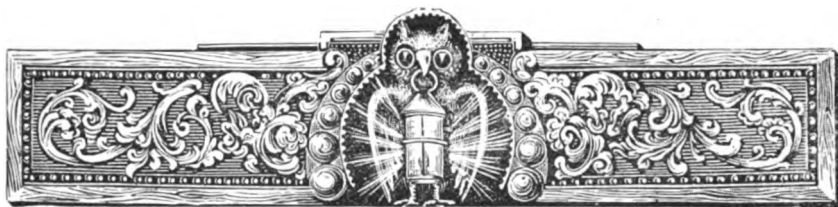
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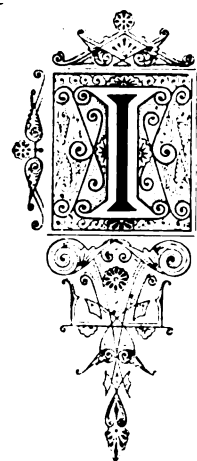
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## ALCHEMY AND NUMISMATICS.



IN the sixteenth and seventeenth centuries the belief in the possibility of converting lead into gold and silver was well-nigh universal, and the pursuit of alchemy was followed by persons in every station of life; physicians vainly hoping to discover the Elixir of Life, merchants and tradesmen seeking a short road to riches, peasants and noblemen, beggars and princes with whom avarice was a common motive, each and all courted the fascinating folly. The belief was not confined to the ignorant and unlearned, but was held by the men of science, the theologians, the warriors, and the statesmen of that period. Some who professed to have accomplished the "great work," as the transmutation was called, were undoubtedly self-deceived, owing to the occurrence of certain phenomena which modern chemists have no difficulty in explaining, but which to the experimenters of the Middle Ages seemed conclusive proofs of the wonderful transformation. On the other hand there were many unprincipled impostors who gained a precarious livelihood by pretending to a knowledge of the hermetic art, and who practiced their profession at the bidding and costs of wealthy and credulous devotees of Mammon. These hired laborers in alchemy, anxious to maintain their reputation and to please their patrons, fostered this belief by many tricks and clever impostures. The learned and crafty Dr. John Dee, who enjoyed the patronage of both Rudolph II, the Emperor of Germany, and of Queen Elizabeth of England, when about to seek favors from the latter, sent her a small disc of gold which he claimed to have made by hermetic art from

a copper warming-pan; and shortly afterwards Dee forwarded to the Queen, as an unimpeachable witness, the warming-pan itself, having a hole in the copper bottom of the exact size of the piece of gold.

Leonhard Thurneysser, a noted German physician and alchemist, on the 20th of November, 1586, in Rome, performed a miracle with a common iron nail; the nail was dipped into the melted philosopher's stone, and the iron so far as immersed was transmuted into gold. All of which was solemnly testified to by a Cardinal of the Church; besides, was not the nail itself, half iron and half gold, a tangible witness convincing to the most skeptical?

Believers in the transmutation of metals had however far more satisfactory and authoritative evidences than these questionable specimens, to which they could point with assurance; these were the medals and coins of silver and of gold, duly stamped with the records of the transmutation, commemorating the power of the adept and honoring his noble patron. The number of these hermetic rarities in numismatics is surprisingly large; to catalogue them all would be no easy task; we describe briefly those which have come under our observation and to which we can give original references.

Among the earliest of the coins, whose undisputed existence was regarded as visible proof of hermetic labors, were the so-called *Rose nobles* made from gold artificially prepared by Raymund Lully. This celebrated alchemist (1235-1315) was invited by Edward II, King of England, about the year 1312, to visit his realm; on his arrival he was furnished with apartments in the Tower of London, where he transmuted base metals into gold; this was afterwards coined at the mint into six millions of nobles, each worth more than three pounds sterling. These Rose, or Raymund nobles as they were also called, were well known to the antiquarians of the sixteenth century, and were reputed to be of finer gold than any other gold coin of that day. The Rose noble had on one side the King's image in a ship, and on the reverse: "JESUS AUTEM TRANSIENS PER MEDIUM EORUM IBAT." These coins are said to have been worn as amulets to preserve from danger in battle, and to have been used as *touch pieces* in connection with the gift of healing by royal touch. (Pettigrew, *Superstition in Medicine and Surgery*. London, 1844, p. 129.)

Lully himself, in his "Last Testament," declares that while in London he converted twenty-two tons' weight of quicksilver, lead and tin, into gold. This relation is vouched for by Cremer, Abbot of Westminster (Maier's *Tripus Aureus*. Francofurti, 1618, p. 183), and the Raymund nobles are described by William Camden, the English antiquary (*Britannia, sive regnorum Angliæ descriptio*, 1586), and by John Selden (*Mare Clausum*, 1635). Robert Constantine in his *History of Medicine* (1545) states that he found public

documents confirming the report that Lully made gold in the Tower by order of the King, and Dr. Edmund Dickenson relates that the workmen who removed the cloister which Lully occupied at Westminster found some of the powder, by which they enriched themselves. Historians who do not believe in transmutation, point out chronological discrepancies which throw doubts on the pretensions of Raymund Lully.

Numismatists describe several coins said to have been struck from hermetic gold by Gustavus Adolphus, King of Sweden. Buddeus relates that a merchant of Lubeck approached the King, who was traveling in Pomerania, and presented him with a mass of gold weighing one hundred pounds, prepared by himself through hermetic art. Gustavus Adolphus caused ducats to be struck from this mass, bearing his likeness on one side and the royal arms, with the characters for mercury  $\text{☿}$ , and sulphur  $\text{♁}$  on the other. These were of the date of 1634; double ducats coined by Gustavus, bearing the same alchemical symbols, and still a third coin dated 1622, are described by authorities. Figures of these are given in J. F. Buddeus' *Historisch- und politische Untersuchung von der Alchemie*: Nürnberg, 1733, p. 78 (in Friedrich Roth-Scholtz' *Deutsches Theatrum Chemicum*. Nürnberg, 1728, Vol. I). The Lubeck merchant who made so generous a gift to the King concealed his identity through life; at his death 1,700,000 crowns were found in his house. (Borrichius, *De ortu et progressu Chemiae*. Hafniae, 1668.)

Christian IV, King of Denmark, had in his employ an alchemist named Caspar Harbach, and from him received a quantity of gold manufactured by art; this the King coined into ducats bearing the inscription: "VIDE MIRA DOMI (NI)," and the date 1647. (Kopp's *Geschichte der Chemie*, II, 171.)

In the same year an adept named J. P. Hofmann performed a transmutation in the presence of the Emperor Ferdinand III in Nuremberg. From this hermetic gold the Emperor caused a medal of rare beauty to be struck. It is figured in the work of an anonymous author entitled: "*Nützliche Versuche und Bemerkungen aus dem Reiche der Natur*," and published by Georg Bauer in Nuremberg in 1760. This exceedingly rare coin bears on the obverse two shields in one of which are eight fleurs-de-lis, and in the other a crowned lion highly conventionalized. In an outer circle occur the words: "LILIA CUM NIVEO COPULANTUR FULVA LEONE," and in an inner circle: "SIC LEO MANSUESCET, SIC LILIA FULVA VIRESCENT. 1647." On the reverse are seven circles, one containing a figure of Mars  $\text{♂}$  (iron), and surrounding this are six smaller circles containing the alchemical symbols for gold  $\text{☉}$ , silver  $\text{☽}$ , mercury  $\text{☿}$ , copper  $\text{♀}$ ,

tin  $\mu$ , and lead  $\eta$ . There are also several inscriptions, the chief indicating that the gold was made by "JOANNES PETRUS HOFMANN, VASALLUS NORIMBERGENSIS."

The Thirty Years' war was brought to a happy conclusion by the Emperor Ferdinand III at the treaty of Westphalia, on October 24, 1648. In January of the same year the Emperor found time in spite of his cares of State to experiment with the fascinating art of Hermes. A certain Richthausen, who claimed to have received the powder of projection from an adept now dead, performed a transmutation in the presence of the Emperor and of the Count of Rutz, director of mines. All the precautions which experience with impostors suggested were observed, and with one grain of the powder furnished by Richthausen, two and a half pounds of mercury were changed into gold. To commemorate this event the Emperor had a medal struck of the value of 300 ducats, appropriately inscribed. The obverse contained a full-length representation of Apollo with rays proceeding from his head; in one hand he held the lyra and in the other the caduceus; his feet were covered with winged sandals, thus personifying the transmutation of mercury into gold. Above the figure were the words (translated): "THE DIVINE METAMORPHOSIS," and beneath: "EXHIBITED AT PRAGUE, XV JAN. MDCXLVIII, IN THE PRESENCE OF HIS CAESAREAN MAJESTY FERDINAND THE THIRD." On the reverse was this inscription (in Latin) without any ornamentation: "LIKE AS RARE MEN HAVE THIS ART SO COMETH IT VERY RARELY TO LIGHT. PRAISE BE TO GOD FOREVER, WHO DOTHS COMMUNICATE A PART OF HIS INFINITE POWER TO US HIS MOST ABJECT CREATURES."

This medal was still to be seen at the treasury in Vienna in 1797: it has been figured in several works, among which may be named J. J. Becher's *Oedipus Chemicus* (Amstelodami, 1664), Zwelffer's *Mantissa Spagirica* (1652), and W. Cooper's *Philosophicall Epitaph* (London, 1673).

Three years after this successful experiment the Emperor made another projection at Prague, operating on lead with some of the powder received from Richthausen. With the gold thus obtained Ferdinand made a second medal bearing the inscription: "AUREA PROGENIES PLUMBO PROGNATA PARENTE." This medal was seen by the traveler Keyssler in the last century, at the imperial castle of Ambras in the Tyrol. Richthausen, who had furnished the Emperor with the means for these transmutations, was ennobled, being made Lord of Chaos (Schmieder's *Geschichte der Alchemie*, p. 397).

The accomplished Richthausen, now Lord of Chaos, gave further proof of his skill (in legerdemain or in chemistry?) in the year 1658. The Elector John Philipp of Mainz, a warm patron of alchemists, having received some of the powder of projection from Richthausen, and taking extraordinary precautions to prevent fraud, himself converted four ounces of mercury into gold. The metal was superfine and additional silver had to be added to reduce it to the

usual quality. Pieces of this gold were in the possession of Professor G. W. Wedel of the University of Jena; and Mainzer ducats were also coined from a portion. But of these ducats we have no particulars. (Moncony's *Voyages*, II, 379.)

An Augustinian monk named Wenzel Seyler, a native of Bohemia, visited Vienna in 1675, and securing an interview with the reigning Emperor, Leopold I, son of Ferdinand III, accomplished in his presence a successful projection. He converted a copper vessel which had been brought to him into gold. He also changed tin into gold, and from the precious metal the Emperor caused ducats to be struck, stamped on one side only with the year, 1675, and with the couplet:

"AUS WENZEL SEYLER'S PULVERS MACHT  
BIN ICH VON ZINN ZU GOLD GEMACHT."

which may be paraphrased thus:

*"By Wenzel Seyler's aid, King Leopold  
Transmuted me from tin to gold."*

(Gottfr. Heinr. Burghard's *Destillirkunst*. Brieg, 1748.)

Wenzel Seyler was rewarded by being ennobled, with the cognomen Von Reinburg, but resorting to deceitful practices he was sent back to his cloister without however receiving punishment. Two years later this crafty monk succeeded in again persuading the Emperor of his power, and a large and elegantly ornamented medallion, still preserved in the Imperial Cabinet of coins in Vienna, commemorates the event. This medallion is of oval form, measures 40 by 37 centimeters, and has a weight equal to 2,055 Austrian ducats. On the obverse is engraved a portrait of Leopold I, surrounded by no less than forty-one portraits of his predecessors on the German throne. On the reverse is a long inscription in Latin, setting forth the virtues of the Emperor and the power of Johann Wenzel von Reinburg, in the year 1677. This medallion is figured in Herrgott's *Monumenta Augustae Domus Austriacae* (1760), and in Prof. A. Bauer's *Chemie und Alchymie in Oesterreich*. (Wien, 1883.)

Baron Krohnemann, one of the boldest impostors of the seventeenth century, played the part of an adept at the court of the Margrave George William of Baireuth, with varying success from 1677 to 1686. He pretended to be able to "fix" quicksilver, that is to convert it into a solid and to change its color to yellow, in short to transmute mercury into gold. Living at the expense of the Margrave and consuming great sums of money in fruitless experiments, he sought to retrieve his waning reputation by a bold stroke; in the presence of the Prince he heated mercury with salt, vinegar and verdigris

in an iron dish, and at the end of the operation gold remained. Probably the trickster mingled gold in the form of powder with the verdigris. Silver was made in like manner, and from this a medal was struck, inscribed with symbolical figures and dedicated to the Margravine on her birthday. Krohnemann had rightly reckoned on the effect of his legerdemain, and the Prince gave him the title of Baron, together with many favors. He continued to pursue his crafty ways, duping many persons in authority, fleecing General Kaspar von Lilien to the extent of 10,000 gulden, and living in extravagant style on his ill-gotten gains. At different times during the ten years in which he flourished, seven other coins and medals were struck to memorialize the operations conducted by Krohnemann, or to impose upon his patrons. To give in detail the inscriptions and hermetic symbols of each of these specimens would be tedious in the extreme; the curious can find neat figures of them in Fikenscher's *Geschichte Baron von Krohnemann*. (Nürnberg, 1800.) Krohnemann's end was as tragic as his life was vicious; he was detected in fraud and hung on the gallows by order of the Margrave.

Buddeus, in the work already quoted, figures a coin bearing the effigy of Frederick, Duke of Saxony, on the obverse, and on the reverse certain symbolical representations, together with the signs for sulphur  $\Delta$ , salt  $\Theta$ , and mercury  $\varphi$ , the three principles of which all substances were considered to be made; in addition to this is the date 1687. Further particulars of this presumably alchemical coin are wanting.

The crafty alchemists who operated with the hermetic powder, or the so-called philosopher's stone, almost always pretended to have received the precious material from some stranger, and but few professed to be able to prepare a larger supply of the wonder-working substance. The following anecdote is but one of many of similar purport: In October, 1704, George Stolle, a goldsmith of Leipzig, was visited by a stranger, who conversed on divers subjects for a short time and then inquired if Stolle knew how to make gold. The goldsmith replied very innocently that he "knew only how to work with that metal when already made." The stranger further inquired if he believed in the possibility of transmutation, to which Stolle answered that he "did believe in the art of Hermes, but had never met any person able to give him ocular proofs." Thereupon the visitor exhibited an ingot of a yellow metal which the goldsmith tested with the touch-stone and by the crucible, and ascertained it to be 22 carat gold. The visitor assured him it was artificial gold and withdrew. The next day he returned and asked to have the bar of gold cut into seven round pieces; this Stolle did, and after the stranger had stamped them he gave him two of the pieces as a souvenir. The pieces were



inscribed with the words: "O TU ALPHA ET OMEGA . . . . LAPIS PHILOSOPHORUM" the alchemical symbols for lead, gold, silver, salt, sulphur, and mercury occur in the portion omitted. The news of this singular event made a great stir in Leipzig; Augustus, King of Poland, received one of the gold pieces and the other was deposited in the collection of medals at Leipzig. The unknown adept who was so generous with the precious metal, was popularly supposed to be a certain mysterious personage who called himself Lascaris, and to whom for many years were attributed similar proofs of hermetic power. (*Edelgeborne Jungfrau Alchymia*. Tübingen, 1730.)

In 1705 Charles XII of Sweden condemned to death General Paykull, convicted of treason, having been captured while bearing arms against his own country. The General, as a forlorn hope, offered, if permitted to live, to manufacture annually one million crowns of gold without any expense to the King or to the Kingdom. He also offered to teach his art to any persons whom the King should select, pretending to have learned the secret from a Polish officer named Lubinski, who in turn had received it from a Corinthian priest. The King accepted Paykull's offer and made arrangements for guarding against fraud, appointing General Hamilton of the Royal Artillery to superintend the work of the alchemist. The materials were prepared with great care; Paykull added his "tincture," together with some lead, and the whole was melted together. A mass of gold resulted which was coined into one hundred and forty-seven ducats. A medal was also struck on this occasion, having a weight of two ducats and bearing this inscription: "HOC AURUM ARTE CHIMICA CONFLAVIT HOLMLÆ 1706. O. A. V. PAYKHULL."

This operation, which was in all probability a mere sleight of hand, was witnessed by General Hamilton, Counsellor Fehman, and the chemist Hiärne; the latter however had some predilections for alchemy, and in his report of the affair did not doubt the verity of the transmutation. Berzelius afterwards took the trouble to examine the documents attesting this transmutation, and came to the conclusion that the process described could not have accomplished the conversion of lead into gold. (Petraeus, *Vorrede zu seiner Ausgabe des Basiliius Valentinus*; also Henckel's *Alchymistische Briefe*, Th. I.; and Berzelius, *Traité de Chimie*, VIII, 7.)

Professional alchemists usually operated upon lead, but Delisle, a low rustic of Provence, excited much astonishment by transforming iron and steel into gold. Although an ignorant, uncultivated man, he succeeded in imposing on persons of learning and influence; even the Bishop of Senes, who was at first incredulous, wrote to the Minister of State and Comptroller-General of the Treasury at Paris, that he "could not resist the evidence of his senses."

In 1710, in the presence of the Master of the Mint at Lyons, after distilling with much mystery a yellow liquid, he projected two drops of the liquid upon three ounces of pistol bullets fused with saltpetre and alum, and the molten mass was then poured out on a piece of iron armor where it appeared pure gold, withstanding all tests. The gold thus obtained was coined by the Master of the Mint into medals inscribed "AURUM ARTE FACTUM," and these were deposited in the Museum at Versailles. (Lenglet du Fresnoy, *Histoire de la philosophie hermétique*. Paris, 1741.)

The Landgrave Ernest Louis of Hesse Darmstadt had long been ambitious of accomplishing a projection, and had made many vain experiments, when, in 1716, he received by mail a small package sent by one who did not disclose his identity. The package was found to contain the "red" and the "white tincture," with instructions how to use them, the first for transmuting into gold and the second for silver. The prince himself tested the effect of these tinctures on lead and had great success. With the gold, he had coined, in 1717, several hundred ducats which bore on one side the effigy and the name of the Landgrave, and on the other the lion of Hesse and the letters E. L. (signifying Ernest Louis.) With the silver, he had coined one hundred thalers similarly inscribed, but also bearing in Latin the words: "SIC DEO PLACUIT IN TRIBULATIONIBUS, 1717." (S. H. Güldenfalk's *Sammlung von mehr als hundert Transmutationsgeschichten*. Frankfurt, 1784.)

Besides the coins and medals made from hermetic gold and silver, there were many other evidences of alchemical skill not less reliable and pleasing. Having no intention, however, of reviewing the history of transmutations in general, we can only allude to a few of these visible and precious proofs of the mystic art. Early in the 17th century, Michael Sendivogius of Poland played a successful rôle as alchemist in many parts of Europe, receiving special favors from crowned heads and wealthy noblemen. In 1604 he went to Prague and was cordially received by Emperor Rudolph II, a devotee of alchemy; Sendivogius presented a morsel of the philosopher's stone to the Emperor, who made a transmutation with his own hands; delighted with his success Rudolph caused to be placed on the wall of the room of the castle in which the event occurred a marble tablet inscribed as follows:

FACIAT HOC QUISPIAM ALIUS  
QUOD FECIT SENDIVOGIUS POLONUS!

This tablet was still to be seen in position as late as 1740. Sendivogius was given the title of Counsellor of State, and honored with a medal of the Emperor. (Lenglet du Fresnoy, *Histoire de la philosophie hermétique*. Paris, 1741, Vol. I, p. 339.)

On another occasion Sendivogius delighted the King of Poland, Sigismund II, by transmuting a silver medal into gold without injuring the ornamentation; this he did by merely heating the medal red hot and dipping it into a solution of the "powder" in alcohol. Borel, in his *Antiquités Gauloises*, relates that he saw this crown piece in Paris, and he describes it as "partly gold, so far only as it was steeped in the elixir, and the gold part was porous, being specifically more compact than in its former state in silver; there was, moreover, no appearance of soldering nor any possibility of deception." (Morhof, *Epistola ad Joël Langelottum*. 1673.)

A certain Lascaris, whose movements were mysterious in the extreme and who generally remained incognito, is credited with a remarkable feat in Vienna. On the 20th July, 1716, before a number of important personages, in the palace of the Commander of the Fortress, Lascaris transformed a copper pfennig into silver by plunging it into a certain liquid. This was testified to in legal form by many dignitaries of the Church and of the State.

The Scotch alchemist Alexander Sethon, in 1602, made a projection for his host, James Haussen, a poor sailor; some of the gold he gave to Dr. Vanderlinden, a reputable physician, who engraved on it the date of the transmutation, *March 13th, 1602, at four o'clock*; this piece was seen in the hands of the Doctor's grandson by George Morhof. The same Sethon is credited with another transmutation for a Frankfurt merchant named Coch, with whom he lodged, and from the gold thus obtained shirt buttons were manufactured. (Th. de Hoghelande, *Historiæ aliquot transmutationis metallicæ*. Coloniae, 1604.)

In many families of Germany, heirlooms, such as the buttons just named, were treasured and handed down to younger generations as mystical emblems of a lost art; such was the buckle, half silver and half gold, received from an unknown adept by Baron von Creuz of Homburg in 1715; such were the silver guldens transmuted to gold by Count Caetano, in the city of Berlin (1705); such, too, was the drinking-cup belonging to the Countess Sophie von Erbach, which was changed from silver to gold by an unknown visitor in her castle; such also were the rings and buttons preserved by the Gùldenfalk family as a souvenir of the skill of an adept in 1755.

Those who believed and would persuade others to believe in the transmutation of metals, were further wont to recall the enormous riches of many reputed followers of Hermes, discovered usually after their death. Augustus, Elector of Saxony, who made projections with his own hands, at his death in 1580 left seventeen millions of rix dollars in the treasury; Rudolph II of Germany, already often alluded to, left at his death in 1680, 84 hundred weight

of gold and 60 hundred weight of silver, products of hermetic art. Those who would pursue the relations of alchemy and numismatics more fully than our imperfect sketch has allowed, should examine the references cited, and in addition the works mentioned below :

Joh. C. Beckmann's *Anhaltische Chemic* I, 1, *De ducato aurco Augusti ex aurco chemico facto* (circa 1712).

Joh. Heinr. Scheler, *Beschreibung derer zu Ehren des Königs in Schweden, Gustavi Adolphi, mit dem Signo Sulphuris et Mercurii 1632 zu Erfurt geprägten zweierlei Thalern* [etc.]. In Hirschius (J. C.) *Bibliotheca numismatica*. Norimb. 1760.

J. G. Keysslers' *Neueste Reisen durch Deutschland*. 2 Abth. Hannover, 1751.

Barthol Reyer, *De nummis quibusdam ex chymico metallo factis*. Kiliae. 1692.

E. R. Spiess, *Brandenburgische Münzbelustigungen*. Anspach, 1768-1774.

J. D. Köhler's *Historische Münzbelustigungen*. Nürnberg. Neue Auflage, 1787.

TRINITY COLLEGE, HARTFORD,  
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