

The Search for "The Philosopher's Stone"



Y some means the words alchemy and humbug have come to be regarded as synonymous terms, but a greater mistake than this could not possibly have been made. That there were amongst those who called themselves alchemists many charlatans and swindlers there can be no doubt, but the real alchemist, the man who devoted both life and fortune to the art, has been a benefactor to his species. Alchemy was the forerunner of chemistry, and was founded by Hermes Trismegistus (thrice greatest), an ancient Egyptian king, according to some, and a philosopher or Thoth (intellectual) counsellor of Osiris, king of Egypt. To him is attributed the art of writing in hieroglyphics, the first code of Egyptian laws, harmony, astrology, the lute and lyre, magic and all mysterious sciences. His first name, Hermes, is applied to the Greek Mercury, either the god or the metal. The name alchemy is derived from the Arabic alkimia, the secret art. Its chief object was to discover the philosopher's stone, which was to effect the transmutation of base metals into gold, an alkahest or universal menstruum, and the elixir of life. Pliny says the Emperor Galogula was the first who prepared natural arsenic in order to make gold of it, but left it off because the charge exceeded the profits. The ancients with that utter disregard for truth so prevalent in all ages, and desirous of adding their opinions and arguments to the lustre of a great name, ascribed to Trismegistus the authorship of an enormous number of books, estimated by Jamblichus at twenty thousand, but placed by Manetho, who wished to be precise, at 36,525. From the fact that many of these productions, which were written by Greeks of the Lower Empire, were attempts to show the feasibility of transmutation and to induce a belief in its principles, alchemy has received the name of the Hermetic art. Gibbon, the historian, remarks that "the ancient books on alchemy, so liberally ascribed to Pythagoras, to Solomon, or to Hermes, were the pious frauds of more recent adepts. The Greeks were inattentive either to the use or the abuse of chemistry. In that immense region, where Pliny has deposited the discoveries, the arts and the errors of mankind, there is not the least mention of the transmutation of metals; and the persecution of Diocletian is the first authentic event in the history of alchemy. The conquest of Egypt by the Arabs diffused that vain science over the globe. Congenial to the avarice of the human heart, it was studied in China, as in Europe, with equal eagerness and equal suc-

cess. The darkness of the middle ages insured a favorable reception to every tale of wonder and the revival of learning gave new vigor to hope; and suggested more specious arts to deception. Philosophy, with the aid of experience, has at length vanished the study of alchemy; and the present age, however desirous of riches, is content to seek them by the humbler means of commerce and industry."

A writer in "All the Year Round" for the 28th of November, 1885, states that the Greeks and Romans, though well acquainted with the process of extracting metals from their ores, with glass making, dyeing, etc., show no traces of any science similar to chemistry. The various chemical processes used in the arts they left a trade secret with the artisan, and the consequence was that not a few were lost, and have since been re-discovered. The philosophies of ancient Greece contained, in spite of this, a large amount of genuine chemical speculation. We may see this in the philosophy of Thales (B.C. 640-550), which held that water was the basis and original of all things. Earth was, according to this philosopher, simply condensed water; and air, water in a state of rarefaction. Anaximander of Miletus, on the other hand, who was a contemporary of Thales, held that air was the primary original element, for being condensed it became water, and being further condensed it became earth. These speculations of 2,500 years ago are by no means the irrationalities that some may think, as it is only within the last hundred years that anything like a disproof of them has been possible.

The stories told by alchemists of the middle ages of the origin of their art may be looked upon as purely apocryphal, whether they refer to Greek books on the science or to Hermes Trismegistus, the supposed Egyptian founder of alchemy. The first authentic writer on the subject was Gebir, whose real name was Abou-Moussah-Dechafar-a-Soli, a Sabaeen of Haran, in Mesopotamia. He lived in the ninth century. The great object of the Arabs in this respect was the discovery of medicines. Gebir wrote mostly on pharmaceutical chemistry.

It can hardly be said, even today, that the transmutation of the elements into natural substances has altogether been disproved, when we know that water and carbonic acid gas—a species of air in the old chemical sense—are the chief substances which go to make up the substance of vegetables. Gebir held that the difference between metals depended upon the proportions of mercury and sulphur which they contained, and partly upon the purity or impurity of the mercury and sulphur which enter into the composition of each. All metals to him were composed of mercury and sulphur.

A very good idea of alchemy is given in the St. James Gazette, in an article on the subject, which appeared some years ago. The writer points out that the composition of the philosopher's stone was the prime problem of alchemy; and although many practitioners of the "holy art" declared that they had discovered the ingredients necessary to its production, they unkindly omitted to leave the prescription behind them. From the first there was a hot controversy as to whether the stone had a corporeal or merely an ethereal existence; and the discussion was conducted in language strong enough for a theological disputation. One adept declared that the stone consisted of common mercury, "animated by the sulphur of gold and iron," another maintained that it was not a stone at all, but was at one and the same time mineral, vegetable and animal; a third said that it was a "mineral fire," continual, equal and never evaporating. The gibberish of the hermetic philosophy is somewhat vague reading, and when the writer does not know his own meaning the curious student may be pardoned for occasional lack of comprehension. Flours, in "La Toribae des Philosophes," says that it was black, to Zenon it was red, to Rosinus white on the surface and red inside. Another philosopher found that it had a red head, white feet and black eyes. Others were not wanting to declare that it took upon occasions all the colors of the rainbow. Searchers who pretended to have found the stone said, some that it was light, others that it was heavy; it was also aerial, spongy, and mutable equally by fire, water, or even wind. Moretus said that to the touch it was soft; but two such distinguished alchemists as Geber and Raymond Sully opined that it was hard. Moretus, moreover, was able graphically to describe the odor of the philosopher's stone.

It was sickly, and like unto the stench of a charnel house. Most of the other writers said that it had a pleasant perfume. Several of the adepts had tasted it, but they were quite unable to agree whether it was sweet or bitter. Upon one essential point, and upon that only, is there any substantial agreement, and it is stated on the authority of an alchemist who died only a few years ago, that the teaching of 4,000 volumes of hermetic literature is in accord upon this point: All lay it down that to produce the philosopher's stone it is necessary to extract from the primary matter the "sulphurous spirit" from mercury, the "sulphurous soul" from gold, the "sulphurous body." The historic difficulty which has beset every alchemist is to find this "primary matter," which is neither animal, vegetable nor mineral, and is, indeed, nothing less than the matter from which the world was created.

Nearly all the alchemical writers admit that it is produced in the night by the influences of the earth, acted upon by the stars; that at daybreak it begins to disappear and that by sunrise it has entirely vanished. The manna, which fell in the wilderness, they point out, was similarly evanescent, and had to be collected before daybreak, and carefully prepared in stoppered jars. It was not enough to gather the primary matter in the night, it must be a dark night, otherwise the moon will "specialize" it—that is to say, resolve it into animal, or mineral. The matter has, of course, to be recognized before it can be gathered; but although scores, and probably hundreds of volumes have been written with the professed object of instructing the neophyte in the first stages of his researches, no sort of guidance is to be obtained from any one of them. The language of mystification, of allegory, and of parable was brought to such perfection by the hermetic writers, that it is possible to read a whole library of books upon alchemy without acquiring any information whatever, beyond learning how to concoct some of the horrible messes these gentry delighted to mix in the crucible.

As with the operations with magic, "the great work" had to be conducted in secret chambers, specially set apart, and the adept was to seek for transmutation with a pure heart and a devout belief that he was engaged upon a holy task. Some seekers after the "subject of the sages" went so far with the peculiar love of blasphemy which distinguished the occultists, as to draw a parallel between the daily stages of the creation and the progress of their own smelting operations. The stone could be searched for at any season of the year, but spring was considered the most propitious. Almost every possible natural object was tested in the hope of its yielding the "primary matter." As we have said, many alchemists swore by the ordinary mercury; others pretended they had found what they sought in arsenic, in copper and in antimony. Roger Bacon declared that the same metals were too fixed and others too poor for the essence, to be separated from the body, so to speak. Arnold de Villeneuve, believed in salt; and the varieties of salts were as perseveringly experimented with as the metals had been. Then came the turn of vegetables, which was followed by devotion to animal matter—human bones, flesh and hairs. Some alchemists there were who believed or affected to believe, that the "soul of the world" was to be found in the air; and to obtain it they diligently analyzed rain, water, snow and dew. Even the meteoric stones had their devotees, who seem never to have been repaid for their trouble. It was thought that frogs, lizards and serpents must contain the much desired mat-

ter; otherwise how could they exist for days at a stretch without eating? The unfortunate creatures were dieted, dissolved and distilled for the inevitable essence, which inevitably was not there. Seeing that the alchemists were bound by a strict code of honor to reveal none of their experiments and processes, save to the "true disciples of philosophy," it is astonishing that we know so much of their secrets. The most tremendous maledictions were to fall upon the heads of those who revealed essential details. They were revealed, nevertheless; and perhaps, after all, there was some truth in the conception which, according to an old writer, the common people had for alchemists, that they were "base conjurers, thieves and perfidious deceivers." Unfortunately the knowledge the perfidious ones have left to us is not very lucid, and the most diligent student of the black arts would find it difficult indeed to compound some of the messes in which the germs of gold were supposed to exist.

The finding of the "primary matter" was not everything; for before gold could be produced it was necessary to discover the "magic powder," which seems to have been the immediate agent of transmutation. This powder is variously described as red and black. Jean Delisle obtained it by drying and pulverizing the herbs "Lunaria major" and "Lunaria minor." Here is a recipe from a sixteenth century source for making the Philosopher's Stone: "The philosophical mercury being amalgamated with pure gold, and put into the philosophical egg, the whole is then placed in a crucible, which is then put into the furnace. Thereupon the mercury is excited by the warmth of its internal sulphur and by the fire which the adept keeps burning underneath, dissolves the pure gold without violence into mercurial gold. In this operation the eagle devours the lion, the fixed becomes volatile and the volatile fixed, the spirit becomes corporeal, and the body spiritual. Then the mass gradually grows very black, and in this state alchemists call it saturn. Next it becomes white, and is then known as 'sne moon.' In this stage it formed the 'primary matter' from which, according to Raymond Sully, pearls could be made. 'From white the matter became green, then red. Now it is the salamander or incombustible sulphur, and cannot be brought to higher perfection.' The 'philosophical egg' was a good strong glass, round or oval in shape, clear and thick—the thicker the better—large enough to contain four ounces of distilled water, and with a neck eight or nine inches long. When it was in use it was to be kept hermetically sealed, to the end that none of its precious contents should evaporate.—W. H. G., in Winnipeg Telegram.

One View of Victoria



WRITING in the Winnipeg Free Press, Mary Markwell gives the following as information about Victoria:

I've no notion of booming Victoria real estate, but for the information of those asking "the chances of securing a home in the Garden City of the West," I would simply say: No one should come to Victoria expecting to find openings in trade or business. The beautiful city is not for the struggler nor yet for the wage earner. In general; but for the man of means who, having made his pile, wants rest and recreation; for him there is everything here that might be desired.

The sign "for sale" is up everywhere and yet no one is moving away. There is so much land available (some of it at ridiculous and most prohibitive prices) that everyone can be suited, either in a business site or residential property. Suburban properties (many with fine orchard and garden attached), are to be bought at quite reasonable figures; for instance, I was driven the other day to see a fine water front property just above "The Gorge," (the playground of Victoria) where I saw placarded "for sale, lots, 100 feet frontage, 400 feet deep, each one acre in size. Price \$1,000. Terms \$200 cash, balance in 4 years, at 6 per cent." The spot was ideal—a fine orchard was there of peaches, plums, apples, pears and cherries; a beautiful driveway wound cityward through interlacing boughs overhead; and the watercourse was simply beyond description in value.

Everywhere houses "to let"—though, I am informed during October the influx of prairie folk fills every door and window.

I know of no more beautiful city on (or off) the face of the globe than Victoria. It is "old-world" in atmosphere. It is new world in growth; and wise is the man who secures to himself now an acre of earth upon which to build him a future home. There is no evidence of "boom" about Victoria—or, indeed, nowhere on the entire island is there any danger of "boom." There will always be land to spare and land to be bought; but, frankly speaking, real estate prices are at present at the lowest ebb.

The cost of living is high. A badly managed water service gives no end of dissatisfaction to householders; and the badly kept sidewalks and villainously paved public highways affect one's opinion of the place at a passing glance. Souvenir shops and cab men are, apparently, without conscience, and every article

of food bought is fixed at the highest price. Fuel is exorbitant in prices, too.

Against this, place the advantage of a climate as close to perfection as might be found anywhere. The possibility of producing all the fruits of the season. The splendid market for butter, eggs and poultry. The easy terms of payment for acreage. Churches and schools at hand, and opportunity for securing a continental course in the arts and sciences; for here are gathered high-class men and women from old world centers of art.

The restfulness of Victoria is another asset. To the nervous inclined it is a veritable haven of rest. The sea breezes; forest scent and overwhelming perfume of this rose-land of roses, are other features worth marking. The public parks and that delightful play ground, "The Gorge," with its Japanese tea gardens; its pagoda flitilla with the band in attendance. The pretty "Craigflower," captained by a pretty woman in the most bewitching of sailor frock; the long drives to any point you might mention, where farm-house hospitality is found measureless and truly "English," indeed. There is no air of Bohemia about Victoria at all, but it is Bohemia set in Mayfair, with Belgravian manners to set it off.

Adjoining islands are owned or leased by gentlemen of leisure of literary tastes, who find in this quaint and most reposeful spot, just what fiction calls for. Poets and painters there are in these forest depths whose whispering pines are ever telling the old, old story. It is a naval station as well, for, although shorn of most of its old-time splendor, "Esquimalt" stands out still a fine fortification, and warships ride at anchor there.

Such a cosmopolitan city of the western seal. A walk down Yates or Government or Pandora streets will be like a promenade along a world's fair plaisance. Japanese, Chinese, both strikingly "Eastern" in looks and dress. The English gentleman astride his cob riding in Rotten Row attire; while his wife, just alighting from her dog-cart, enters "The Alexandra," a ladies' club, where the 400 forgather to talk and read the latest magazines between sips of afternoon tea.

Take one of the graveled paths to the grand entrance of "The Empress," just as the tourist guest takes his or her place at the dinner table in the grand dining salon. Such a commingling of countries you will find there gathered together from ends of earth. Here a great commander of the sea; there a learned judge; beside him a noted divine in close conversation with a railway magnate who calls

Canada "home." Beautiful women in exquisite attire, and evening dress being de rigor; this together with the tinted lights, the sparkling wines in costly glasses, set off by central floral decorations, and, somewhere unseen, the music of a stringed band completing a most perfect picture.

Motors scudding along the causeway, carriages rolling along the "Birdcage Walk," liveried coachmen taking madam to or from a dinner, rout or ball. Are we in London, or are we in Victoria, B. C.?

Then the pleasant sight of beautiful homes set everywhere in this green setting of giant firs and maple trees. Homes won by the sweat of labor and the cares of toil. Is it not all a beautiful thing to know it all belongs to Canadians, and those who are proud to call Canada "home?"

THE KING AT MARIENBAD

One of the chief nuisances from which royalties suffer when they are trying to take a holiday free from the trammels of state is that of being mobbed by the curious. King Edward has suffered so much from this in certain places that they have lost his patronage, which means the loss of a good revenue to them, for where the King goes the fashion follows.

At Marienbad they try to protect him as much as possible. This year the authorities posted notices praying the people not to molest him and threatening offenders with condign punishment. In consequence, it is reported, the King has suffered less annoyance from public curiosity than in any former year. But the other night, as he sat at a table beneath the trees among the general public, listening to the band, an amusing incident happened. It is told as follows by the London correspondent of the New York Sun:

Seven persons sat at the King's table, and there were two vacant places, when suddenly a woman of somewhat shabby appearance, searching for a seat, tried to appropriate one of them, not recognizing the King. A flurried waiter instantly rushed forward to dislodge the intruder, but the King said:

"Let her remain; don't incommode her on my account."

The waiter thereupon placed another table close to the King's for her. The woman, however, stared at the King so rudely and persistently that the waiter reappeared, and, seizing her small table, carried it twenty paces.

The woman, who was left sitting without a table before her, was greeted with a roar of laughter as she rose, and, following the table, sat down again, not in the least disconcerted, and levelled her lorgnette at the King with the utmost composure.

The "Hunger-Marchers"



ALEXANDER STEWART GRAY, leader of the "Hunger Marchers," who are attracting so much attention in England just now, was until recently one of the most prominent and successful lawyers in Edinburgh, Scotland. In order to identify himself with this new movement, which is organized for the purpose of calling attention to the unemployed problem, especially in its bearing on the land question, he abandoned a fortune of nearly \$250,000.

Clad in rough garments, a slouch hat, and sometimes barefooted, Stewart Gray is tramping about the country at the head of a body of men, like a modern Peter the Hermit, preaching a new crusade. Not long ago the "Hunger Marchers," led by him, walked from Manchester to London, a distance of 187 miles, to present a petition to King Edward. In London they were invited to St. Paul's Cathedral, where Archdeacon Sinclair delivered a sermon championing their cause, and collected \$200 to provide them with food and shelter. Rev. R. J. Campbell of the City Temple also "entertained" them in a similar way. Recently they "invaded" Canterbury Cathedral and created a sensation by demanding that a sermon on unemployment and the land question should be preached.

The personality of Stewart Gray is striking. Tall, gaunt, ascetic, with long hair and deep-set eyes, clad in workman's clothes, and often wearing knickerbockers with no stockings, with a great "sombbrero" pulled down over his eyes; he looks like the typical "social reformer" depicted on the stage.

This reformer comes of good family, and after a liberal education he began the practice of the law in Edinburgh. He became the manager of several large properties, bought and sold land on his own account and in a few years he acquired a fortune. In his visits to the remote sections of Scotland he came in touch with the peasant class. He became convinced that the principal of landlordism is wrong.

Gray says: "When I took the resolve to 'quit the game,' I gave all my property into the hands of a friend, and then left the whole business. I should say the property abandoned was worth about \$250,000. I decided then to devote my life to trying to obtain some of the land for the people. There are vast tracts of land in England which are not under cultivation at all, and besides this upward of 100,000 acres a year go out of cultivation for sporting purposes; that

is, for shooting and fishing and for deer parks made by the wealthy and landed classes. With nearly a million unemployed men walking about, and these bare acres of England waiting to be tilled, it seems a crime to me that this idle land should not be linked to idle labor. The people of England have a birthright in their own soil, and that is why in my speeches and pamphlets I refer to them as the 'born-robbet.' They have no right to live, and if the landed classes in England choose to turn them all out tomorrow they would have perfect legal power to do so. With my knowledge of farming, and my experience on the land, I am quite convinced that I would soon be able to teach every man under my charge to make his own living on the land.

"My main idea in the Hunger March is this: If we can get, say, 10,000 men marching about the country and agitating we are sure to make an impression on the authorities in time. The people themselves will have a species of grand holiday at the best season of the year. We are taking our men to all the 'swell' seaside resorts, such as Hastings, Bexhill, Brighton and elsewhere, and the process of education is going on. Wherever we go, we find the public sympathetic; though, of course, the police and the authorities are generally opposed. In London, several prominent persons have already come to speak from our platform and we think the plan we have adopted of giving the workless men and women a grand national holiday at the public expense, a very effective way of calling attention to the unemployed problem."

Mme. Curie, who shares with the late Pierre Curie, her husband, the honor of having discovered radium, differs with Sir William Ramsay, the famous English scientist, and in a recent communication to the Academy of Sciences questions the results of one of his best known experiments. Sir William found that under radio-active influence copper yields lithium. Mme. Curie disputes this discovery and suggests that the lithium came from the glass vessel in which the experiment was made. She tried the same experiment first in a glass tube, then in one of quartz, and in both cases found lithium, but when she employed a platinum vessel the copper salts under the influence of radium yielded no lithium at all. Hence her doubts as to Sir William's discovery. She is continuing her experiments, however, and will not assert for certain that he is wrong until she is quite sure.

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