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Advanced Treatise
in
HERBOLOGY



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Introduction

In the compilation of any work on a subject as old and revered as the study and use of herbs, it is highly essential that, in addition to formulas, compounds, administration, dosage, and so on, we include a certain amount of the romance and historical data which surrounds our subject in order to instill into the mind of the reader the glorious heritage of the herbalist; to make him realize that the reason the use of herbs in healing the sick has survived for countless thousands of years is because herbs are organic and, therefore, are capable of becoming a part of the living organism; also because they, and they alone, are the source and origin of all life on earth.

It is not conceivable or possible that any animal or human cell, organ, or body, can be built from inorganic or earthy mineral matter; for the simple reason that, such inorganic matter is merely an accretion. It does not live or grow.

We cannot conceive a grain of sand, an atom of gold, a molecule of iron, a drop of water, or anything that is inorganic manifesting life and growth from within; and not until we thoroughly understand this all-important basic fact shall we be able to appreciate the amazing and truly wonderful life-giving properties and virtues of herbs.

Now, before we begin to review the remarkable history, and the still more remarkable histology of herbs, let us try to get a clearer, and a more logical conception of that essential difference between organic and inorganic matter.

LESSON 1

According to Webster, the word *inorganic* is described as—

1. Not organic; not endowed with, or subjected to, organization; devoid of an organized structure, or the structure of a living being; unorganized; as rocks, minerals and all nonliving chemical compounds and elements are inorganic.
2. Pertaining to or embracing substances or species, as inorganic chemistry; inorganic forces; the inorganic kingdom.

The word *organic* is described by the same authority as pertaining to an organ or its functions; consisting of organs or containing them; as the organic structure of the human body or of plants.

It will be seen plainly wherein the difference lies, but it is necessary to go a step farther in order to *fully* grasp the *real* difference. The end product of combustion, of organic matter particularly, is largely carbon dioxide, and both animal and human metabolism is considered today to be a slow process of oxidation. The human body always contains much more oxygen than any other element. The word *oxygen* is derived from the Greek, meaning "to bring forth."

The only breathable oxygen produced by nature is from the leaves or lungs of plants and given off to the atmosphere in abundance.

Carbon dioxide does not and cannot support the life of the human or animal cell, but it *is* absorbed into the organism of the plant, the carbon being used for structural purposes and the oxygen being breathed out.

The very breath of human life is, therefore, dependent upon the vegetable or herb kingdom. Holy Scripture says, "The fruit thereof is for meat and the leaves for the healing of the nations," and modern science verifies that fact.

We know well that the herb can and does assimilate *inorganic* mineral matter, and that through some mysterious and unknown alchemy convert, this inert and lifeless matter into living organic material, which, when presented to the animal or human cell, is hungrily absorbed, sustaining and renewing its life process.

We also know that the life process of the human cell cannot be sustained by any element or compound obtained directly from the inorganic kingdom.

Even oxygen in the air we breathe is diluted with 79.07 percent nitrogen by volume, or 77 percent nitrogen by weight.

If pure oxygen is inhaled for more than a comparatively short length of time, it will destroy the tissues by burning them. If a mouse is placed into

a large jar of oxygen, he will frisk about and be excessively active for 20 or 30 minutes, and then drop dead. But, the oxygen from plants, used as food and medicine, does not so destroy.

Here we shall give one or two examples of the effect of organic and inorganic compounds or elements upon the human organism, in order to prove beyond doubt the destructive effect of the one, and the beneficial effect of the other.

Example 1. Oxalic acid does not occur free in nature, but is found in combination with sodium, potassium, calcium, iron, and manganese in the juices of many plants, such as rhubarb, sorrel, oak bark, cinchona, yellow dock, etc.

Oxalic acid is prepared artificially by oxidizing sugar and starch with nitric acid, and in this form is one of the most powerful escharotic poisons known. One dram will quickly prove fatal by destroying the organic structure of any tissue it touches, literally eating away tissues of the mouth, esophagus, stomach, duodenum, and finally perforating the peritoneum, and approximately 30 minutes after swallowing and after great suffering, will result in death.

The very same acid in the form of iron, potassium, sodium, or calcium oxalates, as found in rhubarb, sorrel leaves, etc. is quite harmless and these herbs are consumed in great quantities by both man and animals.

They are grown and freely distributed to all parts of the civilized world and no one claims they are injurious; in fact, rhubarb is one of our best laxative and blood purifying herbs, while sorrel leaves in the fresh state are extensively used in salads and highly recommended by both ancient and modern herbalists for scurvy or scrofula. Sheep sorrel, as it is commonly called, has also been used for reducing adipose tissue, in treatment of foul and sloughing ulcers and for cancer. It belongs to the family known as Polygonaceae or the Buckwheat family.

Another remarkable instance of the opposite effect produced by the use of *inorganic* as opposed to *organic* matter is seen in sulfur.

Several of our very best therapeutic agents are members of this family, such as yellow dock (*Rumex crispus*) and several others. All of them are iron-containing, and each and every one of them contains oxalates from 2 to 40 percent. They will be dealt with fully, later in this course of study.

Inorganic sulfur is usually administered in the form of powder called flowers of sulfur. In this form, it will circulate through the system and the greater part of it will be thrown out through the pores of the skin unchanged, showing that it has not been assimilated by the cells, but rejected. The injurious effects of mineral sulfur however, are caused by its affinity

for iron and also its destruction of ferments and enzymes and too, by its generation of sulfurous and sulfuric acids within the organism.

It steals the iron from food and blood, forming iron sulfide, which constipates and dries up the several secretions of the digestive tract. It steals nascent hydrogen from the fluids and tissues forming sulfur trioxide or hydrogen sulfide. This is the foul smelling gas we have all been revolted at, which is always given off by decaying organic matter, animal and vegetable. It is the smell of rotten eggs, putrid sores, fecal matter, decaying flesh, etc.

Now on the other hand, the organic sulfur in onions, watercress, marigold flowers, garlic, and asafoetida are all used as flavoring agents for food and healthful condiments. And, although certain people have individual antipathies to any or all of them, they are nevertheless very virtuous, non-poisonous forms of organic sulfur which have, and still do restore the organic sulfur which has been lost in purulent disease and decay of tissues to the cells and organs. These also will be fully dealt with in the course of these lessons.

We will take a cursory glance at one more important item of evidence showing the incalculable injury that can be done to the human organism by the administration of *inorganic* substances, more especially, those elements which have been artificially made or separated from organic matter by the action of violent acids, alkalies, or reduction to ashes by burning.

This universally-used and insidious poison is commonly called iodine. This element is found naturally combined with sodium, potassium, calcium, and manganese in seawater, mineral springs, and marine plants and animals, but in exceedingly minute quantities. There are only 37 parts of iodine in 100,000 parts of cod liver oil.

The commonly used iodine is obtained from the ashes of burnt kelp, dissolved in water; the solution is then evaporated. The iodine is liberated by the action of chlorine aided by heat, and then condensed.

Taken internally, this form of iodine acts both as a local irritant and as a true poison. It slowly decomposes water stealing hydrogen to form hydrogen iodide. This in turn gives off white fumes on contact with air and has a powerful acid reaction. Mixed with oxygen, it decomposes in the dark forming water, and liberating iodine, which again carries on its devastating effects upon the gastric organs and fluids producing a long chain of disasters.

The gas previously mentioned under sulfur; namely, sulfur anhydride, is decomposed by iodine, once more forming hydrogen iodide and freeing sulfur; and we have seen what sulfur does.

This inorganic iodine is a most insidious and injurious substance that upsets and disorganizes all the digestive fluids producing various forms of

dyspepsia, severe gastric pain, indigestion, foul gaseous eructations, and inability to assimilate food. This so-called specific disease is named iodism. It by no means confines its disruptive action to the gastric organs, nor does it have to be taken internally to poison the body; for if it be painted on the throat or any other part of the body, it can be traced in the urine in from 30 to 40 minutes.

The test and proof is very simple. Paint iodine on the throat. Forty minutes later urinate into a receptacle containing starch. If iodine is present, there will be a violet color.

Now to the difference manifested in the action of organic iodine; and what a vast difference there is.

Every saline aquatic plant contains iodine in combination with sodium, potassium, calcium, and manganese; also phosphates, sulfates, chlorides, bromides, etc.

They are all nonpoisonous, nutrient foods, antiscorbutics and vulnerary plants of the highest order.

Here are two in particular that for thousands of years have been used successfully in the treatment and cure of chronic disease.

Bladderwrack (*Fucus vesiculosus*). It is an alterative of great virtue, especially in obesity, reducing fatty acids, and tending to rid the system of useless waste matter.

Irish Moss (*Chondrus crispus*), a remarkable demulcent, nutrient, and dietetic providing the organism with what are loosely called vitamins, in the form of chlorides, iodides, bromides, phosphates and sulfates of sodium, potassium, calcium, and magnesium. All of them are positive organic salts, absolutely necessary to the healthy metabolism of the human body. This whole family of herbs is fully described, together with their therapeutic application.

Positively hundreds of instances could be cited to prove the deleterious effect of the application of *inorganic* matter and the positive curative effect of the intelligent application of nature's great store of *organic* remedies — herbs — in the treatment of pathological conditions of the human organism. But surely these three examples are sufficient to convince the most skeptical. I sincerely hope I have made that clear without trying your patience.

And now to peep at the romantic and fascinating history of herbs before we get down to a detailed study of their very great and wonderful restorative and healing properties, their classification, formulas, and their proper application. These will include also their peculiarities, affinities, and incompatibilities when indicated, and their contraindications.

The history of botanical remedies probably dates back to the dawn of man's existence on earth, but for all practical purposes, that is only con-

jecture and there is no way to be certain. We can only reason that primordial man, living close to nature in a wild state, must have observed the habits and instincts of animals, and if so, he must have learned much about the curative virtues of herbs because of the remarkable instinct of present-day animals who unquestionably know the herbs that heal them. And it is logical to suppose that such marvelous instincts which all wild animals possess today must always have been inherent in their ancestors.

From the highest to the lowest crawling animal, they all seem to know their remedies. Even the snake, the lowest and perhaps least intelligent of them, knows his remedy.

When he casts his skin, he goes blind, and in that helpless condition he has often been seen to crawl to an old fallen tree or a mossy bank. He rubs his sightless orbs in the moss, eats the rich juice, and with that one herb he restores both his skin and his sight. When hawks and carrion birds peck at the eyes of young birds in their nests, and when the eyes are not totally destroyed, the mother bird has been seen to anoint her babies' eyes with the juice of the leaves of the greater celandine herb, *Chelidonium majus*. It has been recorded that the films and opacities have been removed and the bird's eyes completely restored to sight. When the little mongoose is stung while fighting venomous snakes in India, he immediately leaves the fight, dashes into the jungle, finds an herb, eats it, and rubs the poisoned part in its juices. Then he returns to kill the snake and, according to the testimony of thousands of witnesses, no mongoose has ever died of snake bite.

A description of these three herbs and their therapeutic application will be given later.

These instances are but three out of hundreds of similar incidents denoting the marvelous instinctual knowledge of animals in the selection of their remedies.

We know how wise in herbal lore are the Indians and aboriginal tribes, and is it not logical to suppose that animal instincts have been handed down from generation to generation for countless thousands of years without man learning from them?

Interspersed through this course we shall give many interesting instances of both animal and human sagacity in selecting the remedy or herb that healed them.

The Chinese claim that the knowledge of plant remedies originated with them and dates back about 10,000 years.

History points more definitely to Egypt. The so-called mythological goddess of health, Queen Isis, was worshipped by those wise people as the greatest teacher of the laws of life and health who instructed their ancestors

in the cultivation of many medicinal and food plants, particularly wheat and barley, the making of rare and virtuous wines, etc.

She was the mother of Horus (the god of the sun) and the wife of Osiris (the god of the lower world).

A tradition that cannot be verified by historical facts is called a myth, though it often happens that so-called myths turn out to be founded on fact, and it is quite within the bounds of reason that Queen Isis did actually exist in the flesh, in some far distant prehistoric age.

Be that as it may, the fact remains that some long lost records have been recently recovered, showing that the ancient Egyptians utilized many herbs medicinally, which today are numbered among our proven and most valuable remedies.

Among them are cumin (*Umbelliferae*), a valuable carminative stimulant, caraway seeds (*Umbelliferae*), a stimulant, carminative, diuretic, stomachic, and the oil is a local anesthetic, myrrh (*Commiphera*), a most valuable stimulant, tonic, expectorant, emmenagogue, astringent, carminative, vulnerary, disinfectant, and antiseptic. This herb was formerly considered to be one of God's greatest gifts to man, and as such was presented to the child Jesus by the three wise men from the East, who travelled far to worship the newborn Savior. It is still one of our most important therapeutic agents. Olive oil (*Oleaceae*) is nutritious, emollient, demulcent, laxative, aids the formation of bile and chyle, acts as a solvent of cholesterol (the chief constituent of gallstones), and is a powerful peristaltic.

Several *Cassias* (*Caesalpinaceae*) including *Cassia fistula*, *Cassia acutifolia* and *Cassia augustifolia* (both called senna), *Cassia obovata* (the original senna) and several others.

Peppermint (*Mentha piperita*) is carminative, stimulant, nervine, diaphoretic, antiseptic. Juniper is stimulant, diuretic, anodyne, emmenagogue, carminative, stomachic, antiseptic. All these ancient and wonderful herbs will be fully described, together with their most effective therapeutic applications.

Leaving Egypt, we enter ancient Greece and glance at the great school of philosophy founded by one of the wisest men of all time; namely, Pythagoras (500 to 600 B.C.) The wisdom of this great philosopher has seldom been equaled. He is reputed to have taught many branches of natural science, and gathered about him a large number of the most brilliant thinkers of that time, specialists in every subject pertaining to life and health.

There is not much doubt that the learned teachings and writings of these great men laid the foundation for the coming of that remarkable genius, Hippocrates (365 B.C.), justly styled, the "Father of Medicine,"

because the only true science of medicine is the intelligent use of nature's only real medicinal remedies — herbs.

Although Hippocrates was born on the island of Cos in Asiatic Turkey, he was a Greek who graduated in the Pythagorean School. He traveled far, and studied herbs in their application to health and disease, becoming the greatest physician of his time, and perhaps the greatest of all time.

Returning to Egypt, we find the Ptolemies, about the same time (300 B.C.) founding a medical school in Alexandria. The most famous of the professors of that school were Erasistratus and Herophilus, who dissected the bodies of criminals obtained from the government.

They were opposed to bleeding and poisonous remedies, trusting to simple natural herbs. Herophilus paid particular attention to the action of the heart, and was the first to give anything like an accurate description of the various kinds of pulse. Praxagorus of Cos, the last of the Asclepians, had before observed the relation which exists between the pulse and the general condition of the system.

Referring to the Asclepians, we can hardly pass over them without mention. Tradition says the Aesculapius was worshipped by the Romans as "The God of Medicine," who studied and practiced medicine exclusively. There is no doubt that, as in the case of the goddess Isis, Aesculapius was actually a man, because we find in Homer's *Iliad*, reference to his two sons, Machaon and Podalirius. Both are described as being skillful surgeons in the Trojan War; also, two daughters, Panakeia and Hygeia, quite as famous as their brothers. Hygeia was credited with the invention of many valuable herbal preparations. The success of these in curing diseases won her the proud honor and deification as an especial "Goddess of Health." The followers of Aesculapius were called the Asclepians.

It does not matter much which of these schools antedated the other. The thing we are concerned with is showing the great antiquity and importance of the science of natural healing, through the use of herbs.

We have not time to treat of the lesser schools, such as the Dogmatics, Empirics or Pneumatics, who, although they all employed herbs, were involved in theories and doctrines often at variance both with reason and each other.

Entering the Christian era, we come to a truly great physician, Claudius Galen (A.D. 130), born in ancient Pergames, which later became a part of the Roman Empire. Like many other men who dared to think for themselves, who wrote and taught what they thought, Galen was much persecuted by his contemporaries, particularly by the Epicureans whose doctrines he totally rejected. He was entirely independent in his opinions, and paid little respect to authority.

Thoroughly educated in all the schools of philosophy, he selected from them all except the Epicurean. He wrote many books and treatises on herbs and medical subjects. His great skill in the treatment of disease, his profound learning and wisdom, won for him the title of "The Oracle of Medicine;" but so great was his persecution by other physicians, that he left Rome and returned to his native Pergames.

Some time later, the children of the Roman Emperor Aurelius were stricken with a serious illness. The royal command was sent to Galen to return at once to Rome. Needless to say, he restored the emperor's children to health and was thereafter left alone by his enemies. The indignities suffered by Galen at the hands of orthodox physicians have been repeated all through the ages whenever a brilliant mind dares to disagree with them. We are seeing a great deal of such persecution, even today.

Leaving Greece and Rome, we travel north with the Roman legions to Angleland (England). During the first few centuries of the Christian era, we lost sight of the healing art except for a few records which show that the Celts, Scots, Saxons, Danes, and Angles all possessed a knowledge of herbal remedies, and were all of robust and powerful physique. It would not be fair not to mention that the Arabians, having conquered a large portion of the semicivilized world, destroyed an immense Alexandrian library, but the Arabian physicians soon adopted the opinions of Galen and added them to their own medical knowledge. They produced medical works some of which enjoyed great celebrity without materially adding to the previous medical science. With Averroes terminated, the Arabic or Saracenic School of Medicine, the great reputation of which is mainly owing to the circumstance that, from the Eighth to the Twelfth Centuries, all Europe was sunk in deep barbarism and the slight remaining taste for literature and science seems only to have existed among the Moors and Arabs. This for lack of records.

After the Norman conquest of England (A.D. 1066) some law and order was established and many cathedrals and monasteries were built. Many priests studied the teachings of Aesculapius, Hippocrates, and Galen, and, being men of great learning, soon became famous for their knowledge of herbs in the treatment of disease. For several centuries, the Benedictine monks of Monte Casino and other countries, together with the traveling Jesuits, enjoyed a great reputation as herbal physicians. Many herbs are named after them, and countless thousands of people were healed by them.

The alchemists originated in Arabia. They sought to transmute the baser metals into gold. They also sought the Elixir of Life and the Philosopher's Stone. The alchemic art was at length transferred from Arabia to Europe, and Medical chairs were established on the continent during the

13th century. Finally Linacre, who was educated at Oxford and spent some time at the Court of Florence in Italy, returned to England and succeeded in founding medical professorships at Oxford and Cambridge, from which circumstance was laid the foundation of The London College of Physicians.

Thus, chemistry, having been applied to various processes, was applied to physiology, pathology and therapeutics. The chemical doctors were very wild and extravagant in advancing unnatural theories, but they had an ever present champion in the name of Galen, who was well entitled to be called the "Prince of Medical Philosophers."

He *was* a philosopher, a *natural* philosopher; for he studied nature closely and profoundly, and deduced his indications of cure from an accurate observation of the laws of nature.

His system, however, was destined to be utterly overthrown by an adventurous vagrant, whose ignorant quackery never had its equal on earth.

This impudent and unprincipled charlatan was none other than Paracelsus, to whom the medical world of today is more indebted for the mineral drugging system than to all other physicians who ever lived.

He introduced the mercurial and antimonial practices, which still constitute the great bulk of the *materia medica* of today, and which also continue to pursue their terrible devastating power on all human constitutions that come under its sway and influence.

In the fullness of his pride, pomp and arrogance, Paracelsus burned with great solemnity the works of Galen and Avicenna, declaring that he had found the Philosopher's Stone and that mankind had no further use for the medical works of others.

He lived a disappointed, miserable life, suffered from a most terrible disease, and died prematurely at the age of forty-eight. His famous Elixir Vitae failed to save him from a horrible fate.

Strange are the incongruities, inconsistencies, and inanities of the human mind. Strange indeed how the ignorant multitude will persist in making heroes out of cruel and inhuman criminals, as in the case of Paracelsus. His very name was fictitious, his real name being Bombastus von Hohenheim, a Swiss alchemist, and the greatest faker who ever lived.

It is almost unbelievable, but his abominable doctrines prevailed and his ignorant, infatuated followers have added several hundred other chemical inorganic mineral substances to the *materia medica* of the "Quicksilver Quack." At the present time, among a certain class of physicians, there is hardly a disease in the catalogue of human ailments in which mercury, zinc, lead, copper, antimony, arsenic, and many other deadly, drastic drugs are not employed, and all they have to do is write a death certificate, to be exonerated of all blame for the death of their patrons.

During the Seventeenth Century, the doctrines of Hippocrates again rose to some prominence in medical philosophy. Anatomy made progress, Harvey discovered the circulation of the blood; others traced out the absorbent system and explained the functions and structure of the lungs, while Boyle disengaged chemistry from the mystery and bunkum by which it was surrounded and explained its true province to be "not the manufacture of solid gold, liquid nostrums, or gaseous theories, but an investigation of the change of properties which bodies or matter show in their action on, or union with, each other."

From this time to the beginning of the Eighteenth Century, notwithstanding, many facts had been accumulating in chemistry, anatomy, and physiology. Physicians as a whole knew no more of the true nature of disease or how to cure it than was known by Hippocrates nearly two thousand years before. Indeed, it is positively certain that none of the eminent new schools of the present day have been nearly as successful in curing disease than were Hippocrates, Galen, and Sydenham (English herbalist, A.D. 1624-1689). Meantime, however, there have arisen physicians who, while they readily receive all the new facts in respect to the structure of the human organism, have still adhered to the teaching of those great physicians and treated disease with most abundant success by means of herbal preparations alone. We have today as bright a galaxy of names — scholars, philosophers, philanthropists, and humanitarians — as ever adorned any age of the world, devoting themselves with zeal and industry worthy of all praise to the study and practice of medicine, but who, failing to get the grand results anticipated in their laborious researches after Truth, do not hesitate to admit that their actual information does not increase in any degree in proportion to their experience.

All their learning and their multitudinous writings have only served to make confusion more confounded, and all because they have neglected to follow the dictates of nature and plain common sense in maintaining the herbal practice as the only true and philosophical foundation of the healing art.

Amidst all the jarrings, conflicts, and conflicting dogmas of the medical world, is it any wonder that the great masses are rapidly losing all confidence in medical science? They are afraid of operations, serums, and anti-toxins. They have seen so many of their dear ones suffer and die in spite of every effort by the reputedly skillful physicians. They are being made aware of the rapid increase of purulent disease such as cancer and syphilis and are crying out for a more natural system of treatment. They *know* that medical science has *failed*.

It is time that some of us aroused ourselves from our lethargy and

entered the field of logical natural medical science in the interests of our long suffering people and the advancement of the healing art. Let us equip ourselves with a knowledge of herbs equal to those great physicians both ancient and modern whose mighty wisdom has saved humanity from pestilential destruction. *Now* is the time, when the civilized world is looking, seeking, and expecting us to come to its aid.

In England, the herbalists are making great strides. They are rapidly increasing in numbers. They are highly esteemed and have established powerful national and social organizations for mutual protection and advancement.

Are we, in America, to play second fiddle to them? or are we going to enter the lists and advance *our* knowledge to the place where our physicians are second to none and our whole nation will look up to them as truly great physicians?

Gentlemen, it is with this end in view that we have left no stone unturned — that we have sought diligently, sparing neither time nor expense to gather together a great mass of data culled from many sources and reliable authorities in order to bring you real scientific knowledge and make each and every one of you truly great physicians.

We realize most vividly that our own individual efforts can only reach very narrow limits, but that you, the chosen few, can diffuse this most valuable knowledge and so materially help to establish our own universities, colleges, hospitals, and institutions, in a greater renaissance than has ever before occurred in the history of mankind.

This course of study is not like anything that has gone before. It does not consist of mere folklore, mere repetition of what has been taught before. It consists of the most recent findings of the greatest of living scientists — the clinical experience of the world's most famous physicians, both ancient and modern.

This lecture is only an introductory serving to foreshadow the joy and delight you will experience in the course which we believe will pilot you quickly to honor and greatness, to say nothing of financial success.

And now, let us give you something more interesting. A pharmacist has to be exceedingly careful and exact in compounding prescriptions, which are often of a very poisonous nature. So must the botanical physician. There are very many peculiarities about plants which are little known to the great majority of herbalists, and that is the main reason for their mediocre results.

What we want is to heal the sick, to restore sight to the blind, hearing to the deaf, to cure the lame, to nourish emaciated bodies, to check the wasting ravages of tuberculosis, and the filthy corrosions and erosions of cancer and syphilis. To rid the system of corruption, the cause of caco-

plasis. To dissolve and eliminate all stones and calculi in any part of the human organism not endangering or destroying the organ or tissue affected. No matter what they be called — alternating, arthritic, aural, biliary, blood, breast, bronchial, cardiac, chalky, cutaneous, cystic, dental, encysted, lacteal, laminated, mammary, nasal, pancreatic, parotid, preputial prostatic, renal, salivary, secondary, urethral, uterine, vesical, or xanthic — we want to know how to dissolve them all without failure. We want to stop the awful stench of mercurial salivation, to heal the necrosed bone, restore the heart, liver, lungs, kidneys, and glands to the normal healthy function.

All these things have been done by the great herbal physicians, but it is certain that we cannot obtain these spectacular and miraculous results without an exact knowledge of our remedies, and it is just as certain that given that exact knowledge, any one or all of us can achieve these magnificent results. This knowledge consists in knowing the peculiarities of medicinal plants in various stages of growth, their changing chemistry while growing, their vital curative principles, and their poisonous qualities. Without this knowledge, we shall accomplish little. The unripe capsule of the poppy (*Papaver somniferum*) contains morphine (from 2 to 22 percent), narcotine (1 to 10 percent), codeine (0.2 to 0.7 percent), narceine, pseudomorphine, thebaine, papaverine, and twelve other poisonous alkaloids all combined with sulfuric acid or meconic acid (4 percent). Also contains glucose, mucilage, pectin, caoutchouc wax, fat, lactic acid, meconin and meconitin. All these alkaloids are dreadful poisons which lay the foundation for many chronic diseases.

The poppy, allowed to ripen and produce seed, manufactures one of the finest salad oils (poppy seed oil), which also has great medicinal value. It is of a light yellow color, odorless, and has a sweet almond flavor. Its nutrient, demulcent, and vulnerary properties are second only to its solvent action on cholesterol and stone deposits in various parts of the organism. This solvent action is dependent on linoleic, oleic and linolenic acids, which it contains in abundance, in addition to glycerides of stearic and palmitic acids. These contain no narcotic properties and are quite harmless. Now perhaps you begin to see what I mean by exact knowledge of the peculiarities of plants. True science *is exact* knowledge. I could go on and on discoursing on this one herb alone.

Again, the bitter almond (*Prunus amygdalus* var. *amara*) contains a dangerous percentage of hydrocyanic acid, a most rapid, deadly poison, and probably the greatest poison known to man. But the sweet almond (*Prunus amygdalus* var. *dulcis*) contains no poison principle, but it does contain 56 percent of a sweet bland fixed oil which is nutrient (especially for the lungs), demulcent, vulnerary, laxative and contains no starch, which is

excellent for diabetes. The meal can be made into health bread, cake, puddings, etc., but what is most valuable about it is that it contains potassium phosphate (a brain food), calcium phosphate (a bone food), and magnesium phosphate (a flesh food). Its seed, the almond, is a delightful nut, easily digested, and is one of the greatest builders of brain, nerve, bone, and flesh discovered by man.

Allopathic physicians use countless poisonous herbs, and ignore the most virtuous and harmless ones.

In this course we will give you as much information as possible on the chemistry, habitat, peculiarities, therapeutic applications, and preparation of herbs. It is the exact knowledge of these factors which spells the difference between success and failure.

We live in the greatest age of discovery and invention in the history of the world. The human mind has trudged through ages of ignorant guesswork and blind sensual suggestion. Gathering flowers to please the senses and satisfy vanity, Italian ladies gathered the beautiful purple flowers of *bella donna* (beautiful lady), and also ate the dark cherry-like fruit. They noted in the mirror that their eyes were beautiful (pupils dilated); they rubbed the red juice on their cheeks and behold, they too were beautiful. Inwardly, their nerves were quiet, and their consciousness dulled. Encouraged, they ate more "cherries," and what happened? The result was a dry mouth, sore throat, insatiable thirst, burning pain in the stomach, difficult urination, dizziness, double vision, hallucinations, delirium, fits of laughter, convulsions, cold extremities, coma, and death. Such is the price paid for ignorant guesswork. But, having suffered long and terribly, man begins to think, and today he is able to gather from a vast storehouse of scientific data exact knowledge which enables him to overcome obstacles and avoid pitfalls.

Yesterday, he crossed the ocean in six months to two years; today he does it in a few hours. Yesterday a message from San Francisco to New York took weeks. Today it takes less than one minute. Yesterday twenty miles an hour was fast traveling. Today, two hundred miles an hour is by no means top speed. Yesterday the world was very large. Today it is very small.

So fast does progress, invention, and discovery move along, that, to keep abreast of it, one must constantly keep on the *qui vive*, constantly seek more exact knowledge, wisdom, and understanding.

In the chaotic condition of the so-called medical science and in the crying need of the millions is our grand opportunity to read, learn, and understand the truth about the ancient, honorable, and beneficent science of natural healing — herbology. For the wages of error and ignorance are

death; but the gift of God is eternal life, which is not inconceivable nor impossible.

The voice of ignorance calls it absurd, impossible, and preposterous; but the voice of wisdom, reason, and intuition assures us that the day is coming when, through exact knowledge, we shall be able to reconstruct our body faster and better than our ignorant guesswork destroys it. In other words, as every living cell has the inherent power to reproduce itself *ad infinitum*, it is quite within the bounds of reason that an exact knowledge of the laws of life will ultimately enable us to so increase and augment the anabolic (constructive) processes of metabolism that catabolic (destructive) processes will be so diminished and minimized that they will ultimately disappear entirely.

Nature is ever young and beautiful, even vibrant with life and more life. Why not man? Let us get down to work and make this dream come true, for we shall keep coming back to reap the harvest of what we have sown until we learn the Truth which alone can set us free. "You shall know the Truth and the Truth shall make you free."