

Physio-Medical Therapeutics,  
Materia Medica  
and Pharmacy

BY

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Originally published Ohio, 1897.

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Reprinted by  
The National Association of Medical Herbalists  
of Great Britain, Ltd.,  
Medical College of Herbal Practitioners,  
46, Bloomsbury Street,  
LONDON, W.C.1.  
1932.

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## PREFACE.

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The original work of Dr. T. J. Lyle, as published in 1897 and later added to by Supplements, has formed one of the text books in the educational scheme of The National Association of Medical Herbalists of Great Britain. In republishing the work-now the copyright of the Association-the Council decided to retain only that which may aid the science and practice of present-day Medical Herbalism. The Opening synopsis "Physio-Medical Therapeutics" together with Dr. J. M. Thurston's treatise "Pharmacy," contained at the end of the volume, are reprinted as originally contributed. Herbal pharmacy of to-day is a scientific advancement commanding special treatment, yet much of Dr. Thurston's writing is useful to those desiring knowledge in the preparation of herbal medicine.

In the Materia Medica section drugs untried or of which there is doubt as to therapeutic value have been omitted; some new and valuable drugs have been added, while the addition of further knowledge, gained by clinical practice, of old and reputed remedies will increase the educational worth of the volume. The inclusion of a large series of splendid engravings of medicinal plants should prove interesting and instructive to students and others having at heart the progress of medical botany. The original drawings are the work and gift of John Rees Yemm, F.N.A., the Editor of "The Medical Herbalist" which journal is the official monthly organ of the National Association.

Dr. Lyle concluded the original preface with the following :-I have gathered a few facts from the great ocean of truth that lies before us. These I hand to you in the hope that thereby you shall be able to drink the more deeply from the fountains of medical truth. Proclaim the truth to others that they in turn may do good to succeeding generations. "We emphasize the appeal!

Wm. Thos. Dawes, F.N.A.,  
President, National Association of  
Medical Herbalists of Gt. Britain.

June, 1932.

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## PHYSIO - MEDICAL.

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## THERAPEUTICS.

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The true physician is a wonderful being, whose calling is second to none. He deals with human physical and more or less moral defects. Indeed, man's weal or woe to a great extent, is in his hands. If he is ignorant woe be to humanity. He cannot be too intelligent in his profession. He must be a continuous student, if he keeps abreast of the times. He must realize that there are others in the world who know some things as well as he, that there is room for him to improve, and that there is some information yet for him to gain. Let him be assured that there is room for him at the top if he will but put forth the effort to attain it.

Besides the knowledge of drugs, there are other things in which the physician must be proficient. He must be a thorough student of human nature and a thorough physiognomist. He must be wise in reading abnormal conditions, and be capable of reading character and of diagnosing on sight the conditions present in his patient. This will gain for him at once the patient's confidence and is extremely helpful in the physician's art.

Beware of deceptions, for remember you are everybody's confidante. Be swift to hear everything; be quick to observe everything; but be slow to speak anything. Always tell the truth, but not always the whole truth. Do not make light of your patient's ailments. They believe they are sick, and that itself is a disease, and needs your attention. Book knowledge is good, but that gained at the bedside is frequently to be preferred. The results of scientific experience are very valuable. The physician should have good common sense, good morals and a thorough medical and literary education. Then too he should have a true love for his profession, and possess a magnetic affability. A little fun, a good joke, a pleasant anecdote, and a little laughter will often do your patient good. Never approach your patient with a long face.

Be positively correct in your diagnosis. It is unpleasant to be compelled by force of consultation or otherwise to change your diagnosis of any case. Be scientific in the application of your remedies. "Be sure you are right, then go ahead."

Physiology is the science of man, its normal development and preservation. Health is physiology as an art - a sound, unobstructed condition of the organism. Disease is defective physiology-an unsound and more or less obstructed condition of the whole organism or of some part or parts.

Study well the manifestations of the vital force in health as well as in disease. Carefully differentiate these manifestations, determine their signification and seek to restore to the normal condition. Let the manifestations of the vital force be your guide in diagnosis, in prognosis and in the art of curing.

Therapeutics relate to the discovery of remedies, the determining of their medical properties and of their application in restoring diseased conditions to a state of health.

Medical history is full of therapeutical schemes- some very foolish and some seemingly very wise, some practical, some impracticable, and some a mass of arbitrary dictums. It is not then surprising that some are unreliable. This unreliability has given unrest to the medical mind, and given rise to the assertion that medicine is not a science. Some minds have built up and some have torn down. The dethroning of one opinion has given room for the enthroning of another. The present stands upon the ruins of the past, and man is still searching for truth.

Many medical systems have been founded upon imperfect data. yet many have been their followers. All systems have had their gifted minds, but, some preconceived fad, some false premises or some pre-desired conclusion has prevented these gifted minds from always reaching correct conclusions.

Because we differ from others, we do not brand them as ignorant, but rejoice in the fact that we live in an age of great research and of wonderful knowledge. We are pleased to note the many intelligent persons who stand in the lead of other schools of medicine. We simply say these men are more or less mistaken, and hope that the day will soon come when they too shall behold the beautiful light of truth and pronounce medicine not a mass of arbitrary dictums, but in truth a science.

Since Hippocrates, who has been called the father of medicine, of 460 B.C. many systems have arisen. Among those that remain, the leading are the Regulars or Allopaths, the Homeopaths, the Eclectics and the Physio-Medicalists.

The Regulars would have us cure a diseased action by inducing a different kind of action, though not necessarily diseased action. They claim that therapeutics is not a science, that it is uncertain and dependent upon the skill of the practitioner. Once they called disease an evil spirit, and attempted cure by incantations. Then they thought that the fluids and solids of the body had changed, and that the fluids had left their proper places in the body, or had become disproportioned. Then came experimental therapeutics, statistical therapeutics, and experiments on the lower animals. An left; them in more or less uncertainty, and hence to them medicine was necessarily somewhat empirical.

Galen was the man guilty of formulating the scheme of substituting an artificial diseased action for the disease itself. Such always led to the reduction of vitality, landed the patient into more or less asthaenia, resulted in protracting the period of illness and led to so many heart failures. These are the men who seek the protection of the State to prevent others from practicing medicine who do not believe as they.

Not unfrequently one extreme begets another. The Homeopaths under Hahnemann arose and shouted "Similia Similibus Curantur" ; -as medicines given to healthy cause certain symptoms, they will cure disease showing similar or like symptoms. They would have you give arsenic or copper to cure diarrhoea, because such produce diarrhoea in the healthy. They would have you give strychnine for spasms because it will produce spasms; or muriatic acid for hectic fever because it will produce similar results in the healthy. Why not then cure drunkenness by giving more alcohol.

The Eclectics elect from each school as their experience seems to indicate. They give medicine because its effect is opposite to or opposed to the diseased action. They hold that remedies contain a force which set free in the body has the power to bring it back to that condition called normal. They can disease an excess, a defect, or perversion. They say a medicine lessens an excess, restores a defect. or changes a perversion to the normal standard.

Physio-Medicalism is medication in harmony with true Physiology, recognising in all conditions the indications of the vital force and hence abstaining from all poisonous medication, believing that whatever has for its tendency to kill cannot have for its tendency to cure.

In Anatomy and Chemistry we hold a general agreement with other Schools of Medicine; but we differ more or less in Physiology, Therapeutics, Materia Medica, Medical Surgery and Practical medicine. We teach Physiology as the basis of Medical Practice and demand that the laws of human life and functional activity must be thoroughly understood. The human body must be regarded as a highly endowed vital independence by virtue of an inherent vital and living plastic matter, which is the sole causation of any function.

By virtue of this vital force and living matter, the body is able to maintain its functional integrity against ordinary adverse influences. But when over-powered, functional work becomes more or less disturbed. Then the resistive effort of vitality is manifested in repelling or eliminating the producing cause. To aid the vital force in these restorative efforts is the work of true medicine from the hand of a true physician. Toxics, irritants, or narcotics tend to destroy bioplasm, to weaken functional power and to foster chronic ailments in the body in place of the disease they were intended to remove and hence are improper agents to be used as medicines. Anything that can deprive the organs in part or wholly of their ability to act normally is a cause of disease. That inability is the disease; and the cure is the restoration of these organs and tissues to their normal condition. Much has been said of bacilli, but these are usually harmless; the poisonous element in which they thrive is the cause of further disease and is the contagium.

It is apparent that the mass of medical men are therapeutically at sea. In order that we may behold an appropriate superstructure it must be built upon a true foundation. See with what avidity medical men have allowed themselves to run after therapeutical sensations. The Brown-Sequard Elixir for the rejuvenation of the race produced a wild sensation; Koch's tuberculine was to be the eradication of consumption; and now antitoxin and serum therapy are among the fading wonders.

I grant honour to him who for the welfare of man becomes a patient investigator. But where is the trouble?

Not in the intensity of the effort, but in the conclusions that are drawn from incomplete or incorrect premises. You need not search for gold in a dung hill; the proper place must be sought. Yellow glasses make all things look yellow; hence investigation must be conducted through the media of correct premises in order to reach correct conclusions.

The physical basis of life is vital and not chemical. The conservation of the vital force is the pivotal point in therapeutics. No agent harmful to the physiological unit of animal life, the proto-plasmic cell, must find a place in our Armamentarium Medicorum.

Medicine must have a rational and scientific basis, a correct anatomy and physiology. Physiological phenomena are dependent upon vital action. Chemical and other forces may and do act at times under certain circumstances within the organism, but their resulting phenomena do not constitute vitality.

Before us are two existing facts, matter and force. Force is substantial, inherent with and inseparable from matter. Gravitation is the force one body has to attract another body in proportion to its size and density. The force of gravitation is constant and the larger and denser body the stronger the force. Then too, we have the force of electricity, of magnetism, of heat, of light and vitality. Everything in the universe is in motion and governed by force of one kind or another, or by two or more forces combined. Heat is the great force in nature in opposition to gravity. Heat carries material things from the earth, its effect can be seen. Heat is an attenuating force and is the most important remedial agent in the whole *Materia Medica*.

The properties of a medicine constitutes its force; and so of a food. The force of plant growth is absorption. The force of a substance gives character to that substance. The force of an agent, when administered changes the condition of the man.

Living matter is the seat of vital action. Non-living matter is the seat of chemical phenomena. When the vital force deserts living matter, then chemical force decomposes and breaks it up into compounds. Matter assumes one of three forms;-

Matter about to become living,

Matter actually living, or

Matter that has lived.

Such is the conversion of pabulum into bioplasm and subsequently into formed material.

The first stage of life in all forms or organism is bioplasma which is transparent, colourless, structureless and semi-fluid, exhibiting certain peculiar motions, changes of shape and dimensions as influenced by the vital force and surrounding circumstances. But the vital force does not act thus on any other form of matter. Pabulum is fluid, but a reduction in volume takes place when converted into bioplasm, and a still further reduction takes place in being converted into formed material, hence the necessity for the regular supply of proper pabulum. In condensation bioplasm is formed into cells or tissue elements. These cells unite in definite arrangement and form tissues, structures, organs and the living body.

The motion observed in living matter is vital action and the result is function. There can be vital action and no function where there is living matter. Where there is no structure, without which there can be no function, there yet may be vital action.

The ultimate intended result of all organism is the reproduction of its kind, and the starting point is bioplasm.

Food Substances are such as furnish proper pabulum for the sustenance and reproduction of bioplasm during normal action.

Remedies are substances whose constituents are especially adapted to arouse and sustain extraordinary actions of bioplasm during disease. A poison is a substance having an inherent deleterious property, rendering it capable of destroying life in some degree by whatever avenue it is taken into the system. A substance ordinarily capable of destroying bioplasm can not be classed as a true remedy. Poisons produce disease; they are given for that purpose; hence their presence in the system is physiologically criminal. True medicine acts in harmony with the wants of the vital force in its opposition to disease. The one legitimate object of medicine is the restoration of the diseased body to a state of health. This is the line of action of the vital force and when nature calls for help, true medication must answer that call by harmonious action. Vital action arouses all its energies to resist disease and prevent death, thus frequently cures are effected without medicine.



Blood, bone and muscle cannot be furnished by any chemical process but by suitable pabulum for bioplasm which shall become formed material and organic structures. In the blood we find plasma holding in solution nutrients for the white blood corpuscles which are semi-fluid, converting digested food substances into its own substance and finally into red blood corpuscles which carry oxygen throughout the entire body and maintain vitality.

All things influence the organism either favourably or unfavourably, either increasing or diminishing the chances of life by the supply of proper or improper pabulum. These chances are also varied by external circumstances, changes of temperature, violence, habits and labour.

In the work of restoration the attempt must be to restore to some extent the opposite condition of that abnormally existing. If the parts are congested apply heat and relieve the circulation. If the body is emaciated give proper food and sustain digestion. If there be too much relaxation, stimulate to the relief of such abnormal relaxation. If there be too much rigidity, relax to the relief of that rigidity.

Diseased tissues are already weakened; and agents that carry the tissues from the normal will act as still further causes of disease, because the diseased parts are more or less incapable of resistance.

Narcotics benumb the body, disable bioplasm, debilitate the heart, weaken the nerves and interfere with a speedy recovery. Narcotics may and do ease pain; but they debilitate the vital force at the time she needs all her energies. Do you recognize an imperfect or perverted act of the vital force? Do not narcotize but determine the cause; ascertain the necessities of the vital force and medicate accordingly, with the utmost discrimination.

Excitement is a function excessive in action because of some injurious impression having been made, but that excitement is the grand medium for the removal of obstructions, and for the maintenance of normal action. So with fever and inflammation. They are but indications of nature for your guidance to proper medication. Nature throws her special energy where most needed, so with a cough, it is a vital aid for the purpose of removing some offending substances from the lungs, bronchi, or larynx. To narcotize the patient so that he cannot cough might leave nature helpless in the presence of dangerous substances she by that cough is trying to dislodge.

It is better that functional disturbances exalt the system above normal, than that the whole system be so depressed that the circulation be below normal. Either condition would respectively express the resistive power of the vital force. Departure from the normal may be in extremely varied degrees, and remedial measures must be similarly varied.

Different parts of the body may be in different conditions at the same time; the bowels may be tense and the skin lax; the head may be hot and brain hyperaemic and the feet cold; the heart pulsations may be much above normal and yet the surface may not be hot, nor even warm; there may be a tense uterus while the limbs are cold and clammy.

Some organs that are closely related may be either similarly or dissimilarly affected. Both liver and stomach may be relaxed, and yet we frequently find the stomach relaxed while the liver is tense and engorged. The uterus and urethra may both be influenced or the one only may suffer inflammation.

The human system is a most wonderful commingling of tissues, structures and organs, demanding most careful study of he who would be a physician, and yet in the art of curing disease we can but influence to contract and relax with varied degrees of rapidity and energy in imitation of nature's way of using these structures in health. Remedies must be combined according to the structures to be impressed, and in strength or dose according to the remedial impressions desired. Make your compounds as simple as possible. Do not think that because from 25 to 50 drugs are combined in a preparation that it is a panacea.

Three principles of influence pervade the entire science of medicine Relax, Stimulate, Astringe. These three well applied, are your passwords to the inner sanctum of success. The whole person or some of his parts may be too rigid as we find in hysteria, convulsions, chordee, tetanus, or stiff neck. Here our medication must be of a relaxing character. But the whole person or some part may be too much relaxed as in anaemia, night sweats, paralysis, chorea, apoplexy, epilepsy, nervous prostration, diarrhoea, or leucorrhoea. Here there is a necessity for medication that will be stimulating and sustaining to nerve sensibility.

In the treatment of disease make your patient's food subservient to your medication. Have proper food, properly prepared and regularly given. Then both food and medicine will become instrumental under the vital force in the restorative act. Some foods are stimulating in their nature as beef, beets, cranberries, parsley, sour apples, rhubarb. Some foods are astringent as boiled milk, thickened milk, fine flour, crab apples, arrow root. Some foods are relaxing to the system, as turnips, sweet apples, asparagus. Great care must be taken that the patient be not fed too much. More food can be given than can be assimilated, or the wrong class of foods may be given.

An excess of either food or medicine, or the wrong kind of either food or medicine, though either in themselves may be innocent, may place tissues in such a condition that for the time being they can be but imperfectly used by the vital force. What folly it would be to use lobelia in paralysis or apoplexy; or to use *Asclepias tuberosa* in malignant diphtheria; or to use tannin in case of constipation. Each food or medicine holds a more or less fixed relation to the organism, and expands its influence on particular tissues or organs. *Syr. Juglans cinerea* especially influences the lower bowel; *Leptandra virgo* influences the liver tubuli; *Ipomoea jalapa* influences the alvine mucous membrane; *Eupatorium purpureum* influences the kidneys and *Asclepias tuberosa* influences the skin. This will ordinarily be as true if these agents, two or more of them, be combined as when used separate.

But how shall we form a correct estimate of an agent as to its remedial effects in order to aid our selection of a sanative remedial agent. No correct estimate can be formed usually unless there be numerous observations of the influence of the agent by itself. The effect of large and small doses must be carefully observed as also the cumulative effect of continuous doses. The patient must be carefully watched to see if the vital force gives a favourable or unfavourable response. Can it be given persistently without any destructive influence to bioplasm. Here the skillful use of the microscope is very valuable. Then too we must take into consideration that chemical union may have much to do in forming innocent compounds out of otherwise deleterious substances.

Let us take a few examples of substances that are ordinarily used as medicine.

Strychnine acts quickly, within ten or fifteen minutes. The person first complains of stiffness about the neck and presents the aspects of terror. There is an impression of calamity or death. Soon the head is jerked back, the limbs extended, the back tetanic, and the mouth drawn. In a few minutes these symptoms pass and there is relaxation, but on the slightest movements of the body these spasmodic efforts return, and usually continue till the body succumbs in about half an hour. One forty-thousandth part of a grain of strychnine will destroy living tissue. Such is its action in death toxic doses. We could not recommend this agent.

Aconite and its alkaloid aconitine will prove fatal in 1-16 gr. doses. It produces a peculiar burning, tingling and numbness of the part to which it is applied. Large doses produce violent vomiting and more or less paralysis of motion and sensation, great depression of the heart and death from syncope. Intelligence remains until the last. This drug is not such as we could recommend.

Belladonna and atropine dilate the pupils, and give a rapid pulse, a hot, dry, flushed skin, and an eruption similar to scarlatina, soreness of throat, difficulty of swallowing, intense thirst and a gay mirthful delirium. Neither could we recommend this agent.

Chlorine and Bromine are powerful irritants. Inhaled fumes provoke spasms of the glottis and then induce inflammation of the respiratory mucous membrane, which may prove fatal. These drugs we could not recommend.

Mercury (*Hydrargyrum*) is given internally, chiefly for two purposes; to check inflammation and promote absorption and to antagonize syphilitic virus. In continued doses it produces salivation, first giving a metallic taste, then soreness of the gums, an undue flow of saliva and foetor of breath. Then comes swelling of the tongue, ulceration of the mouth and disease of the jaw bones. The blood becomes impoverished and the loss of flesh and feverishness ensue. Its action on the liver is uncertain. Inhalation of its fumes gives tremor of the nerves.

Calomel (*Hg. Cl.*), subchloride of mercury is one of the mildest forms of mercury. It acts on the secretory organs and stimulates the liver and intestinal glands to increased activity. Jalap is usually added as a purgative.

Calomel increases hepatic action and thence peristaltic action, but it exhausts the liver by excessive stimulation and leaves it more or less congested which may lead to chronic enlargement, tenderness, hardening, abscesses and cancer. Hence we could not make this agent a part of our *materia medica*. Opium gives at first a feeling of exaltation, then symptoms of cerebral congestion with face suffused or cyanosed, pupils contracted, skin hot and dry, and breathing slow, deep and finally stertorous. In approaching unconsciousness the person may be aroused by shouting in the ear and then will respire more rapidly. Then comes prostration, coma more or less profound, pupils become pinpoints and then widely dilated toward the end of life. Respiration now slows, the face becomes pallid and cyanosed and a heavy perspiration follows which is at first warm and then cold and clammy. The pulse increases and then feeble. Such is the action of opium in death-toxic doses. It carries every tissue into a dangerous state of insensibility, and hence cannot be considered a part of our *materia medica*.

From these illustrations it is evident that poisons destroy bioplasm and carry the organs farther from the normal standard, or at least remove them more or less from or under the control of the life power. Taken internally or applied externally they produce disease and lengthen the period of sickness. We must confess that some poisons may be used for a time with seeming advantage. Calomel secures hepatic discharges and morphine usually secures sleep. There are times when such results are necessities. In fact many persons do take poisons and yet they live; and at times it would seem to be to some advantage in the restoration of certain faculties. How is it possible that we should destroy true life to save life and yet assist nature by the process of that destruction! It is claimed that if a new disease can be produced in the exact site of the one already existing, it may possibly supersede the latter, and if the new disease subside without injury, the patient may be cured. By other schools of medicine poisons are given to produce disease, not accidentally nor incidentally but with the fullest intent. Some of these produce diseased conditions which last through life, and the patients become miserable chronics. Frequently it is within the power of the organism to dispose of these poisons, but sometimes it results in death and then it is termed heart failure.

A poison then has some deleterious property which renders it capable of destroying life by whatever avenue it is taken into the system, whether by application, inhalation or imbibition and whether it be in its nature corrosive, inflammatory or such as effects the nerves of sensation and motion.

I have given these few examples of agents that we do not wish to recognize in our *materia medica*, in order that we may see their unnatural influences and sequela), and realize that they do not harmonize with vital efforts. Too often, patients are recovering from some sickness with aching bones, stiffened joints, trembling nerves, and ruined digestion, abscesses on the lower limbs, decayed teeth or some difficulty clinging to them the rest of their days as the result of poisonous treatment. Many a case is prolonged into weeks and months which could have been cured by Physio-Medical treatment in a much shorter period and without leaving unpleasant sequelae.

To be able to relieve pain is both excellent and necessary. To this end many drugs have been used as morphine, codeine, chloral, aconite, belladonna, the bromides, phenacetin, antikamnia, &c. Morphine perhaps stands first and is used to an alarming extent. If the ordinary Allopath of to-day were debarred from using whiskey, morphine, and quinine he would be almost compelled to give up business.

In health there is no pain. All is ease and comfort. When some of the structures are not attuned to the vital force, uneasiness ensues and pain results. The intensity of pain will depend much on the tissues affected and the severity of the cause. Pain is not the disease, but is a consequence of disease, of some injury received or of the accumulation of more or less morbid materials. The presence of dust in the eye may produce pain; the accumulation of faeces may produce enteralgia; and presence of gallstone in the gall duct, or the descent of a calculus into the urethra may produce pain in these localities. If any of these conditions were present and no pain resulted, it would most assuredly indicate that the parts were too nearly dead to recognise the presence of obstructions or make any struggle towards relief.

Pain is the announcement of something wrong in the system; the relief of pain is to be sought in the removal of that which gave rise to it. Morphine usually relieves pain, but it is at the expense of vitality. It relieves no obstructions, re-establishes no suppressed functions, relieves the system of no offending substances, but usually leaves the nervous system much irritated and the whole system less able to eliminate the provoking cause, and less liable to recognize remedial measures.

Sensibility is benumbed and the causes of disease are left to care for themselves. Benumbed sensibility is not natural sleep and hence not as beneficial as natural sleep. In the latter the whole system is at rest; in the former the vital force is, so far as it is not benumbed, in a state of resistance. Physiologically an exalted sensibility is to be preferred. See the wrecks narcotics leave; with muscles weak and motion irregular, with nerves in universal tremor and nutrition impaired; with the foundation of intelligence prostrated they resemble the inebriate, poor emaciated wrecks, mentally and physically. Insanity from this cause is least amenable to treatment.

It is frequently urged that the size of the dose determines whether the agent be a poison. But this is not possible. Whether the dose be an infinitesimal one or one of allopathic proportions cannot change the real character of the agent. The results of either dose of the same strength of the agent will be proportionate to the size of the dose and of the ability of vitality to resist. Quantity cannot alter quality. The Homeopath understands this in the administering of his infinitesimal dose. A small dose will excite less vital resistance and will be the more surely lodged in the system. But we hear it said that some poisons provide certain needed elements to the body. They seem to forget that dead matter and not living matter or the living man, is the proper domain of chemistry.

Because a substance is found in the gastric juice after death is not always evidence that the substance was there during life in normal action. Blood and bone and muscle are manufactured by no chemical process, but under the influence of the vital force in the distributing of proper pabulum for the growth of bioplasm, and thence formed material. Man is a vital structure and not a chemical laboratory.

The *Materia Medica* of Physio-medicalism is replete with agents that are perfectly safe and powerful in assisting the vital force in the work of restoration. They cure rapidly, effectually and without benumbing the system or causing disease. Such a system meets the approval of every man's common sense, stands the surest test of scientific criticism and shows its superiority over all other systems. Indeed we plead a grand reform in the theory and practice of medicine; a complete revolution in the art of healing, and demand that true medicine is a science and not a mass of arbitrary dictums. Physio-Medicalism demands the highest - place in Medical Education, requiring exact observation of all physiological phenomena, for these are our accurate guides in all our efforts to cure.

Frequently you will hear it said by physicians of other schools that your cases were not so ill as theirs. This is an unintentional compliment. It is good evidence that their use of poisons complicates disease and makes their cases worse. We medicate in harmony with nature and our cases are soon cured.

All drugs do not influence the same class of tissues; each agent has its favourite locality for its special influence and each has its own peculiar mode of action. *Leptandra virg.* influences the secretory tubuli of the liver, *eupatorium purpur.* influences the kidneys; *arctostaphylos uva ursi* influences the urinary mucous membrane; *solidago canadensis* stimulates and tones the alvine mucous membrane; *cornus florida* is an astringent to the mucous membrane; *asclepias tuberosa* influences the skin and capillary circulation; *lobelia inflata* relaxes muscular and nerve tissue; *caulophyllum* lends special influence to the uterine nerves, while *scutellaria* is a general stimulating nervine. Thus it is evident that the same remedy may be made to subserve a valuable purpose in more than one disease.

The functions of organs and tissues are animal and vegetative or organic. Animal functions comprise locomotion, innervation and special sense. The organic comprise digestion, absorption, circulation, respiration, secretion, generation, and the development of heat, light and electricity. Medicine does not produce function; this is the work of the organism. Each medicine makes its own peculiar impressions by going the round of the circulation. Contact, penetration and absorption must take place prior to complete impression. Get your agents to the place where they are most needed and by the shortest route possible. The nerve structures and ganglia convey remedial impressions, and by these and the circulation, the influence of some medicines is almost instantaneous. This is well exemplified in the influence of the third preparation of *lobelia*, wherein is combined intense stimulation and relaxation.

Symptoms are abnormal functions dependent upon certain diseased conditions. The symptom is the sequence rather than the diseased condition. The symptom is not the disease and is not the thing to be medicated. As soon as the diseased condition is removed the symptom is not present. To medicate for symptoms leads to narcotism and to specific remedies for special symptoms.

Each abnormal condition usually manifests a plurality of symptoms. The relation and inter-relations of organs, tissues and structures necessarily lead to the involving of adjacent and related structures.

Pain is not always manifested in the diseased part, but is sometimes felt at some distance from the part diseased. A pain or uneasiness felt under the left shoulder blade will frequently be the result of a chronically inflamed ovary. The same cause has frequently given rise to a pain down the inside of the thigh or at the knee. The patient is more or less congested and a diarrhoea following a period of constipation is the result. Your patient needs not to be narcotized to relieve that pain; equalise the circulation, relieve the congestion, and the pain ceases without the use of narcotics. Your patient has an aching back; it may be from some irritating cause in the kidneys, rectum, uterus or from one of several other causes. The cause must be sought and relieved. Your patient is nauseated or vomiting. It may be from some injury to the extremities, from some condition of the stomach, from pregnancy or from other causes. Ascertain the provoking cause and medicate accordingly. Diagnose carefully the cause with the utmost precision. It may be that your patient has a headache. Such might arise from one or other of a dozen causes. The ordinary headache powder may be far from relieving the cause of that headache.

One thing is of especial importance; carefully differentiate between a normal vital effort, a vital effort resisting disease, and a vital effort under the influence of remedial measures. Carefully differentiate between the disease and the efforts of the vital force in resisting disease. Inflammation, fever and pain are not diseases, but physiological manifestations of extraordinary bioplastic action. They are indications of the degree of vital action in the effort to overcome disease, whether it be for the removal of obstructions, the replacing of destroyed cells, or other important aids to the restoring of a healthy condition.

Dysentery and diarrhoea are occasionally vital efforts to wash away through the alvine canal some offending substances.

Cough is a vital effort to cast off some material obstructing the bronchi or pulmonary tubuli.

In all cases of either extra or depressed vital effort, carefully diagnose the conditions present that cause the vital force to put forth such efforts for its relief. Such diagnosis will furnish you the indications for scientific medication. The heart as the centre of the circulation feels to a greater or less degree all deleterious impressions; and the greatest care must be used in diagnosing the true cause of whatever trouble may be present. A stomach with fermented contents may make one feel as if there is heart trouble, and so may hysteria. The heart quickens its pulsations according to the arterial tension present. It is a great mistake to give antipyrine and drugs of that class, attempting to reduce fever by depressing the heart's action, instead of furnishing those agents which will relieve arterial and capillary tension, and thus relieve the necessity for the condition of the heart. Such drugs as antipyrine suppress vital manifestations instead of removing the causes. You are but a clerk about the vital establishment whose duty it is to act in harmony with the head of the firm in all its restorative acts, and not to attempt to paralyse its efforts.

It is usually true that an agent will similarly influence organs either similar in structure or intimately related. *Asclepias tuberosa* influences the serous membrane, as well as the mucous membrane and the skin. *Aristolochia serpentaria* influences the circulation, the skin and the kidneys. *Zingiber* influences the circulation and the skin. *Lobelia* influences the nervous and muscular tissue.

Many remedies influence more than one structure, some are quite general in their influence, and yet many confine their chief influence almost entirely to one structure. Many agents having a general influence over the structures will expend their force- either where most needed or in the directions whether they may be influenced by other medicines. In labour, *lobelia* will influence the os uteri more than elsewhere; while in croup, hepatitis, pleuritis, bronchitis, and pneumonia, *lobelia* will chiefly influence the part that most needs to be relaxed. *Lobelia* combined with honey or sugar, which are expectorants, will mostly influence the lungs and bronchi and is an expectorant. *Lobelia* with laxatives will assist in producing catharsis.

In a sensitive and irritated condition of the stomach, lobelia given in small doses and at regular intervals will give gentle relaxation, ease and comfort. But should the stomach be already too relaxed instead of irritated, lobelia would be much out of place. According then to the conditions present and the mode of administering lobelia will either arrest emesis or produce emesis; leptandra will either produce catharsis or check catharsis; capsicum will either produce diaphoresis or check diaphoresis. But these conditions are not diseases but effects of vitality to free the system of offending substances. The conditions present and the necessities therefor govern the action of the medicine.

In labour where the pains are inefficient, capsicum will lend its principal influence to the uterus and become a first class parturient. In conditions of extreme torpor of the liver, skin or bowels the influence of capsicum will be felt as required.

In a case of menstrual suppression cimicifuga racemosa will chiefly influence the uterus; in case of nervous irritability it will influence the entire nervous system, assisting in the relief of the irritability present; and yet in rheumatism its influence will be mostly felt by the serous membrane, the -part then most needing relief.

Some agents influence two or more organs or classes of tissue. Such agents may be made to act principally on either by properly combining with some agent which acts more especially on one of them. Apocynum androsaemifolium combined with an excess of eupatorium purpureum will thoroughly influence the kidneys and be excellent for dropsy. It will do likewise if combined with serpentaria in cold infusion only with a much more stimulating influence. Many agents that influence the generative organs as caulophyllum, convallaria, mitchella, Viburnum prun. and trillium, when combined with some agent or agents in excess that especially influence the respiratory organs, both agents will combine their influence upon the lungs.

Some agents may be made to influence one of several organs by thus combining. Capsicum with hepatics acts on the liver; with cathartics influences the bowels; with medicines that influence the uterus it will extend its influence in that direction; if the surface be congested capsicum with asclepias tub. will secure a good free perspiration; but if the skin be lax and the perspiration too free then capsicum either alone or in combination with some tonic will assist in stopping the excess. Uva Ursi will assist in cystic catarrh or in vaginal leucorrhoea as may be needed or as influenced by other medicines. The same is true of convallaria multiflora. It tones the mucous membrane of the uterus or of the respiratory organs as required by the vital force or as influenced by other remedies. Hydrastis is a very fine tonic to the stomach, but when combined with diuretics it will tone the renal organs; combined with cathartics it will tone the alvine canal; with hepatics it will tone the liver and portal circulation; and when combined with agents that specially influence the generative or the respiratory organs will act as a tonic.

In some spasmodic conditions as asthma, large quantities of lobelia may be given without producing emesis or even nausea. In case of gall stone large portions of saccharated podophyllin may be administered without causing nausea or excessive catharsis as would occur under other circumstances.

Then too the mode of preparing a medicine and the mode of administering it have much to do with producing the desired influence. Saccharated podophyllin acts positively upon the gall ducts and gall cyst and tends to liquify the gall, but non-saccharated podophyllin seems to have a more direct influence upon the bowels and produces catharsis. In hot infusion serpentaria influences diaphoresis, but cold preparations are diuretic.

In hot infusion aralia hispida influences the circulation and skin, but cold preparations are diuretic. In hot infusions, anthemis nobilis influences the circulation, but cold preparations are tonic to the mucous membrane.

The nearer the tissues are brought to the normal the greater will be the influence of the remedies used, for then the vital force makes the best use of these remedies. Hence the nearer the tissues assume their normal condition the less medicine will be necessary, and those medicines of less power will be preferred. If the skin be but slightly inactive it will take but little asclepias tuberosa and zingiber to arouse capillary circulation and will be better than serpentaria for that purpose. If the liver be but slightly torpid, taraxacum will suit better than podophyllin. If the kidneys be but slightly ailing eupatorium purpureum will be better than juniper. The recognition of these facts will enable you to administer your remedies with greater accuracy, and with greater benefit to your patient.

It is as important to know how and when to stop medication, as to know how to begin medication. Never use strong medicines nor larger doses in the beginning of your treatment, if not absolutely essential.

It is also well that we carefully observe that indirect functional results may be due to vital action. One part may be diseased through sympathy with other diseased parts. Seek first to relieve the part first diseased, and if the involvement of the second part be not of too long standing, it too will soon be relieved.

Cathartics as such do not act on the skin; and yet free catharsis will frequently be followed by more or less perspiration. In cases of congestion or inflammation such catharsis may very profitably be followed by a thorough course of diaphoretics. Not unfrequently free catharsis will relieve a headache, especially if it be from a foul stomach or torpid liver: but it should be followed by liver medicines rather than the use of quinine as is popularly practiced. Hyperaemic conditions are best relieved by equalizing the circulation. Catharsis and diaphoresis and sometimes emesis are the great means to be used for this purpose.

Medicines are specific to conditions and not to disease. Diseases are to be studied each as a combination or complication of conditions. Remedies must be selected and used with reference to their ability to restore the tissues to their normal condition; medication must change as the conditions change. Treat the conditions as they are and change as developments may demand. Relaxation, stimulation and astringency are your watch words. These must be varied or combined to suit the conditions present at the time of prescribing. In acute diseases the changes must be watched, for they will be more frequent than in chronic cases, where the changes are less abrupt and usually require more stimulation. Some cases need relaxation only, some need relaxation and stimulation; some need astringency, some stimulation and astringency; some need stimulation and some need stimulation and relaxation.

Some agents are almost pure relaxants as *asclepias tuberosa*, *cypripedium pubescens* and *leptandra virginica*. Some agents are pure stimulants as *capsicum*. Some agents are pure astringents as tannin, and some agents have these qualities combined in various degrees as *myrica*, *cornus*, and *hamamelis*.

In selecting your agents as a rule use the depurative first to thoroughly cleanse the system. Then gently stimulate and tone as the case may demand. Relaxing agents expend their power more toward the surface, while the stimulating and astringent agents tend more toward the centres.

*Leptandra virginica* is an excellent hepatic favouring the secretion of bile, but it is nearly always best to add some diffusive stimulant as *zingiber*, or some stimulating and toning agent as *euonymus atropureus* or *taraxacum dens-leoms*. Even at times a little *capsicum* will assist. *Capsicum* is invaluable for its action on the heart and arteries, but in cases of nervous prostration its impressions are best diffused when combined with *scutellaria*.

Relaxants are rendered more active by the addition of such stimulants as *asclepias tuberosa* and *zingiber*, or *lobelia inflata* and *capsicum*. In this last combination by the presence of the relaxant, the *lobelia*, the *capsicum* is rendered more diffusive; and its influence is felt more widely than had it been administered by itself.

Too much relaxation must be avoided. It may lead to exhaustion.

Hot water is a diaphoretic, hence the hot infusion of diffusive diaphoretics most readily secures diaphoresis.

*Capsicum* is not a diaphoretic except in hot infusion; hot water gives it a diffusive tendency toward the surface from the heart.

In the use of alterants it is best to give them by themselves, using them in sufficient quantities to make a decided impression of whatever character is needed.

Physics as a rule should be separate and should be given only as occasion demands and in quantity sufficient to produce quick or tonic results as desired. Never allow the system to become accustomed to them. Instead thereof inculcate a positive habit of going to stool every morning immediately after the morning meal.

Some medicines when rubbed upon the skin will exert more or less of their influence by being absorbed. *Lobelia* applied over the lungs is an admirable relaxant. Applied over an ulcer or a denuded surface will produce nausea. This would readily prove the principle of absorption. *Leptandra*, *apocynum androsaefolium* and *capsicum* applied over the liver and gall cyst will powerfully influence these organs. This is just as true of poisons.

Mercury applied to the surface will produce salivation. Atropine applied to the eye will widely dilate the pupil. Opium will contract the pupil to a mere pin point. Cocaine will benumb the surface to which it is applied. The influence of medicines by absorption is slower but more permanent. The same is true whether it be of the skin, the rectum or the vagina.

Hypodermic injections produce more rapid effect, Physio-medicalists need not throw aside the hypodermic needle because it has been in bad company and been used to inject poisons, Many of our agents may be used hypodermically and with good success.

Medicines in liquid form and especially in hot infusion act with greater rapidity than those in solid or pill form. Resinoids usually require some time to thoroughly dissolve if taken in capsule form or otherwise.

Syrup forms are best for coughs. Give in small doses frequently, and direct that no water be taken immediately thereafter.

In acute febrile cases the hot infusion surpasses all others. It opens the pores and keeps them open, so that an amount of detritus escapes from the body which would otherwise do mischief. The surface is more easily cleansed, and the patient is kept far more comfortable. The temperature is more readily reduced and in accordance with correct physiology the patient is more readily cured.

Make your preparations as pleasant as possible, Use little sugar except in cough syrups and liver medicines. Use as little medicine as you can, but as much as you must to make your medicine effective. Do not weary the organ by continuing any medicine too long. Be careful in your diagnosis never fall into a routine practice; make your prescriptions with precision and confidence, keeping ever before you the infallible standard of normal anatomy and physiology and carefully estimating the variations therefrom.

At times the stomach may be in such a condition as to prevent the acting of some medicine in cold forms. Then give hot water, hot infusions, an emetic, a physic or all of them if needed.

Poultices, fomentations and liniments are very valuable aids in many conditions; in sprains, swellings, inflammation, congestions, abscesses or ulcers. Agents, relaxing, stimulating or astringent may be used as required by the conditions present.

Rectal injections assist cartharsis, relieve intestinal invagination, assist in emesis where you cannot give lobelia per orem, and in tetanus secure thorough relaxation. Rectal injection is a valuable means of feeding and sustaining the system when food cannot be retained by the stomach.

Small doses of medicine frequently given will accumulate in force but each succeeding dose must be given before the former dose has expended its force within the system,

Study well the temperament of your patient, the conditions of the structures affected, the age, the sex, the amount of vitality possessed by the patient, the locality and the general surroundings, take all these things into consideration and then seek :

1. To relieve the alvine canal and the secernents.
2. Equalise the circulation, relieve the surface and sustain the heart.
3. Sustain and tone the nervous system.

Some one or other of the secernents may be too tense or may be too lax. In either case torpor will ariso and inactivity of the organs will result in more or less toxaemia. It may be from torpidness of the liver and result in cholemia, or from torpidness of the kidneys and uraemia be the result. Indeed both may be present at the same time and great prostration be the result.

In relieving the secernents, care must be taken to ascertain the condition of each class of tissue. Each must be relaxed or stimulated as required. But no organ must be overworked to accommodate the condition of torpor in some other organ. It is frequently true that the kidneys are overworked to accommodate the torpor of the liver, perhaps not intentionally, but nevertheless in reality. Frequently the kidneys are found carrying off material that should have been carried off by the liver.

Influence each secernent to a degree resembling the normal action of that secernent. In overcoming constipation use only such medication as will assist in producing normal action of the bowels once daily. Such action will be tonic rather than forced action. Positively demand that the patient shall accomplish daily evacuation by persistent regularity of habit. For chronic cases where it will be necessary to medicate for some time, it is best to make some slight change in medicine so that the system shall not weary of the medicine nor become accustomed to it.



The system wearies of the long continued use even of the same diet. The quantity of food required differs very materially in different persons, but it should be proportioned to the general vigour and relative waste in each case.

Some persons eat but little, while others eat much and seem to be no better nourished. Some persons seem to use up all the nutriment taken into the system, while others lay up much adipose material. During sickness the former class will require a more liberal diet than the latter class who can live long on the adipose material scattered throughout the body. Such persons will eat but little and yet seem to be well nourished. One trouble with such persons is that the secretions, in fact all the organs are more or less prevented from doing their respective duties by being clogged with a super-abundance of this fatty material.

Food substances contain starch, gluten and inorganic matter. A positive food can be converted into pabulum.

Alimentation is the taking of food into the body, whether it be per orem, per rectum or applied to the surface of the body. Nutrition includes all the processes by which the body is built up and sustained. The process of digestion consists in dissolving food substances so as to be readily taken up and filtered through the walls of the blood vessels. Reparation is the distribution of pabulum to the tissue elements and its being taken up by the living matter. Adipose tissue is composed of oil globules contained in dead cells. In inanition the cell of the globule is taken up by the tissue and used, and the oil is eliminated by the sebaceous glands. It is this adipose tissue that gives rotundity to the frame and retains the animal heat.

The body is made up of different systems as the osseous, the muscular, the nervous and the articular.

The apparatus are the circulatory, the digestive, the lachrymal, the urinary and the reproductive.

The accessories are the nervous and muscular tissue.

The various tissues are bone, cartilage, fibrous, elastic, muscular, nervous, cellular and adipose. Albumen, fibrin and earthy salts are the results of the death of living matter, and these can only become living matter by becoming suitable pabulum for other living matter.

The nutritious fluids are blood, chyme, chyle and lymph.

The secretory fluids are saliva, gastric juice, bile, pancreatic juice, intestinal fluids, lachrymal, mucous and serous fluids.

The excretory products are sudoriferous and sebaceous perspiration and urine, carbonic acid gas from living air cells, biliary salts and lachrymal fluid. Secretion is the taking of a fluid into the circulation without causing any special disturbance. An excretion is not designed for the circulation, and is hence cast off. The mouth, stomach and intestines constitute one continuous canal.

That which influences the one either for good or for evil in any particular will more or less influence the entire tract. As all mucous tracts are external, food is not taken inside till it enters the circulation. The structural arrangement of all glands is the same whether secretory or excretory. The glands are emptied by the action of involuntary structures. Peyers patches are not glands as they have no ducts. They are poorly nourished and have but little circulation, and when this circulation is interrupted in the structures about them, their nourishment is cut off and results in sloughing as in typhoid fever, and may result in perforation of the bowel, and peritonitis and death soon follows.

The pancreas and liver are accessory to intestinal digestion. The gastric and peptic glands and juices are dissolvents. The pancreatic juice emulsifies the fats. The bile assists in emulsifying fat. The gall cyst is its receptacle, and the solidifying of the gall forms gall stones much as the accumulation of solids in the bladder forms calculi.

Starch is hydrated and then filtered into the blood. The alimentary secretions convert starch into sugar. The lymphatics are vessels situated in nearly all parts of the body and look knotted where the valves are located. Lymphoid bodies are capsules endowing parenchyma and cellular tissue and in the channels of which are white blood corpuscles.

The liver is the largest gland in the body. By fissures this gland is divided into lobes, and these again are divided into lobules which are composed of hepatic cells fitting closely together, polygonal in shape, one surface presenting to the blood vessels, portal veins, hepatic arteries and veins. The biliary ducts are vessels between the hepatic cells having racemose glands on the outer surface which are secretory. The hepatic cells are secretory and excretory.

The function of the liver is to furnish bile and perhaps to secrete sugar. Its physiological products are mainly secretory. There are secretory lobules and excretory tubuli and ducts, and a much larger venous than arterial circulation. Diagnose carefully the condition of each class of tissues and medicate accordingly. Some remedies act mainly on the secreting side of the liver, others influence chiefly the excreting department, while others influence both in varying degrees, and others chiefly influence the portal circulation.

Whenever the secretory organs are affected the circulation soon shows the effect in itself, and other organs soon become affected. Torpor of the liver leads to more or less disease throughout the body, and upon the relief of that torpor other abnormal conditions will begin to subside.

Both the secreting and excreting functions of the liver must be carefully watched. The secreting function may be normal and yet there may be cholarmia. The excreting function may be torpid and the bile though secreted in quantity sufficient, harden in the gall cyst and gall stones may be the result.

The bile must now be quickly liquified or the most intense pain may result.

In cholaemia as well as in uraemia, not only is the circulation oppressed but the nervous system also deeply feels its influence. The liver is usually the most torpid organ of the body, and usually requires more medication than any other organ. Even after it has assumed its normal action it is frequently best to continue for a short time a sustaining or toning treatment.

In the treatment of fever, whether of typhoid or miasmatic origin this is especially true; for it must be remembered that a large amount of detritus and viri are eliminated through the liver and kidneys as well as by way of the skin.

Medicines chiefly influencing the alvine tract have been variously classed, but we shall here denominate them laxatives, cathartic and intestinal tonics, according to the intensity of their ability to cleanse the intestines of their content and their ability to subsequently tone the mucous membrane.

Laxatives exert but a gentle influence upon the intestinal mucous membrane and are the best when that membrane is in a tense condition. Cathartics are more powerful and are intended to thoroughly cleanse the alvine canal.

Intestinal tonics are intended to stimulate and tone the alvine mucous membrane to normal action.

Those agents chiefly influencing the liver and assisting mainly in the secretion of bile are denominated hepatics; and those influencing the excretory function of the liver and gall cyst are denominated cholagogues. The bile excreted into the duodenum not only assists in the process of intestinal digestion but also influences normal catharsis. An excess of bile excreted at anyone time may produce free catharsis.

Of those medicines that influence the alvine mucous membrane, some are intestinal tonics and do not particularly influence catharsis, as hydrastis, some preparations of ferrum, gentiana, rhamnus purshiana and others. Other agents are tonic cathartics, influencing the peristaltic action of the bowels, and lead to catharsis leaving the bowels more toned for future action, as juglans cinerea. Still other agents are strictly cathartics and influence chiefly the cleansing of the bowels as ipomaea jalapa, cassia angustifolia, rhamnus cathartica and others. There results at times from persistent constipation or from other causes a semi-paralysed condition of the lower bowel. In such cases some positive stimulant or diffusive stimulant is needed to be combined with tonic cathartics.

One thing is positively essential; the exact condition of each tissue or class of tissues must be carefully diagnosed, and the abnormal condition relieved. The liver may be too lax or too tense to normally secrete bile; the gall ducts may be closed by hardened bile, or the mucous membrane may be too dry, irritated or sensitive. Catharsis merely will not relieve the liver except what may be derived from the relaxation following catharsis; neither will catharsis merely relieve the gall cyst; the thoroughly relaxing influence of lobelia may so relax the gall ducts as to relieve them of gall stone and yet lobelia is neither a cathartic, hepatic, nor chologogue.

Leptandra virginica influences chiefly in the secretion of bile; podophyllin is a cholagogue; juglans cinerea is a tonic cathartic, while rhamnus cathartica is a cathartic.

Many agents have two or more of these qualities. Euonymous Mropupureus and taraxacum dens-leonis are tonics influencing both sides of the liver, and the gastric and intestinal mucous membrane as well. If the gall ducts are occluded, to give leptandra virginica would be to add to the misery of your patient by further distending the gall cyst.

If the gall ducts are free, but the liver fails to secrete sufficient bile, then podophyllin would not be the agent to use; leptandra with some diffusive stimulant would be preferable, or some tonic agent might be better still as euonymus. Dyspepsia is not cured by mere catharsis, neither is chronic constipation. In dyspepsia, though the liver may be at fault, and there may be constipation, yet the mucous membrane itself is at fault.

Diarrhoea as well as constipation may be a result of a failure of the liver to secrete and excrete bile. Do not expect to cure persistent constipation by the continued use of cathartics; these must be followed, when used, by alvine tonics.

Disease in one part of the alvine canal is not infrequently felt throughout its extent. A sore throat may frequently be relieved by a good physic. In fact you need not ordinarily expect to cure throat diseases and torpid stomach troubles except by first thoroughly cleansing the intestinal tract, it may be by both emesis and catharsis. The same is true in the treatment of fevers, and indeed in the treatment of a majority of diseases; the alvine canal and its accessories demand first attention.

Here again we have certain agents that will extend their influence as the system requires or as influenced by other medicines. Capsicum is not a cathartic, but may be made to lend its stimulating power to cathartics in cases of extreme intestinal torpor.

Lobelia is not a cathartic, but may be made to lend its relaxing influence to cathartics in spasmodic conditions. Normal secretion and excretion of bile is usually sufficient to stimulate to ordinary intestinal evacuations. An excessive discharge may produce a temporary diarrhoea.

Rectal injections may frequently be used to assist catharsis. These injections may be medicated and rendered stimulating or relaxing as desired.

Zingiber is not a cathartic, but is a fine diffusive stimulant to add to cathartics to prevent tenesmus and to render them more stimulating, diffusive and toning. Zingiber may be added to hepatics and tonic hepatics for the same reason.

Cathartics should only be occasionally administered; only when really demanded. Tonic cathartics are a better class of agents for persistent use, and these only as really demanded. When there is a weak stomach it is frequently best to administer the physic in broken doses. Excessive evacuations may lead to intestinal irritation. Aim to secure one free evacuation of the bowels each day. It is altogether probable that much of your practice will concern the digestive tract and hence it is well to be thoroughly prepared to meet every possible issue that may arise.

Diuretics induce a more or less increased flow of urine which may or may not include much of the solids. Some agents increase the flow of the watery portion only, while other agents induce a marked increase of solids.

The fact that during diaphoresis the kidneys are less active is well worth noting when you have occasion to treat the opposite condition; in case of excessive or exhaustive renal discharges, diaphoresis to some degree should be induced. Resort also to the vapour bath or to the hot water bath. During hot weather as a rule the flow of urine is less than in cold weather. So in case of general congestion, the kidneys are more or less burdened until the surface is relieved.

During the relaxation which follows a paroxysm or a hysterical convulsion, there will usually be a free flow of urine. The same will frequently be a result following some considerable fright or excitement, whether of sorrow or of joy.

It is frequently true that too much medical attention is given to the kidneys. It is observed that they are not doing their duties properly, but we must not forget that, when we search for a cause it will not always be found in the kidneys. The liver is frequently torpid and bile which should have been carried off by way of the gall cyst is eliminated by way of the kidneys. In such a case the liver and not the kidneys is the organ to be medicated. As a rule the proper stimulation and relief of the liver is a great relief to the kidneys. Then too, constipation has much to do when there is already irritation of the urinary tract, in increasing that irritation. Constipation will render a case of gonorrhoea or gleet much worse than it would be otherwise. Keep the bowels free and the liver active and urethral irritation will be much less. Urethral irritation, if continued long, may induce vaginal and possibly uterine irritation.

The amount of excretion daily from the kidneys varies from 20 to 60 ounces. Its normal specific gravity is about 1020, but may range from 1010 to 1050. A specific gravity of 1030 or more indicates the presence of a superabundance of sugar, as in diabetes. A low specific gravity and diminished quantity indicates albuminuria. A persistent foam in urine indicates the necessity for a careful investigation for the presence of either sugar or albumin. Highly coloured urine indicates the presence of an excess of solids, at times amounting to a so-called brick-dust sediment. In such condition the urine is usually scanty.

The reaction of normal urine when voided is acid, but after standing some time it becomes more or less alkaline.

Relaxing nervines as *nepeta cataria*, *cypripedium pubescens* or *lobelia inflata* usually increase the flow of urine upon the general principle of relaxation. Those agents gently stimulating to the mucous membrane as *uva ursi*, *hamamelis*, *hydrastis* or *althea* will usually increase the urinary flow.

In cases of more or less paralysis of the urinary apparatus a diffusible stimulant as *zingiber* or *serpentaria* should be added to diuretics, and at times even the more positive stimulant *capsicum*, in order to secure a free flow of urine.

The female genito urinary apparatus are so situated and related that agents that influence the one will usually influence the other.

There may be a persistent scantiness of urine which may lead to an accumulation of solids and thence to the formation of calculi. *Aralia hispida*, *capsella bursa pastoris*, *agropyrum repens*, *mentha viridis*, *areostaphylum*; *urva, ursi*, *eupatorium purpureum* will each secure more or less freedom of urine and thus prevent the accumulation of solids. *Juniperus communis*, *barosma betulina*, *sabal gerrulata*, *piper cubeba* are stimulating diuretics.

Urinalysis is a valuable aid in diagnosing the exact condition of each class of tissue and the microscope is a valuable assistant in determining the character of the solids evacuated. The diagnosis of disease by means of urinalysis and microscopy is an attainment worthy of your best efforts. Each disease presents some more or less distinct appearances in the urine.

The liver, kidneys and spleen are the cess pools of the body. It is of the greatest importance that these be kept well cleansed and sufficiently active to prevent uraemic or cholaemic poisoning to the general system. Typhoid fever requires some stimulation for the kidneys and so does dropsy; but in neither case would over-stimulation be appropriate. In typhoid fever it would be very likely to lead to depression. In dropsy the mere elimination of water would not be a cure of the condition present. The diet may have much to do with troubles of the urinary tract, and frequently a change of the daily dietary will be all that is necessary, or at least with but little medicine.

The circulation of the blood cannot be too carefully studied, and frequently demands the utmost care in medication. With the heart as the centre, the capillaries at the extremes, and the arteries and veins connecting these extremes, each demands proper medication for the condition in which each may be found. The capillaries are the delicate vessels connecting the arterioles and venules, thus completing the circulation of the blood. Their walls are very thin and allow the exuding of the blood from the arterial to the venous system. The centre and propelling power of the circulation is the heart; the arteries convey the blood from the heart, and the veins bring it back again for purification. The normal heart pressure on the capillaries is about 48 pounds to the square inch. The weight of blood compared to the weight of the body is about 12~ per cent., giving an average of about 18 pounds.

Anaemia is a more or less bloodless condition. Hyperaemia presents an abnormally increased supply of blood to a part. Congestion is an accumulation or overflow of blood in a part due to mechanical obstruction, and precedes inflammation. It is an indication of bioplastic failure to withstand unnatural surroundings. The vital force has been compelled to more or less yield to some temporarily superior obstructive influence.

Inflammation is increased vital energy in a part, resulting in more or less redness, swelling and pain. There is an increased nutritive activity usually according to the demand, and resulting in new formations. This in inflammation indicates the degree of vital resistance present, or indicates the necessity therefor. The capillary walls being distended, are much thinner and possess greater transparency and hence show a brighter arterial redness in the parts.

The swelling is caused by the more or less obstructed flow of blood through the parts, and the still further increased flow as a result of increased vital energy.

The epidermis is composed of dead cells in a more or less mummified state. Some of these are constantly falling off. The surface of the body needs very especial attention from the physician. The skin has its circulation and its two sets of excretory glands—the sudoriferous and the sebaceous.

A full, free and well proportioned circulation in all parts of the body is essential to health and pleasure. Aim at all times at the maintenance of such circulation. Let the extremities be warmed by it, and the brain and trunk not overcrowded. Relieve hyperaemia and anaemia so that the blood makes its complete circulation in proper time, in proper quality and in proper quantity, and the equilibrium is restored.

Each disease makes itself felt on the circulation in one way or another. This is why we feel the pulse to discern its character, and thus to diagnose the degree of vital resistance, the character of that resistance and the general ability of the vital force to still further resist—whether sthenic or asthenic. Thus it will appear that the vascular tissue may become too relaxed, too tense or more or less irritable.

The pulse and the tongue are the two great indexes to the abnormal conditions of the body. The former indicates the degree that the abnormal condition is felt by the circulation, and the latter the degree that it is felt by the digestive organs. It is not unfrequently true that if the secernents are relieved, many other abnormal conditions will cease. The cleansing of the liver, gall cyst, stomach, bowels, kidneys and skin will secure normal action of the heart and of the arterial and venous circulation. Especially do we find this to be true in the treatment of typhoid and other fevers. This is the way to reduce the temperature physiologically. This leaves no depression of the heart, but seeks to establish an equilibrium of the circulation, a thing which antipyrine, belladonna, aconite or Veratrum cannot do. These last agents leave the system more depressed and less able to care for itself. Such deleterious agents can but lead to more or less depression of the circulation and finally to heart failure.

If the secernents are not first freed, the blood current becomes more clogged with impurities, and the vital effort is necessarily more intense in action, the blood vessels become more irritated from the presence of abnormal contents and thence become abnormally tense and narrowed and able to carry only a smaller amount of blood at each pulsation. The blood current must have normal volume and force that it may properly nourish the entire body, and that it may also be capable of eliminating detritus or any impurity.

The secernents and the circulation may both be in a tense condition, then such agents as lobelia, eupatorium perfoliatum, cypripedium or some agent of similar influence will be needed. They will give general relaxation. But if both the circulation and the secernents be relaxed, then capsicum with some stimulating hepatics will be required. But occasions will arise when the circulation and the secernents may not be both relaxed nor both suffering from tensity. When such is the case each class of tissue must be medicated as they severally require.

This fact will also be observable. After the circulation and the secernents have been for some time abnormal the nervous system feels the effects, and this is perhaps nowhere more apparent than in typhoid fever where the pointed, quivering tongue is soon shown. In such cases the medication of the nervous system need only be such as is necessary to sustain.

As a rule some relaxation is necessary in the treatment in the beginning, while stimulation will be needed to continue throughout till each class of tissue shall have been toned to the performance of its respective duties.

The capacity of the capillary system is several hundred times that of the arterial system and hence the capillary requirements cannot be too carefully watched. A free capillary system is a necessity to a free arterial and venous circulation, and is frequently a great relief to cardiac excitement.

Cardiac stimulation must not be too strong; better give small doses and obtain an accumulative result. Diffusives largely influence the arterial circulation but extend toward the capillaries. *Asclepias tuberosa*, *corallorhiza odontorhiza* and *sambucus canadensis* in hot infusion are relaxing diaphoretics. *Xanthoxylum fraxineum*, *aristolochia serpentaria*, *zingiber officinalis*, *polygonum hydropiper* and *asarum canadense* in hot infusion are stimulating diffusives or stimulating diaphoretics. They especially influence the arterial and capillary systems. Capsicum is the grandest of all cardiac stimulants find *Cereus grandiflora* the greatest of all heart tonics.

If the capillaries are depressed as well as the heart, zingiber will sustain the arterial and capillary circulation, while capsicum will sustain the heart and arterial circulation. If more powerful stimulating diffusives are needed than zingiber then use serpentaria or xanthoxylum.

The portal circulation and indeed the whole venous system is best sustained by hydrastis canadensis. In acute cases less stimulation and more diffusives are needed. In chronic cases the stimulation will usually have to be increased, and tonics added. Hepatics, cathartics, stimulants and nervines will usually be more effective if combined with some diffusive, and a less dose will be required.

Local applications will be found very efficient in influencing the capillaries, the secretions and the peripheral nerves. A hyperaemic condition in many localities may be relieved by local relaxation and perhaps at times adding some stimulation. Lobelia is one of the very best agents to be used as a local application to a tense surface. It relaxes the capillaries and relieves the pain that would otherwise exist because of their distended condition.

In a majority of the operations of surgery there is no better application than lobelia. It relaxes the capillaries, relieves muscular tension and prevents hyperaemia. to a considerable extent; so in dislocations, swellings, sprains and bruises. In thoracic hyperaemic conditions there is perhaps nothing superior to lobelia as an application, limiting the stimulation to a minimum proportion.

Of course if the parts are cold, pale or relaxed then local stimulation is required. Indeed local applications will be found beneficial to almost any part of the body, if the stimulation and relaxation be proportioned to the need of the respective parts, whether it be the stomach, bowels, liver, spleen, peritoneum, ovaries, uterus, brain, lungs or skin. Maintain the circulation by all possible means and prevent stasis of the blood. In some low conditions even a frequent change of the patient's position will for a time prevent stasis, which otherwise may be productive of much evil.

It must be remembered that all the parts of the vascular system may not be in the same condition at the same time; so that the same quality of treatment that would be appropriate for one part of the system might not be appropriate for another part of the system. It is not unfrequently true that the capillaries may need relaxation and the heart need some degree of stimulation, as in most cases of eruptive diseases. But there are circumstances, when the body seems to have nearly all the circulation and the extremities are cold. This is especially true in parturition, gastritis, hepatitis, cystitis, pleuritis, &c.

With capsicum and cereus grandiflora for the heart; with hydrastis and gentian for the venous circulation; with xanthoxylum, myrica and polygonum for the arterial circulation; with ferrum for the intestinal circulation; with serpentaria, zingiber and asarum as stimulating to the capillaries, and with asclepias tuberosa, corallorhiza and sambucus as relaxing to the capillaries you are well prepared to maintain the equilibrium of the circulation if it can be maintained.

As a rule medicines that influence the circulation, especially that of the capillaries, either by stimulation or by relaxation, more or less soothe the nervous system. This is especially true in diseases of an acute character. Other things besides medicine may influence the circulation. Mental confusion may bring a blush to the cheek. A hearty laugh or a vigorous exercise will give a better outward flow of blood, and so will a brisk rubbing of the surface. The application to the surface of an electric current will also induce a better superficial circulation. The process of mastication, digestion and reparation all influence the circulation more or less in those several directions. Fright or anger influence the circulation from the surface so that it will appear cold and pale. Shock of injury will lead to a somewhat similar result. Diseases of the nervous system, whether acute or chronic, also influence the circulation to a greater or less degree. But they are not always both influenced in the same direction. The one may require stimulation and the other relaxation. The demand of each condition must be met as required.

Agents which influence the circulation toward the surface are called diaphoretics. They are given in hot infusion and produce a warm perspiration. They may be either relaxing, as asclepias tuberosa, or stimulating, as serpentaria. Diaphoresis is one of the most valuable means of ridding the system of a large amount of offensive material, and of very materially shortening the duration of acute diseases. It is very valuable in all the eruptive diseases, and is not less important in typhoid and other forms of fever.

Diaphoretics primarily influence the surface but finally more or less influence the entire circulation. Capsicum primarily influences the heart but gradually proceeds toward the capillaries and especially so if a diffusive agent as zingiber is added.

If the whole system be hot, the skin dry, the heart impulse large, full and frequent., then relaxation is needed and relaxing diaphoretics alone are best. But if this condition of the skin be present and the heart impulse weak and wiry, then more or less stimulation must be added.

If the surface be congested diaphoretics of a more or less stimulating grade are required. But another class of superficial glands demands our attention, the sebaceous or oil glands. These are especially deficient in action in scarlatina. The skin becomes intensely hot, dry and chaffy. Ordinary diaphoresis of the sudoriferous glands will not then suffice. The sebaceous glands must be stimulated to action. This is true to some extent in many eczemas. Such agents as arctium appa semina, and helianthus annuus semma are among the best and in order to accomplish the best results they should be given in hot infusion.

Diaphoresis is one of the most valuable means of curing in a majority of eases. These millions of pores are the termini of a great human sewer system for the excretion of tissue detritus and various other injurious substances. If these remain closed the blood will soon be overwhelmed with deleterious accumulations, which will not only poison the circulation but may overwhelm the nervous system.

In acute febrile, inflammatory or congested conditions there is nothing equal to diaphoresis, whether accomplished by the steam bath, hot air bath or by diaphoretics in hot infusion. The two former means are rendered more effective when used in conjunction with the latter. It matters little where the trouble may be if the general circulation is involved; whether of the lungs, pleura peritoneum, stomach, bowels, spleen, kidneys, bladder, uterus, brain, meninges, serous, mucous or muscular tissue, diaphoresis is essential. Equalize the circulation, sustain a full, free, superficial flow of blood and thus prevent hyperaemia in any locality. One of the best means for the relief of hemorrhage is the proper use of diffusive stimulants.

In acute dysentery and diarrhoea some degree of diaphoresis is frequently beneficial, and in dropsy and diabetes it is not unfrequently essential. It must not be forgotten that surrounding circumstances, such as the proper warmth of the apartment, and the administering of the diaphoretic in hot infusion are points essential to be observed. Heat and hot water are themselves diaphoretics. Heat, hot water, hot baths, hot broths and hot infusions are among our most powerful agents in this direction.

Sleep under certain circumstances will lead to more or less profuse perspiration. This however must be carefully watched. Under certain circumstances such perspiration if too profuse may be very weakening. This result must be guarded against. But while avoiding this extreme continue diaphoresis long enough and free enough to accomplish the required result.

Alterants are agents such as act on the blood current, toning the serous membrane and cleansing the current of some variety of impurity contained therein. In the broadest sense a large majority of our agents are alteratives, for they in some way tend to cleanse and tone the blood current. Indeed so do proper food, pure air, correct living and freedom from excesses in any direction.

Impurities may gain access into the blood current from many sources. It may be that the secretions are torpid and are not secreting or excreting in proper quantities. These secretions being retained in the system soon gain access to the blood current and some degree of septic influence is the result. It may be that the skin is retaining impure materials and these instead of being cast off, are retained and conveyed by the venous current again into the blood and constantly make it more foul. It may be that the lungs are being filled with impure air, or are supplied with an insufficiency of pure air. In either case the blood becomes more or less deoxygenised, and worse still it becomes filled with still greater impurities. It may be that the food has been improper in preparation, in quantity or in quality, and thus improper pabulum has been conveyed into the system.

In order therefore that your alterative medicines may do the good intended to be accomplished, your patient must be supplied with proper food, proper air, proper clothing, proper exercise, have proper habits, and be given to no excesses. It will be your duty to see to those things and to administer your medicines so that tire skin, stomach, bowels, mesenteries, kidneys and lungs are each doing their respective duties. Under these circumstances you can cleanse the blood current and your alterative medicines will be efficient. Else they will be more or less a failure in spite of your best efforts.

But remember that alteratives act slowly and promote a steady toning impression. It takes time for complete blood changes to occur. It sometimes takes months and even years to cleanse the blood current of some impurities. The quality of the whole blood current must be changed, and the secretions must be constantly toned to the ability of fully performing their respective duties.

To say then that all agent is an alterative is very indefinite. We must know the process or channels by which it accomplishes the elimination of any impurities from the system. Elimination may be either by way of the liver and bowels, the kidneys or the skin.

Alteratives may be relaxing, stimulating or toning. In chronic cases those of greater stimulating powers are needed than in acute cases. When eruptions of the skin are due to hepatic torpor, use such alteratives as have a decided tendency to influence the liver both in its secreting and excreting functions. General torpor of the secretions is more or less productive of impurity of the blood. So is idleness, a sedentary habit and constipation.

Physical activity, pure air, good food and pure water, and good habits are the grand accessories to good health and pure blood.

To receive and to transmit impressions is preeminently the office of the nervous system. A leading manifestation of disease is pain, which is an exalted condition of the sensory nerves arising from a greater or less degree of irritation which has been caused by the introduction of some offending substance either locally or constitutionally. Pain is an evidence of the presence of some disease, injury or obstruction. Whenever and wherever there is loss of sensibility from any cause, such part or parts or the whole system is liable to suffer therefrom, because the vital force is not or cannot be aroused to its proper protection, neither is there a proper supply of nutrition.

Pain is not only an evidence of disease but is a means of arousing the vital force to some degree of activity for the removal of the cause. When the abnormal condition subsides the pain ceases. Do not be mistaken and demolish your friend for an enemy. Forget not that the abnormal reduction of sensibility is itself disease and is more or less disastrous to the system. Narcotics do not remove the conditions that cause suffering. Instead of narcotizing administer such agents as tend to remove the cause.

The cause of pain is not always directly in nerve tissue. It is more frequently elsewhere, and the nervous system is then but the transmitting medium. Yet the long continuance of such may become a source of nerve irritation.

The pain is usually confined to the part or parts affected, but in time other parts suffer therefrom. Then too the pain is not always located at the point diseased. This is frequently true with ovarian and uterine pains. You cannot be too careful in the study and diagnosis of transmitted pain. Many a time pain under the left shoulder blade, down the thigh or at the knee is from the ovary or ovaries. Many a time a headache is from constipation, hepatic torpor, improper mastication or imperfect digestion. Many a case of chronic sick-headache is cured by the use of a new set of teeth when the natural set has become decayed.

Insanity is not unfrequently due to chronic torpid conditions of the secretions, first resulting in hypochondriasis.

Therefore carefully diagnose the cause of the symptom. Each disease and each injury in each different part gives its own peculiar suffering. If the pain proceeds from irritation then relaxing and soothing medication is needed as given by *Cypripedium*, *Lobelia* or *Ulmus*.

The pain due to hyponemia is very frequently relieved by external local applications of relaxing agents, and the use internally of a hot infusion of diffusives and relaxants. The pain due to sprain is frequently relieved by the stimulating and relaxing influence of hot water continued for some hours and of the use internally of diffusives and relaxants.

For the relief of the pain due to gangrene the strongest stimulants and antiseptics are necessary until the separation of the parts dead and living is complete.

Neuralgia is more or less an irritation of the nerve structures themselves, and yet this irritation not unfrequently arises from some secretion or circulatory cause. In the treatment of such it is not only necessary to relieve the secretions and the circulation but also to sustain the nerves with agents of a more or less stimulating influence, as *Dioscorea villosa*, *Caulophyllum thalictroides*, *Ferula foetida*, *Salicine* and *Scutellaria*.



Restlessness is usually a result of long-continued irritation of the nervous system leading to general weakness. Here you require a gently stimulating class of nerve tonics.

Convulsion is a very much over-stimulated condition of the nervous system. In some children the cause of convulsion is the approach of some eruptive disease, the presence of worms, teething or some stomach or bowel trouble. Convulsion may also be the result of cerebro-spinal disease, or of some injury; or it may arise from some weakness of the nerves as in hysteria.

In all such cases more or less relaxation is needed at first. In tetanus especially, use the most powerful relaxants. Lobelia in large quantities will probably have to be used per rectum. As the system becomes relaxed, more stimulating and toning nervines are required to sustain the system.

The nerves and circulation frequently run side by side and reciprocate each other's action. Carefully diagnose which may be primarily at fault. Ascertain whether pain arises from acute irritation in any respect or from hyperaemia in any part. Investigate as to whether it be from congestion, suppuration or from gangrenous destruction. Ascertain whether the pain arises from some failure of the secretions, the circulation or the nervous system, or from two or more of them combined.

Estimate carefully the degree of vitality present and the necessities in each direction. Then select your medicines and combine them accordingly. In the treatment of some pain stimulating agents will be required, while other cases will require relaxation and still others astringency. Inflammatory effort will require relaxation; irritation requires demulcents and a very relaxed effort will require some degree of astringency and it may be of stimulation also.

All pain therefore cannot be treated alike. While lobelia would be very suitable for the relief of arterial pressure in an inflammatory effort, it would be worse than nothing in the vital failure of gangrene where the most positive stimulation is needed. *Cypripedium pubescens* will relieve the pain due to some irritated condition of the nervous system, but in a depressed condition it would be a failure. Here, more positive stimulating nervines as *scutellaria* or *valeriana* are essential.

Impacted feces may be the cause of pain. Not nervines then, but the removal of the cause is the thing required.

*Caulophyllum*, *polygonum*, *ferula*, *valeriana* are both stimulating and relaxing in varying proportions. The third preparation of lobelia is the climax in this respect.

Tonics are intended to give fuller vigour to the system and are more or less stimulating.

An emetic, a bath, a cathartic or a diaphoretic is each a depurative measure, assisting in cleansing the system of whatever impurities may be present. Subsequently tonics are needed to slowly and permanently assist in giving greater firmness to the tissues. Tonics are especially used to restore general strength and vigour to the digestive apparatus, upon which depends the vigour of the entire system. Care must be taken not to use more stimulating agents than are necessary, nor should they be used in stronger nor more frequent doses than required. Care must also be taken that the alvine canal and its accessories are cleansed and active, for then a tonic will do most good. Without taking these precautions tonics will be of little value.

Demulcents may be applied as poultices. They may be either relaxing or stimulating according to the agents selected or incorporated and according to the necessities requiring such. They should be kept warm. Poultices or fine powders may be used to absorb discharges from sores, the better too prepare the surface for further local treatment.

Demulcents given to the stomach soothe the mucous membrane and relieve irritation of the stomach and bowels. Per vagina and per rectum they are very soothing to the mucous surfaces, and assist in relieving irritation.

Demulcents may also be used as a vehicle for the conveying of more stimulating agents either into the stomach or rectum.

Demulcents are also useful in the formation of pill mass in the manufacturing of pills.

When required, demulcents are excellent for the relief of bronchial and pulmonary irritation or inflammation. In such cases they are very important both applied externally as a poultice and taken internally either alone or in combination with other agents that influence the respiratory organs.

Demulcents are also of great value in the covering of abraded surfaces, burns or scalds, especially when combined with some suitable oil. They prevent exposure to the air and pain ceases.

Fruit acids are of great benefit in the treatment of bilious troubles and in convalescence therefrom. Avoid using them too frequently or too freely. A wash of vinegar and water will be both pleasant and profitable at times in cleansing the tongue of foulness.

Alkalies as soda, potassa, magnesia and lime are at times needed to correct acidity of the stoma.ch. Cautiously avoid giving more than enough to relieve the acidulated condition present. Sometimes sores having an ichorous discharge may be relieved by an alkaline wash applied as needed. Such wash may also be applied to the tongue to cleanse it of foulness.

Escharotics are not strictly remedies, but as the surgical knife, may be applied to the surface for the destruction of abnormal growths. Cautiously limit their use to the parts to be destroyed.

# MATERIA MEDICA.

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The following pages will be devoted to the consideration of such agents as we deem Physio-Medical both old and new. In presenting some new agents it may be that we shall in future years change our views somewhat as we have concerning some of our older agents. We are in for advancement. We believe in employing the very best agents and the most efficient preparations the world can furnish.

In this consideration of our materia medica we have excluded to a great extent botanical description, and have included but little concerning pharmacy, because an excellent article has been furnished by Prof. J. M. Thurston. His pharmacy is peculiarly physio-medical, and such as we need, and we ask for this article the attention of the profession.

Prior to introducing the first subject of materia medica it is deemed proper to give some instructions as to gathering your material. In each locality this will be valuable concerning some agents.

## ROOTS.

The roots of annual plants should be gathered just previous to flowering.

Those of biennial plants should be gathered shortly after the leaves have fallen in the autumn of the first year.

Those of perennials are the most active after the fall of the leaves and flowers in the autumn.

## BULBS.

These should be gathered as soon as matured after the plant has lost its foliage.

## STEMS.

Herbaceous stems should be gathered after the foliage appears and before the blossoms have developed.

Ligneous stems should be gathered after the falling of the leaves.

## BARKS.

These should be gathered in the spring before the flowering season or in the autumn after the foliage has gone.

## LEAVES.

These should be gathered as soon as matured, in the time between the flowers and the maturing of the fruit. Biennials do not perfect their leaves during the first year.

## BERRIES, SUCCULENT, FRUITS AND SEEDS.

Should be gathered when ripe or nearly so.

## FLOWERS.

These should be gathered when about to open from the bud. Sometimes the buds themselves are collected. Leaves, flowers and herbs should be gathered in dry weather. Aromatic Plants are best after the flower buds are formed and ready to open.

## DRYING.

Those agents which are to be dried, should be put into a room where they will be much in the shade. They should not be dried too quickly so as to dissipate any of their qualities, nor left long enough to mould.

## ABIES BALDAMEA.

### *Balsam Fir, Canada Balsam.*

The bark of this tree when punctured yields a thick and more or less transparent balsam" which is moderately stimulating to the mucous membrane throughout, especially influencing that of the renal apparatus. It is quite persistent and in large doses nauseates. If the mucous membrane be irritated it is inappropriate but is best in relaxed and torpid cases, as in gleet, cystic and renal congestions. In bronchial and pulmonary congestions it is a stimulating expectorant, but its influence is best felt in this direction when combined with some agents which especially influence the respiratory organs. It gives very favourable results when combined with syrups for chronic coughs.

F. E. Abies Bal.

dr. ii

Acetous Syr. Lobelia Sem.

oz. iiss

Mel

q. s. oz. iv

This may be used for colds, coughs, croup, asthma and bronchial catarrh.

F. E. Abies Bal.

dr. ii

Glycerine

Mel

aa, oz. ii

This makes a good cough syrup.

This balsam may also be incorporated with Vaseline and used as an ointment for old sores and ulcers.

Yolk of Egg

Fresh Balsam

Triturate thoroughly and apply.

It may also be used as a plaster and applied to some weak or painful part, especially in the region of the kidneys.

The bark is also used either in infusion or in fluid extract for the same purpose as the gum which exudes therefrom.

## ABIES CANADENSIS.

### *Hemlock Spruce*

(Pinus or Tsuga Canadensis).

The bark of this tree is used for tanning purposes. By incising the bark the tree yields a heavy black pitch or gum. The inner bark is a drying and gently stimulating astringent, useful in hemorrhages and for diarrhoea.

Locally it may be used as an astringent wash wherever needed, as in cases of sore mouth or other ulcerous parts. Its action is mostly local and is valuable in the treatment of rectal ulcers. It checks the excessive discharges and the ulcers heal under it. It is good also for buboes.

Dr. C. B. Riggs advises the following for rectal suppositories for internal hemorrhoids:

Gum Tragacanth

Glycerine q. s. ad. to make a thick syrup.

Powd. Pinus Can. 2

" Hydrastis Can.

" Myrica Cer.

" Boracic Acid

Wheat Flour

aa. 1

q. s. ad. to make the former stiff enough to form suppositories the size desired.

Sig. One suppository each night on retiring. This has proven very successful, especially when the rectum is lax, and the tumours protrude. Rectal pain and tenesmus will be quickly relieved, and hemorrhoids soon cured and remain so until the liver becomes torpid and the bowels constipated.

The leaves are more stimulating and less astringent than the bark. In hot infusion they are diaphoretic and may be used for the relief of colds and for dysmenorrhoea ; but it is not best to use this agent where the patient is inclined to constipation. They are valuable in hot fomentations for sprains, rheumatism, and inflammations.

The oil of hemlock is obtained from the leaves and is far more stimulating. It is a useful addition to liniments, but is not used internally. The resin is sometimes incorporated with oils and formed into a plaster.

### **ABIES EXCELSA.**

*Norway Spruce.*

From the little drops on the bark we get our frankincense; and from incisions in the wood flows the *pix burgundica*. This incorporated with sweet oil forms an irritating plaster which may only occasionally be used. To irritate the surface is seldom the part of wisdom.

*Catechu.*

This we obtain chiefly from the East and West Indies in the form of an extract which is a powerful astringent somewhat similar to tannin, and may be used for the same general purposes locally and internally.

### **ACACIA VERA.**

*Gum Arabic.*

Arabia and Northern Africa.

The gum exudes freely from the bark of the trunk and larger branches, is soft and nearly fluid. Exposure hardens it.

Acacia Vera is a pure mucilage, nutritious and demulcent; may be used to excellent advantage in all irritated conditions of the mucous membrane whether it be of the alvine canal, the bronchi or of the renal apparatus. Its chief influence is most felt where most needed or where influenced by some other agent. It is quite serviceable in bronchial inflammation or irritation, in dysentery and diarrhoea.

Gum Arabic

oz. i

Water, Vinegar, or Lemonade

oz. vi

Do not use enough to clog the system but merely to soothe as a mucilaginous drink. This gum plays an important part in the manufacture of pills, troches and emulsions..

### **ACETUM.**

*Vinegar.*

The juices of various fruits after having undergone some degree of fermentation and having become sufficiently sour are called vinegar. The best vinegar is obtained from apples. Though there is a small proportion of acetic acid in vinegar, yet it is improper to manufacture vinegar from acetic acid and water. Acetum influences the mucous membrane chiefly, promoting the increase of saliva, and is an expectorant to the respiratory mucous membrane.

Vinegar, sugar and water in appropriate combination form a pleasant acidulated drink when indicated in fevers to allay thirst and to promote a flow of saliva. Acetum in hot water is diaphoretic, and if inhaled when the head is somewhat covered is valuable for the relief of colds in the head and nasal passages, the throat and bronchi. As a stimulating antiseptic it is valuable in various forms of sore throat, especially if combined with more stimulating and toning agents. It may be used as a gargle or be atomized into the throat in diphtheria, pharyngitis, laryngitis, aphonia or tonsillitis. A favourite home gargle is acetum, sodium chloride and capsicum in boiling water, for various forms of mild sore throat. With *verbascum thapsus* its influence is excellent as a fomentation for sprains and swellings. With *lobelia* it decreases its nausea, yet its influence is more permanent.

Acetum with *sanguinaria* and *lobelia* may be administered with very favourable results in membranous croup in combination with gently stimulating diaphoretics. The acetous tincture of *lobelia* much less readily nauseates but is more persistent than the ordinary tincture. With capsicum the influence of both is intensified. Locally acetum increases the power of any agent with which it is combined. If acetum is brought to the boiling point and poured over the crude ingredients as *lobelia* or *sanguinaria* the full strength of the agent will be more readily gained. In case of *delirium tremens* a wine-glassful or strong vinegar will soon restore sense and locomotion.

## **ACHILLEA MILLEFOLIUM.**

*Yarrow.*

This herb is a mild, slow, stimulating astringent tonic, influencing the mucous membrane of the alvine canal, giving favourable results in chronic dysentery and chronic diarrhoea. It stimulates the appetite and tones the digestive organs. It is of much importance as a tonic to the general system. Combined with uterine tonics its influence will be felt upon the generative organs and will be serviceable in leucorrhoea, gleet and vaginal laxity.

In hot infusion it arouses the capillary circulation and is somewhat antiperiodic, and assists in the relief of hemorrhages. In cold infusion it is useful as a tonic in convalescence from fevers, from nervous prostration, and in phthisis and night sweats.

## **ACORUS CALAMUS.**

*Calamus, Sweet Flag.*

The root when green is rather pungent but when dry is a pleasant, mild, aromatic stimulant. It is mildly warming to the stomach and is frequently used to relieve the flatus and colic of children. It is best for this purpose combined with zingiber and dioscorea, and it may be used as a carminative vehicle for other drugs.

## **ADIANTUM PEDATUM.**

*Maiden-hair.*

This herb is a mild, pleasant, demulcent, stimulating astringent. It influences the mucous membrane throughout. In combination with agents that influence the bronchi its action will be determined in that direction; as with aralia racemosa or symphytum officinale. With hydrastis or gentian its influence will be most felt on the alvine canal. With uva ursi its influence will be felt by the kidneys, the uterus, bladder and urethra, assisting much in the relief of cystic catarrh and scalding urine.

## **AGAVE AMERICANA.**

*American Agave.*

The juice of this plant forms a lather with water and has been sometimes used as a substitute for soap, and forms a good cleansing application. Internally it influences the mucous membrane and is somewhat laxative. It also influences the urinary and generative organs, increasing the flow in either direction as needed or as directed by other agents.

## **AGAVE VIRGINICA.**

*Rattlesnake Master.*

The root is a bitter, tonic carminative and is useful in flatulence and colic, and is recommended as an antidote for snake bites.

## **AGRIMONIA EUPATORIA.**

*Agrimony.*

The herb is a gently stimulating, aromatic astringent, acting mainly on the mucous membrane. In hot infusion it influences diaphoresis. Cold preparations influence the kidneys and other urinary apparatus, imparting a gentle tonic influence, and will give favourable results in enuresis and relieve milky urine.

With hepatics its chief influence is given to the intestinal mucous membrane in cases of dysentery and diarrhoea, acute or chronic. Dr. F. G. Hoener recommends it in hepatic abscess, mesenteritis, anaemia, atrophy of the liver, albumenaria, cirrhosis of the liver, marasmus, peritonitis, and stomatitis.

With uterine tonics its chief influence is on the generative organs, slowly toning them and relieving leucorrhoea.

With agents that influence the bronchi its influence will be expended in toning the mucous membrane in that locality, and is valuable in excessive expectoration. Dr. F. G. Hoener recommends the following in incipient consumption, colds and coughs.

Elix. Agrimonia Eup.

" Chrysanthemum Leucan.

" Verbena Hast.

" Sabbatia Ang.

" Veronica Off.

" Verbascum Thap.

" Helonias Dio.

aa. oz. iss

oz. iiiss

Syr. Marrubium Vulg.

aa. oz. ii

oz. iiiss

oz. iss

M. S. A teaspoonful to a dessertspoonful every 2 or 3 hours.

With more stimulating agents its influence when needed by the vital force will be exerted upon the pharynx and larynx. With ulmus or other mucilaginous wash it is good in ophthalmia.

### AGROPYRUM REPENS.

*Triticum, Couch Grass.*

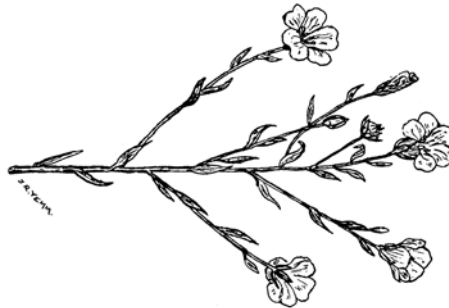
(*Triticum Repens.*)

The root is a pleasant diuretic, and is excellent for the relief of irritation of the bladder and urethra. It is valuable in gonorrhoea in the inflammatory stage.

BIRTHWORT  
(*Aristolochia Longra.*)

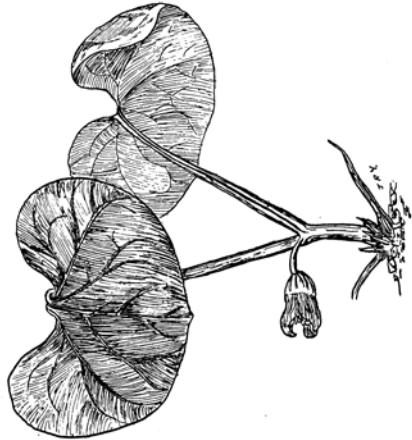


FLAX  
(*Linum Usitatissimum.*)





JUNIPER  
(Juniperus Communis).



ASACABACCA  
(Asarum Eupopaeum).

It increases the flow of urine and relieves the irritation. It is also valuable in cystic catarrh and renal congestions. In dropsy it gives favourable results. In nephritis, cystitis and urethntis it may be used to good advantage.

### ALETRIS FARINOSA.

*Star-Grass, Unicorn Root.*

The root of this plant is a gently stimulating and toning agent, chiefly influencing the female generative organs. It is gently laxative to the bowels. In dysmenorrhoea it stimulates and tones the uterus to normal action and thus frees the parts from pain. In menorrhagia it stimulates to the relief of the excessive flow. It is an excellent, perhaps the best, preventive of miscarriage, and may be given during any portion of the pregnant period or during the whole period of pregnancy; and is an excellent preparatory parturient. Many a case of impotency and barrenness has been relieved by its use continued for some weeks or months. Given during pregnancy in small doses two or three times a day it affords relief to much of the dyspepsia of this period, and with mitchella is a superb female tonic. In amenorrhoea it stimulates to normal action. If anaemia be present proper medication must be added. It is not best to use this agent with married ladies who are given to too frequent pregnancies. In such cases mitchella repens is to be preferred.

F. E. Aletris .Far.  
 " Viburnum Op.  
 " Caulophyllum Th.      aa. dr. iss  
 " Mitchella Rep.              dr. iii  
 Syr. Simplex                      q. s. oz. iv

F. E. Aletris Far.  
 " Viburnum Op.  
 " Caulophyllum Thal.  
 " Serenoa Serrulata      aa. dr. iss  
 " Mitchella Rep              dr. iii  
 Syr. Simplex                      q. s. oz. iv



Either of these formulae makes a good female tonic.

F. E. Aletris :Far.

" Viburnum Op.

" Scutellaria Lat.

" Dioscorea Vil. aa. dr. ii

Syr. Simplex q. s. oz. iv

This is a good nervine tonic in depressed and irritated conditions.

F. E. Aletris :Far.

" Phytolacca Rad. aa. 1 part

" Arctium Sem. 2 parts

This is a preparation used by Dr. J. E. Roop for ovarian irritation.

### **ALISMA PLANTAGO.**

*Plantain.*

(Plantago Major.)

The fresh leaves bruised and applied to the surface are moderately stimulating as a poultice to bruises, sprains and swellings. When dry a hot infusion is diaphoretic and is soothing to the nerves. Cold preparations increase the flow of urine and allay irritation of the urethra. To the alvine mucous membrane it is stimulating, toning and demulcent.

### **ALLIUM SATIVUM.**

*Garlic.*

The bulbs are a diffusive stimulant to the mucous membrane throughout, and their influence will be most felt where most needed. In cases of coughs and colds their influence will be felt most upon the lungs and bronchi, for which they may be given internally and also may be applied as a fomentation or poultice. They are stimulating to the alvine mucous membrane throughout, and are sometimes used to expel the stomach worm.

The warm juice may be dropped into the ear in case of otalgia and in dryness of the wax.

The ordinary onion (*Allium Cepa*) is of less strength but may be used in the same manner and for the same purposes as the garlic bulb. The onion poultice applied over the chest of children in case, of cold, bronchitis or pneumonia is of much benefit.

They also soothe the kidneys and increase the flow of urine.

Expressed juice of *Allium Sat.* 1 part

or of *Allium Cepa* 3 parts

Acetum 1-1/2 parts

and Granulated Sugar enough to make into a good syrup is excellent for children's coughs.

*Allium Vineale* or wild garlic seed tincture, says Dr. F. G. Hamer, mixed with a little sweet oil and injected, 5 or 10 drops, into the ear passage will give instant relief in some cases of otalgia.

### **ALNUS SERRULATA.**

*Tag or Small Alder.*

The bark is a mildly stimulating and gently astringing tonic alterative, influencing mainly the cutaneous and renal secretions, glands and lymphatics; and is therefore valuable in scrofula, glandular swellings, skin diseases and mercurial cachexia. It is also valuable in chronic diarrhoea, sore mouth, sore throat, especially when arising from some impurity in the blood. In the treatment of dyspepsia it influences the flow of gastric juice and invigorates the appetite. Its action is excellent on the mucous membrane in catarrh of the stomach or bowels. Acting as it does on the circulation it is valuable in rheumatism, and in the treatment of syphilis and in chronic and acute inflammation of the stomach and bowels and in cases of hemorrhages. It is a gentle stimulant of the kidneys and absorbents.

### **ALOE SPICATA AND SOCATRINA**

*Aloes.*

South Africa.

The leaves furnish a juice which when expressed and evaporated gives the aloes of commerce. It is stimulating to the alvine mucous membrane, is somewhat hepatic and considerably cathartic. It is not suited to irritated or inflamed conditions of the mucous membrane, and may under other circumstances create more or less irritation of that membrane. Sympathetically it is stimulating to the vagina and uterus and may promote menstruation. It is usually best to combine it with less irritating agents.

It eradicates pin-worms when given in doses of 1 grain every three hours, for three or four doses only.

Aloes is very bitter and is usually best given in pill form.

F. E. Aloes dr. ii

" Taraxacum dr. vi

Syr. Zingiber q. s. oz. iv

This is a good hepatic and cathartic preparation.

Aloes

Myrrh

Glycyrrhiza

in equal parts is another preparation somewhat more cathartic.

### **ALTHÆA OFFICINALIS.**

*Marshmallow.*

The root contains much mucilage which is quite soothing to the mucous membrane and skin, and is valuable in the treatment of irritated conditions especially in pharyngitis, laryngitis, bronchitis, pneumonia, dysentery, diarrhoea, typhoid fever, diphtheria, gonorrhoea, cystitis, urethritis and nephritis. Its influence to soothe will be used by the vital force wherever needed, or where its influence may be determined by other medication. With lobelia it forms a good wash and poultice in ophthalmia.

Althæa Off. oz. i

Rubus Strigosus dr. iv

Boil in 1 1/2 pints soft water down to 1 pint, and strain. Bathe inflamed sore eyes 4 to 6 times a day. With raw linseed oil it forms a good covering for burns, scalds, and denuded surfaces. The mucilage is best prepared by boiling the root a short time. Dr. F. G. Hamer says it enriches watery milk of nursing mothers and promotes the flow.

### **ALTHÆA ROSEA.**

*Hollyhock.*

The roots and flowers are demulcent and are frequently substituted for the althæa officinalis. They are soothing to the mucous membrane and may be used for the same general purposes. It does not yield so much mucilage as the officinalis, but its influence on the kidneys and urinary tract is more marked.

Aqueous Hydrastis

" Hamamelis

Mucilage Althæa Off. or Rosea q. s.

This is a good preparation for gonorrhoea. The hydrastis should be used in excess in the primary stage and the hamamelis should be used in excess subsequently. With aralia rac, and prunus it forms a good syrup of irritable coughs and colds.

With celastus scandens it gives favourable impressions in diabetes.

### **AMARANTHUS HYPOCHONDRIACUS.**

*Prince's Feather.*

The leaves are a stimulating astringent to the mucous membrane especially influencing the generative organs. They readily check uterine hemorrhages, and give favourable results in diarrhoea, dysentery and leucorrhoea.

## **AMBROSIA ARTEMISIÆFOLIA.**

*Rag-weed.*

This herb is a mild, stimulating, astringent tonic. A hot infusion relieves the circulation, giving a good outward flow of blood, and gives very favourable results in dysentery, diarrhoea, and in feverish conditions where the bowels are too lax. A strong infusion makes an excellent wash in case of relaxed vagina, prolapsus uteri and leucorrhoea. It is the equal if not the superior of hamamelis virgo in a case of weakened digestion with laxity of the bowels ambrosia is a good tonic to the mucous membrane throughout. Zingiber renders it of more importance to the circulation, and taraxacum or euonymus renders it of more importance to the hepatic apparatus and alvine canal in chronic dysentery and diarrhoea.

It is claimed that during the season of the wafting on the breezes of the pollen of ambrosia that hay fever is more prevalent.

The fresh juice of the ambrosia gives good results in cases of rhus poisoning.

Dr. F. G. Hoener recommends the ambrosia as a good tonic, and for the removal of the after effects of quinine.

## **AMPELOPSIS QUINQUEFOLIA.**

*American Ivy.*

(*Vitis Quinquefolia.*)

The root bark, the vine and the twigs are mildly stimulating and toning, influencing mainly the mucous membrane and lymphatic structures, imparting tone and vigour and increasing the absorbing function of the vessels; hence they are very valuable in scrofula, in enlargement of the spleen and lymphoid bodies. They greatly assist in both gastric and intestinal nutrition. They are valuable in enlarged mammary or testes, and give strength and tone to the generative organs.

Ampelopsin

Apocynin                      aa. grs. ii ti iv

This is very useful in case of congestive chill and enlarged spleen. Repeat as occasion demands, or give the apocynin alone.

Inasmuch as it influences the mucous membrane it tones the bronchi and is a good addition to cough syrups where there is too free expectoration and especially in scrofulous cases.

## **AMPHIACHYRIS DRACUNCULOIDES.**

*Broom-weed.*

By J. M. Massie, M. D., of Dallas, Texas, by whom it was introduced to the profession.

The following is the botanical description furnished by Miss Ora Crawford, Dallas, Texas:

Family-composite; genus-amphiachyris; species dracunculoides.

Plant from one to three feet high, pheogamous, exogenous, herbaceous; small yellow flowers, blooms in Autumn, grows in the waxy, heavy soil of Texas; root, primary tap, many rootlets, annual fibrous; stem, erect; herbaceous, smooth, naked 6 to 8 inches, then bears many branches, leaves, simple and bract like, sessile, linear, with strong mid rib; flowers, intermediate inflorescent in paniced raceme clusters, composite, irregular and unsymmetrical; involucre of two rows of needle shaped scales 7 to 11 in number, ray flowers number 7 to 10, are pistillate style, two cleft, gamopetalous 3 petals included; imperfect calyx polysepalous, modified into a pappus of hairy bristles; head of velvety flowers 7 to 18, corolla gamopetalous, 5 petals, 5 stamens.; anthers syngenesious; pistil with style bearing one stigma., perfect involucre downy.-(Physio-Medical Journal).

The leaves, flowers and tender branches are used in medicine. They contain a somewhat volatile oil, and a resinous gum as well as extractive medicinal matters. It is difficult to grind on account of its gummy nature; and an alcoholic strength of 50 per cent. is required to extract all its properties.

It is a pleasant and decided diffusive stimulant to the intestinal, bronchial and circulatory nerves. It promptly soothes all irritated mucous membranes, is carminative and stimulating to peristalsis which may lead to evacuations. It is instantaneous in relaxed intestinal catarrh, and is a specific in cramp colic in doses of 15 gtt. to dr. i of the fluid extract from two to four hours. A pleasant warmth follows its administration, more pronounced than that of the mint family.

Its local effect is well observed in nasal catarrh, where it stimulates the mucous membrane, relieves it of viscid secretions, leaves the surface clean and permanently tones the relaxed palatal muscles. A most valuable property, is its influence upon the mucous membrane of the bronchi when taken per orem, for irritable coughs depending upon a relaxed state, where a prompt stimulating and soothing expectorant is desired. The amphiachyris promptly cleanses and tones the bronchial membrane. It is also a valuable local application to the vaginal membrane where it cleanses and tones and is one of our best agents for the treatment of a degenerate leucorrhoea.

It influences the entire mucous membrane and may be made to give its especial influence to some part of the mucous membrane by being combined with other remedies having special local influences. This agent may be relied upon for its specific action described. It is excellent in bronchitis, bronchial asthma, broncho-pneumonia, and catarrh of all the mucous membranes. This is a new agent that fills a place in our materia medica unoccupied by any other agent. It is a sanative agent perfectly harmless, and may be administered to patients in all stages of vitality with perfect safety.

Dr. F. O. Broady gives the following recipe for a Neutralizing Cordial which he says is superior to all others:

I. Amphiachyris Dra.	oz. viii to iv
Rheum Pal.	oz. viii
Xanthoxylum Frax. Cort.	oz. iv

Pulverize the Rheum and grind the others for percolation.

II. Prunus Virgo Cort.	
Chelone Glabra	aa. oz. viii
Hydrastis Can.	oz. iv

Grind for percolation.

Percolate I. with 50 per cent. alcohol q. S. ft. fl. ext.

Percolate II. with glycerine oz. viii, water oz. xxiv till two and one-half fluid lbs. have passed. Add sod. bicarb. oz. iii to percolate II., and saturate the latter, cold, with granulated sugar. Add percolate I.; add syr. simplex to make one gallon if necessary; finally add ess. mentha pip. dr. iv.

Normal Tincture Amphiachyris Drac. (Broom Weed) standardized to represent 16 ounces per pint, as made by C. T. Bedford, is a good representative preparation of the agent, and contains all its valuable properties, and is in most cases the best and most convenient method of using it. Can be used in ground and powdered form if preferred.

This valuable agent was discovered and introduced by Dr. J. M. Massie, of Dallas, Texas.

After a year's experience with it in bronchial pneumonic and catarrhal troubles, and in influenza, it has been found to fully justify the praise and recommendations bestowed upon it by Dr. Massie. Dr. P. Holt says the following formula is splendid for catarrh, the only objection to it being that it will stain the handkerchief, but not permanently:





F. E. Amphiachyris Dra.	oz. vi
Tr. Myrrh et.	
Tr. Mentha Piperita	aa oz. iv
Soda Bicarb. et.	
Soda Biboras et.	
Glycerine	aa oz. vii
Aqua qs	gal. i

Mix as follows :-use a large open vessel-a shallow pan. Dissolve the sodas in the wa.ter, then add the other agents which have been previously mixed. Filter through a closely woven cloth. When used as a douche or spray add an equal portion of water.

Dr. P. Holt also recommends the following vaginal powder.

Powd. Amphiachyris Dra. et.	
" Alumen Com.	aa oz. viii
" Boracic Acid	oz. xvi
" Tannic Acid	oz. iv

Mix Sig. one teaspoonful to a pint of boiling water; steep 30 minutes, strain and inject to the vagina once or twice a day as indicated. This is valuable in all cases of leucorrhoea, erosions and ulcerations of the os uteri. He says" We would not be without this preparation. The fact is, the longer we use amphiachyris, the better we like it and the more we use of it. We average a pound a day."

The permanganate of potash and amphiachyris make a good wash for old sores.

A combination of amphiachyris, sassafras and eucalyptus has been recommended for asthma.

### AMYGDALUS COMMUNIS DULCIS.

*Sweet Almonds.*

They are a nutrient aromatic demulcent. They may be eaten or emulsed and used to cover other remedies. They are somewhat diuretic, but chiefly lubricate and nourish the bowels in cases of debility. They yield an abundance of oil which may be used for the same general purposes.

### AMYGDALUS COMMUNIS AMARA.

The bitter almond is more tonic than the sweet.

### AMYGDALUS PERSICA.

*Peach.*

This is an excellent fruit of fine flavour and taste, and is quite nourishing in its ripe state and is somewhat laxative to the bowels. But the canned peach is a dangerous article of diet to the sick. The dried peach is far better. Soak it for twelve hours and then cook. This is best when the peach is out of season. The kernels are a, mildly stimulating tonic to the stomach; and if a diffusive be added the influence will be felt more generally throughout the alvine canal.

If these be given in infusion care must be taken that fresh infusion be made every ten or twelve hours, and taken cold. This must be done in order to prevent the formation of hydrochloric acid. This same precaution should be observed in the use of the leaves, which are moderately stimulating, and demulcent to the mucous membrane throughout the alvine canal, the kidneys, ureters, bladder and urethra, and may be used to good advantage in the treatment of catarrh of the alvine and urinary tracts, for the relief of irritated conditions, and for the cleansing of accumulated mucous.

A hot infusion will influence the circulation toward the surface and produce diaphoresis. For some cases cold preparations are best. A diffusive renders this agent more active; The bark of the tree is also useful and is a stronger tonic than the leaves. It is excellent in catarrhal indigestion. The fresh bark and leaves are much to be preferred, but if carefully dried they will still be of some importance. The green leaves are excellent applied as a hot fomentation in cholera infantum, inflammation of stomach, bowels or bladder.

### **ANACYCLUS PYRETHRUM.**

*Pellitory.*

The root is quite stimulating to the mucous membrane and circulation. It creates a tingling sensation in the throat and excites a good free flow of saliva. It is valuable in chronic rheumatism and facial neuralgia. For semi-paralysis of the tongue or a relaxed palate, uvula or pharynx it may be used as a gargle very frequently.

### **ANEMONE PULSATILLA.**

*Pulsatilla, Pasque Flower .Europe.*

This species of the anemone has violet blossoms having the outer surface hairy. It prefers a calcareous soil.

The herb is stimulating and relaxing, influencing the skin and mucous membrane. In large doses it may produce nausea and vomiting. It is also quite cathartic and unless combined with zingiber or mentha it may produce considerable griping.

In hot infusion it influences the circulation and relieves the skin and nervous system. Cold preparations will occasionally prove diuretic. It is a valuable agent in the treatment of skin diseases, in some stages of syphilis, ophthalmia, and eczema. It is also recommended in whooping cough and bronchitis especially when there is some impurity of blood present.

### **ANETHUM GRAVEOLENS.**

*Dill.*

The seed is a warming, diffusive, stimulating aromatic and carminative, principally used in compounds to relieve the unpleasant taste of medicines.

### **ANGELICA ATROPURPUREA.**

*Angelica Seed. American.*

The seeds of the American angelica are more diaphoretic than the German, but are used for the same general purposes. They are valuable in acute febrile cases and zymotic diseases, coughs and colds. They are antiperiodic, and in hot infusion are valuable in dysmenorrhea especially for nervous females.

### **ANTHEMIS COTULA.**

*Mayweed.*

The flowers and stems of this plant are diffusive stimulants to the circulation, tending the blood toward the surface. In hot infusion they are decidedly diaphoretic and somewhat emmenagogue. A hot fomentation of the green herb is excellent for sprains and inflamed extremities; for pelvic and abdominal peritonitis; for cystic, pelvic, abdominal or thoracic congestions and for local neuralgias. This herb is best adapted to torpid or congested conditions of the mucous membrane.

## ANTHEMIS NOBILIS.

*Chamomile, Roman.*

The flowers are more relaxing and less stimulating than the anthemis cotula. In hot infusion they induce diaphoresis and a good outward flow of blood. On the nervous system and the mucous membrane they are very soothing and have a decided influence upon the uterus, relieving congestion and promoting the menstrual flow. They are valuable in amenorrhoea and dysmenorrhoea when there is a scanty flow and nervous irritation. They are a good agent to be used for nervous and hysterical persons. Large and frequent doses may prove nauseating and result in emesis, but this will be no detriment in such cases, but rather an advantage.

F. E. Anthemis Nob.	dr. iii
" Caulophyllum Th.	dr. ii
" Liriodendron Tul.	dr. iv
Syr. Zingiberis	q. s. oz. iv

Sig. Teaspoonful four times daily as a tonic in dysmenorrhoea.

A hot infusion is an excellent diaphoretic for the relief of colds especially if zingiber be added, and will be found very valuable in bilious fever. Cold preparations are quite tonic to the stomach and uterus, giving tone and vigour to the stomach, increasing the appetite and improving digestion. They are best combined with some diffusible stimulant or some mild hepatic. In convalescence from fevers chamomile is a fine tonic especially if combined with hydrastia, sulphate.

F. E. Anthemis Nob.	dr. iv
" Liriodendron Tul.	dr. iii
" Scutellaria Lat.	dr. i
Hydrastia Sulph.	gr. i
Syr. Zingiberis	q. s. oz. iv

This is an excellent tonic in nervous prostration and in hysteria.

F. E. Scutellaria Lat.	dr. ii
" Liriodendron Tul.	dr. iv
Hydrastia Sulph.	gr. i
Ferri et Potassæ Tart.	grs. x
Infusion Anthemis Nob.	oz. iv

Mix.

When there is any danger of hemorrhage or when the periodic flow is too free or too frequent this is not the best agent to be used. In sluggish cases some diffusible stimulant should be added.

The inhaling of the acetous infusion of chamomile is very beneficial in quinsy and colds in the head or nasal passages. A hot poultice of the same may be applied to the forehead or over the lungs, stomach or bowels for congestions in these regions.

With aralia rac. the influence of chamomile is valuable in cough syrups where a soothing expectorant is needed.

## APIUM GRAVEOLENS.

*Celery.*

The seed is a moderately stimulating tonic nervine. It is useful in depression or prostration of the nervous system, whether it be from general prostration, general debility or from overtaxing of the nerve centres by over brain work. It is best used with some toning hepatic as euonymus or taraxacum. With viburnum opulus it is good for pregnant females of a nervous temperament and having a tendency to cramp. Aletris or helonias may be added if there is a tendency to miscarriage. The vegetable is a soothing nervine but is less stimulating than the seed. In convalescence it is especially valuable in the treatment of those of a nervous temperament.

Apium Grav. et  
Kola Ac. et  
Coca in equal parts, or





It is excellent for the destruction of the ascaris vermicularis.

In hot infusion it is diaphoretic and expectorant and hence good in rheumatism and acute febrile disorders with clogged secretions.

### ARALIA HISPIDA.

#### *Dwarf Elder.*

The bark of the roots and stems is mildly stimulating and tonic diuretic. In hot infusion it influences the blood toward the surface, but cold preparations influence the kidneys and procure a good flow of urine, and yet leave the parts toned. To the stomach they are a warming, pleasant, bitter tonic.

For its tonic diuretic properties it is excellent in dropsy, renal torpor, renal congestions, and where there is scanty and scalding urine with aching of back or bladder.

With females, while it is valuable for its action on the renal tract it also influences the uterus, relieving uterine torpor and assisting in the promotion of the periodic flow.

F. E. Aralia Hisp	dr. ii
" Taraxacum	dr. iv
" Mitchella Rep.	dr. iii
Syr. Zingiberis	q. s. oz. iv
Sig. Teaspoonful three or four times a day as a female diuretic tonic.	

F. E. Aralia Hisp. et	
" Capsella Bur. Pas.	aa. oz. ss
Potassa Citralis	dr. ss
Syr. Zingiberis	ad. oz. iv
Mix. Sig. Teaspoonful every three hours for cystic congestion.	

### ARALIA NUDICAULIS.

#### *American Sarsaparilla.*

The root is a pleasant and gently stimulating diuretic, influencing all the mucous membranes, especially that of the renal organs. In hot infusion it influences the circulation toward the surface very favourably and may be used for the relief of colds whether of the head, lungs, stomach, bowels or uterus. It is stimulating and soothing to the mucous membrane.

F. E. Aralia Nud.	dr. ii
" Celastrus Scan.	dr. ii
" Taraxacum	dr. iv
" Menispermum C.	dr. i
Syr. Zingiberis	q. s. oz. iv
This is a valuable alterative.	





CRANESBILL  
(Geranium Maculatum).



FEVERFEW  
(Chrysanthemum Parthenium).

### ARALIA RACEMOSA.

#### *Spikenard.*

This root is mildly stimulating, demulcent, warming, sustaining and toning to the mucous membrane especially that of the respiratory organs. In hot infusion the circulation and skin feel its influence. It allays irritation of the respiratory mucous membrane, and is a soothing expectorant. It is of much value in allaying spasmodic cough and in the relief of inflammations and congestions of the thoracic organs, whether they be bronchial, pleuritic or pulmonary. It is valuable in the treatment of the irritation subsequent to eruptive diseases. It soothes the mucous membrane throughout the stomach, bowels and bladder.

Inhaling of a vapour or spray of aralia is valuable and pleasant in irritated conditions of the lungs.

Aralia Rac. 2

Symphytum Off.

Mitchella Rep.

Eupatorium Purp. aa. 1

forms a valuable tonic for ladies having a weak and irritated mucous membrane, whether alvine, renal, respiratory or uterine.

F. E. Aralia Rae. et

" Inula Hel. et

" Symphytum Off. et

" Marrabium Vulg. aa. dr. i

" Sanguinaria Can. gtt. xv

" Prunus Virgo dr. ii

" Glycyrrhiza Glab. dr. ss

Syr. Simp. s. oz. vi

This is an admirable tonic cough syrup for chronic cases with more or less debility. If needed it can be made more relaxing by the addition of F. E. Lobelia Inf.

F. E. Aralia Rae. dr. vi

" Lycopus Virgo dr. iv

" Polemonium Rep. dr. ii

Syr. Zing.	q. s. oz. viii
Sig. Half to one teaspoonful as required.	
F. E. Aralia Rae. et	
" Symphytum off.	aa. dr. iss
" Inula Hel. et	
" Sanguinaria Can.	a.a. dr. i
" Lobelia Infl. et	
" Cephffilis Ipecac.	aa. dr. ss
Tr. Capsicum	gtta. v
Syr. Prunus Virgo	q. s. oz. iv

This is a stimulating cough syrup.

F. E. Aralia Rae. et	
" Symphytum Off	.aa. dr. ii
Syr. Prunus Virgo	q. s. oz. iv
Add to this F. E. Lobelia In£. or Sanguinaria, or both to suit the case,	
F. E. Aralia Rae.	dr. iii
" Symphytum Off. et	
" Caulophyllum	aa. dr. i
Syr. Prunus Virgo	q. s. oz. iv
Aralia Rae.	8
Symphytum Off.	4
Viburnum Op.	2
Inula Hel.	1
Mitchella	3
Prunus	10

This forms a good female tonic and cough syrup combined.

F. E. Aralia Rae.	dr. iii
" Eupatorium Perf.	dr. ii
" Lippia Mexicana	dr. ii
" Cimicifuga Rae.	dr. ss
Syr. Prunus	q. s. oz. vi
Aralia Rae.	oz. xvi
Convallaria Mult.	oz. vii
Prunus Virgo	oz. iv
Capsicum	dr. i
Lobelia Herb	oz. i
Amphiachyris Dr.	oz. iv

Grind all for percolation, using as a menstruum:

Glycerine	oz. vi
Alcohol	oz. xiii
Soft Water	oz. xx

Percolate till 2 fluid pounds pass. Set this aside, and continue the percolation with water till 2 fluid pounds more pass. In this dissolve sugar at slow heat. When cool add:

Alcohol	oz. i
01. Wintergreen et	
01. Sassafras aa. dr. i	

Then add the first percolate.

This is Dr. F. O. Broady's formula and he says it takes the palm as a pleasant and efficient cough syrup. The broom weed makes it especially valuable.

## ARCHANGELICA OFFICINALIS.

Angelica.

German.

The root is peculiarly aromatic, oleaginous and of rather a pungent taste. It is moderately diffusive and stimulating to the mucous membrane. In hot infusion it is diaphoretic, and relieves the uterus in case of suppression from cold. It is also valuable in flatulence.

Cold preparations act well on the kidneys and tone the entire pelvic apparatus.

F. E. Archangelica Off.	dr. iv
" Dioscorea Vil.	dr. ii
" Caulophyllum Thal. et	
" Leonurus Card.	aa. dr. i
Syr. Zingiberis	q. s. oz. iv

This is a fine uterine antispasmodic and tonic where there is a deficiency of the menstrual flow and may be used also in dysmenorrhoea.

## ARCTIUM LAPPA.

Burdock.

(Lappa Major.)

The root is a soothing demulcent tonic alterative. It slowly and steadily influences the skin, soothes the kidneys and relieves the lymphatics. It is of great importance in all skin diseases and in scrofulous affections.

It is very soothing to the mucous membrane throughout and is hence valuable in irritated conditions. Its soothing character is also extended to the serous membrane and is valuable in rheumatism, and also in venereal diseases especially if combined with more stimulating agents, and notably in the inflammatory stage of such diseases.

Dr. F. G. Hoener recommends the following alterative:

Elix Arctium Lap. et	
" Rumex Crisp. -	aa. oz. ii
" Aralia Nudic. et	
" Iris Vers. et	
" Stillingia Syl. et	
“ Trifoliata Pra. et	
Syr. Podophyllum	aa. oz. i

M. S. One teaspoonful or more 4 or 5 times a day as needed.

He also recommends the following hair tonic to be used to prevent the falling off of the hair during - or subsequent to convalescence from typhoid fever, also to cleanse and cure sores on the scalp especially of infants:

Lappa Major	oz. xvi
Salvia Officinalis	oz. viii
Cydonia Vulgaris et	
Lycopodium Compo	aa. oz. iv
M. Make into two quarts of decoction and add	
Succus Betula Lenta	oz. xvi
Bay Rum	oz. xvi

Take

Alcohol 45 per cent.	oz. xii
Ess. Hiliontrope	oz. iv

Mix well these last and then add all together and let stand for several weeks, or it may be immediately filtered. The seeds are somewhat more stimulating than the roots, and are quite oleaginous. They should be ground in order to obtain their properties quickly. In hot infusion they influence the sebaceous glands, and are of superior importance in scarlatina, and other exanthemata, and in typhoid fever.

Cold preparations influence the kidneys, increasing the flow of urine and relieving irritation of the urinary tract.

In skin diseases the seeds are to be preferred to the root.

A teaspoonful of the ground seed to a teacupful of boiling water, after standing half an hour may be taken during the forenoon, and the cup with the same seed filled with boiling water again and taken in the afternoon. This is excellent in ophthalmia, and as a good hepatic alterative.

With zingiber this remedy is more diffusive; with hydrastia sulphate it is rendered more tonic; with taraxanum or euonymous it is more hepatic and gives favourable results in eczema and jaundice; with mitchella its influence is given to the generative organs; and with triticum repens, juniper or eupatorium purpureum it influences the kidneys and may be used to good advantage in dropsy.

The green leaves applied in hot fomentation are an excellent application to sprains. They have the same general properties as the roots. In the green state they are more active than the roots upon the alvine canal and the hepatic organ. A fluid extract of the leaves, smaller branches and seeds shortly before ripe is an excellent preparation.

### ARCTOSTAPHYLOS UVA-URSI.

#### Uva-Ursi.

The leaves are a mild, soothing, bitter astringent, tonic, diuretic. They influence the mucous membrane, especially that of urinary and genital structures, increasing the flow of urine, relieving congestion and toning the parts.

They are valuable in leucorrhoea, gonorrhoea and gleet. The discharge is lessened and the parts toned.

Infusion uva-ursi	oz. ss
Bicarbonate Soda	grs. x

M. Sig. Take this every two hours. This gives quick relief in cystitis, aching of the back or of the bladder, and gives good results in enuresis given occasionally. Dr. F. G. Hoener recommends the following for bed wetting children.

Elix. Uva-Ursi	oz. ii
" Achillea M.	oz. i
" Rhus glabra bacca	oz. iss

M. Sig. One teaspoonful or dessertspoonful every two or three hours during the day according to the case, and a hot sitz bath daily.

Uva- Ursi et	
Mitchella	aa 2
Taraxacum	3

forms an excellent pelvic tonic for the relief of prolapsus uteri, relaxed vagina, cystic catarrh and aching of kidneys and bladder.

For the relief of congestion of the mucous membrane uva-ursi is best in hot infusion; but its toning effect is best obtained from cold preparations.

### ARISTOLOCHIA SERPENTARIA.

Serpentaria, Virginia Snake Root.

The root is a bitter, warming, aromatic, diffusive stimulant.

In hot infusion it influences the capillaries and thence the arterial circulation. It is quite stimulating to the gastric membrane and should not be given too strong nor too frequently else it may produce nausea and vomiting. In this way it is decidedly valuable as an emetic.

It is stimulating to the mucous membrane throughout and large and frequent doses may prove irritating especially if the alvine canal be already more or less irritated. In such cases more soothing agents will be better. But in languid and sluggish conditions it arouses promptly and fully.

In eruptive diseases, before the appearance of the full eruption it is excellent, especially in languid conditions; but where milder agents will do the work, I prefer them.

In the treatment of nettle rash or rhus poisoning give freely and fully for a few hours and then stop. It will do good work.

Its influence is primarily toward the surface, but soon its influence is felt by the whole arterial system, and the heart's impulse becomes stronger and fuller. By its stimulating action upon the arterial side of the circulation the whole nervous system is aroused by its influence. Even the uterus feels its influence and its use is valuable for the relief of colds suppressing the periods.

Given during parturition when the feet are cold and there is a general receding of blood from the surface and where the pains are inefficient, this agent will have an excellent influence. It will also anticipate flooding. Cold preparations quite freely influence the kidneys and relieve congestion and renal torpor. It is best to use serpentaria thoroughly and then discontinue its use for a time. Occasionally in atonic dyspepsia, and gastric catarrh it arouses the mucous membrane and relieves the surface of viscid mucous.

#### ARTANTHE ELONGATA.

Matico.

(Piper Angustifolium.) Persia.

The leaves are a pleasant, soothing, diffusive, stimulating and gently astringent tonic.

In hot infusion they influence the circulation toward the surface, and the action on the mucous membrane is excellent throughout. The hot infusion is of much importance in pulmonary hemorrhages, relieving them by relieving the circulation. Given shortly before parturition it pleasantly anticipates post-partem hemorrhage; it stimulates to better contractions and facilitates labour.

Its influence upon both mucous membrane and the circulation gives it a very positive influence in diarrhoea and dysentery, cholera infantum and cholera morbus.

#### ARTEMISIA ABSINTHIUM.

Wormwood.

The leaves and flowers are an intensely bitter stimulant decidedly influencing the mucous membrane, and are somewhat cholagogue.

In very small doses this tonic improves the appetite and assists digestion; in large doses it is quite cathartic. It is anthelmintic, but is too intensely bitter to be very frequently used. Its influence is best felt in torpid conditions of the mucous membrane. It is too stimulating for irritated conditions.

In hot infusion it best influences the circulation, and is best for the relief of menstrual suppression from cold. The oil of wormwood is valuable in intensely stimulating liniments; and for enuresis two or three drops may be given for a few days.

#### ARTEMISIA VULGARIS.

Mugwort.

This is not so intensely bitter as the *Artemisia absinthium*, but is more tonic, and has a more decided influence on the uterus as an emmenagogue.

#### ARTEMISIA ABROTANUM.

Southern-wood.

American.

The flower buds have the same influence as the *artemisia santonica* as a tonic vermifuge.

#### ARTEMISIA SANTONICA.

Santonica.

Russia.

The flower buds are anthelmintic especially in case of the round worm, or stomach worm. Santonine is the principal form in which this ingredient comes into the medical market. It appears in small white crystals almost tasteless making a strong gastric tonic. It is gently stimulating and is very suitable for children, because of its tastelessness. Give one or two grains in a little water morning and evening for three days and follow on the third day with an appropriate dose of anti bilious physic. The worms usually pass from the child as a mass of mucous. Santonine in a few hours colours the urine quite yellow.

A solution of two to four grains in water injected once or twice a day for a few days usually puts an end to pin worms. When either pin or stomach worms have been the cause of enuresis santonine will relieve this condition.



COMFREY  
(Symphytum Officinale).



BARBERRY  
(Berberis Vulgaris)

#### ARUM TRIPHYLLUM.

Indian Turnip.

(*Arisaema triphyllum*).

The root when fresh is quite biting and pungent, and within a short time after being dried it is almost inert. The fresh leaves bruised and used as a hot fomentation on scrofulous sores are excellent to cleanse and tone.

The bruised pulp of the root may also be used to excellent advantage as a poultice in the same class of cases. At the same time use *sanguinaria canadensis* internally. Perseverance will here effect a cure. The fluid extract, of the arum more or less diluted may be used for the same purpose.

#### ASARUM CANADENSE.

Wild Ginger, Canada Snake Root.

America and Europe.

The root is a mild, aromatic, diffusive stimulant. It is somewhat less stimulating than zingiber, and is more soothing to the nerves, and they about equally influence the circulation when given in hot infusion. It gives very favourable results in eruptive diseases, in colds, coughs, suppressed menstruation from colds, and in dysmenorrhoea.

Large doses may in the sensitive stomach create nausea and emesis, which in chronic coughs and gastric catarrh, when the mucous membrane needs to be aroused, is valuable, and it increases expectoration. In irritated or inflamed conditions of the mucous membrane, other agents are to be preferred. In parturition it is valuable when the surface is cold, and in all languid conditions of the mucous membrane. In insomnia it gives excellent results.

#### ASARUM EUROPAEUM.

Asarabacca.

The leaves are slightly aromatic, bitter, acrid and nauseating. They especially influence the gastric and alvine mucous membrane, and prove emetic and cathartic. In hot infusion they may be used in rheumatism and colds.

#### ASCLEPIAS CURASSAVICA.

Blood-flower.

The roots are relaxing, chiefly influencing the mucous membrane, and proving cathartic and emetic in large doses.

In combination with zingiber they are more diffusive and influence a good outward circulation. They may be used for the arrest of light hemorrhages, and in the acute stage of gonorrhoea.

#### ASCLEPIAS INCARNATA.

White Indian Hemp.

The root is chiefly relaxing to the mucous membrane, is mildly laxative and may prove cathartic when given in large doses. Under such circumstances it may also provoke emesis. It is sometimes used to exterminate the stomach worm and is useful in acute catarrh and rheumatism.

#### ASCLEPIAS SYRIACA.

Silkweed.

The root is a relaxant, especially influencing the genito-urinary organs. It soothes the renal organs and relieves the aching back. It increases the flow of urine and leaves the parts soothed and somewhat toned. To the bowels it is rather laxative. In hot infusion it may be used in acute bronchial or nasal catarrh. It promotes expectoration and assists in relieving the cough. It is also valuable in hot infusion in fevers.

Asclepias Syriaca. 3; Phytolacca Dec. Bad. 1. Make into an infusion for dropsy.

#### ASCLEPIAS TUBEROSA.

Pleurisy Root, White Root.

The root is a relaxing agent, influencing chiefly the skin, and mucous and serous structures. In hot infusion in combination with some diffusive stimulant, as zingiber, it is diaphoretic and of much importance. It influences a flow of blood toward the surface and relaxes the capillaries in the producing of good free diaphoresis.

By itself it is of but little use, but with zingiber it is a most valuable agent.

Asclepias Tub.	4
Lobelia Infl.	1/2
Zingiber	1

in hot infusion is excellent in bronchitis, pleuritis, peritonitis, pneumonia, acute catarrh, membranous croup, colds, &c.

Asclepias Pulv.	4
-----------------	---



Zingiber, 1

in hot infusion is excellent in fevers of children or adults. If more positive stimulation is needed add capsicum in small proportion.

Dr. F. O. Broady recommends the following mixture for fevers and says "I used it for five years in Chicago with great confidence."

Pulv. Asclepias Tub. 3  
" Pterospora And. 2  
" Cypripedium Pub. et  
" Zingiber Jam. aa. 11  
" Lobelia Inf. Fol. 1  
" Saccharum Album. 5

M. Trit. Bene Dose 5 grs. every hour.

When there is a tendency to decay or slough asclepias is not the proper article to be used. It is useful in tonsillitis rather than in diphtheria; in feverish and inflamed conditions rather than in congestions; and in cases possessing a sthenic rather than an asthenic pulse.

Powd. Asclepias Tub. et  
" Solidago Can. aa. 4  
" Zingiber Off. 1  
" Capsicum in proportion as needed.

This is a most excellent formula for influenza given freely in hot infusion; also in typhoid and bilious fevers. I use some such preparation from beginning to end of the fever stage. In preparing this compound I use more asclepias at first and more of the capsicum as the case progresses, if needed.

Asclepias and Zingiber is a most excellent compound in all the eruptive diseases. Capsicum may be added to suit. It is also important in dysentery and diarrhoea, uteritis, urethritis, cystitis and nephritis, and in irritable conditions of the nervous system.

In dysmenorrhoea or amenorrhoea, give in hot infusion.

Powd. Asclepias Tub. 4  
" Zingiber Jam. 1  
" Caulophyllum Th. 2

It is antispasmodic and increases the periodic discharge.

Powd. Asclepias Tub. 4  
" Zingiber Off. 1  
" Mentha Vir. 2

This influences the kidneys and secures a good free flow of urine.

#### ASPIDIUM FELIX-MAS.

Male Fern.

Europe.

The root is anthelmintic. It is an old-time remedy for tape worm, but is not always certain. A few hours subsequent to the administering of this agent free catharsis should be secured. Repeat if found necessary in two or three days. It may be given in the form of infusion or in capsules upon an empty stomach. The oil may be used for the same general purposes. Give t to 1 dr. in some emulsion.

#### ASPARAGUS OFFICINALIS.

Asparagus.

The root is a pleasant diuretic. It should be used in the green state as the dry root is nearly inert. The young shoots are an excellent food as well as a demulcent diuretic.

Guaiacum Off. et  
Asparagus Off. et  
Petroselinum Sat. Sem. aa. grs. xxx  
Viburnum Op. grs. Lx  
to the fluid oz.

Give according to the severity of the pain in cases of dysmenorrhoea, leucorrhoea, and as a preventive of miscarriage.

With hydrastia sulphate it is excellent in nervous dyspepsia.

Hydrastia Sulph.	1
Avena Sat.	10
Podophyllin Sacch.	20

#### BALSAMODENDRON.

This is a nervine tonic hepatic.

F. E. Leptandra Virgo et	
" Euonymous At. et	
" Avena Sat.	aa. dr. ii
" Taraxacum Dens L.	dr. iv
Syr. Zingiberis	q. s. oz. iv

This is a good nervine hepatic.

Helonias Dio.	3
Viburnum Op.	4
Dioscorea Vil.	5
Avena Sat.	6

This is an excellent female tome.

#### BALSAMODENDRON MYRRHA.

Gum. Myrrh.

(Commiphora Myrrha).  
Abyssinia, Arabia.

This gum is a slow, mild, stimulating, antiseptic tonic.

It gives a pleasant gastric warmth, and stimulates the circulation in assisting a flow of blood toward the capillaries, especially when given in hot infusion. Locally it is an excellent application on ulcers and foetid sores, is useful as a gargle in diphtheria, as a wash in sore mouth, and as a powder applied to the umbilicus of the infant immediately after the removal of the cord. In all these cases it assists in removing foul odours and arrests putrefaction.

With hydrastia sulphate it is excellent in gastric catarrh.

Pul. Balsamodendron M.grs.	x
Hydrastia Sulphategrs.	ii
Ferri et Potas. Tartr.	grs. xx
Syr. Zingiberis	oz. i
Aqua	q. s. oz. iv

#### ASTER CORDIFOLIUS.

Starwort.

The root is a very mild, aromatic stimulant. In hot infusion it influences the circulation and with it the nervous system. It allays irritation, soothes and tones. In rheumatism and hysteria it may be used with good effect. If combined with zingiber it will be valuable in hysteria and be rendered more toning to the nerves.

#### ASTER PUNICENS.

Cocash Root.

Dr. F. G. Heener recommends this for rheumatic headache, and as a suitable agent to be used in proper combination with other agents for nervous debility.

#### ASTRAGALUS VERUS.

Gum Tragacanth.

This is used but little as a medicine, except in the manufacture of pills, troches and suppositories.

AVENA SATIVA.

Oats.

This is a soothing, demulcent, gently stimulating, nutritious nervine tonic. In cases of irritability of the nerves or a deficiency of nerve power avena is valuable. In the irritability resulting from nervous prostration, from paralysis, from the use of opium, or alcohol, in chronic sick-headache, in chorea and in the irritation and depression resulting from dysmenorrhœa, it is effective.

If given in hot water its effects are noticeably quicker, and its influence on the circulation more rapid and complete. In hysteria and for insomnia it is valuable, as well as in convalescence from many acute cases. It should be used at short intervals to maintain its cumulative force.

With helonias dioica, aletris farinosa or mitchella repens it is an excellent nervine tonic for females, especially where there is a tendency to excessive flow and is useful more or less during pregnancy, especially to those who are weakly, anaemic and nervous.

This is a good tonic for a relaxed and debilitated stomach, water brash, anaemic dyspepsia and chronic enteralgia.

F. E. Balsamodendron M. et	
" Cypripedium Pub.	aa. dr. iv
" Xanthoxylum Frax.	gtt. xx
Syr. Zingiberis	q. s. oz. iv

This is an antiseptic, diffusive tonic to the circulation and the nervous system.

F. E. Myrrh	oz. iv
Tr. Capsicum	dr. ii
Syr. Simplex	oz. i

or

Pul. Myrrh	oz. xvi
" Capsicum	oz. i
Alcohol 80 per cent.	oz. Lxiv
Sugar	lbs. 4 to 5

or

Pul. Myrrh	oz. iv
" Capsicum	dr. ii
Sugar	oz. i
Triturate.	

Anyone of these preparations will constitute No. 6. The last may be denominated Saccharated No. 6. This is a fine formula and a valuable stimulating antiseptic. I always use a few drops of No. 6 in some water a few times before administering an anaesthetic. It sustains the heart, and steadies the nerves, and frequently your patients will come out from anaesthesia with a fuller and better pulse than when you began.

One drop in a little water, repeated as needed, is an excellent parturient. It equalizes the circulation, sustains the contractions, relieves irritability and anticipates flooding. But do not give it or any other stimulant unless needed. In shock from injury there is nothing better.

Dr. F. O. Broady advises the following formula for Tincture Myrrh which will mix with water without precipitation. It is valuable and practical.

Pul. Gum Myrrh	1 lb.
Alcohol	1 qt.
Glycerine	13 oz.
Water	16 oz.
Carbonate of Potash	3 1/2 oz.

M. Macerate for 2 to 4 weeks with frequent shaking.

Gum Myrrh	oz. 3/4
Gum Guaiacum	oz. 1/2
Gum Camphor	oz. 1/4

Oil Capsicum et

Oil Anise

aa. dr. ss

Alcohol 50 per cent.

q. s.

This is recommended as a pain killer.

### BAPTISIA TINCTORIA.

Wild Indigo.

The root is a stimulating antiseptic alterative, especially influencing the glandular system. Wherever there is a retrograde tissue, a tendency to putrescence, the meta-morphosis in typhoid fever, this agent holds a valuable position.

In erysipelas an infusion given freely will soon reduce the inflammation.

Baptisia et

Pulv. Sanguinaria aa 1

Vaseline 3 to 4

Apply this in cases of erysipelas or other inflamed eczemas.

Baptisia may be used on all kinds of ulcers, sprinkled on the surface or made into an ointment or mixed with an elm poultice. It removes foul odours and assists in the reparative process.

Baptisia is stimulating to the liver and to the bowels and in large doses is freely cathartic. In typhoid fever, in peritonitis, in puerperal fever, typhus fever, syphilis and gangrene it is very valuable; also as a wash for mercurial sore mouth. The powdered drug in hot fomentation will give good results when applied upon scrofulous swellings or abscesses. In arresting putrescence balsamodendron myrrha will be a valuable addition.



PLANTAIN  
(Plantago Major).



MISTLETOE  
(Viscum Album).



SCULLCAP  
(Scutellaria Lateriflora).



ELDER  
(Sambucus Nigra).

## BAROSMA BETULINA AND CRENULATA.

Buchu.

South Africa.

Buchu leaves are an aromatic, diffusive, stimulating, toning diuretic. The short leaves are superior to the long. They chiefly influence the urinary tract, increasing the quantity of water excreted and cleansing and toning the urinary mucous membrane. They soothe the pelvic nerves and relieve the aching back and hips and especially so when influenced in that direction by some uterine agent as mitchella repens or aletris farinosa; they then assist in toning the generative organs. A hot infusion is somewhat diaphoretic and soothes the nerves and influences the mucous membrane throughout. In cystic catarrh, in congestion of any of the pelvic organs, gleet, gravel, dropsy, prostatic affections, spermatorrhoea and mucous discharges in the urine buchu will be of good service.

F. E. Barosma C.	4
" Eupatorium Purpur.	8
" Hydrastis Can.	1

Give of this three times a day, and use one of the following powders three times a day for ascites.

Leptandrin	gr. i
Apocynin	grs. iv
Capsicum	gr. i

With an excess of convallaria mul. you will have favourable results in leucorrhoea. With an excess of liriiodendron or cyripedium it is an excellent nervine.

Liriiodendron Tul.	4
Barosma C.	1

This is a mildly stimulating nervine and diuretic.

Cyripedium Pub.	6
Barosma C.	1

This is a relaxing nervine diuretic.

Caulophyllum Th.	5
Barosma	1

This is an antispasmodic diuretic.

The following formula are more or less stimulating diuretics.

Buchu	9
Juniperus Com.	4
Piper Cuteba et	
Sweet Spirits Nitre	aa. 1 1/2

Buchu	4
Juniperus Com. et	
Piper Cubeba et	
Arctostaphylos Uva. Urs.	aa. 1
Buchu	4
Collinsonia Can. et	
Chondodendron Tom.	aa. 1
Juniperus Com.	2

McCoy, Howe Co. prepare by direct percolation an elixir, an efficient and reliable diuretic and valuable in many ailments of the bladder and kidneys.

Buchu	grs. x
Juniper Berries	grs. v
Uva- Ursi	grs. v
Acetate Potash	grs. iii

## BERBERIS AQUIFOLIUM.

Oregon Grape Root.

This is a mildly stimulating tonic hepatic and alterative. It influences the alvine mucous membrane and is mildly cathartic. In syphilis and other blood diseases especially those which influence the genitals it gives excellent results.

#### BERBERIS VULGARIS.

Barberry.

The bark and leaves are intensely bitter, and form a good stimulating tonic hepatic and alterative, influencing the alvine mucous membrane, the kidneys, liver and spleen. This remedy improves the appetite, digestion and assimilation, and is especially useful in debilitated conditions. It is mildly laxative to the bowels as well as hepatic and hence is valuable in jaundice. It may be added to other alteratives with excellent results.

In small doses it is a valuable tonic in convalescence, and is of especial value in bilious attacks. The following formula is excellent for debilitated and bilious cases.

Berberis Vulg.	1
Populus Trem.	2
Prunus Virgo	3
Acetum	q. s.

#### BETA VULGARIS RUBRUM.

Red Beet.

This is a much used vegetable. When cooked it forms a delicious dish. The fresh juice of the red beet has many a time cured thrush, and relieved irritated conditions of the mouth and throat. It is soothing and stimulating to the entire alvine mucous membrane.

#### BETONICA OFFICINALIS.

Wood Betony. (*Betonica Lanceolata.*) (*Stachys Betonica.*)

This is a gently stimulating tonic to the mucous membrane, and is valuable in catarrhal conditions, whether of the nose, stomach or bladder. It is useful in the treatment of influenza, gastralgia, neuralgia, hysteralgia, prostatitis, pruritus, varicocele, dyspepsia, chronic rheumatism, malarial jaundice, syphilis, scrofula, and renal and nephritic colics, and onanism. Dr. F. G. Hamer recommends the following for selatica.

Elix. <i>Betonica Lane</i> et	
" <i>Cimicifuga</i>	aa. oz. iss
" <i>Helonias Dio.</i> et	
" <i>Scutellaria Lat.</i>	a.a. oz. i

Sig. One teaspoonful every two or three hours and use hot sponge baths to the parts affected.

Dr. Heener also recommends the following for peritonitis:

Elix. <i>Betonica Lane.</i> et	
" <i>Agrimonia Eup.</i>	aa. oz. iss
" <i>Aralia Rac.</i>	oz. i

Sig. One tablespoonful every two hours.

He also recommends the following for phrenitis :

Elix. <i>Betonica Lane.</i>	oz. ii
" <i>Cimicifuga Rac.</i> et	
" <i>Verbena Hast.</i>	aa. oz. i

M. S. One tablespoonful every thirty minutes to one hour. Prescribe a mustard bath, and keep the bowels open with enemata.

#### BETULA LENTA.

Black Birch.

The bark is a mild relaxing and stimulating nervine. In hot infusion it promotes diaphoresis.

It soothes the gastric membrane, relieves nausea and tones the mucous membrane. The leaves are somewhat more diuretic and are very soothing to the entire urinary apparatus in case of renal or cystic irritation or inflammation. They are cleansing to the mucous membrane, and in hot infusion produce diaphoresis.

#### BIRDENS BIPINNATA.

Spanish Needles.

The seeds are a mild diffusive stimulant, very slightly astringent, influencing especially the mucous membrane and the circulation, and thence the nervous system partakes of its influence when administered in hot infusion. In this form they are also valuable in dysmenorrhoea. With *aralia racemosa* they are a valuable expectorant. Dr. F. G. Heener says they have proven themselves to be a specific for hay asthma.

#### BIGNONIA CATALPA.

Catalpa Tree.

The bark is a bitter stimulating tonic, especially influencing the mucous membrane. In hot infusion it influences the circulation and induces a good outward flow of blood, and also soothes and tones the nerves. Combined with other agents especially alterative in character it is valuable in syphilis, in scrofula and some eczemas. The seeds are more demulcent and are valuable in cough syrups. They relax the respiratory mucous membrane and are a good expectorant. The leaves in hot infusion form a good preparation for colds, coughs, and may be used as a hot fomentation upon swellings, abscesses, &c.

#### BRUNFELSIA HOPEANA.

Manaca. Brazil.

In Brazil, manaca is regarded as a specific for the cure of rheumatic affections. The results obtained have been good. The fluid extract may be used or the elixir which combines also the virtues of the salicylates of sodium, potassium and lithium, and is hence valuable in the treatment of lithic diathesis.

Manaca et

Syr. Simplex                      aa. oz. ii

Sig. Teaspoonful every three hours in the treatment of rheumatism.

#### CAFFEA ARABICA.

Coffee.

Coffee is a cerebral stimulant, largely used as a beverage. It is stimulating to the nerves and tonic to the muscular systems. It stimulates the circulation and is more or less of a tonic diuretic. If taken late at night it is apt to produce sleeplessness by its cerebral stimulation. In the morning it assists digestion.

This is a stimulating nervine which disposes to wakefulness, and is frequently used for the purpose of resisting the stupefying influence of alcohol and of opium. It stimulates the circulation and the digestive function. Care should be taken that when this is used as an article of diet it be not used too strong, as a persistent use of any stimulant is apt to produce finally more or less depression and possibly dyspepsia.

Caffein does not appear to undergo any material change in the roasting process and is extracted unaltered from the roasted coffee. It stimulates the liver and promotes the secretion of bile. It is a stimulating nervine.

Dr. J. O. Morrison recommends the following for headache.

Caffein et

Quinine et

Salicylate of Sodium et

Triturate Oil Capsicum              aa. equal parts.

Fill No.2 capsules and give one or two as required.

This is good to clear up the mind and brace one up.

#### CALENDULA OFFICINALIS.

Marigold.

The flowers are a very mild diffusive stimulant.

A hot infusion influences the circulation toward the surface and is diaphoretic. It is also a soothing anti-spasmodic nervine, and gently influences the menstrual flow. It is useful as an alterative to cleanse the blood in strumous troubles. An infusion forms an excellent wash in ophthalmia and it may be made into an ointment for bruises and sprains. Used in cases of otorrhoea an infusion lessens the discharge, and applied to sores, ulcers, or wounds, it cleanses the surface and promotes the process of granulation and healing. Even cancerom;. sores are much benefited by its use.

#### CALX (Ca O).

Lime.

That derived from white marble or from oyster shells gives the purest lime. When cold it absorbs carbonic acid gas. Lime is quite alkaline and caustic, but when hydrated or slacked it is much less caustic. When an excess of lime is mixed with water it is called milk of lime.

Liquor Calois or lime water is a mild ant-acid, slightly astringent. It is made by slacking 1/2 ounce of lime in one pint of water. Allow this to stand an hour. Then pour off and retain the sediment to which add one gallon of water and bottle for use. This preparation neutralizes the acid present and absorbs the carbonic acid gas arising from fermentation.

Lime Water	2
Linseed Oil	1

thoroughly mixed form a covering for burns, scalds and denuded surfaces.

Calcii Chloridum Ca, O, Cl is a compound resulting from the action of chlorine on hydrate of lime containing at least twenty-five per cent of chlorine. It is a valuable disinfectant.

Potassa Cum Calci forms an official caustic.

Sulphas Calois or plaster of Paris is used much in surgery.

Sulphis Calois 1-10 grain doses 4 to 6 times daily will usually stop the continuance of boils.

Creta Preparata. Prepared chalk is a good quality of chalk (carbonate of lime) powdered, hydrated and thoroughly triturated. The water is then poured off and the precipitate dried.

This is principally applied to the surface, either as a powder or incorporated into a salve, or compounded with liquids or oils for covering burns. The powder is an excellent absorbent and is very soothing to an irritated surface.

#### CANELLA ALBA.

Danella.

The bark is a moderately stimulating aromatic. It warms the gastric membrane and influences the blood toward the capillaries especially when given in hot infusion. It is a good adjuvant for bitter medicines and is principally used for this purpose.

#### CAPSELLA BURSA-PASTORIS

Shepherd's Purse.

This herb is mildly relaxing and gently stimulating to the kidneys and urinary tract. It increases the flow of urine and relieves atonic and sluggish conditions. It is quite prompt in the relief of the aching back and of the irritated urethra in cases of scalding urine. It is quite efficient in the relief of renal catarrh. It allays nervous irritability and irritable spermatorrhoea. Directly or indirectly it is beneficial to the whole pelvic viscera, and is one of the best agents to be used for irritable conditions of these parts. It is more stimulating than eupatorium purpureum, but not nearly so stimulating as juniperus communis or barosma crenulata.

Concentrated Tincture Shepherd's Purse (from the green) as made by C. T. Bedford, is a strong tincture, of a rich brown colour, made from the green herb, 8 ounces to the pint, and represents all the virtues of this valuable agent for urinary troubles.

#### CAPSICUM FASTIGIATUM.

Capsicum, Red Pepper

Africa, New Mexico.

The fruit is a most positive, pungent stimulant. It is an excellent antiseptic and is very nutritious.





Aqua	dr. i
may be used in cases of ulceration of the cornea.	
Tr. Capsicum et	
Spts. Camphor	aa. 5
Gum Camphor	2
Alcohol	3
Aqua	10
Tr. Capsicum	oz. i
Spts. Camphor	oz. i
Tr. Guaiacum	oz. i
Alcohol	45 per cent
Oil Capsicum	
" Sassafras	
" Origanum	
" Horsemint	
" Cedar	aa. dr. i
Alcohol	qt. i

These are excellent stimulating liniments, especially the last mentioned. Internally capsicum may be taken in infusion, in mucilage, in syrup, in fluid extract in water, or the oil may be triturated in sugar or lactin. Give small doses frequently and wait for the cumulative results. Large doses may produce hiccough and cramping. In all putrescent stages whether of typhus or typhoid fever, in diphtheria, scarlatina malignans, erysipelas, gangrene and wherever there is absorption of pus, capsicum must be given in quantities to meet the conditions present. In all such cases the result will be a lessened frequency of the pulse and its volume, force and firmness will be increased. It is a most powerful antiseptic and may be used more or less in gonorrhoeal, syphilitic and mercurial poisoning. It is of importance in torpor, sluggishness and loss of sensibility, but for permanence of action it is best to combine it with tonics. In typhoid fever with hepatics and hydrastis it sustains the portal circulation and increases the power and value of the hepatics used; and with diuretics its influence in that direction will also be quite marked. In yellow fever, cholera, shock of injury and where there are cold and clammy sweats, capsicum is an agent of much importance.

Capsicum with lobelia is a most excellent antispasmodic. With nervines it is valuable in delirium tremens. With diffusives and hepatics it will do good service in ague-cake, and applied locally it will give good results in case of habitually cold feet, gastritis, enteritis, and cystitis. If the application of capsicum gives much burning sensation use over the surface some lard or other oil. As a rule increase the dose of capsicum as vitality decreases.

Do not forget its excellent service as a parturient and as a preventive to post-partem hemorrhage. In diphtheria and scarlet fever it is valuable as a gargle or used with the atomizer and taken internally.

Powd. Myrrh et	
" Hydrastis Can.	aa. oz. ii
" Capsicum et	
" Chloride of Sodium	aa oz. i
" Solidago Can.	oz. iv
Acetum	q. s. oz. 32

This forms an acetous tincture which for diphtheria, scarlatina and some other forms of weak and sore throat cannot well be surpassed. It may be used as a gargle or with the atomizer, or the ingredients may be used in infusion and some acetum added. With that which is to be swallowed use no vinegar; and that which is to be used as a gargle prepare as above. Then apply a strong tincture of capsicum over the tonsils externally.

Oil of Capsicum	dr. i
Alcohol	oz. iv to viii

This is a good rubefacient.

The dose of the oil of capsicum is 1/10th to 1 drop triturated on sugar or lactin and thence dissolved in water. A very little capsicum renders quinine a much better antiperiodic.

Dr. F. O. Broady recommends the following as a sure cure for chills:

Pulv. Capsicum	grs. x
Quinia Sulph.	grs. xx
Pulv. Myrica Cerif	
" Hydrastis Can.	aa. oz. i
01. Sassafras	gtta. xxx

M. Trit. bene, ft. sht. No. 20 for an adult.

Sig. One powder in cold water 3 times a day before the chill, preceded by an active cathartic. This recipe is reliable but the dose is a little large.

01. Capsicum	
" Origanum	
" Abies	
" Sassafras	aa. 1
" Olives	2
Alcohol	32

This is a powerful stimulating liniment.

Powd. Charcoal	50
" Myrrh	10
" Capsicum	1/20
Hydrastia Sulphate	1

This given in capsules is excellent in the treatment of fermentative dyspepsia. Charcoal may be applied dry on the surface of an ulcer before applying a poultice. It arrests decomposition and deodorizes.

#### CARTHAMUS TINCTORIUS.

Safflower.

The flowers are a family remedy to be used in measles. In hot infusion they are a moderately relaxing diaphoretic influencing the circulation toward the surface. In strong infusions they colour the urine and faeces.

#### CARUM CARVI.

Caraway.

The seed, the oil and the fluid extract are mainly used as aromatic adjuvants in the administering of hepatics and cathartics. They are gently stimulating.

#### CARUM COPTICUM.

Ajowan, Bishop's Weed. East India.

This is an old remedy in India where it is much used and much cultivated. The fruit or ajawa seed is an aromatic, diffusive, stimulating tonic influencing chiefly the mucous membrane imparting a warming pungent taste. It contains an oil that much resembles thymol, and the fruit is now largely imported into various parts of Europe for the manufacture of that article. The seeds somewhat resemble those of parsley. A poultice of the crushed seed is said to relieve pain when applied in case of neuralgia, rheumatism or inflammation.

A weak infusion makes a good wash in case of inflammations or congestions of the eye or conjunctiva. A hot infusion may be used successfully in cholera morbus and in some cases of gastralgia and enteralgia, especially when from congestion.

Its influence upon the nervous system is soothing and stimulating. To the dipsomaniac the bitter taste, the pleasant warmth it imparts to the stomach and its soothing and toning influence over the nervous system, remove that unpleasant gnawing so well known to him.

## CARUM PETROSELINUM.

Parsley.(*Apium Petroselinum*).

The root and seed are an aromatic relaxant and mildly stimulating diuretic increasing the urinary flow and giving relief to the aching back. When the urine is scanty, these make a valuable addition in the treatment of dropsy. The fluid extract may be used for all the purposes of the plant.

## CARYA ALBA.

Shag-bark Hickory.

The middle bark of the trunk when fresh is quite acrid. The dry bark is a permanent bitter stimulating tonic. It is quite warming to the stomach, slightly elevating to the circulation and stimulating to the gall cyst and ducts. A strong infusion is an excellent antiperiodic in chronic ague. Given in strong decoction a tablespoonful five or six times a day is very efficient as an antiperiodic.

Where there is a strong uterine or pulmonary hemorrhagic diathesis this agent is successful. It also forms a good cough syrup, and at the same time influences the appetite, and tends the whole system to general improvement. In languid conditions with soft sluggish pulse and torpid secretions it brings good results.

Carya Alba	1
Taraxacum	2

form a very serviceable combination for chronic biliousness and jaundice.

## CARYOPHYLLUS AROMATICUS.

Cloves.

(*Eugenia Aromatica*).

The buds are a stimulating aromatic. The oil is a diffusive stimulant. It is an ordinary remedy for toothache and is frequently used as a specific for offensive breath. It is principally used as an adjuvant to bitter tonics.

## CASSIA ANGUSTIFOLIA.

Senna.

(*Cassia Acutifolia*).

The root, leaves and pods are a prompt stimulating cathartic. They are antibilious, antiperiodic and tonic. Catharsis is usually produced in two to four hours, thoroughly influencing intestinal peristalsis. *Mentha piperita* or zingiber prevents griping. Small doses may be continued for some time without tiring the system.

Powd. Cassia Ang.	4
" Ipomaea Jal.	8
" Zingiber	1/2

This is an excellent antibilious physic. It may be given in such doses as may be required by the conditions present. If quick catharsis is needed give a large dose and the patient, advise to recline and keep quiet. It will thoroughly cleanse the alvine canal in two or three hours, and will assist in relieving engorgement of the liver and gall ducts. But should you desire its action less upon the alvine canal and more upon the liver, give small doses every three hours. I have aborted many a case of Tonsillitis by a large dose of this compound, and in diphtheria and many other acute cases where the bowels are constipated this is my first dose. I have treated successfully many a case of typhoid fever with no other hepatic than this compound in small doses every 3 hours. It stimulates and cleanses the alvine mucous membrane.

In jaundice where the overflow is not from gall stone it gives good success. In all eruptive diseases you will find a less virulent course and a more favourable termination by the use of a good dose of this compound in the beginning. In the treatment of chronic constipation there are few compounds that will do their work more completely and of which the system will become less weary.



OATS  
(Avena Sativa).



SHEPHERD'S PURSE  
(Capsella Bursa-pastoris).



WILD THYME  
(Thymus Serpyllium).



CHICKWEED  
(Stellaria Media).

At first give dose sufficient to procure a complete evacuation, then give smaller doses and gradually decrease the frequency and quantity. During the time of this temporary treatment strive to educate the system to habitual regularity. In the treatment of remittents and intermittents this compound is very important; regulate the doses as required to keep the alvine canal free, but not too free.

Many a case may be aborted by the use of this compound, taken in time. Cassia is an excellent antiperiodic. Many a time a good size dose of antibilious physic will anticipate and prevent a chill, and frequently will do it more permanently than quinine. It will certainly prevent the necessity for giving so much quinine as would otherwise be required. In giving large doses of this compound let the patient recline for an hour. This will usually prevent nausea and vomiting which may otherwise occur. It may be given in capsule or in fluid extract form, but neither are so good.

A dose of the compound should usually be given after the use of anthelmintics. Small doses given every three hours will soon relieve hemorrhoids and frequently prevent their recurrence. In case of constipation either acute or chronic this compound may be given in suitable doses to infants. Dr. C. B. Riggs' antibilious compound is as follows:

Powd. Senna	
" Jalapaa.	oz. i
" Ginger	
" Mandrake	aa. oz. ss
" Sanguinaria	oz. t

Mix. Sig. No.1 capsule two or three times daily.

This is a splendid cathartic and strongly influences the liver. It will be found useful especially in sluggish cases.

#### CASTANEA DENTATA.

(Castanea Vesca).

The leaves are a mild, stimulating, astringent tonic. This is a home remedy for whooping-cough, but is not so successful alone as in combination with the acetous syrup of lobelia.

#### CASTELA NICHOLSONI

Chaparro Arnargoso.

This is a thorny shrub indigenous to Texas and Mexico.

The bark of the stem is an intensely bitter stimulating and astringent tonic, antiperiodic and antiseptic.

It is considered a specific in the treatment of acute and chronic dysentery, diarrhoea, and remitting fever. Let an infusion be given plentifully, and it seems never to fail.

It influences the mucous membrane, improves digestion, tones the alvine mucous membrane, soothes and tones the nerves, relieves insomnia and builds up the general system.

#### CAULOPHYLLUM THALICTROIDES.

Blue Cohosh.

The root is a gently diffusive, relaxing and stimulating nervine and excellent antispasmodic especially in uterine irritations. Its principal influence is expended upon the generative system and the sympathetic nervous system connected therewith, soothing each and imparting tone and vigour.

In amenorrhoea its influence is felt favourably, increasing the periodic flow. The addition of leonurus gives a more stimulating compound. In dysmenorrhoea it is an excellent antispasmodic. In vaginitis its influence is good both per oram and per vaginam. In urethritis whether of the male or of the female, it prevents too frequent urinating and soothes irritation. In the irritation of the nerves that frequently occurs during parturition and for false pains and the restlessness during pregnancy and for after-pains caulophyllum is superior.

In acute rheumatism it gives ease, and it is valuable as an antispasmodic for whooping-cough and asthmatic and catarrhal coughs. It may be added to aralia racemosa and prunus virginiana or other agents used in cough syrups. In hysteria it allays nervous irritation but frequently needs such an addition as scutellaria to furnish greater tonicity.

It may be used in puerperal convulsions, as an anti-spasmodic and to assist in relieving the flow which is usually suspended at that time.

Dioscorea Vil.	3
Caulophyllum Thal.	2
Scutellaria	1

may be used in cases of chorea, after-pains, nervousness during parturition, and with a little lobelia inflata it is excellent for rigidity of the os uteri.

Caulophyllum may be added in the treatment of an irritated stomach, and to the third preparation of lobelia for sick-headache.

Dr. F. G. Hooper recommends that the leaves be combined with asarum canadense, and says that then it is a specific for whooping-cough.

F. E. Caulophyllum Thal.	
Tr. Lobelia Inf.	aa. dr. ii
Syr. Zingiber	q. s. oz. iv

Use half a teaspoonful every two to four hours for bronchial catarrh. The fluid extract quite fully represents the drug.

#### CEANOTHUS AMERICANUS.

New Jersey Tea.

The root and leaves are a mildly stimulating tonic, quite soothing to the mucous membrane. They may be used to good advantage in diarrhoea, and with aralia racemosa or other agents that especially affect the respiratory mucous membrane they are excellent in bronchitis and in the convalescent stage therefrom; also in pneumonia when the membrane is relaxed and weak and the discharge moderately free.

F. E. Ceanothus Am.	
" Aralia Rac.	aa. dr. ii
" Symphytum Off.	dr. i
Syr. Prunus Virgo	q. s. oz. iv

This is an excellent cough syrup.

Lobelia or sanguinaria in small quantities may be added as the mucous membrane may require.

### CELASTRUS SCANDENS.

False Bitter-Sweet.

The bark of the root is a mild, slow, relaxing and slightly stimulating alterant. It chiefly influences the secretions and the glandular system and the skin. It soothes the nervous system and is just in place when used in the treatment of nervous irritation with skin or glandular troubles, as in scrofula, glandular swellings, general struma. But its best influence is usually felt when combined with more stimulating agents especially when it is to be used for chronic cases.

F. E. Celastrus Scan.	dr. iii
" Alnus SeruI.	
" Stillingia SyI.	aa. dr. i
" Taraxacum D. L.	dr. iv
Syr. Zingiber	q. s. oz. iv
Celastrus Scan.	30
Menispermum Can.	10
Rumex Crisp	15
Xanthoxylum Frax. Bac.	1
Syr. Zingiber	q. s.

These are good alterative compounds.

Celastrus Scan.	
Arctium Sem.	aa. equal parts

may be used for a scaly skin.

With agents that influence the genital organs its alterative influence is exerted upon the ovaries; and with diuretics its chief influence is conveyed to the urinary organs. With *aralia racemosa* it influences the lungs; and with hepatics it influences the liver. It is useful in syphilis and gonorrhoeia, especially in the fever stage; and with *agrimonia* it soothes and strengthens the kidneys in cases of irritable spermatorrhoeia.

F. E. Celastrus Scan.	oz. i
Hydrastia Phos.	grs. ii
Syr. Zingiber	q. s. oz. iv

This is a good alterative for the alvine tract and will be found valuable in diabetes.

Celastrus	3
Helonias	1
Eupatorium Purpur.	2

gives favourable results in albuminuria.

A hot infusion especially if combined with zingiber is felt more directly by the skin and surface circulation. It is also a good wash for a chafy skin, and for scaly eruptions. In cases of piles it slowly promotes absorption; and with *caulophyllum* it is quite relieving to epilepsy. With lanoline it makes a good ointment suitable for application to piles, rectal fissures, ulcers, glandular troubles, chafy skin and scaly eruptions.

Simple Cerate	16
F. E. Celastrus	4
Ol. Olives	2
Hydrastis Can.	1

Dissolve, strain and stir till cold.

Celastrus Scan.	4
Mutton Tallow	6
Cera Alba	2
Resin	1

Simmer three hours, strain while hot and stir till cold.

## CEPHAELIS IPECACUANHA.

Ipecac.

The root is a powerful and positive relaxant. It does not cause nausea so quickly as lobelia, but the nausea once produced is more persistent. It is frequently used in bronchitis, pneumonia or asthma in combination with other medicines that influence the bronchi or lungs and freely increase expectoration. Given with diaphoretics in hot infusion it increases diaphoresis.

If you want to make a drunken man sick of liquor give him a glass of liquor with a dose of ipecac in it. For a time it creates a disgust, and will soon straighten him up.

In a majority of cases the influence of lobelia is to be preferred to that of ipecac, though the wine of ipecac gives favourable results in the preventing of membranous croup.

## CEPHALANTHUS OCCIDENTALIS.

Button Bush.

The bark is a moderately stimulating tonic influencing chiefly the alvine mucous membrane and the secretions.

In hot infusion it promotes diaphoresis. With eupatorium purpureum it assists in diuresis. With helonias dioica, aletris farinosa or mitchella it influences the generative organs, relieves the aching back, tones the uterus and vagina and increases the general tone and vigour of the whole system. With taraxacum or euonymus it influences the liver, promotes digestion, increases appetite and is somewhat antiperiodic. Dr. F. G. Hamer says it will remove hydro-pneumonia and chronic hydro-asthmatic spasms and thereby reduce swelling of the chest.

## CERA FLAVA AND ALBA.

Beeswax.

Cera Alba	3
Cetaceum	1
Ol. Olives	4 to 6

This forms simple cerate, gently heated and then stirred till cold.

Cera Flava	1
Ol. Linum	2

is a good application for swollen breasts.

Borax	1
Glycerine	5
Cetaceum	
Cera Alba	aa. 20

Dissolve these and while cooling add

Rose Water	30
Oil Almonds	10
Attar of Roses	p. s.

This is an admirable cold cream.

Cera Flava	
Bos Taurus	
Resina Pinus	aa. oz. i
Pul. Ulmus Fulva	
" Chionanthus	aa. oz. iv
Ol. Lini Usi.	oz. xvi

This is Dr. F. G. Hamer's salve for the instantaneous relief and radical cure for burns, scalds, wounds, boils, cuts, sores, ulcerated breasts, poison oak, tetter, poisonous insect bites, and syphilitic, gangrenous or scrofulous sores.



## CERASTIUM VULGATUM.

Chickweed.

This herb is a soothing, stimulating and relaxing agent influencing the skin and mucous membrane. An infusion forms a valuable wash in some skin diseases of an inflamed character, rhus poisoning, erysipelas, inflamed and chafed surfaces, stomatitis and pharyngitis. A hot fomentation gives good results when applied to inflamed or swollen parts, abscesses, &c.

Dr. F. G. Hamer says either prepared as an ointment or as a wash this will cure any kind of erysipelas.

## CERASUS VIRGINIANA.

Choke Cherry.

The bark is a mildly stimulating and relaxing tonic, slightly astringent. It is antispasmodic and antiperiodic, and is very useful in the treatment of intermittents. Some claim that it is preferable to quinine as an antiperiodic; but like the latter it needs the addition of hepatic tonics. In general debility and indigestion this is quite a powerful tonic. In hysteria it gives very favourable results, as also in enuresis in weakly children. In spermatorrhoea it will be found to be one of the best agents. For coughs with excessive and weakening expectoration and in chronic diarrhoea, chronic dysentery and cholera infantum it tones the mucous membrane and gives very favourable results. In vaginal weakness and leucorrhoea it may be used both locally and constitutionally.

## CERCIS CANADENSIS.

Judas-Tree.

The leaves are a moderately stimulating, astringent tonic. The chief influence of this remedy is toward the mucous membrane and glandular system. It is valuable in scrofula when the bowels are weak and inclined to diarrhoea, or dysentery. Locally it forms a good wash for sores and swellings.



MALLOW  
(Malva Sylvestris).



BLOOD ROOT  
(Sanguinaria Canadensis).

Cercis Can. Cort. Rad. 3

Populus Trem. Cort. 1

Dr. F. G. Hamer recommends this in chronic diarrhoea.

## CEREUS GRANDIFLORUS.

Night-blooming Cereus.  
(Cactus Mexicana).

(Cactus Grandiflorus).

The flowers and stems applied locally are non-irritants. Per oram this agent accelerates the pulse, increases its fullness, elevates arterial tension and is truly a stimulating cardiac tonic. It is also stimulating to the spinal nerves and motor centres. It is toning to the heart in simple dilatation and muscular atony from deficient innervation and nutrition without organic lesions. It is sustaining in valvular disease with dilatation. In cardiac and general muscular relaxation with impaired nerve energy, cactus is toning and strengthening to both heart and nerves. The irritable alcoholic and tobacco heart is sustained by its use and perhaps mainly by its stimulating the spinal motor centres, and by its continuous stimulation of the heart's muscular action thereby increasing its nutrition and development.

Chewing tobacco may not produce organic disease of the heart, but it affects the gastric membrane and nerves; and in smoking, carbonic oxide, ammonia and nicotine are inhaled. The ammonia acts on the blood and makes it alkaline and more fluid, and hence impairs its nutritive properties. Tobacco leaves the stomach dyspepsied and debilitated. The heart becomes weak, irregular and intermitting. Palpitation, pain, faintness and vertigo follow, tissue is degraded, vision is more or less impaired, the hands become tremulous, and there is a dragging feeling or pain in the region of the heart. Cereus may be used continuously without exciting any gastric irritation. Small doses of two to five drops repeated every 15 to 30 minutes as long as needed will usually give the best results, yet a teaspoonful may be given if required without any inconvenience or adverse symptoms. Its action is favourable. It regulates the pulse, promotes diastole and diminishes peripheral resistance. In organic cardiac diseases, and when other cardiac remedies fail cereus is a most effective agent.

It is equally useful in functional troubles, regardless of cause, particularly of nervous origin. It may be taken before, during or after meals, but its influence is best on an empty stomach. Cereus is quite efficient in mitral and aortic insufficiency, in mitral stenosis and exophthalmic goitre, rheumatism, chorea and mild anaemia.

#### CEREUS BONPLANDII.

This agent once considerably used is giving way to the use of cactus grandiflorus. Prof. H. J. Treat reports having used this agent for some years especially in iritic affections. In iritis and in irido-cyclitis and especially in that form known as sympathetic ophthalmia, he has used it in seemingly hopeless cases; it greatly allayed irritation and toned the parts. He pronounces it a specific in this condition.

F. E. Cereus Bonplandii	oz. ss
Aqua Dist.	oz. iss

Sig. One teaspoonful four times a day, before meals and before retiring. This dose may be increased if found necessary. It strengthens the heart and circulation, relieves the blood current of impurities and cleanses the mucous membrane.

#### CETACEUM. Spermaceti.

This is used as a basis for ointments.

Cetaceum	1
Oil Linum	5
Pul. Ulmus:	2
Rose Water	4

Melt together and add the rose water, stirring till cold. This is an excellent preparation for burns, scalds, irritable sores, chapped hands and denuded sores and wounds.



#### CHAMAELIRIUM LUTEUM.

Helonis, False Unicorn.(Helonias Dioica).

The root is a positively stimulating uterine and ovarian tonic for all depressed conditions of the uterus and ovaries. It is useful in prolapsus uteri, uterine atony, barrenness, relaxed vagina, post-partum hemorrhage, excessive menstruation and leucorrhoea.

In cases of liability to miscarriage it is excellent. I have prevented scores of miscarriages by its use, even after pain was prominent and hemorrhage had made its appearance. It is a reliable agent. But this agent should not be given to weakly married ladies who are liable to very frequent pregnancies.

It is also toning to the mucous membrane throughout. In gastric torpor and gastric irritation it soothes and tones the membrane, promotes appetite and assists digestion. It is frequently tolerated by the stomach when but little else is, and hence is valuable during pregnancy as a gastric and uterine tonic. It is stimulating to the assimilative organs throughout.

It is also a stimulating diuretic of great value in albuminuria and diabetes. It is stimulating and toning to the kidneys, bladder, uterus and urethra, and is serviceable in gleet.

Helonin in 5 to 10 grain doses may be used with much advantage in Bright's disease. Helonias gives very favourable results in enuresis. It is a toning and strengthening agent to the generative and urinary organs of both sexes. Its tonic properties are also well marked in the treatment of dyspepsia and for the expelling of the stomach worm.

With *aralia racemosa* and agents of similar influence it acts on the bronchi as a stimulating expectorant and tonic.

Helonias is best administered in small doses three to six times a day, but in cases of threatened miscarriage fluid extract may be given in doses of from five to ten drops in water every fifteen minutes to one hour.

Helonin is a good preparation and represents the drug quite fully.

Helonin	
Viburnin	aa. 24
Dioscorein	4
Avenin	12
Caulophyllin	1
This is a powerful uterine tonic.	

#### CHELIDONIUM MAJUS.

Garde'n Celandine.

This plant is bitter, rather acrid when green but not when dry, somewhat demulcent and stimulating to the mucous membrane. It proves cathartic and somewhat diuretic. In hot infusion it is diaphoretic and expectorant.

In large doses it is nauseating. It exerts also a favourable influence upon the mesenteric and lymphatic glands and the skin.

Dr. F. G. Heener recommends the following formula:

Chelidonium Maj. (green root)	
Glechoma Hederacea	
Chrysanthemum	aa. equal parts

for the curing of inflammation of the eyes, conjunctivitis, scaly eruptions and gonorrhoeal ophthalmia. He reports one case as having been blind by the last trouble, but by washing the eyes with an infusion of this agent three to five times a day, in six weeks she could see as well as before.

#### CHELONE GLABRA.

Balmony.

The herb is a mild stimulating tonic to the mucous membrane. It stimulates the appetite, tones the stomach, is excellent in the treatment of dyspepsia and may be used freely for atonic conditions. It influences the liver and is a moderately stimulating cholagogue. It is chiefly through its action in this direction that it produces moderate catharsis. The bile itself is a cathartic, hence when properly excreted it becomes a valuable assistance in the relief of chronic constipation. This influence also renders this agent of much service in the treatment of chronic jaundice. As a mild hepatic tonic it does well in convalescence from fevers and other diseases where the liver has been involved. In mal-assimilation it is one of our best agents, and it does excellent service in ridding the system of stomach worms.

In general debility, accompanied with more stimulating agents, chelone is one of the best for general tonic influence. Indeed chelone makes an excellent addition to most alteratives, especially where there is much depression and hepatic torpor.

Combined with diuretics its tonic powers are exerted in the direction of the kidneys; and in dropsy where there is chronic hepatic and gastric torpor the influence of chelone will give very favourable results. Combined with syr. juglans it will be found very serviceable in chronic constipation, better than either agent by itself.

F. E. Chelone Glab.	
" Gentiana Och.	aa. 3
" Hydrastis Can.	1

This is useful for congestion of the liver.

#### CHENOPODIUM ANTHELMINTICUM.

American Wormseed.

The oil in doses of ten or twenty drops on sugar or in some emulsion and followed by a cathartic is a vermifuge. Dr. G. H. Mayhugh recommends the following anthelmintic preparation:

℞. Chenopodii	gtt. xxx
" Anise	gtt. vi
Sacch. Lactin	dr. i
M. Trit. Fiat. Chart. No. 6.	

Sig. One or two powders every three hours. Follow at night by a cathartic. The oil of wormseed is also an emmenagogue and should not be used during pregnancy. An infusion of the leaves is a far more pleasant stimulating aromatic anthelmintic. A hot infusion may be used to relieve and increase the menstrual flow in case of cold, and relieves dysmenorrhoea, incident to such cases.

#### CHENOPODIUM BOTRYS.

Jerusalem Oak.

This is the foreign species but the properties are so near like the american that it needs no separate description.

#### CHIMAPHILLA UMBELLATA.

Pipsissewa.

The leaves are a mild stimulating and relaxing alterative, influencing especially the glandular system, the lymphatics and secretions. This cleansing agent carries off effete matter and relieves the liver, kidneys and skin. In scrofula it is one of the best agents. Use it quite freely. In phthisis and cancer it assists much in clearing the blood current from impurities and waste material. Give it in large quantities if needed. In dropsy it relieves and tones the kidneys. In gonorrhoea it is soothing to the mucous membrane and cleansing to the blood current. In syphilis it is of no little importance, but in certain stages may have to be combined with more stimulating agents. It is also useful in vaginal and uterine weakness, and in leucorrhoea; in rheumatism especially when this complaint arises from some impurity of the blood; in cystic catarrh, spermatorrhoea, typhoid and other fevers; in urinary obstructions, coughs and colds. It is valuable not only for its alterative influence but for its diuretic action in cleansing the mucous membrane of accumulated solids or mucus. Combined with uterine tonics it does well in leucorrhoea and gonorrhoea.

In depressed and very debilitated cases it is best that more stimulating agents be added. Combined with syrup macrotys you have a good remedy for coughs and colds. It may be used in place of uva-ursi. The fluid extract is more astringent than the infusion.

#### CHIONANTHUS VIRGINICA.

Fringe Tree.

The bark of the root is a gently relaxing and stimulating hepatic and alterative. It is rather bitter and influences the liver, gall ducts and kidneys. These qualities make it a valuable antiperiodic which is useful in typhoid, bilious and intermitting fevers, and in jaundice, hepatic torpor and constipation.

Chionanthus Virgo

Euonymous At.

aa. 10

Podophyllin

1

will be found to do you good service.

#### CHONDODENDRON TOMENTOSUM.

Pareira Brava.

The root is a relaxing and very mildly stimulating diuretic. It is useful in enlargement of the prostate and engorgement of the urethra from any cause. It mildly increases the urinary flow and cleanses the mucous membrane, and hence should be used in cases of cystic catarrh, gonorrhoea leucorrhoea, and in congestions of the mucous surfaces.

#### CHRYSANTHEMUM LEUCANTHEMUM.

Ox-eye Daisy.

The flowers are relaxing and mildly stimulating to the circulation and in hot infusion prove diaphoretic. They also influence the mucous membrane upon the nervous system. They have a decided influence upon the uterus in the relief of congestions and in the promoting of the menstrual flow in dysmenorrhoea with scanty flow and especially so in cases where this is habitual. They are an excellent agent for the hysterical, especially if there be a foul stomach and nervous tendency. This given freely in large doses causes emesis, which will leave the nerves soothed and the whole system at rest, as well as the stomach well cleansed.

Zingiber may be added if a diffusive be necessary in order to produce free perspiration. Bilious cases need the extra use of hepatics, and constipation the addition of syr. juglans. In bilious fever after the tongue has been cleared chrysanthemum may be used in convalescence. It is a mild somewhat bitter and good tonic to the mucous membrane.

Hot fomentations may be used over the lungs, where relaxation and gentle stimulation is needed as in colds, bronchitis, pneumonia. Sometimes an acetous infusion inhaled will readily relieve a cold in the head or nasal passages, and such vapour is very soothing to the throat and bronchi.

Dr. F. G. Hoener says this has proven to be a specific for night sweats.

#### CHRYSANTHEMUM PARTHENIUM.

Feverfew.

This plant is a diffusive, mildly stimulating and relaxing, influencing the skin, nervous system, the circulation and the genito-urinary organs. In hot infusion it is diaphoretic and is excellent in equalizing the circulation and relieving the head, brain and nerves of pressure and excitement. So in pleuritis it relieves the hyperaemia present and reduces the inflammatory excitement. In parturition by equalizing the circulation the pains become more regular, the contractions firmer and the rigid os uteri relieved of its tensity. In cases where the menses are suppressed from cold it quickly relieves the hyperaemia present and the flow assumes its normal condition. Its influence upon the circulation tends toward the surface and with proper hepatics it assists in relieving the circulation of impurities especially in uraemia and cholaemia. It is a superior tonic to the stomach, relieving hyperaemic conditions of the mucous membrane, and is serviceable in colic, flatulence, eructations and general indigestion. With proper hepatics it assists in the relief of engorged liver whether it be from congestion or inflammation. In bronchitis and pneumonia it dispels hyperaemia and tones the mucous membrane. In hysteria it relieves the nerves as well as the circulation. In puerperal fever it does its work well, but at times needs more stimulation. In combination with cactus it is excellent for the nervous, unstrung condition resulting from the use of tobacco or liquor.



MOUSEEAR  
(*Hieracium pilosella*).



SKUNK CABBAGE  
(*Symplocarpus foetidus*).

In hot fomentation this herb may be applied with good results over the lungs, stomach or abdomen in cases of either congestion or inflammation.

### CIMICIFUGA RACEMOSA.

Black Cohosh.

The F. E. may be used instead of the herb in either hot or cold preparations. The root is a relaxing and stimulating diffusible nervine and alterant. It is a powerful agent. The green root has a nauseating odour which is almost entirely absent when dry.

Large doses especially of the fluid extract, influence the brain and produce dizziness, which however lasts but a short time.

Age impairs the value of this agent, and heat materially changes some of its properties. It then does not influence the brain as much as the glandular system, the uterus and the mucous membrane throughout. A strong decoction is an excellent antiperiodic, but it is still better when combined with a small portion of quinine.

A syrup can be made by boiling the green or dry root and then adding enough sugar to keep it. This may be used as a base for alterative preparations and gives very favourable results in eruptive diseases and scrofula,

The fluid extract and the resinoid producing headache as they do, cannot be used in large quantities, sufficient to produce the required alterative effect, but of the syrup you: can give as much as is required. It acts well on the secretions throughout, the liver, kidneys, and lymphatics. It does well in all bad contaminations of the blood. It is a good remedy in syphilis. If it attacks the joints apply a strong infusion of cimicifuga to the parts. The syrup of cimicifuga makes an excellent base for other alterative preparations, tonics and antispasmodics. It tones and prevents waste, soothes and stimulates the nerves; is a good antispasmodic and is useful in whooping-cough, asthma, hysterical convulsions, hysteria and chorea.



INDIAN PINK  
(*Spigelia marilandica*).



BOGBEAN  
(*Menyanthes trifoliata*).

Cimicifuga Rac.  
 Caulophyllum Thal.  
 Cypripedium Pub.  
 Helonias  
 Leonurus Card. aa. equal parts. Or  
 Cimicifuga Rac.  
 Juristolochia Serp.  
 Asclepias Tub.  
 Lobelia Infl. aa. equal parts.

Either of these formulas is good in the treatment of chorea.

Dr. F. G. Hrener recommends the following for epilepsy and chorea.

Elix. Cimicifuga Rax.	oz. iv
“ Scutellaria	
" Verbena Hast.	aa. oz. ii

M. Sig. One tablespoonful four times a day. All meats and heavy indigestible foods to be strictly avoided.

Dr. Hoener also recommends the following for apoplexy. If life is not nearly extinct, rub the whole body with hot water and give

Elix Cimicifuga Rac.	
" Betonica Lan.	aa. oz. iss
" Cunila Mar.	oz. i

M. Sig. One tablespoonful every thirty minutes.

When the patient improves lengthen the time to one hour. When it cannot be administered per oram it may be used by enema.

Cimicifuga soothes the serous membrane and gives a fullness to the pulse and is hence of much importance in acute and chronic rheumatism. In dysmenorrhoea, amenorrhoea and in parturition its influence is valuable. It soothes the uterus and gently increases the periodic flow. It relieves after-pains and maintains the lochial discharge. In case of a sudden check of the lochia it will influence a gentle return of same, and affords relief to the uterine and general circulation.

Macrotin	
Humulin	
Acacia	aa. grs. x
Camphora	
Ol. Cinnamon	aa. grs. v
Triturate	

Make into from five to eight powders and use in dysmenorrhoea every half hour for two hours. In all eruptive diseases the syrup of Cimicifuga freely given will tend to purify the blood current and given in hot water or an infusion of the root, is diaphoretic. It cleanses the circulation so that the eruption will not be so virulent and the surface inflammation not so intense.

In bronchial congestion or inflammation, in hot infusion it is an alterative expectorant which readily allays irritation of the respiratory mucous membrane, and especially is this true when combined with such agents as aralia racemosa, or prunus virginiana,

Cimicifuga Rac.	
Aralia Rac.	
Lycopus Virgo	
Anthemis Nab.	aa. in equal parts.

Use a heaped tablespoonful of this combination to one pint of barley water. Sweeten with honey, and use for a bronchial cough. With the superior influence of diuretics the action of cimicifuga is well marked upon the kidneys and urinary mucous membrane.

The influence of this agent upon the nervous system much depends on the grade of nervines with which it is combined, and so with its influence on the serous tissue and the secernents generally.

## CINCHONA.

Peruvian Bark.

Cinchona Calisaya is the yellow bark.
Cinchona Officinalis is the pale bark.
Cinchona Succirubra is the red bark.

All these varieties are stimulating nervines. It is from the cinchonas that quinine, the popular antiperiodic, is derived.

Cinchona includes in its range of influence the entire nervous system, the sympathetic as well as the cerebral and spinal, and the peripheral as well as the central nerves.

Large doses, especially quinine, cause much buzzing in the ears, and may so stimulate the auditory nerves as to cause temporary or permanent deafness according to extravagant use. The red and pale varieties are considered most astringent, but it is claimed that the yellow furnishes most quinine in proportion to bulk.

All the varieties tend to increased sensibility and excitement, even inducing tension, a dryness of the mucous membrane and of the surface, also inducing constipation, warmth, and hardening of the pulse. Given during febrile excitement it increases that excitement, during febrile excitement they increase that excitement, and gastric and intestinal tenderness follow excessive use. The fluid extract of the bark is a good antiperiodic and a tonic to the nervous system.

Spasmodic condition arising from weakness may be quieted by cinchona.

At times very simple things may create a shock to the system and become as good an antiperiodic as cinchona. I have known a half teacupful of raw corn meal, taken before breakfast do as well as quinine to prevent a chill. And so with a tablespoonful of ginger in a pint of milk. The eating of a pound of raisins has done the same thing, and likewise asafoetida taken at the right time. Even the eating of a raw egg in a tablespoonful of vinegar sometimes forms a good antiperiodic. In the giving of cinchona or any of its preparations it is absolutely necessary that you look to the cleansing of the system of morbid materials. If this be first done the necessity of quinine will be much less, and smaller doses will be required. It should then be given in small doses hourly for three or four hours prior to the time of the expected chill.

If the occasion for quinia is upon your patient and you have not time to prepare your patient, then give your cleansing material with your quinine, if necessary a good dose of antibilious physic. See that the stomach, liver, bowels and circulation are doing their respective duties. Quinia sulphas is an alkaloid, a neutral salt of odourless, white, silky crystals. Its action is identical with the bark except that it possesses less astringency and is more stimulating to the auditory nerves than the bark.

Per rectum two or three times as much quinia as per oram may be given for the same purpose.

In typhoid fever when occurring in typhoid regions, small doses of quinia should be given throughout the whole course of treatment.

The cinchona bark is more of a general tonic than the quinia.

It may be that in some extreme cases large doses may be admirable, but these cases are very seldom. When large doses are deemed necessary you may avoid much inconvenience by filling the ears with cypripedium and lobelia; and this repeated at intervals as needed. It prevents the presence of the extreme tension upon the auditory nerves.

Quinia sulphas is so intensely bitter that many preparations have been made to cover the taste. An alkali to some extent does this without much injury to the effects of the quinine.

Cinchona	12
Lactin	60
Bicarb. Soda	1

forms a tasteless cinchona. Fluid extract of Glycyrrhiza to some extent relieves the bitter taste of quinia, and so does cinnamon.

Cincho-quininc throws the blood to the surface, fills the capillaries and causes redness of the surface, but without extra heat. Quinia may be given in small capsules but pill form is usually too slow.

Chinoidin is a preparation strongly antiperiodic. :it is very liable in large doses to cause nausea and starts a free flow of bile. One to three grains is an ordinary dose. It is best given in a little lemonade. On account of its action on the secernents it is a desirable preparation in the treatment of intermittents and neuralgia. The fluid extract of the bark is an excellent preparation for the treatment of intermittents, and it does not give the inconvenience that some other preparations do.

Red Cinchona	6 1/3
Bitter Orange Peel	5 1/3
Aristolochia Serpen.	1 1/3

Or

Red Cinchona	8
Bitter Orange Peel	4
Aristolochia Serpen.	2



	Carthamus Tinct.	1
Or	Cinchona Pale	12
	Sweet Orange Peel	2
	F. E. Cardamom Comp.	2

These are all good tonic nervine compounds involving cinchona.

Quinia Sulph.	gr. i
Aqua	oz. ii

form an appetizing tonic for many cases of convalescence. There is now prepared a F. E. cinchona detannated for use in the manufacturing of elixirs and for combining properly with iron preparations.

### CINNAMONIUM ZEYLANICUM.

Cinnamon.

Ceylon and China.

The inner bark of the branches is a warming, diffusible, stimulating, aromatic and astringent tonic. It is rich in oil, upon which its properties largely depend. It influences chiefly the alvine mucous membrane, and is one of the best agents in cholera infantum, and in all cases of diarrhoea. But in all such cases care must be taken to keep the liver and gall ducts in proper action. It promotes digestion, soothes the nerves and stimulates the circulation, but it is mostly used as an adjuvant in the administering of other medicines. The oil of cinnamon is more stimulating and less astringent than the bark, and is very useful in liniments.

01. Cinnamon	
" Capsicum	aa. 1
" Sassafras	3

This makes an excellent liniment, one of the very best for a very stimulating influence. It is powerful, but it may be diluted and used as a liniment of whatever strength required. In one drop doses in water it may be used internally for colic, cholera morbus, flatus, cholera infantum, and in such cases it may be diluted and also used as a liniment over the abdomen.

Cinnamomum Zeylan.	
Zingiber	aa. 5 3/4
Myristica Frag.	
Elettaria Repens	aa. 2 1/2

Triturate on sugar.

This is an excellent aromatic stimulant to be used in case of faintness and prostration, a cold surface, nervous depression or sympathetic vomiting.

### CITRUS AURANTIUM.

Orange.

The peel is a mild diffusible, stimulating aromatic tonic. It contains some oil. It warms the stomach, relieves flatus and improves the appetite and digestion. In convalescence the fruit is refreshing, and a small portion of the dried peel chewed slowly is a good tonic to the gastric membrane.

Grated Fresh Orange Peel	1
Granulated Sugar	3

Triturate thoroughly. This is a good vehicle for quinine and other bitter tonics.

Citrus Aur. Peel	12
Caryophyllus Arom.	
Carum Carvi.	
Cinnamomum Cas.	
Pimpinella An.	aa. 3/8

This is an excellent compound which may be made into a syrup or used as a powder triturated on sugar. It is a vehicle of no little importance for the administering of bitter or unpleasant drugs.

## CITRUS VULGARIS.

Bitter Orange, Seville Orange.

France.

Aurantii Floris Aqua is chiefly prepared from this variety and is used as a perfume.

The oil neroli is obtained from both varieties by distillation from the flowers. That from the bitter variety is the best.

The peel of this variety has about the same medical properties as that of the sweet variety except that this variety is more bitter.

## CITRUS LIMONUM.

Lemon.

The outer peel contains the oil of lemon. It is a warming aromatic. Hot lemonade is a diaphoretic. Cold lemonade is an excellent refreshing drink, very agreeable and very useful in proper quantities in bilious fever, in rheumatism and in, many other conditions. It is a pleasant tonic to the stomach.

A syrup made of lemon juice is a good temporary cough syrup. Citric acid is fermented lemon juice and is very much stronger than the fresh lemon juice.

Fresh lemon peel grated	2
Strained lemon juice	16
Granulated Sugar	36

This forms an excellent syrup as a vehicle for bitter medicines.

In the use of the lemon, care must be taken that the acid shall be used by the patient in moderation, for even a good thing used to excess may do harm.

Lemon juice	1
Granulated sugar	3

forms a good syrup for ordinary purposes.

In cases of epistaxis cleanse the nostrils of clots and spray the inner surface with lemon juice.'

## COCHLEARIA ARMORACIA.

Horse Radish.

The fresh roots will blister the surface and so will the leaves. I have used them frequently for neuralgia where mustard might be used.



Relief has usually resulted. Do not allow it to remain long enough to blister.

The root grated in vinegar is a good table relish for the torpid stomach. When dry, the roots are a rather pleasant stimulant to the kidneys, the skin, the stomach and the circulation. This agent arouses a gastric warmth, gently relieves the gall ducts, stimulates alvine action, increases urinary flow, tones the mucous membrane, produces a fullness of the pulse, and leaves a warmth of the surface. In atonic dyspepsia and bilious, sluggish conditions it is best, and in gastric and intestinal catarrh it is of much importance; also in dropsy, jaundice and chronic rheumatism.

Tr. or F. E. Cochlearia	dr. ii
F. E. Taraxacum	dr. vii
Syr. Citrus Auran.	q. s. oz. iv

M. S. Teaspoonful with meals is good for a torpid stomach and liver and constipation.  
Cochlearia

Sinapis Alba Sem.

Juniperus

Berberis Aquifol.

Citrus Aurum

aa. oz. ii

Cider Vinegar pints

3

Allow to stand a week and press. The result is a good tonic for a very torpid digestion and poor assimilation, with biliousness, as found frequently in cases of dropsy.

### COCOS NUCIFERA.

Cocoa-nut Tree.

From the nut of this tree by expressing is obtained a fixed oil. The oil is white and about of the consistency of lard. It is much more palatable than cod-liver oil and has frequently been used as a substitute. Occasionally it has been used in the culinary art as a substitute for lard. Its use in pharmacy is far superior to lard.



### COLA VERA.

Kola Nut.(*Sterculia Acuminata*)

The nut is a mild stimulating, astringent tonic. The African kola nut is more astringent than that from Jamaica, and is more valuable for diarrhoea. It checks nausea and vomiting, soothes the gastric and intestinal mucous membrane and assists digestion when used in moderation. Kola is of the tanno-caffeic order. It is stimulating to the mucous membrane throughout, and toning to intestinal digestion. Kola contains a high percentage of caffeine, but it is far more tonic than caffeine. It is also quite sustaining to the nervous system especially the cerebral and spinal. It sustains, tones and rests the brain during continued intellectual labour, and is valuable in convalescence and neurasthenia, and some neuralgic conditions especially of a chronic character. Kola is also a tonic diuretic and may be used in diabetes.

In parturition it is sustaining to the nervous system and relieves fatigue. It sustains the body well during physical exercise. In anaemia it stimulates the appetite, improves the flesh and assists sleep. It also gives favourable results in melancholia. It is claimed to give favourable results in loco-motor ataxia, pulmonary tuberculosis and carbuncle. The Jamaica kola forms a pleasant beverage and is sometimes called kola coffee. Taken at night it will produce wakefulness, and may be important to the student when there is a necessity for the burning of the midnight oil. The infusion is the preferable form for the use of this agent.

### COLLINSONIA CANADENSIS.

Stone Root.

The root is a gently stimulating diuretic and tonic alterative, slightly astringent, influencing the mucous membrane throughout. In diarrhoea and dysentery it stimulates, cleanses and tones the alvine membrane and materially aids digestion and soothes hemorrhoids. In cystic catarrh it assists in diuresis and stimulates and cleanses the membrane. In leucorrhoea it may be used as a wash and per oram with good results. Combined with agents that influence the respiratory organs it is valuable in cleansing and toning the bronchi. In hot infusion its influence is decidedly toward the surface, and is valuable in acute and chronic peritonitis, pleuritis, and acute and chronic endo-carditis. In influencing the circulation it influences the nervous system and gives favourable results in nervous irritation and nervous depression.

F. E. Collinsonia Can.  
 " Leptandra Virg. aa. 1  
 Syr. Juglans 2

This is an alterative, hepatic, tonic cathartic and nervine.

Dr. C. B. Riggs recommends the following for hemorrhoids:

Syr. Juglans oz. iii  
 F. E. Collinsonia Can. (green) oz. i

Mix. Sig. Teaspoonful often enough to keep the bowels acting gently.

Dr. Riggs also advises the following diaphoretic compound as a most excellent preparation in the producing of diaphoresis in such troubles as la grippe, colds, and fevers.

F. E. Collinsonia Can. (green) oz. viii  
 " Lobelia Inf.  
 Comp. Tinc. Myrrh aa. oz. iv

Methyl Salicylate (Wintergreen) oz. i

Mix. Sig. Ten to thirty drops in warm water every 1/2, 1 or 2 hours.

Collinsonin 4  
 Juglandin  
 Euonymin aa. 2  
 Leptandrin 1

This may be used in capsules for indigestion, hemorrhoids, &c.

F. E. Collinsonia  
 " Avena Sativa aa. equal parts.

Mix. Sig. Twenty drops every 3 or 4 hours for infant paralysis.

Dr. F. G. Hoener recommends the use of this agent in cholera infantum, cholera morbus, diarrhrea, dysentery, gastro-enteritis if accompanied with diarrhrea, enterocolitis, and persistent vomiting.

#### CONVALLARIA.

Lily of the Valley. (Convallaria Majalis).

The whole plant is used in medicine.

The fluid extract is used in doses of from 5 to 20 drops. Dose of the Tinct. 5 to 30 drops.

Specific convallaria is made from the fresh root and may be given in doses of from 1 to 5 drops in water frequently repeated.

Convallaria induces a sudden retardation; of the cardiac contractions, with increased blood pressure. Under its influence the quantity of urine is much increased and dropsical exudates are promptly absorbed.

It is non-poisonous and has no cumulative action.

It may be used to excellent advantage in tobacco heart; in asthmatic breathing from an enfeebled heart; in mitral insufficiency; in dilatation of the left ventricle and in all cardiac affections convallaria has a prompt and certain action.

#### CONVOLVULUS SCAMMONIA.

Scammony, Man Root. (Convolvulus Panduratus).  
 (Ipomoea Pandurata).

The resin is rather a pleasant stimulating cathartic, but in large doses like other cathartics it is quite griping, which is much lessened by the addition of zingiber in some form. Its most profitable influence is when combined with some appropriate hepatics.

#### COPAIFERA LANGSDORFII.

Copaiba. West Indies and South America.

Incisions in the Copaiba tree yield an oleo-resinous excretion of balsamic odour and nearly colourless.

It is warming and rather nauseating and is usually administered in sealed capsules or in some form of emulsion, or triturated on ladin and reduced to a powder. It is best in soft, capsules because of the volatile oil evaporating and leaving little but the resin which is comparatively of little value.

Copaiba is a stimulating diuretic strongly influencing the mucous membrane, especially that of the urinary organs. Its use is best adapted in languid and sluggish conditions, chronic congestion and weakness of the mucous passages as in gleet. It is not suited to inflamed and irritated conditions of the mucous membrane, because of its stimulating properties. It, is frequently combined with barosma or uva-ursi.

#### COPTIS TRIFOLIA.

Gold Thread.

The root is a gently stimulating bitter tonic to the mucous membrane throughout. It is valuable in convalescence from fevers, is a good appetizer and gently tones the gastric membrane. In many respects it has nearly if not quite fully as good an influence as Hydrastis canadensis.

It is valuable as a wash for sore mouth, a vaginal wash and as an injection to the urethra in gonorrhoea. It tones the mucous membrane and enables it to cast off impurities.

#### CORALLORHIZA ODONTORHIZA.

Crawley Root.

The root is a pleasant, prompt, diffusive, relaxing diaphoretic, slightly stimulating and somewhat demulcent. It influences the circulation, allays nervous irritability, induces free diaphoresis and relieves the capillaries.

It is a superior agent in febrile conditions, and in eruptive diseases. If needed, more stimulating agents may be added. With zingiber its influence is valuable in bronchitis, pneumonia, pleuritis, peritonitis and nephritis, and in this combination it promotes the menstrual flow in cases of congestion, by relieving the circulation and promoting an outward tendency of the blood. By equalizing the circulation it is valuable in puerperal fever, in ovaritis, uteritis, and for the relief of hyperaemic conditions wherever found. By its use also after-pains are relieved and the lochia increased.

Pul. Pterospora And.	dr. iss
" Asclepias Tub.	dr. i
" Xanthoxylum Frax.	dr. ss
" Capsicum	grs. x
" Dioscorea Vil.	dr. i
Aqua Bullens	oz. viii

Sig. Tablespoonful hourly for peritonitis.

#### CORIANDRUM SATIVUM.

Coriander.

The seeds are a mild, pleasant, aromatic carminative chiefly used as a vehicle for bitter tonics and cathartics.

#### CORNUS FLORIDA.

Dogwood.

The bark is rather a pleasant stimulating and astringent tonic chiefly influencing the mucous membrane. In hot infusion it influenced the circulation. It is a good anti-periodic especially with small portions of quinine, but its best influence is upon the alvine mucous membrane in cases of laxity of the bowels. Even here its best influence is felt in combination with suitable hepatics. With comp. syr. rhei et pot. it is very useful in cholera infantum.

An infusion is a good wash for sore mouth and tender gums. For vaginal weakness and leucorrhoea it is one of the best for injections or may be used in capsules. An infusion forms a good wash for the cleansing of foul ulcers, or the dry powder may be used as an absorbent.

In chronic and debilitated conditions of the mucous membrane with a tendency to diarrhoea it is just the agent wanted.

The flowers are a mild and valuable stimulating tonic, not astringent like the bark. They are soothing and sustaining to the nervous system and to the circulation especially, when given in hot infusion, when they are also somewhat diaphoretic.

The berries are also a pleasant mild bitter tonic similar to the flowers. These flowers and berries possess a mildness and effectiveness that make them a favourite for convalescence wherever a mild tonic is needed. Cornin is a better antiperiodic than any other preparation of this agent.

#### CORNUS SERICEA.

Red Osier. American.

The bark is a stimulating astringent. It is useful in stopping hemorrhages whether from the nose, lungs, uterus or bowels. In parturition where there is a hemorrhagic tendency, and where the pains are inefficient, and the parts lax, this agent will be very valuable. It will anticipate flooding, increase pains and add general vigour to the system.

Dr. F. G. Reener advises the use by injection of the following for the cure of uterine ulcers. It also checks the vomiting incident to pregnancy.

Cornus Ser.

Viburnum Prunif. aa. equal parts.

#### COTO AND PARA-COTO BARK.

These are two distinct barks brought from Bolivia under the name of coto- bark. They are now distinguished as above. In physical appearance these two barks are strikingly different, but their therapeutical properties are very similar.

The bark is a gently stimulating, tonic astringent. Its influence is especially felt by the alvine mucous membrane, and is very useful in dysentery, diarrhoea and cholera infantum. In hot infusion of zingiber it is excellent in the exhaustive discharges of cholera morbus and to quiet the pain incident thereto. With xanthoxylum, capsicum and hydrastis it will be found very valuable in cholera.

Coto tones the digestive tract and is especially valuable in all lax conditions of the mucous membrane. It influences a good flow of blood toward the surface. It is very successful in the treatment of sore and spongy gums, toothache, sore mouth, sweating of the feet and the night sweats incident to phthisis. It may be used locally upon ulcers and old sores, and is valuable used as an injection to the vagina in case of excessive discharges whether leucorrhoeal or from ulceration. In nasal, gastric, intestinal and bronchial catarrh it will be found very valuable in cases where the discharges are in excess.

In typhoid fever and in excessive discharges from the bowels in phthisis this is a superior agent.

F. E. Para-Coto Cort.

Tr. Cardamom Comp.           aa. dr. i

Acacia Mucilago               dr. iii

Syr. Simp.                       dr. ii

Aqua                               q. s. oz. iv

Sig. Teaspoonful or more as needed to arrest diarrhoea.

#### CRATAEGUS OXYACANTHA.

Hawthorn, English. Europe and North America.

The fruit is the part used in medicine. This agent has yet to come into its own as a cardiac remedy.

One writer freely states that in his opinion Crataegus is superior to any other of the well known and tried remedies at present in use in the treatment of heart disease because it seems to cure while the other remedies are only palliative at best.

Crataegus may be regarded as the nearest specific in Angina pectoris, valvular deficiency, endo-myocarditis and pericarditis, tachycardia, palpitation, vertigo, apoplexy, dropsy and functional derangements. The dose of the Fluid Ex. is 2 to 10 drops, four times day.

#### CROTON ELUTERIA.

Cascarilla. Bahama Islands.

The bark is a pleasant, mild, aromatic, stimulating tonic, chiefly influencing the mucous membrane. In hot infusion it is diaphoretic, soothes the nerves, gently quiets the whole system and gives a good flow of blood toward the surface.

In convalescence it is gently sustaining and if needed may be combined with stronger tonics, or combined with some diffusive, as required. If combined with aralia racemosa or some other agent influencing the respiratory organs it lends its influence in that direction. It is a good tonic addition to some cough syrups, especially when the expectoration is already too free. It will be found valuable in phthisis for such condition.

In combination with uterine and vaginal tonics it is useful in the treatment of leucorrhoea, prolapsus and vaginal weakness.

#### CUCURBITA CITRULLUS.

Water-melon.(Citrullus Vulgaris).

The seed and husk are a moderately relaxing and stimulating diuretic. They influence the mucous membrane throughout, but especially that of the kidneys, promptly increasing the flow of urine. In nephritis, cystitis and urethritis it is one of the best agents. It relieves scalding urine and soothes the entire urethra. Its influence may be partially felt on other parts of the mucous membrane when properly combined with other agents. An infusion of the seed gives best results when freely drank.



#### CUCURBITA PEPO.

Pumpkin.

The seed without the husk is bruised in a mortar or ground and then emulsed in water. This is oily and sweet and influences the mucous membrane throughout, but especially that of the kidneys, bladder and urethra, and promptly relieves scalding urine.

It is a pleasant anthelmintic for the expulsion of the tape worm. Emulse two ounces of the peeled seeds in water and drink early each morning for three mornings, eating but little during these three days, and follow their use with a full dose of antibilious physic. The oil may be used for the same purpose in doses of from 20 to 60 drops.

## CUNILA MARIANA.

Dittany.

This plant is a pleasant diffusible aromatic stimulant. In hot infusion it is diaphoretic and gives a good outward circulation. In recent colds, in tardy exanthems, headache, hysteria, cramping, gastralgia, enteralgia, remitting and continued fevers and in tardy menstruation caused by congestion, it stimulates the capillaries, relieves nervous irritability, and sustains the circulation. It stimulates the mucous membrane, relieves flatulence and assists digestion.

Cunila Mar.

Cypripedium Pub.                      aa. equal parts

makes a good relaxing nervine for irritated conditions.

Cunila Mar.

Caulophyllum Thal.

Dioscorea Vil. aa. equal parts

makes a good antispasmodic preparation for dysmenorrhoea.

Cunila Mar.

Scutellaria Lat.                      aa. equal parts

makes a stimulating nervine.

The leaves yield an oil which is a carminative essence.

## CURCUMA LONGA.

Turmeric.

The root is a diffusible stimulating aromatic tonic to the alvine mucous membrane. Its chief use is as an adjuvant for the administering of bitter tonics and cathartics.

## CUSPARIA FEBRIFUGA.

Angustura.(Galipea Cusparia). South America.

The bark is a mild, diffusible, stimulating, tonic nervine. It relieves the heart by promoting an outward circulation, influences the alvine mucous membrane and large doses are cathartic. It more or less influences all the secretions, and is valuable in the treatment of intermittents, remittents and typhoid.

It cleanses and tones the gastric and intestinal mucous membrane and is very serviceable in convalescence from typhoid and other fevers, in gastric, intestinal, cystic, nasal or vaginal catarrh. It is an agent that may be influenced in different directions by being combined with different agents, and yet it maintains its general character of influence. It is positive in its infusion and is a valuable agent used in the relations mentioned.

## CYDONIA VULGARIS.

Quince.

The seed and covering yield a mucilage very soothing to the mucous membrane, and to the surface as well. It is excellent in cases of irritation or inflammation of the kidneys, bowels, bladder or urethra. To the stomach it is a very grateful bitter tonic, more pleasant than most demulcents.

Hydrastis Aq. Dis.                      6

Hamamelis Aq. Dis.                      4

Cydonium Mucilage                      22

This forms a good injection for gonorrhoea. The mucilage is an excellent wash for ophthalmia.

Dr. F. G. Hoener says that quince leaves either as a local steam bath or taken in hot infusion per oram in four cases out of five will prove emmenagogue in temporary suppression.

## CYNOGLOSSUM OFFICINALE.

Hound's Tongue.



Dr. F. G. Humer says this has given good effects in bronchitis, dentition and coughs and colds of infants.

### CYPERUS ARTICULATUS.

Anti-emetic Root, Adrue.

Tropical.

The root possesses an aroma somewhat resembling that of calamus. It is a gently stimulating, warming, and diffusive agent, soothing to the mucous membrane. In Jamaica a strong infusion has been used successfully to stop the black vomit incident to yellow fever. It may also be used in the vomiting incident to cholera infantum, cholera morbus, atonic dyspepsia, and the vomiting incident to pregnancy. It is a pleasant aromatic and creates a feeling of warmth and comfort in the stomach, and is a fine tonic to the gastric and alvine mucous membrane.

In hot infusion it influences the circulation toward the surface, and soothes the nervous system. The mucilage is an excellent wash in ophthalmia.

### CYPRIPEDIUM PUBESCENS.

Lady's Slipper.

The root is almost if not quite a pure relaxing nervine. It is less positive and less stimulating than lobelia. It is antispasmodic by inducing nerve relaxation, and thus freeing the nerves from irritability and excitement.

In typhoid fever it decidedly influences the brain and relieves delirium to a great extent. The more your patients can naturally sleep, and the less the brain is allowed to be irritated the better. Of course cypripedium in typhoid fever is not best alone. More or less capsicum or other stimulant is necessary.

Cypripedium Pub.

Lobelia Infl.

aa. equal parts

is excellent in many cases of insanity where there is much restlessness and inability to sleep. Business men who are overworked or worried and unable to sleep can take with much benefit small and frequent doses of cypripedium with excellent quieting effect.

If it is to be used on the surface, capsicum should be added; and in depressed cases it is best to add a small portion of capsicum for internal use.

Cypripedium Pub.

Lobelia Infl.

aa. 5

Capsicum

1

Make into a pill with extract of eupatorium perfoliatum.

These may be used in febrile delirium, insanity, dysmenorrhoea and uterine irritation.

Cypripedium Pub.

2

Cimicifuga Rac.

Zingiber Off.

aa. 1

Give an infusion of this for dysmenorrhoea. In cases of insomnia give an injection of cypripedium or of cypripedium and lobelia at night on retiring. Do not give enough to nauseate but simply to quiet. This process may also be used in nymphomania and used on retiring to prevent seminal emissions.

Cypripedium Pub.

6

Lobelia Infl.

5

Eupatorium Perfol.

2

This makes an excellent suppository to be used for irritation of the nervous system, or the ingredients may be used in infusion per oram, in hysteria, chorea, nervous headache, neuralgia, nervous irritability, nervous debility when from irritability, dysmenorrhoea and epilepsy. For delirium or insanity from nerve irritation there is nothing better for relaxation. Give such doses as are required to produce the desired result. As the case progresses other nervines may be added to sustain the nerves after the stage of excitement has passed.

If cypripedium be given in hot infusion, especially if some zingiber be added, a warm and gentle perspiration results.

Its relaxing effect upon the nerves is felt by the circulation, and the secretions, and the kidneys and bowels are also relieved. Indeed the whole system is left in better condition for future activity. In dysmenorrhoea ascertain if the patient has been given too free discharges or as is usual, too scanty discharges. If the latter use in hot infusion the following:

Cypripedium Pub.	
Anthemis Nob.	aa. 4
Caulophyllum Thal.	
Leonurus Card.	aa. 2
Zingiber	1

In parturition cypripedium relieves the rigidity of the uterus and the nervous irritation that is frequently present. Of course this does not apply to cold, slow cases that need some degree of stimulation.

Cypripedium Pub.	3
Dioscorea Vil.	2
Zingiber	1

gives very favourable results in colic and after-pains, but in cases of post-partum hemorrhage omit the zingiber and add either trillium or capsicum or viburnum prunifolium as required. The above preparation may also be used in rheumatism, but must be combined with some degree of stimulation. In a dry and irritable form of catarrh, cypripedium is useful to cleanse and to relieve irritation. In the convulsions of hysteria use a large injection of

Cypripedium Pub.	
Lobelia Infl.	aa. equal parts

and if needed give a second smaller injection.

Cypripedium is not a diaphoretic, but in cases where there is feverishness with irritation of the nervous system some diaphoretic agent as zingiber or serpentaria should be added.

Cypripedium is not a tonic, and yet after being brought well under its influence, the entire system is relieved and toned.

In the presence of putrescence this agent has but little value unless combined with very positive stimulation. In such cases it is simply of value to relieve irritation of the nervous system.

Cypripedium Pub.	2
Scutellaria	1

is an excellent combination for a case of irritable nervous depression. In nervous headache this will give good results. If the stomach is involved it may be used by enema.

F. E. Cypripedium Pub.	dr. iv
" Scutellaria Lat.	
" Nepeta Cat.	
" Dioscorea Vil.	aa. dr. i
Syr. Zingiber	q. s. oz. iv

This is a soothing nervine for child or adult for cranial or abdominal pain. Cypripedium is one of our best agents when properly used.

#### CYSTISUS SCOPARIUS.

Broom Tops, Scotch Broom.

Europe.

The young shoots are a stimulating and relaxing diuretic, securing a free flow of urine. With hepatics and tonics this agent is of much value in dropsy. It gives good results.

Cystisus Scop.	
Euonymus Atr.	aa. 3
Zingiber	1

This is a successful combination for dropsy. Dr. F. G. Hamer recommends the following for general dropsy:

Elix. Cystisus Scop.

" Celastrus Scan. aa. oz. iss

" Agrimonia Eup. oz. i

M. S. One teaspoonful every two hours.

#### DAUCUS CAROTA.

Carrot.

The seeds are a pleasant, mild, diffusive, aromatic, stimulating diuretic. They increase the watery discharge and with hepatics will be found valuable in some forms of dropsy. Dr. F. G. Hamer recommends the following for severe cases of general dropsy, to be used in conjunction with steam baths.

Elix. Daucua Carota Sem.

" Polytrichum Juniperinum aa. oz. iss

" Cucurbita Citrullus oz. i

M. S. One tablespoonful every hour.

#### DELPHINIUM CONSOLIDA.

Larkspur.

This plant is a moderately stimulating diuretic and is somewhat emmenagogue. It influences the alvine mucous membrane, and in large doses may produce emesis and catharsis. Dr. F. G. Hamer says an infusion washed over a child's head, a few times will destroy insects.

#### DENTARIA DIPHYLLA.

Pepperwort.

This root is a pleasant, diffusive, stimulating, tonic nervine. It influences the sympathetic and the peripheral nerves.

In hot infusion it influences a good outward flow of blood and stimulates the capillaries. It is valuable in dysmenorrhoea, colic, hysteria and general nerve weakness. It warms the surface and tones the nerves.

#### DICENTRA CANADENSIS.

Turkey Corn.

The root tubers are a positive systemic, stimulating alterant which influences the stomach and mucous membrane throughout, the secretory organs and the skin. This agent is stimulating to the salivary glands, warming to the stomach and invigorating to the whole circulation. In hot infusion it influences both the sudoriferous and the sebaceous glands. It is one of the best of stimulating alteratives. In fact all the excretive avenues of the body are more or less emptied of injurious and impure contents and all the secretions are rendered more active. It is just the agent for torpid, sluggish or depressed conditions.

It is especially valuable in secondary syphilis, scrofula, chronic eruptive troubles and chronic rheumatism. In all such conditions it is one of the most valuable of stimulating alterants.

F. E. Dicentra Can. dr. iv

" Arctium Lap. Sem.

" Taraxacum Den. L. aa. dr. ii

" Xanthoxylum Frax. gtt. xx

Syr. Simplex q. s. oz. iv

F. E. Dicentra Can. dr. iv

" Iris Versicolor dr. ss

" Euonymus At. dr. iii

" Celastrus Scan. dr. ii

" Xanthoxylum F. gtt. xx

Syr. Simplex q. s. oz. iv

F. E. Dicentra Can.

" Alnus Ser.

" Menispermum Can.	
" Arctium Lappa Sem.	aa. dr. ii
Syr. Zingiberis	q. s. oz. iv
F. E. Dicentra Can.	dr. iv
" Iris Vers.	
" Jeffersonia Diph.	aa. dr. ii
" Xanthoxylum Frax.	gtta. xx
Syr. Simplex	q. s. oz. iv

These are all good stimulating alterant preparations suitable for the treatment of secondary syphilis, scrofula and chronic eczema.

F. E. Dicentra Can.	dr. iii
" Taraxacum Dens. L.	dr. iii
" Xanthoxylum Flax.	gtta. xx
Inspissated Juice	
Phytolacca Bac.	q. s. oz. iv

This is a good preparation for syphilitic rheumatism.



F. E. Dicentra Can.	
" Rumex Cris.	aa. dr. ii
" Arctium Sem.	dr. iv
" Zingiber	q. s. oz. iv

This is a good preparation for scaly eruptions, secondary syphilis and scrofula.

#### DOREMA AMMONIACUM.

Gum Ammoniacum.

Persia.

The juice is gathered from incisions in the bark and when this becomes dry it assumes the form of a gum-resin. It is a diffusive of moderately stimulating and relaxing power, influencing the mucous membrane, and in hot infusion it influences the skin and general circulation.

The odour is rather disagreeable and the taste is rather bitter and nauseating. In large doses it is cathartic. By the combining of particular agents it may be made to be diaphoretic, expectorant, diuretic or emmenagogue.

## DORSTENIA CONTRAYERVA.

Contrayerva.

The root is a diffusive, stimulating, mucilaginous tonic. In hot infusion it sustains the capillary circulation and promotes diaphoresis and thence soothes the nervous system. In scarlatina, measles, small-pox and other exanthemata it arouses the circulation and hastens the eruption.

It is also valuable in typhoid and other fevers as a stimulating diaphoretic. In local and general congestions it relieves the surface by relieving the capillary circulation, if given in hot infusion. In cold infusion it influences the alvine mucous membrane and the kidneys.

## DROSER A ROTUNDIFOLIA.

Sundew, Youthwort.

Eastern and Southern U.S.

This plant grows in marshy places and peat bogs, and is covered with a chaff-like coat. Its flowers are white.

It is considerably valued in pertussis, where from 2 to 4 drops may be given every 3 or 4 hours. It is also recommended in asthma, chronic bronchitis, dry hacking coughs, nervous or sympathetic coughs arising from pulmonary, cardiac or gastric disease. It is also spoken of in gastric troubles where there is flatulence, catarrhal or ulcerous conditions.

## ECHINACEA ANGUSTIFOLIA.

Echinacea, Black Samson. Western U.S.

This is a perennial herb with thick black roots and pungent taste.

The root is a stimulating, antiseptic alterative, somewhat like xanthoxylum. In puerperal septicemia give half to one teaspoonful every four hours, or half teaspoonful from two to four hours.

F. E. Echinacea Ang. dr. ii

Ess. Pepsin oz. ii

Give a teaspoonful every four hours in cases of pelvic abscess.

Echinacea and lycopodium make a very good application for carbuncles and boils. Then give

F. E. Echinacea Ang.

Syr. Simpl. aa. equal parts.

M. Sig. One dram three to six times a day.

This may be alternated with

Lycopodium gtta v

Peroxide Hydrogen dr. ss

3 times daily.

Apply a poultice of flaxseed, lobelia, ulmus and capsicum wet with echinacea twice a day for four days. Put a napkin ring around the carbuncle and pour in a dram of peroxide hydrogen, and let it foam for a few minutes twice a day.

In consumption give of echinacea 10 to 15 drops three times a day, and also the peroxide of hydrogen in dose of half to one dram three times a day. Lycopus virg. may be added five or six times a day in doses of ten drops.

For black tongue use

F. E. Echinacea Ang. dr. i or more

Aqua Dis. q. s. oz. iv

Sig. One dram may be given every three hours for low septic conditions.

In case of scorpion sting apply fld. ext. Echinacea ang every 10 or 15 minutes and give per oram also

F. E. Echinacea Ang. gtta xx

Aqua oz. iv.

M. S. Teaspoonful every 15 or 20 minutes till the patient rests. The fresh root may be scraped and given. It often induces an excessive flow of saliva and perspiration.

## ELETTARIA CARDAMUM.

Cardamom.

Malabar.

The seeds are a stimulating, aromatic, warming carminative. They are chiefly used as a vehicle for cathartics to prevent griping and nausea; and are used with bitter tonics, especially quinia sulph, gentiana ood apocynum androsem. They partially cover the bitter taste.

Cardamom Seed	
Caraway Seed	aa. oz. 1
Cinnamon Bark	oz. 2
Raisins, Seedless	grs. 8

Or

Cardamom Seed	
Cassia Cin.	aa. oz. 2 2/3
Caraway Seed	oz. 1 1/3

Either formula makes one pint of fluid compound cardamom. Either forms a good vehicle for bitter medicines.

## EPIGAEA REPENS.

Arbutum, trailing.

America.

The leaves are a mild stimulating and astringing diuretic.

In sluggish renal action they stimulate, soothe and tone the kidneys and promote diuresis. They relieve the aching back and stimulate the prostate gland. This agent is of much value in gonorrhoea and cystic catarrh.

F. E. Epigaea Rep.	3
" Mitchella Rep.	2
Fld. Hydrastis Can.	1

This is a good remedy for gonorrhoea.

F. E. Epigaea Rep.	dr. iv
" Celastrus Scan.	dr. i
" Mitchella Rep.	dr. ii
" Althaea Ros.	dr. ii
Syr. Simplex	q. s. oz. iv

This is a valuable prescription for spermatorrhoea and all irritable troubles of the urinary apparatus.

F. E. Epigaea Rep.	dr. iv
" Liriodendron Tul.	dr. ii
" Eupatorium Purpu.	dr. ii
Hydrastia Sulph.	gr. i
Ferri et Pot. Tart.	grs. iii
Syr. Zingiber	q. s. oz. iv

This is a good tonic for prolapsus uteri, chronic cystitis and general pelvic weakness.

Epigaea Rep.	4
Amygdalus Pers. Fol.	6
Cypripedium Pub.	2
Zingiber	1/2

This in cold infusion is a good preparation to be used for weakness of the bladder, and for gleet.

## EPILOBIUM ANGUSTIFOLIUM.

Willow-herb.(Epilobium Spicatum).

The root is a pleasant astringent tonic, chiefly influencing the mucous membrane and useful in cases of dysentery, diarrhoea and cholera infantum. The leaves are more diuretic and influence the entire pelvic viscera.

They are useful in chronic cystitis, cystic catarrh, leucorrhoea, gonorrhoea, vaginal weakness, and uterine hemorrhages. In severe cases they may have to be combined with more positive agents.

#### ERECHTITES HIERACIFOLIA.

Fireweed.

The leaves and flowers are a mild bitter, stimulating, astringent tonic. Their chief influence is expended upon the mucous membrane and they are best in relaxed and sluggish conditions, as in chronic diarrhoea.

In combination with uva ursi this agent is valuable in cystic catarrh. Combined with agents that chiefly influence the generative organs it is useful in vaginal weakness and in prolapsus uteri. It is also of service in hemorrhages of the lungs and of the bowels, as well as in menorrhagia and in post-partum hemorrhage.

Incorporated into an ointment it is a good application for old sores, for hemorrhoids and for rectal ulcers. The oil of fireweed more or less diluted with olive oil forms an excellent application for hemorrhoids.

#### ERIGERON CANADENSE.

Canada Fleabane.

This herb is a diffusive, aromatic, stimulating astringent. It is best administered in small and frequent doses. In hot infusion it influences the circulation toward the surface and is of advantage in hyperoemic conditions. In diarrhoea, dysentery and cholera infantum it is a superior remedy. Repeat small doses as the conditions require.

It is quite effective for the relief of hemorrhages, whether from the lungs, nose, uterus or bowels.

Dr. F. G. Hoener recommends an infusion to be used as an injection in cases of gonorrhoea.

The oil of erigeron is very diffusive and has almost entirely superseded the use of the herb for hemorrhages. A good fresh article is a success; age impairs the quality of both the herb and the oil. Give one to four drops on sugar and follow with a little hot water. This is the ordinary dose of the oil, but do not depend too much upon this agent unless you know the quality of the oil you are using. You can better depend on capsicum and lobelia or on capsicum alone. The following is a good preparation to be used in such cases:

Oil Capsicum	
" Erigeron	aa. 1
Sugar or Lactin	10

Triturate thoroughly and administer from one to three grains every ten minutes for two or three doses and then lengthen the time as the conditions require. If it be post-partum hemorrhage give only as required or you may check the flow so completely as to give trouble in the opposite direction.

For metrorrhagia Dr. G. H. Mayhugh advises the following:

Oil Cinnamon	
" Erigeron	aa. gtt. 5 to 10

M. Sig. Give in hot water every five or ten minutes till the flow is checked, then give every half hour till relief is felt. In cases of anal fistula apply erigeron throughout its entire length. It will cure it. In cases of rectal ulcer, it will arouse the parts, but it will cure the ulcer.

#### ERIGERON STRIGOSUM.

This is a species of fleabane. The leaves and flowers in medical properties much resemble the erigeron philadelphicum. They are valuable, says Dr. F. G. Hoener, for coughs, colds, sores in the mouth or on the tongue or tonsils. They may also be used as a gargle for the throat, and as a wash for foul ulcers, sores and old wounds, also as an injection for gonorrhoea in severe cases, and gleet.

#### ERIODICTYON GLUTINOSUM.

Yerba Santa.

Northern California.

This has thorough balsamic properties and is quite stimulating to the bronchi, trachea and larynx.

It is a superior agent to be used in cases of chronic congestions and sluggish conditions, chronic laryngitis, aphonia, paralysis of the vocal chords and chronic bronchitis. In inflamed and irritated conditions it is best combined with more relaxing agents. It is a good agent to add to cough syrups when there is a dry, hacking cough, a constant desire to clear the throat, with sputa scanty and dry.

It almost completely disguises the bitter taste of quinine, and an aromatic syrup is an excellent vehicle for the administering of quinine in the proportion of about 8 to 1.

#### ERYNGIUM CAMPESTRE.

Water Eryngo

(E. Aquaticum).

Button Snake Root.

The roots are a moderately diffusive stimulant, somewhat relaxing. This agent influences the mucous membrane, the circulation and the secretions. In hot infusion it promotes diaphoresis, and increases expectoration.

Large doses prove emetic and cathartic. It is useful in the exanthems to bring out the eruptions, as in cases of small-pox, scarlatina and measles. It is claimed that it will eliminate the viri of snakes. For this purpose it should be used internally and applied externally.

It influences the kidneys, the bladder and the urethra in the relief of chronic congestions and gleet. Combined with epigaea repens it is a superior tonic diuretic, useful in dropsy and nephritis. It also lessens erections and prevents seminal emissions. It lessens urethral, vaginal or rectal irritation and is valuable for diarrhoea, leucorrhoea, and hemorrhoids.

It makes a good addition to some alterative medicines for the elimination of impurities from the circulation, as in scrofula and syphilis.

#### ERYTHRONIUM AMERICANUM.

Adder's-tongue.

The leaves and roots lose much of their power by drying. In the green or recently dried state they are a moderate stimulating antiseptic and astringent. Dr. F. G. Hoener recommends this agent in haematemesis and haemorrhoea and says that it is a very cooling antiseptic.

#### ERYTHROXYLON COCA.

Coca. Bolivian.

The leaves of this plant somewhat resemble the leaves of the tea plant. The leaves are dried in the sun and are much used by the inhabitants of Peru, Ecuador, Columbia and Rio Negro, in which countries this plant grows wild, and it is also much cultivated and used in Bolivia.

The Peruvian Indians use from one to three ounces of the leaves a day and seem to be well sustained by their use. When used in moderate quantities this agent increases nerve energy, removes drowsiness, gives an indisposition to sleep, much as tea or coffee. It enlivens the spirits and enables the Indians to bear cold, wet, bodily exertion, and even the want of food for whole days with apparent ease. But they will eat freely in the evening. They find it necessary to use in conjunction therewith some alkali, as ashes or lime. When well dried the leaves have an agreeable odour and in infusion have a peculiar taste somewhat bitter and astringent.

Coca.-The leaves in a remarkable degree possess the power of sustaining the vital powers, under conditions of extraordinary fatigue and privation. Useful in nervous exhaustion, sleeplessness, mental depression, and in relieving the opium habit.

Cocaine  $C_{16}H_{19}NO_4$  or  $C_{17}H_{21}NO_4$  is the alkaloid. It induces a series of symptoms affecting the nervous, respiratory, circulatory, vaso-motor and glandular systems. Cocaine is a local antisthetic.

Cocaine Hydro-chlorate.-This salt of cocaine usually comes in the form of crystals. Useful in ophthalmology, especially the large crystals. 1 k grs. to 1 dr. dis. water equals a 2 per cent. solution. Add 2 1/4 grs. for a 4 per cent solution, and double this for an 8 per cent solution. These solutions should always be properly prepared. The following is recommended as a dental sedative:

Hyd. Cocaine

gtta xx



Oil Cloves  
Chloroform  
Alcohol

aa. dr. i  
oz. i



Dry the gum and apply a few drops around an aching tooth. Squeeze the gum between the finger and thumb for a few seconds. This will paralyze the gum. Then extract the tooth immediately. It may also be injected into the gum. Coca Cordial or F. E. may be used.

#### EUCALYPTUS GLOBULUS.

Eucalyptus.

This is an evergreen which grows vigorously in Australia and California. The leaves contain numerous pellucid glands filled with an essential oil which is quite diffusive, having a strong, penetrating, disagreeable odour.

This odour assists respiration and neutralizes marshy miasms. The tree is of very rapid growth and has been very frequently planted for the latter purpose. The bark, flowers and fruit are covered with glands containing the oil, which is denominated eucalyptol. This is an antiseptic in fevers and catarrhal affections, in odontalgia, in gonorrhoea and gleet, in gastric ulceration and in diphtheria.

Dr. J. E. Roop uses locally the following for endometritis:

Eucalyptol	
Fld. Hydrastis	aa. 1
Glycerin	2

For nasal catarrh use with the nasal douche or atomizer two to four times a day.

Eucalyptol	
Soda Bicarb.	aa. dr. i
Glycerin	oz. i
Aqua	oz. xvi

This may also be used as a wash to cleanse offensive discharges from sores.

In hot infusion the leaves form a fine febrifuge and antiperiodic. They contain a resin which is precipitated when water is added. The infusion is quite stimulating to the throat and fauces and is serviceable in membranous croup.

F. E. Baptisia Tinc.	dr. i
" Eucalyptus Gl.	dr. iss
Aqua	q. s. oz. iv

Gargle with this every hour and swallow a half tea spoonful for sore throat.

F. E. Eucalyptusoz. i

Aqua q. s. oz. iv

This is a good antiseptic gargle for diphtheria and scarlatina, or Eucalyptol gtta xv may be added to half a glass of water and used for the same purpose.

For membranous croup use

F. E. Eucalyptus oz. i  
Syr. Simplex oz. iii

Ten drops or more of the fluid extract or of the oil four times It day will be found serviceable in dropsy. Dr. Hunter recommends the following in teaspoonful doses every two or three hours for a dry, tickling cough and in bronchitis:

Elixir Eucalyptus  
F. E. Grindelia Robusta (soluble)  
" Cypripedium Pub. aa. oz. ss  
Syr. Simplex q. s. oz. iv

Tr. eucalyptus gtta. xx to xxx used three times a day is a specific for cystitis.

Eucalyptus, benzoate soda, boracic acid, yerba santa, yerba reuma, vaseline. Apply locally for nasal catarrh.

The following forms a good local anaesthetic : Cocaine, hyclronaphthol, eucalyptus, mentha arvensis, baptisia, gaultheria, thyme, benzo-boracic acid. Euthymol (eucalyptus and thymol antiseptic), is a liquid preparation of wide utility. It is neither poisonous, irritant nor escharotic and is perfectly safe in any form of administration, whether internal or external. It possesses an agreeable odour and may be used instead of iodoform and carbolic acid. It equals either as an antiseptic and does not possess their objectionable characteristics. Each fluid ounce contains:

Oil Eucalyptus 3-8 M.  
" Gaultheria 9-32 "  
F. E. Baptisia Tinctoria 1.1-4"  
Boracic Acid 10.15-16 grs.  
Menthol 5-64 "  
Thymol 15-32 "

This article should not be exposed to the cold. It should be used as a spray or internally in doses of a fluid drachms three or four times a day.

Dr. E. G. Anthony makes use of the following application in nasa-pharyngeal troubles.

Eucalyptol dr. ii  
Gum Camphor grs. x  
Menthol grs. x  
Albolene q. s. oz. i

Enformal is non-toxic, non-irritant and does not stain. Each fluid ounce contains

Oil Eucalyptus m 3/8  
Oil Gaultheria m 3/10  
Thymol gr. 1/2  
Menthol gr. 1/12  
Boric Acid grs. 12  
F. E. Wild Indigo m 1 1/4  
Formaldehyde 40 per cent m 60

#### EUGENIA CHEQUEN.

Cheken. Myrtus. Cheken.

Chili.

The leaves are slightly stimulating, astringing and toning to the mucous membrane especially of the respiratory organs. They contain a good percentage of volatile oil. Cheken is tonic, expectorant, diuretic, and antiseptic. It is chiefly valued in purulent bronchial inflammation, bronchial and cystic catarrh, emphysema, winter-cough, phthisis where the expectoration is too free, catarrhal conditions where the expectoration is difficult of removal and pneumonia.

Through its toning power it decreases purulent expectoration.

It also influences the serous membrane and is valuable in the treatment of rheumatism.

Dose of Fluid Extract :-1-2 drachms in water.

### EUGENIA JAMBOLANA.

Jambul, Java Plum.

East Indies.

This is a tree of some considerable size, yielding an abundant crop of a pleasant and a much esteemed sub-acid fruit. In the East Indian peninsula it is abundant in both the wild and the cultivated states. The fresh bark and the leaves yield a juice that is valued in the treatment of acute and chronic diarrhoea both of children and of adults.

The use of the root and of the seed gives similar favourable results. The bark and especially the seeds have the property of arresting the excessive formation of sugar in cases of diabetes mellitis. The physicians of India claim that not only does this agent cure diabetes, but it enables the patient to continue to eat anything without augmentation of sugar in the urine.

It arrests emaciation, assists in the general improvement of nutrition, giving natural sleep and a lesser tendency to micturition. It diminishes the density and quantity of urine and relieves the intolerable thirst of which those patients suffer.

It influences intestinal digestion and thus prevents excessive saccharification. It influences the vaso-motor centres and is hence useful in cases of diabetes of nervous origin. Large doses may produce nausea in some patients. In order to better prevent the tendency to glycosuria the diet should be watched and restricted to skimmed milk, gluten bread and meat.

The powdered extract may be given in dose of 5 grs. 3 times a day, or 5 to 8 grains of the powdered seeds may be given, or 6 to 8 drops of the fluid extract. These doses may be much increased if desired. It is usually best to begin with small doses, say 5 drops of the fluid extract one hour after each meal and this dose increased one drop per dose per day or given as required.

### EUONYMUS ATROPURPUREUS.

Wahoo.

The bark of the root is stronger than that of the trunk and twigs but all are used. It is a reliable, gently stimulating, bitter tonic hepatic. It is antiperiodic and laxative, and in large doses cathartic. It will abort mild cases of ague. It may cause nausea but does not usually cause emesis.

It is positive in its action on the liver both as secretor of bile and as an excretant of the same from the gall cyst. Its tonic influence is extended throughout, the mucous membrane. As a tonic hepatic it is a superior agent. Its mildness and yet positiveness are properties in such degree as possessed by but few agents. It improves appetite and gastric digestion and slowly but persistently relieves cholaemic poisoning. Its qualities in biliousness and jaundice are not surpassed by scarcely any agent. In hypochondriasis it exerts a gentle depurating influence and gives relief to the nervous system. This depurative power makes it a good anti-periodic, persistingly relieving hepatic torpor. It is one of those agents that may be used for a long time without wearying the system by its use.

Large doses will prove cathartic, but for this purpose it is best combined with Syrup Juglans Cinerea. For chronic coughs where there is hepatic torpor it may be added to cough syrups with excellent results. It may be added to alteratives especially in torpid conditions of the digestive tract.

In dyspepsia it is a tonic to the gastric membrane, but should be given in small quantities and in frequent doses. In dropsy it is best combined with Apocynum Androsaemifolium or with some diuretic as Triticum.

In rheumatism with suitable agents it is a favourite. But it must be remembered that the excellency of this agent lies in its gentle persistency and not in its excessive action.

F. E. Euonymus Atrop.                      oz. i

Syr. Juglans Cin.                              q. s. oz. iv

Sig. Teaspoonful morning and evening or evening only for the relief of habitual constipation.

F. E. Euonymus Atrop.	dr. v
" Leptandra Virgo	dr. ii
Podophyllin	grs. iii
Syr. Zingiberis	q. s. oz. vi

This is a stimulating hepatic and may be used in teaspoonful doses once to three times a day.

#### EUPATORIUM ALTERNIFOLIUM.

False Boneset.

This plant grows on dry hillsides. The leaves are lighter coloured than the true Boneset, but the flowers are very similar. The leaves have the same shape, but are loose around the stem, and gummy to the touch.

Dr. F. G. Hoener says he has employed this for many years with good success in typhoid and typhus fevers especially where there was much tympanitis, also in typhoid pneumonia and meningitis. He recommends the following for typhoid fever, to be taken in dessertspoonful doses every two or three hours.

Elix. Eupatorium Alter.	oz. ii
" Betonica Lanc.	
" Chionanthus Virgo	aa oz. i

If desirable the Eupatorium Perfoliatum may be used instead of the Alternifolium.

#### EUPATORIUM AROMATICUM.

White Snake-root. E. Agertoides.

The roots are a pleasant stimulating and relaxing diffusive.

In hot infusion it influences a good flow of blood toward the surface, soothes the nervous system and increases expectoration. It relieves the heart and brain from the pressure due to congestion by promoting an outward circulation and securing of an abundant warm perspiration. In ague, congestive chills and bilious fever it sustains the circulation, relieves restlessness and headache. In the treatment of eruptive diseases it is valuable in assisting in bringing out the eruption. It is also useful in typhoid fever, pneumonia, bronchitis and pleuritis. Its being antispasmodic renders it useful in hysteria, dysmenorrhoea and in tardy parturition. Cold preparations give a warming feeling in the stomach, promote appetite, influence the salivary flow and materially increase the renal flow. Combined with Eupatorium Purpureum it is a valuable diuretic. The stimulatory possessed by this agent makes it adapted to languid conditions of the mucous membrane.

#### EUPATORIUM PERFOLIATUM.

Boneset.

This herb in bloom is positively relaxing to the mucous membrane throughout, slightly stimulating, toning and antispasmodic. It is best when it first blooms. It is slow in its action but almost certain to relieve the liver. It is a favourite remedy for the prevention of fever. In large doses it is gently cathartic and gently tones the bowels throughout.

Boil the herb down to a solid extract, and this makes an excellent pill for indigestion. Night sweats yield to this better than to almost anything else even in phthisis. The relaxing properties are to some extent dissipated by the heat, and the stimulatory, antispasmodic and tonic properties are left. I have frequently stopped night sweats in three or four days and in some cases in less time. And they are not likely to return. Give a pill from 1 to 3 hours. For chronic ague it cannot be excelled, but it is good for all fevers. Other medicines may be incorporated into this Extract if needed when it is being formed into pills.

Eupatorin moderately represents this agent and the Fluid Extract is good also.

Whenever needed a large injection of this agent in infusion may be used to cleanse the bowel. It does well. In hot infusion in large doses it is nauseating and may be emetic. Small doses continued at short intervals prove diaphoretic.

I have no doubt that the persistent use of this agent has prevented many a case of typhoid and of remitting fevers, and if not entirely prevented, it has made them very much lighter than they would otherwise have been. Dr. F. G. Hoener recommends the following for enteric fever:

Elix. Eupatorium Perfol.

" Jeffersonia Diph.

" Xanthoxylum Frax.

" Helonias aa. oz. i

M. S. One teaspoonful in as much sweetened water every hour or two according to the conditions present. In hot infusion it is good for a cold especially when the tongue is foul and the liver torpid.

Eupatorium promotes the secretion of bile by the liver also its excretion by the gall cyst. This makes it valuable in many liver complaints, especially in general biliousness. In habitual constipation it is best when incorporated with more or less of Syr Juglans Cinerea, as required.

In skin diseases of hepatic origin it is of much importance if persisted in.

Eupatorium Perfol. 5

Zingiber Off. 1

gives a preparation for infusion far more diffusive and better in some cases of considerable torpor.

F. E. Eupatorium Perfol. oz. i

Syr. Zingiber q. s. oz. iv

may be used for the same purpose.

As a rule this agent is not best when the bowels are too free, except when such is the result of torpor of the liver. In such cases the last mentioned formula will be preferable. This agent is also valuable in some forms of jaundice, both acute and chronic.



BAYBERRY  
(Myrica Cerifera).



WORMWOOD  
(Artemisia Absinthium).



CAMOMILE  
(Anthemis Nobilis).



PEPPERMINT  
(Mentha Piperita).

F. E. Eupatorium Perfol. oz. i

" Zingiber Off. gtta x

Syr. Juglans Cin. q. s. oz. iv

This is a reliable preparation for persistent constipation. It is rather pleasant and may be continued as long as needed.

The Fluid Extract may be added to Cough Syrups when a more free expectoration is needed. In colds, bronchitis and pneumonia, especially if the patient be inclined to biliousness and constipation, a large injection may be given to free the lower bowels. Then give hot infusion per oram till free emesis takes place. Relaxation of the mucous membrane generally will follow with good results.

Subsequently smaller doses may be continued and the mucous membrane will become toned thereby. The producing of a free outward circulation relieves the hyperaemic condition.

If used in the eruptive fevers more stimulation is necessary. *Eupatorium Perfoliatum* is valuable in the treatment of rheumatism especially of the gouty and bilious classes. In the former it cleanses and tones the gastric membrane and in the latter it relieves the liver and gall-cyst.

When you have an irritable condition of the stomach and nervous system with biliousness and constipation, small enemata of this agent may be used with much profit to the stomach and nerves. In whatever manner this agent is given it influences an outward circulation, soothes the mucous membrane and relieves nervous irritation.

Dr. F. G. Hoener recommends the following for cerebro-spinal meningitis:

Elix. <i>Eupatorium Pedol.</i>	oz. iii
" <i>Verbena Off.</i>	oz. iiss
" <i>Cypripedium Pub.</i>	
" <i>Cimicifuga Rac.</i>	
" <i>Leptandra Virgo</i>	aa. oz. i
" <i>Xanthoxylum Frax.</i>	oz. ss

M. S. One dessertspoonful every two hours. Give a hot sponge bath, and if the bowels are constipated use enemata.

The Doctor also says, In the last epidemic (1891) of la grippe, influenza, catarrhal fever or epidemic catarrh as you please to call it, I cured over seven hundred cases with the use of the following prescription:

Elix. <i>Eupatorium Perfol.</i>	
" <i>Eupatorium Aromat.</i>	aa. oz. iiss
" <i>Agrimonia Eup.</i>	
" <i>Verbena Off</i>	
" <i>Leptandra Virg.</i>	oz. i

M. S. One dessert or tablespoonful every two or three hours according to the case. I did not lose a case by heart failure as others claimed in their practice with the use of their agents.

#### EUPATORIUM PURPUREUM.

Gravel Root. Queen of the Meadows.

The root is a relaxing and very mildly stimulating diuretic. It chiefly influences the urinary and genital organs. It relaxes, gently stimulates and tones the pelvic viscera and influences the sympathetic nervous system. In the suppression of the menses it is splendid and always safe. It needs to be given in large quantities, but always leaves a toned condition. It is valuable in uterine and vaginal irritation. It is very soothing to the kidneys and gently toning by the relief of irritation and increasing the flow of urine. In these respects it is one of the most reliable agents. It tones the urinary mucous membrane and enables by the process of relaxation and some stimulation to cast off sediments that may have accumulated upon its surface. Thus it is that after taking some large doses of this agent that the urine will be found full of deposit of one kind or of another.

In typhoid fever it needs to be combined with more stimulating agents, as Juniper or Barosma. When needed it is an excellent addition to alterative compounds. In spermatorrhoea, irritable prostatic troubles, painful or scalding micturition, gonorrhoea, urethral irritation, aching back, and general pelvic weakness it is one of the best agents. It may be thoroughly relied upon.

<i>Eupatorium Purpur.</i>	3
<i>Epigam Rep</i>	2
<i>Mitchella Rep.</i>	1

This makes a good compound for such pelvic troubles.

#### EUPHORBIA PILULIFERA.

Euphorbia.

This herb, known as Catshair by reason of its stems being covered with bristling hairs, has anti-asthmatic and pectoral properties. As a remedy for coughs, bronchial and pulmonary disorders it is highly esteemed, more especially for the prompt relief it affords in paroxysmal asthma.

The infusion of half ounce in one pint of boiling water is taken in tablespoonful doses frequently.

#### EUPHORBIA HETERODOXA.

Alveloz.

The milk juice of this plant applied in cancriod ulceration promptly destroys the affected tissues layer by layer. It produces profuse suppuration and some degree of irritation and dermatitis with but little pain. It acts as an irritant and escharotic and results in the destruction of morbid tissue, which is replaced by healthy granulation. It is of importance in cancriod and syphilitic ulcers, lupus of the nose, epithelioma of the lip, ulcerated epithelioma of the nose, malignant ulceration of the os uteri. In cases that have become thoroughly constitutional there is no cure, but this agent will even then make life somewhat more endurable.

#### EUPHRASIA OFFICINALIS.

Eye-bright.

The leaves are a mild, stimulating, astringent tonic influencing chiefly the mucous membrane, and useful wherever there is too free discharge, whether it be of the bladder, urethra, bowels, or bronchi. In cholera infantum when there is an excessive greenish mucous discharge, in leucorrhoea, gonorrhoea, cystic catarrh, and catarrhal ophthalmia this agent may be used with profit.

In cases of congestions and inflammations of the eyes, especially of any torpid grade, it is valuable as an eye-wash. In nasal catarrh when the discharge is too free it may be used with the douche or atomizer and is a good cleansing remedy. It is an astringent but is not drying and hence is more toning to the membrane.

Euphrasia will be found very useful for the relief of acute inflammation of the eye and for opacity of the cornea and when there is an acrid secretion of either eyes or nose with heat and pain.

Dr. E. G. Anthony advises the application of the following as often as needed on the edges of the eyelids in cases of blepharitis.

Beeswax	dr. xvi
Spermaceti	dr. iv
Liquid Vaseline	dr. ii
F. E. Euphrasia Off.	
" Celastrus Scan.	aa. dr. ii

#### FABIANA IMBRICATA.

Pichi.

South America.

The leaves and twigs of this plant are a relaxing and stimulating tonic, diuretic, and hepatic. I have never used this but in one case of cystic congestion and then with excellent results. The case was one of much severity. The local spasms were terrible.

I had usually relieved such by the use of Eucalyptus, but this was in the night and I had no Eucalyptus. I had an ounce of Fabiana and believed here was a case for a fair trial. I used it in small doses every five or ten minutes.

It was not long till the patient quieted down, and began to pass urine in small quantities, and was soon relieved of both the pain and the congestion. I administered the F. E. of the agent in some hot infusion of Zingiber. It is also valuable in cystic catarrh.

It is soothing and cleansing to the urinary mucous membrane. It favourably influences digestion in dyspepsia, and jaundice, acting upon the stomach and liver.

#### FAGUS FERRUGINA.

Beech.

The leaves are a relaxing, demulcent, slightly stimulating and toning diuretic. They influence the mucous membrane and especially that of the kidneys. They are useful in cystic catarrh, cystitis, nephritis, urethritis, scalding urine. Relaxes, soothes, gently stimulates, gradually increasing the quantity of urine.





## FOENICULUM DULCE.

Fennel Seed.

Europe.

The seeds are a relaxing and stimulating, aromatic, diffusive carminative. They are chiefly used as a vehicle for the administering of bitter tonics and cathartics. The oil may be used for the same general purposes.

Foeniculum Dul.	1
Citrus Aurant Cort.	1/2
Magnes. Carb.	3
Sugar	2

Triturate thoroughly and give in hot water to increase the lacteal fluid.

Foeniculum Dul.	1
Carum Petros. Rad.	1
Glycyrrhiza Glab. Rad.	1/2
Magnes. Carbo	3
Sugar	2

This is another formula used for the same purpose.

## FRAGARIA VESCA.

Strawberry.

The leaves are a pleasant, mild, astringent tonic to the mucous membrane. In diarrhoea and dysentery it is soothing, toning and strengthening but not drying. It is an excellent remedy for children's diarrhoea and intestinal debility. If given in hot infusion they influence the circulation toward the surface and soothe and quiet the nerves.

The berries are a pleasant vegetable acid for convalescence when an acid is proper. An excellent syrup is made by expressing a pint of juice and adding a pound of granulated sugar. This may be used as an acid vehicle in bitter medicines, and the juice unsweetened makes a nice acidulated drink in convalescence from fevers. The berry itself is not admissible until seeded.

## FRASERA CAROLINENSIS.

Columbo American.

The root is a reliable mild, stimulating and slightly astringent tonic. It is moderately bitter but not unpleasantly so. Its chief influence is expended upon the alvine mucous membrane as a tonic. Its best use is for that class of persons who have a weak digestion and are more or less subject to an extra freeness of the bowels. It is an excellent tonic in typhoid fever and hastens convalescence, but other agents had better be used when there is a tendency to constipation. If diarrhoea be troublesome throughout the course of typhoid, Frasiera will give good results.

In gastric ulceration this agent will usually be well received. In gastric catarrh you will find Frasiera one of your most valuable and most reliable agents. It improves the appetite and assists digestion. In combination with uterine and vaginal tonics it extends its influence in that direction and becomes a very excellent addition in cases of uterine and vaginal ulceration, prolapsus uteri and vaginal weakness.

This agent may be used with excellent effect with children having a weak digestion and a chronic diarrhoea. It is also a good wash for aphthous sore mouth.

An infusion forms an excellent vaginal wash for a weak vagina, prolapsus uteri and leucorrhoea. The Fluid Extract of this agent may be used for all the purposes of the agent.



- Frasera Car.
- Leonurus Card.
- Anthemis Nob.
- Cypripedium Pub.                    aa. 4
- Citrus Auran. Cort.                    1
- This forms an agreeable nervine tonic for chlorotic ladies.
- Frasera Car.                                4
- Aletris Far.                                 3
- Hydrastis Can.
- Citrus Auran. Cart.                    aa. 1

The above forms an excellent tonic for weakly ladies with a tendency to miscarriage, and for those having a poor digestion, a degenerate leucorrhoea, general pelvic weakness and more or less menorrhagia.

### FRAXINUS AMERICANA.

White Ash.

The bark of the root and the inner bark of the trunk yields a mild, persistent, stimulating tonic alterant influencing chiefly the digestive apparatus. The mucous membrane and secretions all feel its effects. It influences the liver both in the secretion of bile and in its excretion from the gall cyst. It also influences the peristaltic action of the bowels in defecation. It increases the flow of urine and cleanses and tones the urinary tract. In chronic jaundice and chronic biliousness, chronic hepatic congestions and general hepatic torpor and skin eruptions arising therefrom, it is a reliable stimulant.

With diuretics and hepatics it is valuable in dropsy. It is a slow, steady, cleansing and toning agent to the whole system. Its steady, persistent toning influence makes this agent very valuable in its influence on the kidneys.

The nervous system also feels its influence and it is of much importance in the treatment of insanity. It depurates the whole system and tones and strengthens the nerves, sympathetic, cerebral and spinal. In hysteria, hypochondria, cholaemia and uraemia there are but few medicines that will do better work.

- Fraxinus Amer.                                6
- Aralia His.                                    3
- Gentiana Lut.                                 2
- Taraxacum D. L.                            4
- Xanthoxylum Frax. Cort                1

This forms a preparation excellent in chronic biliousness, jaundice, habitual constipation, hypochondria, anaemia, chlorosis, insanity. Fraxinus Americana forms a good addition to cough syrups for chronic coughs when there are bilious conditions to be met.

#### FRAXINUS SAMBUCIFOLIA.

Black Ash.

This bark is, about the same as the Americana and may be used for the same general purposes. It is said by some to have a slight degree of astringency.

Fraxinus Sam. Cort. Ashes 2  
Acacia Vera  
Valeriana Off. aa. 1

Make into pills to be used night and morning for sleeplessness.

An infusion is said to be good for the expelling of pin worms.

#### FRAXINUS ORNUS.

Flowering Ash, Manna Tree.

This tree yields a light yellowish, sweetish exudation from its stems. When treated with alcohol it is white, sweet, odourless and soluble in hot water.

The manna is a mild laxative, one of the most pleasant agents to be used for the relief of constipation, especially of children. For adults it is best used as a vehicle for some bitter remedy.

When an infant which is nursed by the bottle is chronically constipated, manna may be dissolved and added to the milk.

#### FUCUS VESICULOSUS.

Bladder-wrack.

This plant has a reputation as an antifat, claiming that it diminishes the fat without in any respect injuring the health. It influences the mucous membrane, the serous membrane and the lymphatics. It is a gently stimulating and toning alterant. It is one of those slow, persistent agents that require time to accomplish the desired results. It is stimulating to the absorbents and especially influences the fatty globules. Its best action is observed in individuals having a cold, torpid, clammy skin and loose flabby rolls of fat. It is an agent that gives better results in cases of morbid obesity than in those cases of a healthy character. When using it as an anti-fat it is best to exclude farinaceous foods and beer and prescribe an active life. It is best to begin with small doses and gradually increase to larger doses. Soon the urine becomes more abundant and the stomach is invigorated by its use.

By its influence on the serous membrane it is valuable in cases of gout, rheumatism and dropsy especially for those of plethoric habit.

This agent seems to influence the starches and prevents their being formed into fats. It may be used in form of pill, fluid extract or infusion.

Where there is a tendency to constipation in cases of obesity the following will be found best adapted:

Fucus Ves.  
Juniperus; Fruct.  
Juglans Cin. a,a. in equal parts in infusion.

#### GALBANUM OFFICINALE.

Galbanum. Persia.

The gum has a disagreeable, foetid odour, an acrid, pungent and unpleasant taste. It may be dissolved by trituration in water or vinegar. It much resembles asafoetida. Its use is almost entirely superseded by that agent.

## GALIUM APARINE.

Clivers.

This herb is a soothing, relaxing, diffusive diuretic. It materially increases the urine and relieves irritation. It is valuable in scalding urine, and irritable bladder and urethra; in the inflammatory stage of gonorrhoea it relieves the irritation and soothes the nervous system.

Clivers acts as a solvent of stone in the bladder. In hot infusion this is a diaphoretic and may be used to good advantage in fevers where there is a necessity to favour a good free outward circulation and it relieves the nervous system.

## GALIUM VERUM.

Ladies' Bed-straw. Europe.

The flowers have an agreeable odour, and are antispasmodic. They are useful in nervous affections. The herb is inodorous and a mild, bitter, stimulating astringent, influencing the mucous membrane and the nervous system. The bruised plant has been used to colour cheese yellow. The roots dye red.

It is a valuable tonic in dyspepsia; is diuretic and alterative. A popular remedy in gravel stone and urinary diseases.

## GARRY A FREMONTII.

Fever Bush.

California.

This is an ornamental evergreen shrub growing from five to ten feet high. The leaves excite a profuse saliva, give a sense of gastric and intestinal warmth and impart a persistent bitter taste closely resembling that of Cinchona.

It is a gently stimulating tonic and antiperiodic. It stimulates the circulation and especially so when used in hot infusion. In large doses it creates a cerebral fullness and tinnitus aurium somewhat similar to those symptoms when induced by quinine. It leaves no other unpleasant after-effects.

In dysentery and diarrhoea where these conditions show some signs of malaria this agent will give good results. In hot infusion it will abort many a case of malarial fever, and cases of chronic ague soon yield to it.

## GAULTHERIA PROCUMBENS.

Wintergreen.

The leaves and the oil therefrom are a very diffusive, relaxing and stimulating diuretic, carminative and antiseptic. It will relieve flatulence, colic, and assist digestion and diuresis. A very valuable remedy in the treatment of rheumatism, in combination with other suitable herbal agents.

This agent is chiefly used as a vehicle for alteratives and other compounds. Its taste and odour are both usually agreeable to patients.

Oil	
01. Gaultheria	
" Sassafrasaa.	oz. i
" Eucalyptus	
" Lavender	aa. oz. ss
Carbo Magnes.	oz. ii
Thymol	dr. i

Mix the oils, add the Thymol, shake the preparation to dissolve. Pulverize the Magnesia and add the oils by thorough trituration. Then take

Alcohol	oz. xvi
Aqua	oz. xlvi
Sodium Salicylate	dr. iii

Shake these last till dissolved and add the former ingredients as above combined. This is an excellent formula for the making of listerine. It is an antiseptic wash for wounds, abscesses, and for the maintenance of surgical cleanliness. In chronic conjunctivitis evert the lids and paint the conjunctival surfaces with pure listerine or diluted as the case may require.

There are many formulae for the making of listerine. One combines Thymus, Eucalyptus, Baptisia, Gaultheria, Mentha Arvensis and Benzo-Boracic Acid. Another formula combines Hydrastis, Phytolacca, Salicylic Acid, Boracic Acid, Mentha Arvensis, Thymus and Hamamelis.

#### GENTIANA CATESBAEL.

Sampson's Snakeroot.

This is a stimulating and relaxing tonic influencing chiefly the mucous membrane especially of the alvine canal and of the bronchials. Dr. F. G. Hoener reports this agent of much service in the treatment of dyspepsia, general debility and especially in pneumonia and in typhoid pneumonia.

#### GENTIANA LUTEA.

Gentian. Europe.

The root is an intense and permanent bitter, stimulating tonic. Though intensely bitter, when given in small doses it is usually well received by the stomach, and it promotes appetite and digestion. stimulates the circulation, thoroughly tones the digestive organs, and is especially valuable in languid conditions, and in that of general debility. It is one of the most serviceable of tonics, influencing the s2cernents as well as the mucous membrane. Its action on the liver is that of a cholagogue rather than to influence in the secreting of bile. It influences the portal circulation somewhat similar to Hydrastis. It gives good service in biliousness and jaundice. Its tonic powers make it also a good vermifuge, and enable it to slowly promote peristaltic action. It is also somewhat antiperiodic.

The sensitive stomach will receive it only in minute doses without producing a persistent nausea. In general use it is best combined with milder agents.

Gentiana Lut.	1
Aurantii Cort.	
Coriandrum Sat. Sem.	aa. 2

This infusion forms a good, stimulating and pleasant tonic.

F. E. Gentiana Lut.	4
" Citrus Aur. Cort.	2
" Cardamon Sem.	1

This is also a good tonic.

Gentiana Lut.	4
Cinchona Cali.	8
Citrus Vulg. Cort.	2
Canella Alba	1

This forms a valuable tonic for languid conditions.

F. E. Gentiana Lut..	dr. i
Syr. Zingiber	q. s. oz. iv

The latter is an excellent tonic for a weak stomach with poor digestion, taken just before meals. The following will be found excellent in cases of dyspepsia and flatus.

F. E. Gentiana	3
" Rheum	2
Phosphate Soda	1
Peppermint Water	60

M. Sig. One or two teaspoonfuls a half to one hour before meals.

#### GENTIANA OCHROLEUCA.

American Gentian.

The root of this agent possesses somewhat similar properties to those of the European variety, but is usually better received by the stomach.

It is a positive, bitter, stimulating tonic. It influences the gastric and intestinal mucous membrane and the liver and gall cyst. As a general tonic, especially if combined with alterants, it exerts a good influence upon the glandular system. Where there is a poor appetite, a weakened digestion and hepatic debility or jaundice and biliousness, its tonic power is quite valuable. In very debilitated forms of dropsy but few tonics can be used to better advantage and it is one of the most valuable agents to be added to alterant compounds.

F. E. Gentiana Och.	dr. i
" Euonymous Atr.	dr. ii
" Eupatorium Perf.	dr. iv
Syr. Zingiber	q. s. oz. iv

A good hepatic tonic for agues.

F. E. Gentiana Och.	dr. i
Capsicum	gr. i
Comp. Syr. Rhei	oz. i

This will break a chill.

F. E. Gentiana Och.	dr. ii
Citrus Vulg.	
Coriandrum Sat.	aa. grs. xxx

This made into a syrup is a pleasant tonic.

#### GERANIUM MACULATUM.

Cranes bill.

The root is a pleasant, positive, tonic astringent. It is only moderately drying, but is persistent and effective. It is one of our most excellent astringent agents. Its chief influence is expended upon the alvine mucous membrane throughout. It is applicable in the treatment of sore mouth or gums, mercurial salivation, spongy gums, catharrhal ophthalmia, leucorrhoea, gleet, dysentery, diarrhoea.

It is a good local and constitutional styptic for hemorrhage from the nose, lungs, stomach, bowels, or uterus. the Fluid Extract is a good application to the uvula in case of elongation. Apply frequently. In typhoid fever in case of excessive discharges, whether fecal or sanious, this agent is one of the most valuable. The addition of a little Capsicum will at times be valuable.

Diluted with water or combined with Camp. Syr. Rhei this agent, is one of the most valuable in the treatment of severe cases of cholera infantum. Geranium represents this agent quite well, but is less stimulating and more astringent than the herb itself or its fluid extract.

#### GEUM ALBUM.

Anti-emetic Weed.

This agent was introduced some years ago to the profession by Prof. G. N. Davidson. It is gently stimulating and relaxing, soothing and antispasmodic, influencing the mucous membrane and the sympathetic nervous system.

In gastric irritation it soothes and quiets frequently when all else fails, and especially in the irritation incident to many cases of pregnancy. It is also useful in the irritability of fevers, and in sick-headache. It is valuable in such cases of hemicrania, as are due to reflex action.

#### GEUM URBANUM AND G. VIRGINIARUM.

Water Avens, Avens.

The herb and root form a pleasant, mild, soothing, tonic astringent. It is not drying but soothing to the mucous membrane. It is useful in mild acute and chronic cases of diarrhoea and dysentery. In leucorrhoea and gleet it may be used with good effect both locally and constitutionally.

It may be used for light hemorrhages from any source. Locally it is a good wash for some irritated forms of sore mouth.

This article is not best where there is a tendency to constipation without it be combined with same such agent as Syr. Juglans. Constipation is irritating and diarrhoea is weakening. Avoid bath extremes and seek to induce daily regularity. If there be a tendency to diarrhoea use tonic astringents. Such may prevent debilitated conditions. Geum displays its influence to best advantage as a tonic astringent. It is one of the best agents to be used in cases of cholera infantum. It improves digestion and assists assimilation.

The Fluid Extract is a good preparation, or the powdered root may be boiled in milk.

#### GILLENIA TRIFOLIATA AND G. STIPULACEA.

Indian Physic.

The root is relaxing and stimulating chiefly to the alvine mucous membrane. Given in small doses in hot infusion it gives an outward flow of blood. If this be continued long or it be given in large doses emesis may be the result. This will also help to equalize the circulation.

Cold preparations chiefly influence the alvine canal and produce catharsis.

Its action is similar to Ipecacuaaha.

This agent is of value in colds, in the incipient stage of eruptive diseases where a good circulation is needed, and not unfrequently catharsis. Such a course is not unfrequently essential in the beginning of the treatment of inflammatory rheumatism. It may also prove valuable in dropsy.

#### GLECHOMA HEDERACEA.

Ground Ivy.

The herb gives a disagreeable adour, and possesses a bitterish aromatic taste. It is a gently stimulating tonic to the mucous membrane, influencing especially that of the kidneys and .of the respiratory tubuli. It will be found of use in cases of chronic bronchitis and phthisis where expectoration is too free.

#### GLYCERINA.

This is an odourless and colourless fluid obtained from various oils and fats. It has a sweetish taste, remains fluid and can be mixed with water in any desired proportions. Applied to the skin it softens it, but it gives a stinging sensation lasting a few seconds. This however can be avoided if it be previously mixed with a little water.

Glycerina is an antiseptic, a solvent and a preservative nearly equal to alcohol. For solvent purposes it may be diluted with alcohol to any desired extent. It may be used to partially cover bitter and stimulating medicines, and is frequently used to cover cod liver oil in the forming of an emulsion.

As a solvent more or less diluted with water, it extracts the qualities of drugs and partially covers the excess of bitterness and stimulancy which the same drugs would have, had the menstruum been alcohol.

As a wash in eczemas either alone or in combination it is good.

Tr. Iodine	2
Glycerina	1

To one ounce of this mixture add half an ounce of hyposulphite of soda and apply for barber's itch. Or the following may be used for the same trouble after shaving close:

Prepared Chalk	10
Coal Tar	1 to 4
Glycerina	5
Simple Cerate	50

Or instead of the glycerin and simple cerate, add 20 parts of linseed oil.

Ol. Rosae	gtta. xv
Glycerina	oz. i
Spiritus Myristicae	oz. iii
Ol. Cajuputi	gtta. xx

Apply at night to chapped hands, or the following may be used for the same purpose:

Glycerina	oz. ss
Tr. Benzoin	dr. ss

Aqua Rosae	oz. iiiss
Aqua Camphorae	oz. iv

M. Apply at night.

Or use the following:

Spermaceti	oz. ss
Ol. Almonds	oz. ii
Glycerina	oz. i
White Wax	dr. i

Melt together and stir till cold.

Glycerina	oz. i
Tr. Myrrh	dr. ii
Hydrastia Phos.	grs. iii
Rose Water	q. s. oz. iv

In bad cases of sore mouth apply every three hours.

Glycerina	oz. iv
Alum	oz. iv
Mutton Tallow	
Beeswax	aa. oz. ii
Best Pine Tar	oz. i
Carbolic Acid	dr. ii

Dissolve and then stir till cold. It is excellent for piles.

As a diluted wash for the head it is cleansing to the surface and nutrient to the hair follicles.

Glycerina	oz. iii
Tr. Capsicum	dr. i
F. E. Quercus Alba	dr. iv
Ess. Bergamot	dr. i

This is a pleasant and effective tonic to the hair follicles after fevers or subsequent to cases of syphilis or wherever there is danger of the hair falling off.

Alcohol	oz. i
Glycerina	oz. ii
Tr. Capsicum	dr. ii
F. E. Verbascum	oz. iii
Ess. Bergamot	dr. ii
Rose Water	oz. i

This is also an excellent hair invigorator. But we do not guarantee either of these recipes to cause bald heads to be covered with a luxuriant growth of hair. Soften clean glue oz. xiv in cold water oz. xxviii. Make the solution complete in a water bath. Then add oz. ii glycerina. Apply with a camel's hair brush over burns. Some glycerina diluted may be added. to poultices to keep them moist especially during the night.

F. E. Lobelia Infl.	
Glycerina	aa. equal parts

is a good preparation for the moistening of the wax of the ear and for the relief of partial deafness due to this cause. It is also a soothing and relaxing preparation for caked or inflamed breast. Glycerina, when added to cough syrups promotes expectoration, and when added to cathartics increases their laxative power.

Aqua	32
Glycerina	5
Citric Acid, Lemon Juice or Acetum	1

This is a pleasant and most admirable beverage for the troublesome thirst of diabetes.



## GLYCYRRHIZA GLABRA.

Liquorice.

Southern Europe.

The root is a gently relaxing and stimulating, soothing demulcent, influencing chiefly the mucous membrane and especially that of the bronchi. It soothes and relieves conditions attributable to colds. It is an excellent adjuvant for bitter medicines; even the taste of quinine, cascara, and gentian is somewhat disguised by its use. Pills are frequently coated with it and bitter powders are frequently incorporated into it. If the extract be dissolved and incorporated with lactin or starch and then dried and pulverized, it becomes a splendid vehicle with which to triturate quinine and many other bitter resinoids and stimulants. This is especially excellent where it can be incorporated with medicines that influence the bronchi. The Fluid Extract is also used as a vehicle.

F. E. Glycyrrhiza Glab.	
" Lobelia Inf.	aa. dr. ii
" Aralia Rac.	dr. i
" Sanguinaria Qan.	gtta. xv
Ess. Anise	dr. ss
Syr. Prunus	q. s. oz. iv

This for a dry tickling cough is excellent, as is also the following:

F. E. Eupatorium Perfol.	
" Glycyrrhiza Glab.	aa. dr. ii
" Lobelia Infl.	dr. i
" Zingiber Off.	gtta. v
Syr. Prunus Virgo	q. s. oz. iv

## GNAPHALIUM POLYCEPHALIUM.

Life Everlasting.

The herb is a mild diffusive, relaxant and stimulant to the mucous membrane. It is slightly demulcent and is soothing to the mucous membrane in whatever part its action is most needed, or as directed by other medicines. Locally it is a good cleansing wash for either a sore mouth or a foul and irritable vagina. In the treatment of cystic catarrh it influences the cystic membrane to throw off a large amount of mucous. In bronchial catarrh it allays irritation and relieves the mucous membrane of its extra accumulation. The smoke of this herb as well as an infusion of the plant yields good results in asthma. Give the infusion and between the doses allow the patient to inhale the smoke. The latter influence is exerted directly by inhalation and the former is directed by the vital force as a necessity for bronchial relief. In colds in which there is more or less bronchial congestion, a hot infusion of the following is excellent:

Asclepias Tub.	4
Zingiber	1
Gnaphalium	2

Gnaphalium in hot infusion is mildly diaphoretic; Zingiber gives it power in diaphoresis.

In gastric catarrh it loosens the mucous discharge, but usually needs some tonic to follow.

Dr. F. G. Hoener recommends this agent in pleuro-pneumonia, angina, croupy cough, atelectasis pulmonum, bronchiectasis, bronchial catarrh, capillary bronchitis, laryngitis, mumps.

This agent is rendered still more important when combined with Veroascum.

## GOODYERA PUBESCENS.

Spotted or White Plantain.

Dr. F. G. Hoener recommends this agent as excellent for scrofula and chronic diarrhoea.

## GOSSYPIUM HERBACEUM.

Cotton Root.

The bark of the root is a relaxing and stimulating emmenagogue. In small doses it is antispasmodic and is valuable in dysmenorrhoea where there is usually scantiness of menstrual flow. It is a very improper agent for the use of the pregnant. It may provoke uterine irritation. It will increase labour pains and their intensity, hence it is not a proper agent to be used during parturition, especially if the lady be of a hemorrhagic diathesis. In acting as it does on the uterus it also influences diuresis.

Cotton seed oil has become quite an industry. It may be used as a substitute for the same general purposes as linseed oil. It may be combined with Ulmus as a dressing for burns and irritated sores.

#### GRINDELIA CAMPORUM.

Grindelia.(Grindelia Robusta).

California.

The leaves and flowers of this plant are stimulating and relaxing, especially to the respiratory mucous membrane. It is antispasmodic and expectorant and of service in chronic asthma, chronic bronchitis. dry bronchial coughs, hay asthma. With lobelia it will be found serviceable in whooping cough. In dyspnoea and in all spasmodic phenomena of the respiratory organs it is soothing.

#### GUAIAECUM OFFICINALE.

Lignum Vitoe.

Jamaica, St. Domingo.

The wood comes to us in the form of chips. The centre wood yields a supply of gum-resin which is its active principle.

Guaiaeci resini is a positive stimulating alterative to the general system. The digestive organs all feel its influence and so do the urinary and genital organs. It stimulates the circulation and induces a good capillary flow. It is best suited to languid and depressed conditions of the mucous membrane, and a clogged condition of the secretions, as in secondary syphilis, mercurial cachexia and venereal rheumatism. For such purposes however it is best administered with alterants. For arousing the circulation it is best administered in hot infusion when its influence is felt by the capillary circulation.

Asclepias Tub.	4
Zingiber	1
Guaiaecum	3

This acts quite fully on the circulation and may be used in syphilitic fever and acute rheumatism. Cold forms are usually best for chronic diseases. Guaiacum is not suited to irritated or sensitive conditions. It is too stimulating for such. The resin may be triturated on lactin or sugar and given dry or in capsule. But the resin does not readily combine with other remedies. The chips or raspings are best for the formation of compounds.

Guaiaecum Chips	
Smilax Off	.aa. 2
Rumex Crisp.	
Arctium Sem.	
Taraxacum D. L.	aa. 3

This is an excellent alterative.

Guaiaecum Chips	
Cimicifuga Rac.	
Phytolacca Bac.	aa. 4
Xanthoxylum Cort.	1
Aqua	q. s.

Raise to the boiling point and allow to stand two hours and add sugar q. s. Give three to six times a day for rheumatism.

Gum Guaiacum	oz. i
" Myrrh	
" Camphor	

Oil Capsicum aa. oz. ss

Alcohol oz. xxxii

This forms a pain-killer of some importance.

Gum Guaiacum

Sugar aa. oz. ss

Gum Acacia dr. ii

Triturate well in one pint of Cinnamon Water. This forms a good Emulsion of this agent.

The following will be found to give good results in follicular tonsillitis.

Tr. Guaiacum

Glycerine aa oz. ss

Syrup Simp. oz. ii ss

M. Sig. Teaspoonful every fifteen minutes.

Dr. M. C. Keith recommends the following for catarrh.

Guaiacum Chips oz. viii

Alcohol quart. i

Macerate ten days, then put into a percolater with a half pound of Peppermint Herb and then add three quarts of strong decoction of White Pine Bark made by boiling twelve ounces in five quarts of water. Complete the percolation, add five and one-half pounds of sugar, and strain. Dose, Teaspoonful before meals.

#### HAGENIA ABYSSINICA.

Kousso.

Abyssinia.

The flowers are an anthelmintic and are used to expel the tape worm. It excites a heat, nausea and sometimes vomiting and thirst. It may be given in powder, infusion or fluid extract after fasting a day. Four hours after giving the dose of Kousso give a good large dose of antibilious physic. It usually expels the worm. Occasionally the dose may have to be repeated.

#### HAMAMELIS VIRGININA.

Witch Hazel.

The bark, leaves and twigs are a pleasant, reliable, mild, soothing, diffusive, stimulating, astringent tonic. It chiefly influences the mucous membrane. Locally it is much used in gonorrhoea, and in gleet. The aqueous or distilled extract has become a favourite for this purpose. It is colourless and when used with colourless Hydrastis it makes an excellent injection to soothe the urethra. In the treatment of this disease it gives good results and no urethral contractions follow its use. In leucorrhoea it stimulates, astringes and tones the uterus and vagina.

In dysentery and diarrhoea it may be used alone or in conjunction with Ulmus or other remedies. It is a mild remedy for light cases of hemorrhages, rectal, cystic or uterine. In catarrh of whatever part of the mucous membrane it may be, it is a good remedy. When needed for vaginal or nasal catarrh it may be used locally. In nasal catarrh it may be used with the nasal douche or be incorporated with vaseline and applied with a camel's hair brush. In vaginal catarrh it may be used by injection, suppository, gelatin capsule, tablet, or upon a pledget of cotton. Thus applied it is an excellent remedy for prolapsus uteri. As a rectal injection it gives favourable results in prolapsus ani and in rectal hemorrhages. In purulent ophthalmia it forms a good wash, and also for sore gums or sore mouth.

With a small portion of Capsicum it is excellent in cases of menorrhagia. Though this agent is an astringent it is not drying but leaves the surface soothed and toned. It influences the nerves in the same manner. A strong infusion forms a good wash for scaly and other skin diseases. When there is a tendency to hemorrhage it will give relief of after-pains.

Aqueous Hydrastis dr. iii

" Hamamelis dr. ii

Glycerin	oz. ss
Aqua	q. s. oz. iv

This forms a good injection for an inflammatory stage.

Aqueous Hydrastis	dr. ii
" Hamamelis	dr. iv

Glycerin	oz. ss
Aqua	q. s. oz. iv

This is best adapted for use as an injection for secondary conditions. "Hamamelin" which is a concentration of Witch Hazel is useful in the treatment of piles in the form of suppositories.

Dr. E. G. Anthony prescribes the following for conjunctivitis.

Dist. Hamamelis	
Aqua Camphora	aa oz. ss
Aqua Rosre	oz. i

Mx. Sig. Put two drops into the eye three times daily.

For irritated conditions of the rectum you will find the following a good preparation.

Tr. Hamamelis	6
Lanolin	3
Petrolatum	8

#### HELIANTHELLA TENUIFOLIA.

Helianthella.

Florida.

This is a slender perennial herb bearing showy heads of yellow flowers. It grows about two feet high. The root is an aromatic, relaxing and stimulating antispasmodic, chiefly influencing the mucous membrane, especially of the respiratory organs. In hot infusion it is diaphoretic and influences the circulation and may be profitably used in colds, bronchitis, phthisis and chronic coughs, in which conditions it is a good expectorant. Large doses may nauseate and may prove emetic. Cold preparations are somewhat diuretic.

#### HELIANTHEMUM CANADENSE.

Frostwort.

This plant is a stimulating, astringent, tonic alterative, expending its influence chiefly upon the mucous membrane of the alvine canal, and giving very excellent results in acute and chronic diarrhoea, especially when these are the result of some strumous troubles. It also forms a good wash in either acute or chronic ophthalmia. For internal use as an alterative it is best combined with other agents of more permanent value, as Menispermum or Celastus.

#### HELIANTHUS ANNUUS.

Sunflower.

The seeds have a large quantity of oil which may be obtained freely by compression. It is quite nutrient and somewhat mucilaginous. An infusion is rather pleasant, promotes a free flow of urine, soothes the inflamed and irritable urinary tract. Its influence is largely felt upon the sebaceous glands quite effectually. Added to diffusives and diaphoretics it is valuable in scarlatina and in scaly skin affections. It is claimed for this as for the Eucalyptus Globulus that when planted freely in malarious regions it quite effectually does away with malaria. I have seen several illustrations of this which seemed to favour such a conclusion. It is also frequently planted near house and other drains as a means of air purification.

The root of the Sunflower is a relaxing, moderately stimulating diaphoretic when given in hot infusion, but cold preparations act gently on the kidneys and are somewhat laxative to the bowels. Both hot and cold preparations may be used with great advantage in bilious and other fevers, in the former for its diaphoretic influence and the latter for its influence on the liver, bowels and kidneys. A strong infusion may produce emesis, which may be no real disadvantage.

Dr. F. G. Hoener says an infusion of the seeds is good in dropsy and diarrhoea of children, and also in cardiac dropsy. The alkaloid of these seeds has been tested in South Africa as a preventative of smallpox.

Eight negroes were inoculated with smallpox, (confluent variety) and the disease failed to develop. Is not this better than cow-pox, which causes a large per cent of diseases, especially pulmonary tuberculosis.

#### HEPATICA TRILOBA.

Liverwort.

American.

This plant is a mild stimulating, demulcent, tonic astringent. As a patent medicine it has been used for almost everything; but its main sphere of influence is on the mucous membrane and the hepatic apparatus. It is a mild soothing remedy and is best used in combination with other agents of a more positive character. It forms a good addition to cough syrups, especially when there is present a torpid liver.

Dr. F. G. Hoener recommends it in seminal discharges from gleetish affections and weakness of the spermatic cord and also in nephritis.

#### HIERACIUM VENOSUM.

Blood- Wort.

This plant is a positive, stimulating astringent. In hot infusion it arouses a full capillary circulation. It is moderately styptic and may be used for hemorrhages from whatever source. It is not a drying astringent but is quite tonic. It is of much importance in dysentery and in diarrhoea, in the treatment of catarrh, and as a gargle for sore throat. Locally it is excellent in chronic leucorrhoea and for a relaxed vagina.

#### HUMULUS LUPULUS.

Hops.

The flower and pollen is a stimulating and relaxing nervine of much power. It mildly influences the secretions and relieves the secretions somewhat as a gentle but thorough alterant. In insomnia the hop pillow is no myth. It quiets the nerves and soothes the whole system without any shade of narcotism. As a poultice or fomentation it is superior to most other agents for the relief of inflammatory and irritable conditions, whether they be internal or external.

It makes a good addition to cough syrups for irritable coughs and restlessness.

It is a superior agent in rheumatism and neuralgia. A hot fomentation may be applied to the parts affected, and with other agents taken internally with the best of success.

In hysteria and dysmenorrhoea it will be found of great advantage whether used by itself or in combination with other agents.

In combination with hepatic tonics it will give good results in nervous depression. It is gently laxative to the bowels and holds a relaxing influence over the liver and gall ducts.

The Fluid Extract and Lupulin both moderately represent the drug.

Lupulin	grs. L
Camphor	grs. XL

Make into 10 suppositories and insert one into the vagina at intervals as needed for pruritus and in cases of nymphomania.

#### HYDRANGEA ARBORESCENS.

Hydrangea,

Seven Barks.

The root is an aromatic, stimulating and relaxing diuretic and is very valuable for the relief of calcareous deposits. Its greatest value is due to its power of preventing any gravelly deposits.

Dr. F. G. Hoener says if equally combined with Collinsonia. Canadensis it will dissolve and expel any gravel without pain.

It also gives great relief in severe cases of cystitis. The Doctor also says that if the juice of black Spanish Rottish is injected into the bladder it will dissolve any hard stone or litho-dialysis and prevent the necessity for the dangerous; operation of lithotomy.

Dr. C. F. Lahn, recommends the following for its eliminating and tonic influence on the kidneys.

F. E. Hydrangea	oz. iv
F. E. Corn Silk	

Tr. Virginia Stone Crop	aa oz. i
F. E. Buchu	dr. ss
Aqua Cinnamon ad.	oz. viii

M. Sig. Teaspoonful every four hours.

The following will be found serviceable in diabetes.

Hydrangea Arb.	
Hydrastis Can.	aa
Helonias Dioica	
Celastrus Scan.	aa 2

### HYDRASTIS CANADENSIS.

Golden Seal.

This root is the king of tonics to the mucous membrane. It is a mild, positive and permanent stimulating tonic. Its influence, though primarily given to the mucous membrane, extends to all parts of the body, wherever it may be required by the necessities of the vital force or influenced thither by its combination with other agents. It improves the appetite and assists digestion. In the weak and debilitated stomach, especially if there be nervous disturbances or if the gastric membrane be clogged with congested or catarrhal mucous, and in cases of gastric ulceration, Hydrastis given in small and frequent doses will not unfrequently give relief both to the gastric membrane and to the nervous system.

In combination with Biborate of Soda it makes an excellent wash for children's sore mouth and other forms of sore mouth and sore gums.

Its especial function with the liver is its tonic relief to the portal system. In fact this same class of influence is felt throughout the entire venous system. It is one of the best agents for the sustaining of the venous circulation. Hence its action upon the right or venous side of the heart. Its influence is also felt by the arterial circulation, but this influence is secondary.

Hydrastis may be made to specially influence the stomach, bronchi, bowels, urinary apparatus or genitalia, as it may be influenced by its combination with agents that especially influence anyone of these several departments. With Aralia, Prunus or Comfrey it gives tone and vigour to the respiratory organs; with Juglans it forms a powerful intestinal tonic; with Eupatorium Purpureum or Capsella its tonic influence is felt upon the kidneys; and with such agents as Mitchella it promptly influences the organs of generation.

With gentle astringents it is admirable in the gastric and alvine weakness present in cholera infantum, and in diarrhoea generally. It tones the membrane and enables it to cast off its accumulated mucous. Locally in female troubles it is unexcelled. Kino or Hamamelis may be added as required. In intestinal weakness it may be combined with suitable preparations, and when alteratives are required to be used the influence of Hydrastis is frequently a valuable addition.

It is of great service combined with hepatics for the relief of the portal circulation and for its tonic influence in both the secreting and excreting functions of the liver. Locally the influence of Hydrastis is a very superior one. In erysipelas, ophthalmia, sore mouth, sore throat, leucorrhoea, vaginal and uterine ulceration, eczema, small-pox, eruptive and syphilitic sores it will do good service.

F. E. Hydrastis Can.	1
01. Lini	8

This is one of the best washes in cases of eruptive diseases to relieve the surface of the itching and burning sensation, in small-pox to prevent pitting, and in scarlatina to prevent the scales from being spread around the room.

With Hamamelis and Glycerin it forms an excellent wash in gonorrhoea.

An infusion of Hydrastis may be used daily for uterine ulceration.

Prof. E. G. Anthony uses finely powdered Hydrastis for ulceration of the cornea.

Pul. Hydrastis	dr. iv
" Myrrh	dr. i
" Capsicum	grs. v to x

In cases of syphilis with bad labial ulcers fill these with the above several times a day.

Remember that Hydrastis is an antiseptic as well as a tonic and one of no little power; also a germicide. Locally applied the following is very beneficial for hemorrhoids:

Adeps	oz. ii
Hydrastis	dr. vi
Tannin	dr. ii
Lobelia	dr. i
Zingiber	grs. xv
F. E. Hydrastis	4
" Phytolacca	2
Acid Boric	1
F. E. Mentha Arvensis	
" Thymus Vulgaris	aa. 2
Distilled Ext. Hamamelis	5

This forms an excellent wash for the vagina, throat, rectum as also in cases of hemonhoids, burns, bruises and sunburns.

Hydrastia Sulphate	
Xanthoxylin	aa. 1
Bicarbonate Soda	
Avenin	aa. 2

This preparation gives good results in dyspepsia, heartburn and various forms of colic.

Phos. Hydrastia	grs. xx
Tannin	dr. i
F. E. Cinchona	dr. iv
" Dioscorea Vil.	dr. iv
" Xanthoxylum	dr. ii
Syr. Simplex	q. s. oz. viii

M. S. Use a teaspoonful of this preparation every three to six hours in cases of lead poisoning.

Hydrastis Can.	
Humulus Lup.	aa. equal parts.

Use this freely to stimulate, sustain and tone the spinal nerve.

For washes and injections the aqueous and colourless preparations may be best on account of preventing the staining of the linen, yet for general use they are inferior and do not fully represent Hydrastis Canadensis. Though we do not, get all the strength of this drug by the process of boiling yet we make a very fine hydrastis tonic by this means.

Hydrastis Can.	oz. xvi
Aqua	oz. c
Glycerine	oz. xxviii

Boil slowly to oz. Lxiv strain and bottle.

Hydrastis Can.	
Stillingia	
Chimaphilla Um.	aa. oz. xi
Aqua	oz. c
Glycerine	oz. xxviii

Boil slowly to oz. Lxiv strain and bottle, and you have an excellent tonic alterative, which will be of special service in female troubles.

The following is Dr. J. M. Thurston's eye-wash.

Hydrastia Sulphate	grs. xvi
Boracic Acid	grs. XL
Benzoic Acid	grs. viii
Aqua, Rosae or Distillae	q. s. oz. viii

Mix, filter, bottle and keep well corked.

Hydrastia Sulphate	gr. ss
Mucilage Cydonium	dr. ii
Aqua Rosa	q. s. oz. i

This forms another good eye-wash for inflamed and granulated eyelids, or the following may be used.

Sulphate Hydrastis	grs. ii
Distilled Water	oz. i
Powd. Hydrastis Can.	
" Populus Trem.	aa. oz. iv
" Apocynum And.	oz. iii
" Leptandra Virg.	
" Capsicum	aa. oz. i

This forms Dr. M. C. Keith's corrective powders which will be found excellent in their proper place.

### HYSSOPUS OFFICINALIS.

Hyssop.

This plant is a mild, diffusive, stimulating and relaxing aromatic. In hot infusion it influences the circulation giving a good outward flow of blood. It is useful for the relief of colds, coughs and bronchial congestions generally compounded with other remedies. Inhalation of the steam is a pleasant relief in cases of coryza.

### IBERIS AMARA.

Bitter Candytuft.

This plant is a bitter, stimulating and relaxing antispasmodic. Its chief influence is seen in the controlling of violent heart action and the dysphoria and dizziness incident to enlargement and functional weakness. In bronchitis and asthma, dyspnoea, jaundice and dropsy when these are more or less of cardiac origin. this agent gives good and quick results.

### ILEX AQUIFOLIUM AND I. OPACA.

Holly.

The leaves are a mildly stimulating and relaxing diaphoretic especially when given in hot infusion, and are serviceable in the treatment of colds, feverishness, congestions and inflammations. The leaves have been used in the treatment of rheumatism, the berries in dropsy.

### ILEX PARAGUAENSIS.

Paraguay Tea.

Central South America.

The leaves and twigs are a soothing, gently stimulating antispasmodic nervine. The tree is about the size of an orange tree or a little larger and its leaves remain green throughout the year. It is a favorite beverage among the people of Chili, Bolivia, Peru, and Southern Brazil. From some of these nations it is a large and valuable export. An effort has been made to cultivate this tree but not with great success. It is more productive in its wild state.

It has a pleasant aroma due to the presence of a volatile oil. It is best in hot infusion, and as a beverage it is superior to Chinese tea. It is more diuretic than coffee and fully as stimulating as tea, but is more soothing and, quieting to the nerves than either of them. It allays thirst, relieves hunger, promotes digestion, and stimulates the nervous system producing refreshing sleep. A hot infusion may be used in feverish conditions, in the eruptive fevers, in pleurisy and in insomnia and general nervousness.

### IMPERATORIA OSTRUTHIUM.

Masterwort.

The root, leaves, and seed are a stimulating carminative and antispasmodic.



In hot infusion it influences the circulation, and may be used for the relief of colds, and in dysmenorrhoea. It produces diaphoresis and quiets the nervous system. It may also be used in flatulence and gastric complaints.

#### IMPATIENS PALLIDA AND I. BIFLORA.

Jewel Weed.

This herb is a stimulating and relaxing alterative, aperient and diuretic influencing the mucous membrane and the secretions throughout. It is of some service in jaundice, dropsy, some forms of indigestion, hemorrhoids, tetter, ringworm and other eczema.

The fresh herb bruised and applied to the surface is said to be a cure for rattlesnake bite. The juice has reputation for the removal of warts and corns.

#### INULA HELENIUM.

Elecampane.

The root is a gently stimulating tonic to the mucous membrane. Diaphoretic, diuretic and expectorant, it is warming, strengthening, cleansing, and toning to the gastric, alvine and pulmonary mucous membrane, and is very serviceable in catarrhal conditions of the bronchi, and catarrhal dyspepsia. It is better suitable to chronic than acute cases. It is an excellent addition to cough syrups. In hot infusion its stimulating power gives a good outward circulation.

Elix. Inula Hel.	oz. i
“ Verbascum Thap.	
“ Polygala Senega	aa. oz. iss
Tr. Lobelia	oz i

Dr. F. G. Hoener says administer this every 15 or 20 minutes till relieved, in cases of pseudo-membranous croup.

Helenin is a concentrated preparation from Inula and used for somewhat of the same purposes. It is a stimulating expectorant and will give good service in pulmonary troubles.

#### IPOMAEA PURGA.

Jalap.

The root and resin is a stimulating cathartic in ordinary doses in from three to six hours. Large doses produce more or less griping and watery stools. In combination with Zingiber the griping may to a great extent be prevented. In combination with Zingiber and Senna it forms a good antibilious physic.

F. E. Ipomea Purgu	dr. iii
“ Cassia Acut.	dr. iv
Syr. Zingiber	q. s. oz. iv

M. S. Teaspoonful or less at night to overcome constipation.

#### IRIS VERSICOLOR.

Blue Flag.

The root is a positive alterative. Its influence extends to the whole glandular system and the lymphatics. In hot infusion it stimulates a good free outward circulation. Cold preparations quite freely influence the liver, gall ducts and bowels. Large doses are quite cathartic, and are somewhat nauseating. Its influence is best as an alterative and when combined with other alteratives.

It is a most desirable agent in secondary syphilis, scrofula, skin diseases, mercurial cachexia, dropsy, chronic rheumatism and chronic liver troubles. Its best influence is seen in chronic, torpid conditions. The Fluid Extract may be used for all the general purposes of the root. It gives good results in chronic constipation, and it is said to give good results in goitre.

F. E. Taraxacum D. L.	dr. iii
“ Eryngium Camp.	dr. iv
“ Iris Vels.	dr. ii

Syr. Zingiber q. s. oz. iv  
M. S. Teaspoonful three to five times daily for dropsy.

F. E. Iris Vers.  
" Smilax Off.  
" Rumex Crisp.  
" Arctium Sem. aa. dr. ii  
" Xanthox. Amer. gtta xx  
Syr. Simplex q. s. ox. iv

M. S. Teaspoonful three times daily.

This forms a good alterative for glandular and skin troubles.

Blue Flag is an excellent addition to liver medicines, especially when there is more or less impurity of blood and a sluggishness of the circulation. It is valuable in rheumatism from specific cause. When there are irritable conditions this is not the agent to be used.

F. E. Iris Versi. dr. vi  
" Hydrastis Can. dr. iv  
" Chelone Glab. dr. v  
" Xanthoxylum Amer. dr. ii  
Syr. Simplex ad. oz. xvi

This has been successful in uterine fibroids.

The following will be found useful in cases of blepharoadenitis.

F. E. Iris Vers.  
" Rhamus Pursh. aa. dr. iv  
" Xanthoxylum Frax. dr. i  
" Cimicifuga Rac. dr. i  
Comp. Syr. Rhei et Potas. oz. vi

M. Sig. Teaspoonful before each meal.

Iris Versicolour 1  
Cmp. Syr. Rhei et Pot. 3

forms a serviceable preparation in many cases of sick-headache.

F. E. Iris Vers.  
" Gentiana aa. dr. iv  
Tr. Sanguinaria dr. ii  
Syr. Zingiber q. s. oz. viii

M. Sig. Teaspoonful at 9. 3 and 9. This will be found of service in scrofulous trachoma.

Irisin is the resinoid and does quite well. It stimulates the lymphatics, absorbents, skin and kidneys. It is a powerful hepatic and stimulating alterative in the treatment of scrofula, syphilis, gonorrhoea, dropsy, rheumatism, glandular swellings, eruption of the skin, affections of the liver and spleen, and wherever there is a low condition of the excretives.

## JATEORHIZA CALUMBA.

Calumba.

(Cocculus Palmatus).

The root is a mild, stimulating, bitter tonic, slightly demulcent, influencing chiefly the mucous membrane of the alvine tract. It invigorates the stomach, improves the appetite and assists digestion and assimilation. Soothing to the mucous membrane, it allays the vomiting of pregnancy and other weak and irritable conditions of the stomach and alvine canal.

Calumba is useful in conyalescence from fevers when the avine mucous membrane is left irritated. In combination with some astringent agents it is valuable in dysentery and diarrhoea. With Hydrastis it is toning to the alvine canal. Calumba is one of those agents which by combining with various other agents may be made to influence any particular part of the mucous membrane. Thus its chief influence may be felt on any particular part, on the stomach, the bowels, the urinary tract, or the generative organs.

The accumulation of flatus in the bowels may be relieved by the following :

P. Jateorhiza Cal.

P. Zingiberis

aa., dr. iv

P. Cassia, Acut.

dr. i

Infuse in one pint of boiling water.

Dose :- Wineglassful three or four times a day.

#### JATROPHA MACRORHIZA.

Jicama

Southern States and Northern Mexico.

This plant grows to be about a foot high, and has a short, thick, tuberous Toot, which is a pleasant, comparatively tasteless cathartic. In large doses it may prove drastic and emetic, especially so if the green root be used. These symptoms may be to some extent prevented by the addition of Zingiber or Mentha Piperita. It is both hepatic and cholagogue and need only be used in small doses. It operates in from three to five hours according to the size of dose.

#### JEFFERSONIA DIPHYLLA.

Twin Leaf.

The root is a rather pungent, bitter, stimulating and relaxing alterant. It influences the mucous membrane and in hot infusion it induces a good outward circulation and relieves the secretions and the glandular system in general. It is quite stimulating and relieves a torpid condition of the mucous membrane, and is suitable to catarrhal conditions.

With agents that influence the bronchi it stimulates to expectoration. With agents that influence the uterine discharge it increases the menstrual flow. Its action may thus be also guided toward the kidneys. Twin Leaf a very valuable alterative to be used in the treatment of rheumatism.

Dr. F. G. Hoener says that he has successfully used it for twenty-five years in cases of rheumatic fever, acute rheumatism, cerebral and chronic rheumatism. It is also valuable in mercurial rheumatism, mercurial cachexia and atonic amenorrhoea, and it may be added to cough syrups when the treatment is for scrofulous or consumptive cases.

F. E. Jeffersonia Diph.

" Mitchella Rep.

aa. dr. iii

" Lirodendron Tul.

" Taraxacum D. L.

aa. dr. ii

Syr. Zingiber

q. s. oz. iv

This is an excellent alterative where a female tonic is also indicated.

F. E. Jeffersonia Diph.

" Dicentra Ex.

" Phytolacca Bac.

" Euonymous At.

aa. dr. ii

Syr. Zingiber

q. s. oz. iv

This is an excellent stimulating alterant. An infusion of Jeffersonia. is a good wash for sore mouth and as a wash for the treatment of indolent ulcers.

#### JUGLANS CINEREA.

Butternut, White Walnut.

The inner bark of the root is more active than that of the trunk, but both are used. It yields its properties to boiling water except its astringency, which property is yielded when alcohol is the menstruum used instead of boiling water.

Juglans in an active stimulating hepatic and cathartic. It relieves the portal system, disgorges the liver and cleanses the bowels. For catharsis it usually takes from four to eight hours according to the dose given. Juglans Cinerea tones the entire alvine mucous membrane, but especially that of the lower bowels, influencing peristalsis. The Alcoholic Fluid Extract may profitably be used in diarrhoea and dysentery.

It cleanses the surface and leaves the parts toned and astringed. The Aqueous Extract being free from this astringency may be used to relieve chronic constipation. It is in this sphere one of the most valuable preparations. In relieving the portal circulation it also relieves hemorrhoids and rectal hemorrhages. In dysentery by small doses it cleanses the bowels, relieves the portal circulation, and tones the mucous membrane.

New Milk	qrt. i
Good Vinegar	tablespoonful 2 to 4

Let it come to a boil. Don't let them partake of anything else. This makes a vinegar whey, add Juglans and Zingiber to suit, in cases of diarrhoea.

F. E. Collinsonia Can. may be added to Syr. Juglans in the treatment of hemorrhoids and is very valuable in the treatment of rectal hemorrhages.

Solid Extract, Juglans Cin.	grs. iii
P. Capsicum	gr. ss
may be given at bed-time for chronic diarrhoea; or give	
F. E. Juglans Cin.	dr. ii
" Cornus Flor.	dr. iv
Tr. Myrrh	dr. i
Syr. Zingiber	q. s. oz. iv

M. S. Teaspoonful at bed-time.

To prepare the Syrup of Juglans gather your bark from the fifth to the twentieth of April in this climate. It is then strongest. Crush or chop fine. Then boil till quite strong and pour off and cover a second and third time to completely exhaust the strength of the drug. Then boil all together and evaporate to three-fourths of equality of one pint per pound of bark. Then for each twelve ounces add alcohol two ounces and sugar four ounces. A small proportion of the Fluid Extract of Zingiber may be added now or when prescribed.

This preparation made as above is a most reliable remedy, and in itself is susceptible of a very wide range of application. In small and frequent doses it may even be used in typhoid fever.

It is well adapted to the treatment of skin eruptions. A tonic to both mucous membrane and dermoid tissue slightly increasing the action of the kidneys, it is one of the most valuable agents in the whole materia medica. It relieves the liver, proves gently cathartic and leaves the bowels soluble and toned. These are qualities that can be accorded to but few agents. By the use of this agent the offices become more or less darkened.

The Alcoholic Fluid Extract may be used in combination with Compo Syr. Rhei in the treatment of diarrhoea and dysentery of either adults or children.

Ess. Mentha Pip.	gtta. ii
F. E. Hydrastis Can.	dr. i
Bicarb. Potas.	dr. ss
Syr. Juglans	q. s. oz. iv

This is an alkaline, tonic, hepatic and cathartic, valuable in chronic constipation and other atonic conditions of the alvine mucous membrane when there is a tendency to gastric acidulation. Juglans Cinerea is a most excellent alterative. The oil may be used as an application to irritable sores.

## JUGLANS NIGRA.

Walnut. Black Walnut.

The leaves are a gently stimulating tonic to the mucous membrane, especially of the generative organs. They also form an excellent fomentation for applying to inflamed and congested surfaces, frozen limbs, or congested lungs.

The bark is used very successfully in catarrh, leucorrhoea, prolapsus uteri, relaxed vagina, etc. The Fluid Extract may be incorporated with Vaseline and used with a brush or atomizer in case of nasal catarrh. A salve made of walnut hulls boiled in cosmoline is a favorite application in cases of eczema rubrum. The oil is excellent in cases of purulent ophthalmia acute and chronic.

It cures quite rapidly and scarcely ever disappoints. It is one of the best agents for application to children who become excoriated from urine. If you get all the black out of the hull of the walnut and use for this purpose it is good. It will smart the eyes but little, and may be used for the same general purposes as the oil.

#### JUNIPERUS COMMUNIS.

Juniper.

The berries are a stimulating diuretic, suitable to torpid conditions of the renal apparatus. It increases the flow of urine and somewhat influences the uterine function in sluggish conditions. In typhoid fever, dropsy, cystic catarrh, renal congestions, but it is not best in irritated conditions except in combination with Eupatorium Purpureum in excess. As a general rule Juniper Berries are given in conjunction with other suitable remedies.

The oil very much resembles the berries in properties and may be used for the same general purposes. With vaseline or glycerine it forms a good wash for irritated surfaces. The Fluid Extract is a good preparation.

F. E. Juniperus Com.	
" Eupatorium Purpur.	aa. oz. ss
Syr. Zingiber.	oz. i
This forms an excellent diuretic.	

#### JUNIPERUS SABINA.

Savine.

The twigs and leaves are a powerful stimulating diuretic and emmenagogue. The pregnant should not use this agent at all. It is too irritating for internal use, but the oil may be incorporated with other ingredients and used upon the surface where a powerful stimulant is required. When used by itself upon the surface of those who are thin skinned it will blister.

#### JUNIPERUS VIRGINIANA.

Red Cedar.

The leaves contain an essential oil which is obtained by distillation. It forms an excellent application for sprains and bruises, painful and swollen joints. Internally, triturated on lactin, it is a stimulating diuretic.

#### KALMIA LATIFOLIA.

Mountain Laurel.

The leaves are a mild stimulating and relaxing alterative especially influencing the glandular system.

F. E. Kalmia Lat.	
" Euonymous Atr.	aa. dr. iii
" Dicentra Ex.	dr. i
" Xanthoxylum Amer.	gtta. xv
" Menispermum Can.	dr. ii
Syr. Simplex	q. s. oz. iv

M. S. Teaspoonful three or four times a day for skin diseases, secondary syphilis, scrofula and glandular swellings. An infusion of Kalmia may be used for rheumatism or other conditions indicating irritation of the serous membrane.

The Fluid Extract is a good preparation and may be used whenever the agent is needed.

#### KRAMERIA TRIANDRA.

Rhatany, Peruvian.

The bark contains a large proportion of tannic acid. The root is a mild, pleasant, soothing, stimulating and diffusive, astringent tonic. Though stimulating it is not irritating to the mucous membrane. It is somewhat drying but not intensely so.

In the treatment of leucorrhoea, prolapsus uteri and vaginal relaxation it is a valuable wash. It is of much service applied to bleeding surfaces, and internally it is valuable for the relief of hemorrhage, whether it be of the gastric, intestinal, uterine or respiratory organs.

Locally it is an excellent application for spongy gums, mercurial sore mouth. It is also of excellent service in the treatment of diarrhoea and in dysentery acute or chronic, and in typhoid fever it is frequently of service.

#### LACTUCA SATIVA.

Garden Lettuce.

This plant is a soothing nervine, whether used as an edible or in the form of an inspissated juice. It is also soothing to the mucous membrane of the gastric and alvine canal. It is pleasant in an irritated or ulcerated stomach and is useful in an irritable dyspepsia.

It is very soothing and quieting to an irritated condition of the nervous system. Insp. Lactuca may be combined with Scutellaria and Lupulin and used with good results, or the following may be used as a nervine of much value.

Insp. Lactuca	
F. E. Humulus	aa. 2 1/2
“ Scutellaria	
" Cypripedium	aa. 5 1/2

#### LAMIUM ALBUM.

Archangel, Blind Nettle.

Europe, Asia, North Africa.

The flowers are a powerful haemostatic. It is of especial importance in the treatment of bronchial hemorrhage, in the coughing of blood, in uterine hemorrhage and in dysentery. In metorrhagia the Fluid Extract of the blossoms may be combined with some aromatic syrup and given every half hour until the hemorrhage ceases. It may then be given every four hours or as required.

#### LARIX AMERICANA.

Tamamc.

The bark is a mild stimulating and relaxing alterative, influencing chiefly the skin and secretions. It is best in acute and inflammatory forms of blood and skin diseases. It is not suitable for the treatment of depressed cases, except in combination with more stimulating agents, as Iris Dicerca or Smilax.

F. E. Larix Amer.	.dr. iii
" Iris Vers.	
" Dicerca Can.	
“ Smilax Ornata	aa. dr. ii
" Xanthoxylum Car.	gtta. xv
Syr. Simplex	q. s. oz. iv

M. S. Teaspoonful from three to six times a day. This is a valuable alterant.

#### LAURUS CAMPHORA ANN CINNAMOMUM CAMPHORA.

Camphor.

The camphor evergreen is native to Japan and Southeastern Asia. The leaves, stems and trunk yield a so-called gum which is put through a principle of purification. It is very volatile and will evaporate if exposed to the air. To obtain it in fine powder it must be triturated on magnesia, lactin or sugar. Camphor is not really a gum, but a concrete oil more or less solidified. It has a penetrating fragrance and a bitter, pungent taste. Camphor is antispasmodic and rather soothing to the nervous system. Aqua Camphora is made by either of the following formulae :

Camphor	dr. ii
Alcohol	gtta. XL
Carb. Magnesia	dr. iv

Or Aqua pts. ii

Camphor dr. ss

Alcohol dr. vi

Shake these till dissolved, and add by trituration, subsequently filter:

Carb. Magnesia dr. iss

Aqua dr. xxvi

One or two grains of Camphor will relieve after-pains, or better, the Aqua, Camphor may be given.

Yet it is not the best thing to be given. Locally it allays muscular soreness.

℞. Olivae 4

Laurus Camph. dissolved 1

Or

Laurus Camph. oz. iiss

Oil Lavender dr. i

Alcohol 45 p. c. oz. xvii

Either of the above formulae is a good application for bruises, sprains or sore muscles.

The following is a soothing liniment:

Laurus Camph. oz. 1

Oil Rosemary

" Origanum aa. dr. i

Alcohol pt. i

Castile Soap oz. iii

Or

Laurus Camph. oz. iiiss

Oil Sassafras

" Cedar

Tr. Guaiacum aa. oz. i

" Capsicum oz. ii

Alcohol pts. iv

Or

Spts. Camphor oz. ii

" Origanum

" Sassafras aa. dr. ii

" Turpentine oz. ss

Or

Spts. Camphor oz. ii

Tr. Capsicum oz. i

" Guaiacum oz. ss

Alcohol oz. iii

Or

Spts. Camphor dr. iv

" Ammonia

Oil Sassafras

Turpentine aa. dr. ii

Oil Cloves dr. i

Apply the following for winter eczema:

Gum Camphor

Oil Origanum

Oil Cloves aa. equal parts in Vaseline.

To assist in stopping the flow of milk apply to the breasts a few times,

Gum Camphor oz. ss

Turpentine oz. iii  
 The ordinary Spirits of Camphor is made of Gum Camphor one ounce to eight ounces of 45 p. c. alcohol. Camphor Ice is made as follows:

	Camphor	oz. ii
	Almond Oil	oz. xvi
Dissolve these and melt together		
	Spermaceti	
	White Wax	aa. dr. i
While cooling add		
	Oil Rosemary	dr. i
	Rose Water	oz. xvi

This is an excellent application.

Camphor inhaled through the nostrils soothes and stimulates the brain and relieves oppression.

Dr. C. B. Riggs recommends the following for toothache:

Tr. Camphor Gum	dr. vi
Oil Sassafras	dr. ii

M. Sig. Bathe the gums frequently and fill the decayed tooth with a pledget of cotton saturated with the above compound. When this fails to relieve the aching allow the dentist to extract the tooth or if possible fill it.

The Tincture of Camphor should be a saturated tincture with absolute alcohol.

Spts. Camphor	1
Aqua Ammonia	2
Kerosene Oil	4

This will be found valuable for sprains.

#### LAVENDULA VERA.

Lavender.

The flowers are a relaxing and stimulating, soothing nervine. It is an antispasmodic and useful in nervous restlessness and the irritation or depression therefrom. It also forms a good adjuvant for the administering of other agents.

The oil may be used for the same general purposes, and is best when triturated on Lactin or Magnesia.

Lavendula Vera	oz. iss
Cinnamonum Cas.	
Zingiber. Off.	
Leonurus Card.	
Pimpinella Anisum	aa. oz. ss

This forms an excellent compound for faintness, palpitation, shock, fright, colic or hysteria. It is best administered in hot water.

Oil Lavender	
" Lemon	aa. dr. vi
" Rosemary	dr. ii
" Cinnamon	gtta., xx
Alcohol 98 percent	qrts. ii

This is a good cologne for the sick room.

Oil Lavender	M. 245
" Rosemary	M. 61
Cassia Cin.	oz. 1 1/3
Cloves	oz. 1/3
Nutmeg	
Red Saunders	aa. oz. 2/3



Or

Oil Lavender	
Nutmeg	
Cinnamon	aa. grs. 300
Oil Rosemary	M. 20
Red Saunders	grs. 600

Either of these formulae make good adjuvants for the administering of bitter medicines.

#### LEONURUS CARDIACA.

Motherwort.

This herb is a pleasant, reliable, diffusive, stimulating and relaxing, antispasmodic nervine. It influences the mucous membrane, especially that of the pelvic organs. A hot infusion promotes a good outward circulation, increases the menstrual flow. It is useful in amenorrhoea and in dysmenorrhoea. when congestion is present, and in hysteria and palpitation when the patient is more or less chlorotic.

Leontin	dr. ii
Elixer Wahoo	
Syr. Pepsin	aa. oz. ii

M. S. One teaspoonful after eating and one before retiring for amenorrhoea.

A cold infusion is a good tonic, improving the appetite, assisting digestion, and is somewhat a tonic diuretic. This is not a proper agent for the pregnant to use, nor for those given to too free menstruation. In case of after-pains when the lochia is quite scanty this agent may be used to advantage.

In anaemic and chlorotic nervousness, palpitation, restlessness and insomnia it is one of those mild agents that may be used to great advantage as well as for the relief of the aching back and pelvis in case of tardy menstruation.

F. E. Leonurus Card.	
" Dioscorea Vil.	aa. dr. iii
" Caulophyllum Thal.	dr. ii
Syr. Zingiberis	q. s. oz. iv

This is a good diffusive antispasmodic in cases of dysmenorrhoea.

F. E. Leonurus Card.	
" Senecio Aur.	
" Mitchella Rep.	aa. dr. iii
Syr. Zingiberis	q. s. oz. iv

This is a good nervine tonic for the chlorotic.

F.E. Leonurus Card.	
" Arctium Lap. Sem.	aa. dr. ss
" Xanthoxylum :Frax.	dr. ss
" Menispermum Can.	dr. ii
Syr. Simplex	q. s. oz. iv

This may be used by the chlorotic who have some scrofulous or other impurity of the blood current.

F. E. Leonurus Card.	dr. iii
Ferri et Pot. Tart.	grs. x
Hydrastia Sulph	gr. ss
F. E. Taraxacum D. L.	dr. iv
Syr. Zingiberis	q. s. oz. iv

This may be used where there is more or less failure of gastric and intestinal digestion. In cases of nervous prostration Scutelaria may be added in small quantities.

#### LEPTANDRA VIRGINICA.

Culver's Root.Black Root.

(Veronica Virginica.)

The root is a mild, slow but persistent relaxing hepatic. It is very slightly stimulating. Its chief influence is exerted upon the liver tubuli rather than upon the gall cyst. It assists in the secretion rather than in the excretion of bile. In fact it seems to exert but little influence in the latter direction without being combined with some suitable agent. Whenever mild, persistent, relaxing hepatic influence is needed this agent is reliable and may be used both internally and externally. But when used externally it should be combined with an equal portion of Capsicum. Thus combined it may be made into an excellent liver pad. Leptandra, Apocynum and Capsicum in equal parts forms a good liver pad. This should be occasionally moistened with the Fluid or Tinctures of the same. Leptandra is quite nauseating to some stomachs in some conditions. In such cases the pad or the application of the Fluid Extracts is an excellent substitute. In acute febrile conditions it is best to combine Leptandra with more stimulating agents, and in jaundice this must always be the case, especially if the gall be somewhat solidified. Preparations of the green root are more cathartic than those of the dry root. As a rule Leptandra is not a cathartic, yet its relaxing influence is felt upon the whole alvine mucous membrane and through this relaxation of the alvine membrane it dislodges viscid mucous and occasional doses are valued for this cleansing cause in cases of diarrhoea and dysentery. When used as a physic large doses must be given. In cholera infantum small doses given once or twice a day will cleanse the alvine canal of viscid mucous and assist in the proper secretion of bile, and indirectly by its relaxing influence may also relieve the gall cyst, and thus create a healthy flow of bile, and a healthy condition of the alvine mucous membrane.

In nearly all febrile conditions it is needed, though it is usually best when combined with some diffusive or cholagogue. If it is to be used alone it is best in acute rather than in chronic cases, when it is a necessity that it be combined with more stimulating agents. In chronic constipation in cases of hepatic failure Leptandra may be used, but is best with agents more stimulating and those more cholagogue.

Leptandrin	dr. sa
Oil Capsicum	gtta. x
Lactin	dr. ii

Trit. Make into twenty-five powders. This is a valuable hepatic.

Leptandrin	
Podophyllin	aa. gr. i
Capsicum	
Apocynin	aa. gr. ss

This may be taken in capsule once or twice a day in cases of torpor or congestion of the liver.

In typhoid fever more or less Capsicum is needed in small and frequent doses with all hepatics.

Leptandra in combination with some alterants will be found valuable in the treatment of skin eruptions.

F. E. Leptandra Virgo	dr. vi
" Hydrastis Can.	dr. ss
" Gentiana Och.	gtta. xv

This is a good hepatic.

F. E. Leptandra Virgo	dr. vi
" Apocynum And.	dr. ss
Syr. Zingiberis	q. s. oz. iv

This will influence both sides of the liver about equally.

F. E. Leptandra Virgo	dr. vi
" Podophyllin	gr. ii
Syr. Zingiberis	q. s. oz. iv

This will favourably influence both secreting and excreting functions of the liver.

F. E. Leptandra Virgo	dr. iii
" Euonymus Atr.	dr. ii
" Taraxacum D. L.	dr. iv
Syr. Zingiberisq. S.	oz. iv

This is a gentle hepatic tonic and forms an excellent base which may be influenced by various other agents.

Leptandrin	grs. 1	1-4
Juglandin		
Euonymin	aa. gr.	3-4
Apocynin		
Sodae Bicarb.	aa gr.	1-16
01. Res. Capsici	gtta.	1-40
01. Mentha Pip.	gtta.	1-20

This forms the famous Stimson Phvsio-Medical Pill, hepatic and cathartic.

Leptandrin	gr. 1
Podophyllin	gr. 1/8
Irisin	gr. 1/4

This forms a good chologogue, hepatic and alterant.

#### LEVISTICUM OFFICINALIS.

Lovage. Rocky Mountains.

This plant grows on elevated grounds and its roots and seed yield a volatile oil, an aromatic, a gently stimulating, warming, antispasmodic. It is esteemed as a cough remedy and it influences the mucous membrane especially of the respiratory tract, and is useful in acute bronchitis, acute catarrh, and in that unpleasant hacking from a tickling in the throat,. It may be combined with other cough remedies as required. It leaves a warming sensation in the stomach and excites the salivary glands. In hot infusion it is a stimulating diaphoretic, antispasmodic to the nervous system, and an expectorant. It may be made into an elixir as an aromatic adjuvant for other medicines. It influences the mucous membrane and circulation generally in the relief of colds, suppressed menstruation and coughs, and as an aromatic adjuvant. Dr. F. G. Hoener reports it successful in flatus, jaundice and gravel.

#### LIATRIS ODOROTISSIMA.

Deer's Tongue.

This is a, stimulating, astringent tonic, influencing chiefly the mucous membrane. It is valuable in the checking of rectal hemorrhages and in dysentery and diarrhoea. In hot infusions it influences the circulation. Its hepatic action is also well marked.

Dr. F. G. Hoener recommends the use of this agent in cases of abscesses of the liver and in miliary consumption.

#### LIATRIS SPICATA.

Button Snake-root.

The root is an aromatic, diffusive, stimulating and relaxing diuretic, increasing the flow of urine and relieving irritation. In hot infusion it influences the circulation, gives a good outward flow of blood, soothes the peripheral nerves and the uterus, and is somewhat diaphoretic. It is a good antispasmodic and may be used to relieve colic, after-pains and dysmenorrhoea, especially where there is a deficient flow.

It hot infusion it is valuable in the fever stage of eruptive diseases. It is quite diffusive and maintains a good capillary circulation. Used locally and internally it is recommended for the elimination of snake virus, and also for weak sores and chancres. In cases of renal debility or renal and cystic congestion it gives favourable results.

#### LILIUM TIGRINUM.

Tiger Lily.

The flowers and leaves are a soothing, gently stimulating and toning agent influencing especially the genito-urinary organs as in uteritis and uteralgia ovaritis and ovaralgia, irritating leucorrhoea, vaginitis, vaginal or uterine prolapsus, pelvic heaviness and uneasiness and general female debility and the nausea of pregnancy and sick headache. As a wash or the powder by sufflation, it gives good results in uterine ulceration and cancer.

## LINDERA BENZOIN.

Spice-bush.

The bark and berries are a mild diffusive, relaxing and stimulating diaphoretic. In hot infusion it may be used for the relief of colds and in the eruptive diseases. In relieving the circulation it also soothes and gently stimulates the nervous system and is valuable in the acute stage of rheumatism, gonorrhoea and syphilis.

## LINUM USITATISSIMUM.

Linseed. Flaxseed.

The seed are an excellent soothing demulcent, stimulating and toning agent to the mucous membrane of the alvine, respiratory and urinary tracts and is valuable for the relief of irritated and inflamed conditions. When needed for the respiratory tract, it relieves irritation and promotes expectoration. In hot infusion it may be used for the relief of recent colds and coughs. For such conditions it is best made in syrup form. When needed for the alvine tract it may be used cold. In dysentery, diarrhoea and cholera infantum it soothes, heals and tones.

When required for the urinary tract it soothes and relieves irritation, but its influence will be more marked when combined with more positive diuretics. After the oil has to a great extent been pressed out of the ground seed, what is left is denominated oil meal. This is frequently used as a poultice. In bronchitis and pneumonia it forms an excellent poultice for the lungs. It may be frequently moistened with Lobelia Verbascum and Capsicum combined as desired. For boils and abscesses it is best combined with Ulmus.

The raw oil is valuable for many purposes. Internally in sufficient doses it will prove cathartic. Combined with pulverized Ulmus it is a most valuable preparation for the covering of burns. I have always had the very best of results with its use. Never allow the surface to become uncovered until thoroughly healed. It will do its work without leaving any marks, no difference how deep the wound, wipe off any pus that may be present and remove dead flesh and then cover again with this preparation. The results of gunpowder accidents I have frequently removed with the same. Of course, nervines, cathartics, hepatics or alteratives may be added as needed by the constitution. An excellent Linseed Tea is made as follows :-

Linseed	
Rock Candy	aa. oz. viii

To which add three lemons pared and sliced. Then add two quarts of boiling water, and cool and strain.

Dr. C. B. Riggs recommends the following (German Liniment) for burns.

Linseed Oil (raw)	
Turpentine	aa. oz. xvi
Sulphuric Acid C. P.	oz. i

Mix the oil and the turpentine thoroughly. Put this mixture into an earthen crock and add the sulphuric acid very slowly, a few drops at a time, then allow to stand twenty-four hours until all the precipitate has formed and pour off and retain the supernatant fluid only. Keep the burned surface wet with this liniment. The surface may be covered with gauze or cheese cloth and thus kept saturated. This forms an antiseptic covering to exclude the air. If desirable some agreeable perfume may be added. The Doctor says this is the best thing for burns that he ever used, and that he has had remarkable results with it, having healed some very extensive burns without, ulceration or scar.

## LIPPIA DULCIS.

Lippia. Cuba, Central America, Columbia.

This is a creeping shrub covered with minute glandular hairs. It blossoms from November till March. The leaves are gathered during the flowering season or shortly after. It has an agreeable sweetish taste and is slightly demulcent. It is a pleasant, prompt, stimulating and relaxing, demulcent alterative. It influences the respiratory mucous membrane and is a valuable expectorant. Large doses may be followed by nausea and vomiting.

Care must be taken to have a fresh article. It contains a volatile oil called Lippiol, the absence of which renders the agent more or less inert. Much heat must not be used in the extracting of its virtues. The Aqueous Extract is devoid of astringency. In hot infusion it relieves colds, loosens catarrhal secretions, increases expectoration and relieves soreness of the throat and is excellent in the treatment of la grippe. It quickly allays an irritating cough, and is very useful in acute and chronic bronchitis, whooping cough, catarrhal fever, catarrhal phthisis and night sweats. It tones the respiratory mucous membrane and cleanses it of excessive mucus.

### LIQUIDAMBER ORIENTALIS.

Storax.

From incisions made in the bark of this Southern tree flows a nearly transparent aromatic balsam. Its volatile oil is more or less evaporated upon drying. This resinous gum is warming and moderately stimulating and relaxing. Used internally in asthma, bronchitis, catarrh, cough, and pulmonary affections. Combined with Olive Oil or Vaseline it forms an ointment for ringworm, scald head, tetter and other irritations of the skin. It rarely fails to cure scabies and is a valuable application for old sores, hemorrhoids and ulcers. Internally it may be used in gleet and other excessive discharges.

The bark is a mildly stimulating agent and may be used freely in gonorrhoea, cystic catarrh, dysentery and diarrhoea.

### LIRIODENDRON TULIPIFERA.

Tulip-Tree.

The inner bark of the trunk and roots is a mild, bitter, aromatic, relaxing and very gently stimulating alterative and nervine. The green bark is much more positive than the dry. This agent influences the mucous membrane, the secretions, the nervous system and the generative organs. It improves the appetite, assists digestion and is somewhat laxative to the bowels. In convalescence it is a mild nervine tonic and is grateful to the stomach.

It is especially soothing and toning to the generative organs, and is a valuable agent to be used in the treatment of nervous irritability, hysteria and the irritations sometimes incident to pregnancy. In influencing the generative system it also influences the urinary membrane and very gently increases the flow of urine.

In combination with such agents as *Aralia Racemosa*, *Symphytum* or *Prunus* it influences the respiratory organs and to cough syrups it adds an excellent nervine influence,

F. E. Liriodendron Tulip.	
" <i>Aralia Rac.</i>	
" <i>Symphytum Off.</i>	
" <i>Inula Hel.</i>	aa. dr. i
Syr. <i>Prunus</i>	q. s. oz. iv
This is a good cough syrup.	
F. E. Liriodendron Tulip	dr. vii
" <i>Hydrastis Can.</i>	dr. ss
Syr. <i>Aurantium Cort.</i>	q. s. oz. iv
This is a good nervine tonic.	
F. E. Liriodendron Tulip	dr. iii
" <i>Caulophyllum Th.</i>	
" <i>Leonurus Card.</i>	
" <i>Viburnum Op.</i>	aa. dr. i
" <i>Sencio Au.</i>	dr. ii
Syr. <i>Zingiberis</i>	q. s. oz. iv
This is useful in dysmenorrhoea.	
F. E. Liriodendron Tulip	oz. ss
" <i>Valeriana Off.</i>	

" Caulophyllum Th.	aa. dr. i
" Xanthoxylum	gtta. x
Tr. Anisum	dr. i

This forms a good nervine tonic, and so is the following:

F. E. Liriadendron Tulip	dr. iv
" Convallaria Maj.	
" Euonymus At.	aa. dr. ii
" Hydrastis Gan.	
" Scutellaria Lat.	aa. dr. ss
Syr. Aurantium Cort	oz. i
" Zingiberis	oz. iv

## LOBELIA INFLATA.

### Lobelia.

The herb and seed are relaxing with a moderate degree of diffusive stimulation. More especially in the seed we find an extractive and volatile oil. It is best gathered when about half ripe, but you will find the plant good at any time of its growth.

Much heat will injure it. To prepare an infusion use a sufficient quantity of boiling water and allow it to stand covered. The seed will not readily yield their properties unless well crushed. To extract the inspissated juice it must be gathered green and heavily pressed. When the herb is put up to dry it should be placed upon its root end so as to prevent losing the seed out of the capsules. When once thoroughly dry it should be packed in a close box; or the better way is to make a Fluid Extract of the fresh herb. For ordinary use, this is strong enough.

Lobelia is a relaxant to the mucous, serous, nervous and muscular structures. It influences the glandular system, the fauces and the respiratory tubuli. It increases the flow of saliva; relaxes, cleanses and tones the mucous membrane throughout. To the fauces it is acrid and to the gastric membrane it is nauseating. If small doses be given at regular intervals it will bring the whole body under its influence, and a condition known as "the alarm" produced. Its influence then is complete on the capillaries, the nerve peripheries, the general circulation, and the muscular and glandular systems. In certain acute conditions it relieves the tension of the circulation, establishes the functions of the skin, relaxes the secretions, and relieves the liver, kidneys and bowels. Lobelia is one of the greatest equalizers of the circulation and gives a full outward flow of blood. Its influence reaches every organ and almost if not quite every tissue of the body, and hence wherever a relaxing influence is needed it will be felt. Medically therefore its range is wide, especially in acute troubles. In influencing the circulation it also influences the nerves, sympathetic, central and spinal.

The muscles thoroughly feel its relaxing power and it becomes one of the best aids in surgery requiring relaxation, especially in dislocations. Lobelia is abused by Physio-Medicalists more by leaving it out of their prescriptions than in any other way. It is of great service in croup, pneumonia, bronchitis, pleuritis, hepatitis, peritonitis, nephritis, phrenitis, otitis, ophthalmia, rheumatism, and in nearly all the forms of fever. In many cases it is best to add some *Asclepias* and *Zingiber*. Such a combination will give quick relief in pulmonary congestions. Given in hot infusion it clears out the lungs wonderfully.

Very weak persons can take emetics when they are needed; even an occasional emetic may be given to consumptives. Emesis is also valuable in puerperal fever in certain conditions. Give it to cleanse and stop, and repeat only as required. Pound the green herb to a pulp and press out the juice into a shallow porcelain vessel and allow to evaporate in the sun to a thick paste and bottle for use. I have heard this plaster recommended as a cure for cancer, but it makes an excellent plaster for swollen joints, sprains, abscesses, boils, etc. In the beginning of typhoid fever an emetic will prove serviceable in cleansing the system and equalizing the circulation.

If necessary you can give the stimulating agents by the stomach, and the lobelia by enema. In typhoid cases it takes but little to produce emesis. In the tardy appearance of the eruption in the eruptive diseases an emetic serves a good purpose.

It equalizes the circulation, opens the pores and gives free vent for the eruption, usually all that there is in the system, and such cases will make good recovery. You will find some jaundiced cases that can retain nothing on the stomach. Give them an enema of Lobelia and the stomach will soon be emptied of an amount of viscid bile and soon be quieted. An emetic has frequently proven valuable in cases of hepatic congestion.

In membranous croup an enema of Lobelia to move the bowels and produce relaxation will be of value. Give a strong tea, of Lobelia per enema and follow with a strong infusion per oram. Follow with some diffusible stimulants and relief will be experienced. The enema may also be used in order to produce emesis in cases of malarial fever if required.

In dislocation give small doses regularly and frequently and apply also locally, and it will be of great value in relaxing the parts so that the dislocation may be the more readily and easily reduced. Locally Lobelia is of great value applied to abscesses or erysipelas. Hydrastis may be added as needed. The oil of Lobelia has less of the stimulating property and is not so likely to produce emesis. To prepare this oil, cover the seed with 98 per cent. alcohol, shake this tincture occasionally, and after being well saturated four or five days, then percolate thoroughly, adding alcohol till the strength is exhausted. Evaporate on a water bath and you have the oil. Then water can be added to the percolator and a strong preparation results, to which some glycerin may be added. This will be an excellent addition to cough syrups. The oil is best for asthma, combined as follows. It seldom fails in hay asthma:

Oil Lobelia Infl.	
Cinchonidia	aa. oz. i
Sugar (granulated)	oz. ii

Dr. G. H. Mayhugh gives the following for asthma:

Oil Lobelia	
Cinchonidia	aa. dr. i
Sacch. Lactin.	oz. ii

M. Trit. Sig. Five to ten grains every one to three hours, until relief is obtained. Then give four times a day till cured.

Dr. F. G. Hoener gives the following for asthma:

Syr. Scillae	
Tr. Lobelia	
F. E. Hepatica Tril.	
Syr. Bidens Bip.	aa. equal parts.

M. S. Take one dessertspoonful every hour or every two hours till relieved.

Oil Lobelia	
" Zingiber	aa. gtt. iii
Caulophyllin	
Cimicifugin	aa. grs. iss

Trit. on Lactin. For hysterical cough give three doses fifteen minutes apart.

Lobelia Infl.	oz. ii
Nepeta Cat.	oz. i
Sanguinaria Can.	dr. ii
Xanthoxylum Frax. Bac.	dr. i

Add one-half pint saturated Tincture of Cypridium. Steep in one and a-half pints of water for three hours. Then strain, press and add two pounds of sugar. This is a serviceable cough syrup for the scrofulous and anaemic.

F. E. Lobelia Infl.	dr. ii
" Cypridium Pub.	dr. iv
Tr. Capsicumdr.	ss
Syr. Simplex	q. s. oz. vi

M. S. Teaspoonful every half hour in the treatment of puerperal convulsions.

In giving Lobelia there will be less relaxation if Capsicum or Hydrastis be added. In cases of gastric irritation give minute doses at regular intervals.

This will allay irritation, prevent emesis, arrest spasmodic conditions and allay sympathetic vomiting. In spasmodic and membranous croup, whooping cough, asthma, occlusion of the gall ducts, strangulated hernia, rigid os uteri, hour-glass contractions and tetanus, Lobelia has no equal.

Emesis is a powerful arrestor of hemorrhages, whether from lungs, uterus or bowels. It casts out impurities and equalizes the circulation. Lobelia is best suited where and when arterial action is strong and when given in asthenic and more or less putrescent, conditions, its continuance usually should be brief, only sufficient to cleanse and then use a more stimulating treatment. Small doses given at regular intervals and continued for some time will bring on that state known as the alarm, in which condition we examine our patient and find him with a good, full, soft, steady pulse; breathing full and gentle; the secretions of the skin increased; the secernents are all relaxed, and the whole system is in a state of relaxation and rest. The patient rallies from such a condition in an hour or so. Usually this time is shortened if some stimulation is given or applied. As a result of such condition the skin will be relaxed, there will be a free discharge of urine, of bile and of faeces. The nerves are quieted, the mucous membrane is freed of much mucous, and in every way the whole system and all of its several parts are more completely under the control of the vital force than they had previously been. In cases of convulsions, Lobelia should be combined with Caulophyllum.

In tetanus it is best, administered by enemata. Give in large doses and give until relaxation occurs, then sustain by appropriate stimulation. In cases of hemorrhage after emesis follow with astringents. With Ulmus it is valuable in ophthalmia as a wash or poultice. In surgery it has no equal where relaxation is needed. It quiets the nerves and prevents the vital force from putting forth as much inflammatory effort. Small enemas may be used to prevent seminal discharges and nocturnal erections. Lobelia is not best in nervous prostration, paralysis, gangrene or shock.

Lobelia Infl. 2

Symplocarpus

Sanguinaria aa. 1

This may be prepared into a Syrup for croup, asthma and nervous coughs.

Lobelia Infl.

Capsicum aa. dr. iv

Cypripedium dr. ii

Com. Tr. Myrrh et Cap. (No. 6) oz. viii

This is Dr. Samuel Thompson's Third Preparation of Lobelia. It is a most valuable preparation. In sluggish cases it arouses the system to dislodge semi-putrescent material, and quickly stimulates and equalizes the circulation. It is a most valuable preparation for sick-headache, some forms of dyspepsia and in the incipency of some forms of apoplexy.

Tincture Lobelia Comp., third preparation, the Physio-Medicalist's sheet anchor, when life hangs in the balance, where effects are required on short notice, the Tincture Lobelia Compo can be relied upon.

Lobelia Third Prep.

Tr. Lobelia Infl.

F. E. Scutellaria Lat.

" Valeriana aa. equal parts.

M.S. Three-fourths teaspoonful in warm water every five minutes in a strong infusion of Cimicifuga. Use this in cases of rattlesnake bite.

Pulv. Lobelia Seed dr. ii

Cider Vinegar pt. i

The vinegar may be added cold and tinctured for a week, or the vinegar may be raised to the boiling point and added, when it is immediately ready for use. This is one of the best preparations for croup, whooping cough and asthma. This preparation is best administered in the form of Acetous Syrup, which is pleasant and very efficient. To make the Syrup fill the bottle two-thirds full of the Tincture and add sugar to fill the bottle. Shake until dissolved. Or half the quantity of sugar may be replaced by an equal bulk of honey. The oil is best administered by being triturated with 16 times its own weight of sugar or lacticin, or the two may be combined in equal parts.



Dr. C. B. Riggs recommends the following compound  
3-grain Lobelia pill :

Powd. Lobelia Infl. Sem.	gr. iss
" Cypripedium Pub.	gr. i
" Capsicum	gr. ss
Extract Boneset	q. s. ad. pil.

Sig. One pill everyone to four hours, as the condition demand. The Doctor says :-This is a most excellent preparation where profound relaxation is desired without emesis. It is excellent in peritonitis, lung and bronchial troubles, especially for bronchial cough and painful conditions in any part of the body.

P. Lobelia. Seed and Tannin in equal parts in Vaseline makes an excellent suppository or may be introduced in rectal capsules for hemorrhoids. Triturate enough Lobelia Inflata in Bicarbonate Soda to form a thin paste and this rubbed well into a sore made by a rusty nail or into other inflamed or poisoned sores has been very successful in the hands of Dr. C. R. Phillips. At first put on a paste of this and then keep the surface moist with Lobelia, Tincture. You will be surprised to see how quickly it will cause pain to cease and cure the wound.

The following is Dr. R. Waide's modified 3rd Preparation of Lobelia which quickly equalizes the circulation and stimulates the nervous system.

Pul. Myrrh	oz. iv
" Xanthoxylum Sem	
" Celery Sem.	aa. oz. ii
" Lobelia Sem.	
" Scutellaria	
" Cypripedium	aa oz. iss
Alcohol 75 p.c.	3 pts.

Dr. F. O. Broady recommends the following hair tonic :

F. E. Lobelia Seed (made by cold process)	dr. vi
"Bayberry Bark	dr. ii
Tinct. Capsicum Fort.	dr. ii
Glycerin	oz. i
Rose Water	q. s. oz. vi

M.Sig. Apply every morning after having first washed the scalp with a good tar soap. A small quantity well rubbed in is sufficient at each application. I have twice restored my own dying and falling hair with six ounces of this, writes Dr. Lyle.

#### LYCOPERSICUM ESCULENTUM.

Tomato

(Solanum Lycopersicum.)

The fruit is a stimulating and soothing tonic alterative to the mucous membrane especially of the mouth, stomach and alvine canal. The fluid extract acts on the mucotis lining of the mouth and other cavities and is excellent in nurse's sore mouth, canker and ulcerated sore mouth. The dose of the fluid extract is from 30 to 60 drops. The fluid extract should be made without heat from the ripe tomatoes. Its alterative influence is felt by the lymphatics when they are swollen and hard and when scrofula is present. It assists in the relief of dyspepsia, constipation, catarrh hemorrhoids, leucorrhoea, spongy gums, decaying teeth.

The tomato is a germicide and a cleanser of the mucous membrane, and may be a means of preventing typhoid fever and diarrhoea. I have noticed one thing peculiar with the use of the tomato by those who have recently used some form of mercury. There may follow some semblance to salivation, but usually a little Hydrastia Phosphate and Glycerin will quickly relieve this.

#### LYCOPODIUM CLAVATUM.

Club Moss.

Switzerland, Germany.

The capsules of this moss contain a very fine powder called Lycopodium which consists of the seeds or spores of the plant. It is exceedingly fine, very light and of a delicate yellow colour, tasteless and inodorous. Lycopodium Clava turn has come into prominence as an internal remedy for use in urinary disorders. It has rendered good service in the treatment of spasmodic retention of urine in children, catarrhal cystitis, and in chronic kidney diseases causing pain in kidneys, ureters, and bladder, and associated with rheumatic symptoms. As a gastric sedative in indigestion, dyspepsia and catarrhal gastritis it will be found efficient. The properties are similar to Aduga Chamaepitys (European Ground Pine) Both are stimulant, diuretic, emmenagogue. With other appropriate herbs they form a good remedy for gout and rheumatism. Useful also in female disorders. May be used by infusion or fluid extract. This powder is a fine absorbent application to excoriated surfaces. It is an excellent baby powder for the preventing or cure of chafing. It may also be used for the covering of burns.

#### LYCOPODIUM COMPLANATUM.

Ground Pine.

American.

Dr. F. G. Hoener says that with this he has cured some very severe cases of erysipelas. He gives it internally and applies it as a wash locally.

#### LYCOPUS EUROPÆUS.

Bitter Archangel, Bitter Bugle Weed.

This is an extremely bitter, stimulating nervine. The herb is a powerful antiperiodic and seems to influence the secretions more and the brain centres less than does quinine. If it could be properly covered by some vehicle it would be a more valuable agent than quinine. Small quantities may be used in large quantities of water as a tonic appetizer.

#### LYCOPUS VIRGINICUS.

Bugle Weed.

The herb is an aromatic, soothing, stimulating, astringent tonic, influencing the mucous membrane. It is valuable in dysentery, diarrhoea, cholera infantum, in typhoid fever, in hemorrhages of the lungs, gums, bowels, kidneys, uterus. In hot infusion it influences the capillaries, soothes arterial excitement, strengthens the venous circulation, relieves gastric, alvine and urethral irritation, equalizes the circulation and soothes the nerves. In combination with Inula, Symphytum or Prunus it forms a good tonic cough syrup where expectoration is quite free. Cold preparations influence the kidneys and give valuable assistance in enuresis, cystitis, nephritis and spermatorrhoea.

F. E. Convallaria Maj.	dr. iv
" Lycopus Virgo	
" Liriodendron	aa. dr. ii
Syr. Aurantium Cort.	q. s. oz. iv

M. S. Teaspoonful three times a day for the relief of ovaritis.

An injection of Lycopus into a fistula is a valuable application. It may also be diluted and used in cases of urethral ulceration. Lycopus is valuable both locally and constitutionally in hemorrhages.

#### MAGNOLIA TRIPETALA.

Magnolia. Umbrella Tree.

The bark of the root and trunk of all these species is a mild aromatic, diffusive, stimulating tonic, influencing the mucous membrane of the alvine and renal tracts. It increases the flow of urine and is a gentle laxative to the bowels. In convalescence it is a gentle tonic, improving digestion, and is of value in convalescence from fevers and rheumatism. It is useful in urethral irritation; is quite soothing to the nervous system and is very sustaining.

## MALLOTUS PHILIPPINENSIS.

Kamala. – India.

This is an evergreen tree of tropical India. The glands and hair of the capsules come to us in the form of a deep red powder, having but little taste, and insoluble in water.

The berries are gathered and rubbed together so as to divest them of this powder, which is a pleasant anthelmintic. With occasional failures this brings away the taenia solium. It causes no colic and needs to be followed by no physic as do other anthelmintics. It is itself rather a brisk physic if given in large doses. It may be given alone or in combination with Male Fern or Koussou in equal parts. An ounce or more of the powder may be given in capsules, in fluid extract or in infusion.

## MALVA SYLVESTRIS AND ROTUNDIFOLIA.

Blue or High Mallow, Low Mallows.

These plants are demulcent tonics to the mucous membrane throughout. It relieves irritation, whether of kidneys, bowels, bladder, or stomach. It is of much importance in dysentery, diarrhoea, nephritis, cystitis, and urethritis. It may be used externally and internally. In poultice it is excellent upon inflamed surfaces, and with such agents as Aralia, Comfrey or Inula it gives valuable assistance to the lungs, over which it may also be applied as a poultice.

## MARRUBIUM VULGARE.

Horehound.

This herb is a gently diffusive, stimulating tonic to the respiratory organs. One of the most popular of herbal pectoral remedies. Exceedingly valuable in coughs, colds and pulmonary affections. In hot infusion it is somewhat diaphoretic, promotes a good outward flow of the circulation and relieves hypneraemic conditions of the lungs, congestions and hoarseness. In combination with Leonurus it relieves the menstrual flow.

Its best influence upon the lungs is in combination with Aralia, Inula and Prunus.

Marrubium decreases the mucous discharge and gives good results in wet catarrh and where expectoration is too free.

## MARSDENIA CONDURANGO.

Condurango.(Gonolobus Condurango.)

Ecuador.

The bark of this climbing vine is a stimulating, toning alterative, valuable in atonic conditions of the gastric membrane; gastric ulceration and chronic catarrhal gastritis. It is best given in infusion as the fluid extract is not miscible with water without precipitation. A wine of Condurango is also prepared.

## MEDEOLA VIRGINICA.

Cucumber Root, Indian Cucumber.

The root is a soothing, gently stimulating diuretic. It increases the urinary flow, cleanses the mucous membrane and soothes and tones the urinary passages. It is serviceable in congestions of the urinary tract and in gonorrhoea. Dr. F. G. Hoener recommends the following as a specific in some severe cases of gonorrhoea:

Medeola Virgo

Agrimonia Eup.

Plantago Major

aa. equal parts.

## MEL.

Honey.

This is the liquid prepared by the apis mellifica from the juice of certain flowers. The best is made from white clover. It is stimulating to the mucous membrane, laxative to the bowels, and an expectorant to the bronchi. With Sage and Boracic Acid it forms a good wash for sore mouth, and it is a good addition to cough syrups.

Tr. Lobelia

oz. xvi

Oil Anise	
" Sassafrass.	gtta. xv
Honey	oz. xii

This forms a good cough syrup, excellent for croup.

Honey exerts a peculiar influence over some forms of ulcers, especially that produced by the removal of cancers. Here it is one of the best dressings. Spread pure honey all over the sore. It heals quick and does well. It does well as a dressing after cleansing the surface on any ulcer. Cleanse with hydrozone and cover with honey.

Pul. Hydrastis	1
Mel	2

Mix and spread on muslin and lay on the lids in chronic ophthalmia.

#### MELALEUCA LEUCADENDRON.

Cajuput.

The oil obtained from the leaves is quite pungent and stimulating. Triturated on sugar it is a powerful and permanent stimulant, quite healing to the stomach, and influences the circulation toward the surface. Its best use is on the surface, where it is intensely stimulating and may be used alone or in combination with other stimulating or relaxing medicines as the case may require. Its use will be beneficial in toothache, neuralgia, rheumatic affections, sprains and bruises.

#### MELISSA OFFICINALIS.

Balm. Lemon Balm.

This herb forms a pleasant beverage for convalescence. It is a strong and soothing, toning nervine. In infusion it is somewhat diaphoretic, carminative, febrifuge, and may be used for the removal of colds, and for the restoration of the menstrual flow stopped by recent cold.

#### MENISPERMUM CANADENSE.

Yellow Parilla.

The root is a slow, bitter, diffusive, permanent, stimulating alterative. It slowly but positively influences the secretions and the skin, and in diseases influencing such it is exceedingly valuable as an alterative. It tones the mucous membrane throughout, assists gastric and intestinal digestion, and slowly relieves the liver and gall ducts.

Controlled by agents that have especial influence upon the respiratory passages it is very valuable in phthisis, in chronic bronchitis, and scrofulous conditions. In the treatment of fevers in strumous persons this agent is one of the best in combination with other suitable agents.

In biliousness, atonic dyspepsia, glandular swellings, scrofulous and mercurial rheumatism, secondary syphilis and indolent ulcers, in combination with such agents as Rumex, Fraxinus, Celastus, Arctium or Phytolacca valuable compounds may be formed.

F. E. Menispermum Can.	
" Arctium Lap.	
" Taraxacum D. L	.aa. equal parts.

This is a good hepatic alterant.

F. E. Menispermum Can.	dr. iii
" Fraxinus Amer.	dr. iv
" Celastrus Scan.	dr. iii
Syr. Zingiberis	q. s. oz. iv

This is a good alterative for skin diseases.

#### MENTHA ARVENSIS.

Japanese Peppermint.

Japan and China.

It is from this plant that we get that useful camphoraceous substance denominated menthol, which as an antiseptic is about equal to thymol. In China and Japan it is considered a specific for headache and is recommended for sciatica and neuralgia. Menthol camphor put into a carious tooth relieves toothache usually at once.

This comes in crystals deposited from the oil on exposure to cold. It is the camphor of peppermint oil. It is only partially soluble in water but melts at 100 degrees Far. and soon volatilizes without decomposition. It will evaporate and disappear at the ordinary temperature of living rooms. It is a camphor and not an oil at such temperature.

Its smell is less pungent than that of peppermint but it has a sharper taste. On the skin it produces a sensation of cold, and yet the temperature may be exalted slightly.

Menthol and Iodoform or Iodide of Potassium combined equally in Vaseline may be used for ringworm or tinea capitis. Menthol may be applied to the head in cases of neuralgia and inhaled for coryza, or combined with albolen it may be atomized. It may be used in this way also in bronchitis, whooping cough, nasal catarrh or asthma. It is a germicide and antiseptic and is valuable in the treatment of la grippe.

It has been said that 1 to 3000 prevents the development of anthrax bacilli and 1 to 2000 destroys the cholera bacilli. A 20 per cent. solution may be used for pruritus ani or pruritus vulva. It may be used for the same purposes when combined with Olive Oil or Vaseline.

Menthol	grs. xxx
Ess. Rosemary or Camp. Spt. Lavender	
Alcohol 45 per cent.	aa. dr. ii

This may be applied to carious teeth.

Menthol	dr. v
Spt. Camphor	
Alcohol	aa. oz. i

This is usually successful in neuralgia, colic and inflamed conditions. Menthol is useful in erysipelas. It circumscribes the eruption, allays pain and itching and lessens its duration.

Menthol	
Alcohol	aa. oz. i
Oil Cinnamon	gtta. xxx

is successful in facial and intercostal neuralgia. Menthol may be triturated on sugar or lactin and given in small doses for the vomiting of pregnancy. It may also be combined with syrup and given in small quantities internally for the same purpose, or it may be inhaled.

Menthol may be dissolved in Olive or Cotton Seed Oil and used over burns. Combined with Sodium Salicylate and Iodide Potassium it will be found useful in rheumatism. Sprayed into the throat it relieves hoarseness, clears the voice and assists in the treatment of laryngitis. Menthol is altogether preferable to the ordinary smelling salts.

Menthol must be tightly corked to prevent rapid volatilization.

Menthol is claimed to be of much value in sunstroke. Thymenol is a good antiseptic preparation of thymol and menthol. It is useful where either of its components are useful.

#### MENTHA PIPERITA.

Peppermint.

This herb is a diffusive, aromatic, stimulating and relaxing antispasmodic nervine and carminative. It is soothing to the stomach and allays vomiting.

Tr. Camp. Myrrh and Capsicum	3
01. Mentha Pip.	1

This will arrest chills in the milder forms of ague even after the person has begun to feel chilly. Give small doses every five minutes in some hot water. This preparation well diluted may also be used for gastralgia and shock.

F. E. Cypripedium Pub.	
" Dioscorea Vil	aa. 20

Ess. Mentha Pip.	1
Syr. Zingiber.	q. s.

This may be used for colic for babies or adults, also for flatulence, gastralgia, enteralgia, cholera morbus, cholera infant urn and chronic diarrhoea. A drop or two of the essence may be added to cathartics and bitter tonics; with the former it prevents griping and nausea and with the latter it partially covers their bitterness.

The oil is more positively stimulating and warming but is less relaxing and diffusive than the herb.

Oil Peppermint	
" Anise	
" Cajuput	
" Cloves	aa. oz. i
Alcohol	oz. iv

This is a stimulating preparation for either internal use or for external application. The application of Essence of Peppermint relieves pruritis. The Oil of Peppermint rubbed upon the surface will quickly relieve the burning pain of herpes zoster. The Essence or Oil combined with Glycerine and sprayed through the room of the consumptive is claimed to destroy the bacillus tuberculosis. If given in small doses to the stomach it will increase the appetite and prevent fermentation.

#### MENTHA PULEGIUM.

Pennyroyal.

This herb is an aromatic, stimulating, and relaxing diaphoretic. It is warming to the stomach and sustaining to the capillary circulation. In hot infusion it is a popular agent for the breaking up of colds, and for the relief of the menstrual flow when influenced by congestion. While a diaphoretic, it is no less an antispasmodic nervine and will be found valuable in dysmenorrhoea in nervous ladies, and is of good service in hysteria.

In hot infusion it will be found valuable in eruptive diseases, and may be given very freely when the eruption is slow in making its appearance. In hot infusion it gives good results in the colic, flatulence, restlessness, peevishness, general nervousness and feverishness of children.

Locally applied a hot fomentation or the local application of steam from an infusion of this agent may be very profitably used to relieve local congestions, whether of head, lungs, stomach, uterus, bladder or kidneys. The oil may be triturated on sugar or lactic acid and used for the same purposes as the herb. Combined with other agents it forms an excellent application for sprains and for rheumatism.

Dr. F. G. Hoener recommends this agent as a specific for sunstroke and for exhaustion from overheat. Give no ice water to drink and place no ice on the head.

#### MENTHA VIRIDIS.

Spearmint.

This herb is a soothing, aromatic, diffusive, relaxing and stimulating diuretic and nervine. It induces free discharges of the watery portion of the urine, relieves flatulence and soothes the nervous system. A weak infusion readily allays nausea and vomiting, the vomiting of pregnancy, and is quieting to the stomach after free emesis.

Mentha Vir.	3
Zingiber	1

forms a good preparation for colic, flatulence and some cases of hysteria.

The oil may be used for the same purposes of the herb. It may be triturated on sugar or lactic acid for internal use.

Oil Mentha Vir.	
" Rosemary	aa. 1
Tr. Lobelia	10

This makes a good application for various aches and pains.

### Oil Mentha Pip.

" Mentha Vir aa. equal parts in Vaseline

forms an excellent application to the nostrils by pencil-brush or by atomization. This protects the mucous membrane, especially when about to be exposed to the cold air. It is very valuable in cases of catarrh. It protects the surface, soothes and heals. It is also excellent in hay asthma.

### MENYANTHES TRIFOLIATA.

Buckbean.

The herb is a mild, stimulating tonic, influencing the secretions and glandular system.

Large doses are somewhat nauseating but are thoroughly hepatic and cholagogue. It also increases the flow of urine. In its way it is valuable as an antiperiodic and an alterative. It cleanses the secretions and relieves the glandular system generally. It will be found useful in scrofula or where there is any impurity in the blood current. It is also quite useful in rheumatism, scurvy, skin diseases, and dropsy, where hepatic, alternative, diuretic and tonic influences are needed to be thoroughly felt.

### MITCHELLA REPENS.

Squaw- Vine.

This herb is a moderately stimulating tonic nervine. Its range of influence is wide and it is one, of our most useful agents. The stomach, bowels, kidneys, uterus, nervous system and circulation all feel its influence. It is valued in all kinds of female weakness, but may be used by males wherever their troubles are similar. In fact, wherever a good tonic is required, not too stimulating but permanent, Mitchellia is in place. It would be rather difficult to misapply Mitchellia.

It tones the stomach and bowels, relieves the aching back and stops uterine cramp pings during gestation. In nervous feebleness, irritability or prostration, whether in males or in females, it is of superior value. It is a most important agent in spermatorrhoea, hysteria, and hypochondria. In leucorrhoea, prolapsus uteri, and dysmenorrhoea and all other female weaknesses it is so highly valued as to be denominated a female tonic. It relieves many an unpleasantness arising during the period of gestation. It may be taken more or less during this whole period with much benefit to the whole pelvic organism and the lady better prepared for parturition. There are few if any agents better adapted to the requirements of this period than Mitchellia.

Mitchella Rep. 9 1-7 or 8

Viburnum Op. 2

Chamaelirium Lut

Caulophyllum Th. aa. 2 2-7 or 2

Each forms an excellent female tonic which will not disappoint you whichever formula you may adopt.

Extract Mitchellia gr. i

Caulophyllin gr. t

Helonin

Viburnin aa. gr. k

Form this into a tablet or put into a capsule and use one or two after each meal and before retiring. If there be any scrofulous or spermatic troubles add Menispermum or Celastrus as required, or use for spermatorroea the following:

Compo Syr. Mitchellia oz. x

or F. E. Chamaelirium Lut. oz i

F. E. Celastrus Scan.

" Uva Ursi aa. dr. iss

" Epigrea Rep. dr. iii

In lung troubles where there is an excessive expectoration the tonic influence of Mitchellia is very favorably felt.

## MOMORDICA BALSAMINA.

Balsam Apple.

Tropical.

This is a Southern annual climbing plant. The fruit is flattened and narrowed at both ends and orange coloured. In the Southern States it is a household remedy for colic pains, cold on the lungs, stomach or bowels. In large doses it is emetic. The ordinary dose of Fluid Extract is one-half to one fluid dram, repeated as needed. Where its influence is needed for the relief of congestions it should be given in hot water,

The fruit crushed or made into an infusion makes a good covering for burns, bruises, cuts, boils, chilblains and hemorrhoids.

## MONARDA PUNCTATA.

Horsemint.

This is a mild, diffusive, stimulating and relaxing antispasmodic nervine and carminative. In hot infusion it influences a good outward circulation and is a diaphoretic, and is useful in the treatment of colds, catarrhal fever and the eruptive fevers. It is soothing to the nervous system and somewhat influences the secretions.

It is warming to the stomach, checks nocturnal emissions, relieves the vomiting of cholera infantum and cholera morbus. The oil is quite fragrant and makes a good addition to liniments when a stimulating, soothing nervine is needed.

## MORUS ALBA, RUBRA AND NIGRA.

Mulberry.

The fruit is refreshing, nutritive and laxative. Its juice is a pleasant and grateful drink to convalescents from fever. The bark of the roots is a mildly stimulating and toning diuretic, and is very serviceable in nephritis and albuminaria. It also influences the liver and the biliary canal and is serviceable in jaundice, enteritis and dropsy from hepatic torpor. It tones the stomach, improves digestion, relieves sore mouth and assists in the removal of liver spots upon the face.

## MUSA SAPIENTUM.

Banana.

The fruit is a pleasant and nourishing food. The root of the banana has given in the hands of some practitioners good results in goitre. I shall report further in some cases now under treatment. It is worth a trial. Dose a teaspoonful of the fluid extract three or four times a day.

## MYRICA CERIFERA.

Bayberry.

The bark is a positive diffusive, stimulating, astringent alterative and tonic. It arouses the circulation, stimulates all the organs, and brings into greater activity all the secretions. It is one of the best agents to be used in the treatment of scrofula and tuberculosis. It more or less prevents the deposit of tubercle. Though astringent it is more solidifying than drying.

In scrofulous diarrhoea, chronic cholera infantum, and goitre it is one of the best agents. Give in large or small doses as required and persist in its use. Its influence on the uterus is very positive. In prolapsus uteri it is splendid, and in parturition it cannot well be excelled. It induces better contractions and when given near the end of the confinement it will anticipate flooding. Should there be excessive lochia it, will assist in stopping the excess. Its influence is also good in excessive menstruation or hemorrhages from other parts of the body and in female weakness. In hot infusion it gradually arouses the circulation and favours an outward flow of blood. A good free perspiration will follow, which will be more abundant if Zingiber be added. It will then be found good in the removal of colds and be serviceable in some acute fevers.

With some persons large doses will induce nausea and vomiting. In connection with Lobelia it is frequently used in producing emesis, which will be very valuable in the treatment of the conditions found in mercurial cachexia, scrofula and secondary syphilis. It is an excellent means of ridding the system of impurities. For emetic purposes it should be given in hot infusion.



In medical history the name of Dr. Samuel Thomson and his Composition, his No.6 and his Third Preparation of Lobelia are for ever united. His Composition is a powerful stimulating astringent preparation of great value in prostrated cases. The following were its components:

Pulv. Myrica Cer.	16
“ Abies Can.	
" Zingiber. Off.	aa. 8
" Capsicum	
“ Cloves	aa.. 1

Composition, the old reliable compound as recommended by Dr. Samuel Thomson and always used in the crude form i.e. powdered state, is now prepared as a reliable :Fluid Extract and also an Essence which can be quickly converted into an infusion by adding hot water to meet the requirements. In many cases it is given in capsule and the hot water drank soon after, thus getting rid of the burning and disagreeable taste.

Dr. S. E. Carey's formula was as follows:

Pulv. Myrica Cer.	32
" Zingiber Off.	
" Asclepias Tub.	aa. 16
" Hydrastis	2
" Capsicum	1

Still another formula has been added:

Pulv. Myrica Cer.	
" Zingiber. Off	
" Asclepias Tub	aa. 32
" Xanthoxylum Frax.	8
" Capsicum	1

Each of these formulae in hot infusion are stimulating diaphoretics and may be selected as the conditions require.

F. E. Myrica Cer.	
" Populus Can.	aa. dr. iv
Tr. Amygdalus Per.	dr. i
Syr. Simplex	q. s. oz. iv

This is somewhat similar to Dr. Samuel Thomson's No.5 and is a valuable soothing, astringent tonic.

Myricin	grs. v
Oil Xanthoxylum	gtta. iii
Hydrastia Phos.	grs. v

This may be triturated on lactin or given in water oz. iv and used three or four times a day for chronic diarrhoea.

Locally Myrica is a good wash for aphthous sore mouth, spongy gums, and old and obstinate sores. Dr. E. Anthony recommends the following as a dentifrice which may be profitably used from one to three times a day.

Powd. Myrica Cer.	
" Myrrha dr. i	
" Carbo Ligni	dr. ii
" Sacch. Alba	oz. i

Myrica, Hydrastis, Myrrh, Eucalyptus and Hamamelis may be compounded as needed and applied in the care of teeth.

Myrica Comp.	2
Trit Oil Lobelia	3 or less

given in hot water will quickly relieve the lungs from the results of cold.

Myrica Comp. in hot water will give good service for frozen feet Or the resulting chilblains; apply for a few times every half-hour. It soon relieves the itching and burning. Our favourite formula for Myrica Compound is as follows:

Powd. Myrica Cer.	oz. 16
" Abies Can.	oz. 4
" Zingiber Jam.	oz. 8
" Asclepias Tub.	oz. 9
" Capsicum	oz. 1
" Xanthoxylum Bark	oz. 2

This powder in appropriate quantities may be made into infusion and used as required or the above may be made into a Glycero-Alcoholic Fluid Extract as follows:

Drugs	oz. 40
Alcohol	oz. 30
Glycerine	oz. 15
Water	oz. 50

Macerate for two weeks. Then percolate 80 oz. adding boiling water as required to complete the quantity. This forms an excellent preparation. If you desire to further continue the percolating process add boiling water to percolate 30 oz. more to which add granulated sugar sufficient to make 40 oz. This last preparation is an excellent Elixir for use by children whenever needed.

Dr. H. A. Hadley prescribes the following very successful treatment in incipient phthisis.

Myrica Comp.  
Lycopus virg.  
Aralia Rac.  
Prunus Virg.  
Amphiachyris Drac.

Compounded to suit the case. He gives the following to break up a cold at its incipiency.

Quinine	grs. ii
Rhubarb	gr. ss
Capsicum	gr. 1/4
Lobelia Sem.	gr. 1/8

M. Put into No. 2 Capsules, and give one every half hour.

Bayberry wax or tallow as it is called is prepared from the berries and is used occasionally in ointments for ringworm, tetter and other sores.

#### MYRISTICA FRAGRANS.

Mace, Nutmeg, Java,

West Indies.

This is a mild aromatic, diffusive stimulant, chiefly used as a vehicle for other agents or as a flavouring for medicinal or cookery purposes.

#### MYROXYLON TOLUIFERA.

Tolu Balsam.

This is a stimulating balsamic especially influencing the respiratory mucous membrane and giving a warming impression throughout. It is chiefly used as an adjuvant in cough compounds and very favourably promotes expectoration.

#### MYRRHIS ODORATA.

Sweet Cicily.

The root has a sweetish taste. By decoction is a mild stimulating and relaxing antispasmodic, influencing the mucous membrane and is valuable in cough syrups as an expectorant. It influences the gastric and intestinal mucous membrane and relieves flatulence, especially if combined with a small portion of Zingiber. The herb in infusion has similar properties.

## NECTANDRA COTO.

Bebeeru. Coto.

South America.

The bark is a stimulating tonic influencing the gastric and intestinal mucous membrane. In hot infusion it stimulates the circulation toward the surface and soothes and strengthens the nerves. It is also somewhat antiperiodic. It may be used to much advantage in the treatment of atonic dyspepsia, general debility, hysteria, neuralgia ague and fevers.

## NEPETA CATARIA.

Catnep.

This herb is an aromatic, relaxing, slightly stimulating, diffusive, diaphoretic and antispasmodic nervine. Though considered a very simple agent it is none the less important in children's colic, restlessness, nervous irritability and fevers.

In hot infusion it influences the circulation, soothes the nervous system and relieves irritation, and under proper conditions it increases both menstrual and renal flows. The addition of Zingiber increases diaphoresis and intensifies all the influences of Nepeta.

Nepeta	5
Mitchella	1

will be found an excellent tonic in some forms of hysteria.

Nepeta	10
Dioscorea	1

forms a compound of superior merit for children's colic.

The inspissated juice of the green herb obtained by pressure and evaporated with but little heat forms an excellent antispasmodic for children's convulsions, hysterical convulsions, restlessness and insomnia from irritation of the nervous system. This process may be continued to the formation of a solid extract and given in the form of pills.

Inspis. Nepeta	dr. vi
Ess. Anise	dr. ss
F. E. Valerian	dr. ii
Syr. Zingiber	q. s. oz. iv

This is suitable for either adults or children as an anti-spasmodic and for nervine purposes.

A strong infusion made of four pounds of the herb reduced to fourteen ounces, and two ounces of alcohol added, makes a very serviceable fluid extract. Locally a hot fomentation may be applied to any inflamed parts, over stomach, abdomen, chest or limbs where relaxation is needed. Over the chest it is excellent for the relief of colds.

There is nothing better for the relief of invagination of the bowels than a strong infusion of nepeta. Use two or three gallons or as much as is needed till relief is accomplished.

The following is Dr. M. C. Keith's croup syrup:

Nepeta Cataria	oz. iii
Asarum Canadense	
Lobelia Leaf	aa oz. ii
Symplocarpus Foetidus	oz. i
Arum Triphyllum	
Sanguinaria Can.	aa oz. ss

Macerate ten days in one pint of alcohol. Percolate with three pints of boiling water. Express the dregs and sweeten.

## NEPETA GLECHOMA OR GLECHOMA HEDERACEA.

Ground Ivy.

This herb is a mildly stimulating, tonic expectorant, chiefly influencing the respiratory organs.

The secernents all more or less feel its influence and this fact renders this agent of much value as an addition to cough syrups, especially with persons who are inclined to be bilious. In hot infusion it influences the circulation toward the surface and soothes and sustains the nervous system.

#### NYMPHAEA ODORATA AND ADVENA.

White and Yellow Pond Lily(Castalia Odorata.)

The roots of these two species differ but little medically, though the white is mostly used. The root is a demulcent and a mild toning astringent. It influences the mucous membrane throughout, toning but not drying. It materially lessens mucous discharges and is useful in diarrhoea, dysentery and cystic catarrh.

Dr. Elder uses the following in diphtheria.

Nymphrea Odorata	2
Myrica Cer.	
Hydrastis Can.	aa 1

In pharyngitis the following will be found very serviceable.

Nymphaea Odorata  
Antibilious Physicin equal parts.

It cleanses the mucous membrane, soothes and allays the inflammation. Locally for leucorrhoea it has few superiors, as also for prolapsus uteri, ulceration of the cervix, relaxed vagina.

It forms a good wash for purulent ophthalmia.

This is not the best agent to be used when there is a tendency to constipation.

It forms a good wash for aphthous sore mouth and for scrofulous sores.

In cases of chafing and excoriations it may be used as a dusting powder.

#### GENOTHERA BIENNIS.

Tree Primrose, Evening Primrose.

The leaves thoroughly influence the mucous membrane throughout and the nervous system. It is a soothing and moderately stimulating agent relieving irritable conditions wherever needed by the vital force. In irritable forms of dyspepsia, irritation of the urethra, the bladder or the bronchi wherever it is needed or wherever influenced by other medicines, its force will be felt for good.

It assists in relieving asthma, spasmodic dyspnea, spasmodic coughs and croupal coughs. It assists in relieving sensitive conditions. It lessens gastric irritation and flatulence, improves the appetite, relieves nausea and vomiting and the nausea of pregnancy. It cleanses and heals and will be found useful in typhoid fever and catarrhal dyspepsia.

It may be used in doses of 20 to 50 gtt. 3 to 5 times a day, it also assists in the relief of hay asthma, angina, hysteria and whooping cough, epilepsy, spinal irritation and neurasthenia.

#### OLEUM EULACHON.

Cod Liver Oil may soon be dethroned from its wonderfully lauded position by eulachon oil obtained from the candle fish-thaleichthys pacifius-which abounds in the rivers of British Columbia. This oil is said to be equally as efficacious in promoting nutrition in scrofulous and tuberculous subjects. Its flavour is less disagreeable than that of cod liver oil and may be administered in the same dose, and under similar conditions. It seems to furnish equally as good results.

#### OLEUM MORRHUAE.

Cod Liver Oil.

This oil is obtained from the fresh liver of the codfish. The pure oil may be given to infants, they do not seem to object to either its taste or smell as do adults. I have given it to many infants and where they are not gone too far with gastric and intestinal indigestion they have done well and from puny infants they have grown to be healthy and fat.

Adults have more acute taste and smell and the oil must usually be fixed up in some way that there is usually more of other things to form an emulsion than there is present of the oil.

With some persons a clove chewed before taking the dose is sufficient to disguise the dose. Some take it in a little wine and some in malt extract. As a rule it is very questionable as to whether much benefit is derived from the use of cod liver oil. I believe proper foods are to be preferred.

#### OLEUM OLIVAE.

Olive Oil.

This oil is nutritious, laxative and cholagogue. It has been successfully used and is highly recommended for relief from gall stones. It increases the fluidity of bile and assists in the excretion of the same.

Olive oil is a superior agent to be used in all forms of poisoning from acids, in fact it comes the nearest to being an antidote for all forms of poisoning. It forms a valuable enema whether it is intended for rectal nutrition or as a rectal laxative. In cases where the stomach will not retain food, olive oil, beef extracts and milk may be used by enemata.

The oil may also serve as a lubricant to the stomach and bowels in cases of mal-nutrition.

As a cathartic for both infant and adult it is more pleasant than Oleum Ricini, gives less griping and is more nutritious but is a less active cathartic.

Make the following into an Emulsion by thorough trituration and give a teaspoonful three times a day to children in case of rickets or malnutrition.

Olive Oil.	dr. iii
Glycerine	dr. iss
Yolk of two eggs.	

#### OLEUM RICINI.

Castor Oil.

The seed yields a fixed oil of rather an unpleasant taste and smell and gives a stickiness in the mouth. Cathartic in from four to five hours it thoroughly cleanses the bowels without giving watery discharges. After catharsis the bowels are toned and left somewhat constipated. In large doses it gripes, but this may usually be avoided by the addition of a drop or two of the Essence of Menthae Piperita.

It is quite serviceable in acute and chronic dysentery and diarrhoea and in cholera infantum. It leaves the bowels soothed and toned. Its taste may be somewhat covered by milk, Essence of Peppermint, the yolk of an egg, sugar, Ulmus or Acacia.

℥i. Ricini	oz. i
Tr. Cardamon comp.	dr. iv
℥i. Gaultheria	gtts. iv
Pul. Acacia	
" Sacch. Alba	aa. dr. ii
Aqua Cinnamon	q. s. oz. iv

This forms an emulsion which disguises the taste of the oil. The following will also disguise it.

Pul. Acacia	dr. iss
℥i. Ricini	oz. iss
" Cinnamon	gtt. v
Vinum	dr. vi
Lacto-peptine	dr. i
Syr. Zingiber	q. s. oz. iv

In cases of dysentery or diarrhoea the following may be given in doses of one teaspoonful after each stool or every three hours.

℥i. Ricini	oz. i
" Anise	dr. i
" Cloves	gtta. iii
Leptandrin	grs. xx
Syr. Simplex	q. s. oz. ii

## OLEUM ROSJE.

Oil of Bases.

This is prepared from several different species growing in Egypt, Persia, India, and Asia Minor. It is obtained by pressure or by distillation.

Oil. Rose	gtta. xx
Carbonate Magnesia	dr. i
Aqua Distillata	oz. viii

Triturate and add water sufficient to make half a gallon or more according to the strength required. This is pleasant for the sick room.

## ONOSMODIUM VIRGINIANUM.

Gravel Root. Gravel Weed.

(Eupatorium Purpureum).

The root is a demulcent, stimulating diuretic. It soothes the mucous membrane but especially influences the renal department, increasing the flow of urine and toning the organs. It is best in torpid and sluggish conditions where the membrane is more or less clogged with mucous. It cleanses, soothes and tones.

## ORIGANUM VULGARE.

Wild Majoram

This plant yields an essential oil powerfully stimulating. Warm infusion of the whole plant, will produce perspiration. It may thus be used to promote the menstrual flow when suppressed by a cold. A useful addition to liniments.

Oil Origanum	2
" Cedar	1
Neat's Foot Oil 1/4	4

This is a soothing and stimulating liniment.

## OXALIS ACETOSELLA.

Wood-Sorrel.

This plant is quite stimulating, somewhat astringent, diuretic and refrigerant. It is said to be of value in catarrh, febrile diseases, hemorrhages and urinary affections. It may be prepared by water infusion or boiled in milk.

By powerful pressure and subsequent exposure to the air a strong extract is made from the application of which as a plaster, wonderful successes are reported in the cure of cancers. The addition of a small portion of pulverized *Ulmus fulva* makes such plaster more soothing and enables the patient to keep the plaster on the cancer a much longer time.

Combined with five times its own bulk of Vaseline it forms a good salve for application to old sores, especially those of scrofulous origin. It cleanses and heals.

## OXYDENDRON ARBOREUM.

Sorrel Tree, Sour TV ood. The Alleghanies.

The leaves and bark of this tree are a, stimulating tonic diuretic, increasing the flow of urine, and is useful in that class of cases where a tonic diuretic is needed.

## PAEONIA OFFICINALIS.

Peony.

The root is a mild relaxing and stimulating antispasmodic nervine. The powdered root in hot infusion may be used for colic, flatus and convulsions of children. Zingiber adds much to its diffusiveness.

## PANAX QUINQUEFOLIUM.

Ginseng.

The root is a mild, aromatic, diffusive, relaxing, tonic nervine.

It soothes and strengthens a weak and irritated stomach, relieves general nervousness, insomnia, light cases of neuralgia, hyperoesthesia and irritable conditions generally. With Aralia and Prunus it assists in nervous pulmonary troubles.

#### PANAX SCHINSENG.

Chinese Gentian.

The root is a diffusive, stimulating tonic to the digestive organs. It relieves pyrosis and flatus, and assists digestion and assimilation. It does good service in wasting diseases, as chlorosis, consumption, etc. High medicinal virtues are ascribed to this drug by the Chinese.

#### PASSIFLORA INCARNATA.

Passion Flower.

This is a reliable relaxing and somewhat stimulating antispasmodic nervine. It relieves excitement of the nervous system, and is of much benefit in spasmodic and neuralgic diseases, insomnia, the delirium of typhoid, the convulsions of children, chorea, dysmenorrhoea, epilepsy, hysteria, la grippe.

It also relieves irritation of the brain centres and quiets the general nervous system. Passiflora will be found serviceable in epilepsy, lessening the frequency and severity of the paroxysms and a large dose given at the right time may occasionally abort a paroxysm. The sleep produced by passiflora is natural, restful and refreshing and hence gives good results in insomnia. It frequently relieves the tonic spasm of meningitis and is of service in tetanus especially if combined with Lobelia. It will also be found very serviceable in the spasms produced by strychnin poisoning. Dose of the Fluid Extract 10-20 drops.

#### PAULINIA SORBILIS.

Guarana.

Brazil.

This is a woody climber, bearing a fruit about the size of a large grape and is nearly filled with one or more nuts about the size of hazel nuts. In the Amazon valley it grows wild, but in the Madiera district it is cultivated and presents somewhat the appearance of a vineyard.

They ripen in December and open. The nuts are then gathered, roasted, shelled, ground, and enough water added to allow it kneaded into doughy rolls about a foot long in which state it comes into market. Fluid Extract U.S.P. of the seed (Dose t dr.) is a nervine tonic and stimulant of repute. It will be found of value in many cases of headache particularly those associated with menstrual derangement.

Dr. C. U. Collins advises the following for quieting the backache and other pains incident to approaching miscarriage.

Sorbilin	dr. i
Cypripedin	scr. i
Lupulin	scr. i

M. Fill capsules No. xx. Give one every three hours.

#### PENTHORUM SEDOIDES.

Virginia Stone Crop.

The plant grows in wet places and along road sides. It is a stimulating tonic alterant chiefly influencing the alvine mucous membrane, and is a suitable agent to be used in depressed conditions. The addition of small portions of Capsicum and Myrrh much increase its value for spraying the throat in weakened conditions of the mucous membrane, and for its constitutional effects upon the glandular structures of the body. Its use leaves the general digestive system in a toned condition.

The undoubted power of this drug deserves careful study. Astringent, laxative and demulcent it, has been employed with much success in the treatment of diarrhoea, cholera infantum, hemorrhoids, & c. Dose of Fluid Extract, :-half to one drachm.

## PENTSTEMON COBAEA.

Kansas and Oklahoma.

The top and leaves are used and are strongest, when the seeds are fully formed. Dr. Chas. Bezanson says of this agent that it belongs to the scrophulariaceae family and that it grows abundantly on the prairies of central Kansas and Oklahoma. Some years ago it was pointed out to him and recommended for breaking chills and as an active cathartic. He has tested it thoroughly and finds it a mild but active cathartic, in his opinion superior to Cascara Sagrada which it much resemble. It also influences the pelvic organs, soothing irritation and greatly builds up the general strength. It is a gentle diuretic relieving irritation and weakness of kidneys and bladder.

Its action upon the liver is equal to Cascara. Water extracts its properties quite fully and the Aqueous Extract may be preserved by the addition of some Alcohol or Alcohol and Glycerine. This is worthy of the attention of the profession.

## PEUMUS BOLDUS.

Boldo.

Chili

Boldo is an evergreen and fragrant tree. Its whitish fruit is aromatic, sweet and is eaten in its native country. Its hard round seeds are sometimes used in making the beads of rosaries. The bark gives a dye material for tanning.

The leaves are a soothing, diffusive, stimulating tonic to the mucous membrane. It is also antiseptic and valuable in atonic dyspepsia, hepatic torpor, biliousness and hepatic congestion. Its influence is also extended to the urinary and genital organs and is useful in cystic catarrh, menorrhagia and nocturnal erections. It improves the appetite, stimulates digestion and tones the general system.

## PHYTOLACCA DECANDRA.

Poke.

The berries are a relaxing and stimulating alterant, influencing the mucous, serous and glandular structures. Cook the berries till they burst and pour off the juice without straining. Then cover the berries again with water and cook thoroughly. Now strain off all the juice and boil down to the consistency of a thick syrup and add the first juice poured off. Bottle for use. It can also be made into a jelly or into a tincture with 30 p. c. alcohol. Either is excellent for rheumatism. It soothes the serous membrane, relieves the glandular system, solidifies the muscles and throws off the excessive amount of internal blubber as a result of fatty degeneration.

In the treatment of scrofula it relieves the glandular system of its impurities and cleanses the blood current, increases the flow of saliva, of urine, of perspiration, and frees the alvine canal. Like most alteratives it is slow but persistent, and some time must be given to participate in the full benefits of this agent. In the early spring the young leaves are frequently used as a popular dish of greens. At their maturity the leaves and stalk have much of the same properties as the root and berries.

The root in its green state is quite acrid and is quite irritating to the mucous membrane, frequently causing a persistent vomiting. A similar result will follow if the green root be bruised and placed upon the surface of an excoriated or ulcerated part. The green root taken in small and frequent doses will frequently relieve rheumatism.

The better way to use this agent is to cut the green root fine and cover with boiling water and allow to boil two or three minutes. This preparation may be given in doses of a teaspoonful to a tablespoonful, with but little if any nausea experienced. Two ounces of alcohol to the pint may be added to keep this preparation.

The dried root is but of little value.

The F. E. Poke Root is a good alterant and if taken internally for some time with external application's of the green root it will relieve many a bony and cartilaginous swelling. It is claimed that it will avert white swelling. It relieves neuralgia, sciatica, lumbago and rheumatism.

In case of threatened mammary abscess this preparation of the root may be used internally and locally in hot fomentation or poultice.



Treat orchitis and ovaritis in the same way, and so with scrofulous abscess, surface inflammation and inflammatory rheumatism, give large doses and frequently to control at once, else it lingers. *Phytolacca* influences all the deep structures when inflamed and all the serous structures. It is a good poultice in case of felon.

The roasted root makes a splendid poultice for inflamed surfaces. It, quickly reduces inflammation and decreases excessive suppuration. The cooking largely dissipates the nauseating tendency so that much more of it can be given than of the green root. But only cook two or three minutes, it is then a better nervine, alterative and laxative.

*Phytolacca* may be combined with many of the alteratives with much profit.

Take *Phytolacca* roots (green), *Verbascum Thapsus* and *Trifolium Pratense* in equal parts, cover with boiling water and simmer two or three minutes, then pour off and cover with water, which simmer to one half the quantity, add the two products and simmer to 14 oz. to each 1 lb. of the crude. Add 4 oz. of sugar to each pint, one dr. of salicylic acid and one ounce of alcohol. Use this for cancer, ophthalmia, scrofula, consumption, rheumatism, and overheat.

F. E. <i>Phytolacca</i> Bac.	dr. v	
“ <i>Verbena</i>		dr. iss
" <i>Xanthox. Frax.</i>		gtts. xv
<i>Salicylate Sodium</i>		dr. i
<i>Syr. Zingiber</i>		q. s. oz. iv

M. S. Teaspoonful every 3 hours for rheumatism.

Dr. F. G. Hoener used the following for acute and chronic rheumatism.

<i>Succus Phytolacca</i> Bac.	oz. i
<i>Elix. Betonica</i> Off.	
" <i>Cimicifuga</i>	aa. oz. iss

Bruise the green root and apply to a bunion.

Dr. H. P. Nelson prescribes the following in the treatment of bronchocele.

F. E. <i>Phytolacca</i> Bac.	dr. iii
" <i>Cascara Sagrada</i>	dr. ii
“ <i>Zingiber</i>	dr. ss
<i>Syr. Simplex</i>	q. s. oz. iv

#### PICEA SUCCINIFERA.

Amber.

Coast of Baltic, Prussia.

This oleo-resin is from alluvial deposits from the conifers found along the sea shore. It yields a pale yellow volatile oil of balsamic odour and of a warm acrid taste. In doses, of from five to ten drops, it is anti-spasmodic, stimulating and relaxing and diuretic. It is chiefly used in liniments in acute rheumatism, but it has been given internally in cases of epilepsy, convulsions, coughs, etc.

#### PICRAENA EXCELSA.

Quassia.

Jamaica.

The wood and bark are an intensely bitter, stimulating tonic, influencing chiefly the digestive organs. In languid conditions and in convalescence it improves the appetite and assists digestion. Very small doses only are required. The Quassia Cup or Bitter Cup is made out of this wood, and water kept in it for a short time will taste quite bitter, and this water drunk before meals is an appetizer and digestant.

<i>Cardamon</i>	oz. ss
<i>Cinnamon</i>	
<i>Picraena</i>	
<i>Raisins</i>	aa. dr. vi

This forms a good tonic preparation.

Quassia by infusion is a reliable anthelmintic.

### PICRAMNIA ANTIDESMA.

Honduras Bark.

(Cascara Amarga) Mexico, Honduras.

The bark is a stimulating alterative of especial value in secondary syphilis, syphiletic tubercules, chronic eczemas, gummy tumours, gonorrhoeal rheumatism, chronic nephritis, chronic nasal catarrh.

Prohibit the use of alcoholics, tobacco and sexual excesses.

This agent seems to eliminate the specific virus by way of the skin and kidneys. It improves the appetite and assists digestion. From 30 to 50 drops may be taken of the Fluid Extract three times daily. Berberis Aquifolium and Xanthoxylum may be added.

This agent influences quite fully the sebaceous glands. The following gives good results in cases of eczema pustulosa.

Cascara Amarga

dr. vi

Berberis Aquifolium

dr. ii

Syr. Simplex

q. s. oz. iv

Sig. Teaspoonful at 9, 3 and 9.

### PIMENTA OFFICINALIS.

Allspice.

The berry is a mild diffusible, stimulating, astringent aromatic. It is chiefly used as a vehicle for cathartics and bitter tonics.

In cholera infantum it is used to good advantage, relieves colic incident to cold and in hot infusion gives a good outward circulation and relieves irritation of the nervous system.

### PIMPINELLA ANISUM.

Aniseed.

The oil from the seed is a pleasant, sweet aromatic, relaxing and stimulating nervine carminative and pectoral. It is mostly used as an adjuvant for the administering of cathartics, bitter and nauseating medicines. It is usefully incorporated in cough remedies. The oil may be triturated with sugar or magnesia and may there be used in powdered form or combined with water.

### PIPER CUBEBA.

Cubebs.

East Indies.

The berries are a prompt, diffusible, stimulating diuretic, influencing the mucous membrane but chiefly that of the urinary organs. In hot infusion it influences the circulation. Their use is not best in acute inflammatory conditions, but in chronic conditions, as gleet and cystic catarrh. This agent is sometimes combined with Copalba for cystic and nephritic congestions, and chronic inflammatory conditions. The oil may be used in doses of three to ten drops on sugar, acacia or magnesia.

### PIPER METHYSTICUM.

Kava Kava.

Hawaii and South Sea Islands.

The roots and tips of the stems are a stimulating and relaxing diuretic, tonic, alterant and nervine. It influences the circulation, increasing the heart's force and is sudorific if given in hot infusion. Cold preparations mostly influence the kidneys and spinal nerves, increasing the salivary secretion and influencing the mucous membrane throughout, but chiefly of the genito-urinary apparatus, and will frequently cure when other remedies fail. 10 to 30 drops of the Fluid Extract may be given in cold water every three hours. In cases of general debility it improves sexual tone and adds general vigour in the process of restoration to health. It increases appetite, improves digestion and stimulates the entire digestive tract and accompanying secretions; and will be found serviceable in the relief of constipation, hemorrhoids, intestinal catarrh, cystic catarrh, painful or difficult urination, nocturnal emissions, dropsy, acute and chronic vaginitis, acute and chronic urethritis, gonorrhoea, gleet, leucorrhoea, indigestion from sexual abuse. The active principle is denominated Methysticin.

## PIPER NIGRUM.

Black Pepper.

East Indies.

This is principally used for seasoning food, yet is a good carminative and gastro-intestinal stimulant. In hot infusion it stimulates the circulation and tends the flow toward the surface. The oil may be used triturated on sugar or lactin. Piperine is a resinoid used for the same general purposes as the oil.

## PLANTAGO CORDATA.

Water Plantain.

The root is a mild, soothing, relaxing and stimulating antispasmodic nervine. It is useful in irritable forms of nervous troubles, hysteria, children's convulsions and spinal irritation. It is gently soothing to the stomach especially of the pregnant. In hot fomentation it is a valuable application to swellings, sprains and bruises.

## PLANTAGO MAJOR.

Plantain.

The roots and leaves are a mild, diffusive, stimulating and relaxing alterant, influencing the entire mucous membrane, but especially that of the urinary tract. The glandular system is thoroughly influenced and it is valuable in cases of scrofula, struma and some, eczemas. It mildly increases the quantity of urine, relieves its scalding, the aching back, cystic catarrh, and internal and external scrofulous swellings.

A fomentation or wash of the plant is useful for sprains, erysipelas, ophthalmia and other surface irritations.

## PLANTAGO VIRGINICA.

The properties of this plant are very similar to those of the P. Cordata.

## PODOPHYLLUM PELTATUM.

Mandrake. (American).

The root when fresh is quite acrid, nauseating and drastic. The dry root produces much less irritation. It influences the salivary glands, mucous membrane, gall ducts, liver and kidneys. It is decidedly a cholagogue and a cathartic in from six to ten hours. Large doses leave an uneasy sensation in the lower bowels which soon influences the entire pelvic organism. It is not a proper agent to use much or frequently with the pregnant.

The crude material and the fluid extract have given way to the resinoid podophyllin, which is now most used. This is a prompt cholagogue and is a most valuable agent in liquefying the gall in the relief of gall stone, for which purpose it is best triturated with sugar one to fifty or given in Syr. Zingiberis, or the ingredients may be given in capsules. Give large doses every few minutes. It will not nauseate nor produce catharsis until the parts become eased and the gall liquefied. The vital force uses it where it is most, needed. Occasional doses must be given to maintain a liquid condition. If this agent is to be used as a cathartic add a little Zingiber but use no sugar.

Other agents will give better results if the mucous membrane is irritated. Podophyllin in small doses is useful in jaundice. There is one trouble with the use of this agent. After you have used it for some time, milder agents seem to have but little effect.

## POLEMONIUM REPTANS.

Greek Valerian, Abscess-Root.

The root is a diffusive, stimulating and relaxing diaphoretic, antiseptic, nervine and alterant. In hot infusion it influences the circulation and gives a prompt flow of blood toward the surface. Thus it also relieves the nerves and the mucous membrane. It is useful in recent colds, pleuritis, tardy exanthems, typhoid restlessness, nervous prostration, dysmenorrhoea, lingering parturition, whooping cough and phthisis.

It acts prominently on the lungs, the stomach and glandular system.

If you can obtain the green herb bruise it and obtain the strength by hot water and evaporation.

Add two ounces of alcohol to the pint to keep it. It is said to relieve of snake virus.

F. E. Aralia Rac. dr. vi  
" Lycopus V. dr. iv  
" Polemowum R. dr. ii  
Syr. Prunus q. s. oz. viii

F. E. Lycopus dr. iv  
Tr. Cimicifuga  
" Lobelia  
F. E. Polemonium aa. dr. ii  
Syr. Prunus q. s. oz. viii

These are both valuable cough syrups.

#### POLYGALA SENEGA.

Senega.

The root is a positive, stimulating alterant, somewhat irritating to the fauces and salivary glands. It is quite general in its influence. In large doses it is emetic. To the respiratory mucous membrane it is a stimulating expectorant, especially if combined with more relaxing and demulcent agents, as Aralia and Glycyrrhiza.

In hot infusion it stimulates to a good capillary flow and leads to diaphoresis. It is useful in tardy eruptions, especially of variola, relieves the nerves and circulation and brings the rash out in good shape. In many cases so much stimulation may not be required. Cold preparations are diuretic and are useful in torpid conditions of the urinary membrane. It is also useful in amenorrhoea, chronic rheumatism, snake virus, mercurial cachexia, secondary syphilis and some eczemas.

#### POLYGONUM AVICULARE.

Knot Grass, (English).

This herb is a mild, diffusive, stimulating and relaxing, antispasmodic nervine. In hot infusion it influences the circulation and is diaphoretic, quite stimulating to the capillaries and increasing the periodic flow, especially if a little Zingiber be added.

Cold preparations are diuretic and relieve the aching back and bladder. For irritable coughs it is a good addition to Aralia, Inula and Prunus.

Due to astringent properties a simple infusion is beneficial in diarrhoea and children's summer complaints.

#### POLYGONUM HYDROPIPER.

Water-Pepper, Smart Weed.

This herb when green is acrid, but is less so when dried. It is a stimulating and relaxing diaphoretic and nervine. In hot infusion it is freely diaphoretic, quite stimulating to the circulation and soothing to the nervous system and is slightly emmenagogue. Cold preparations are diuretic.

In hot infusion it is valuable in recent colds, bronchial and pulmonary congestions, especially if combined with Asclepias and Zingiber.

Syr. Polygonum	oz. ii	Syr. Polygonumoz.	i
" Polemonium	oz. I	" Polemonium	oz. iss
" Aralia Rac.	dr. ill	" Prunus	oz. ii
" Hydrastis	dr. v	" Aralia Rac.	oz. iss

Either of these combinations form a good cough syrup for bronchitis and phthisis.

F. E. Polygonum Hyd.dr. ii  
" Caulophyllum Thal.  
" Glycyrrhiza Glab.  
" Polemonium Rep. aa. dr. i

This may be used for old spasmodic coughs. In amenorrhoea and dysmenorrhoea when arising from congestion, this is one of our best agents. In parturition when the pains are slow, the contractions feeble and the patient fatigued, it stimulates to better contractions and more effectual labour.

In the treatment of swellings, inflammations and congestions, when the green material can be applied in hot fomentation it is one of the very best for peritonitis, pleuritis, hepatitis, cystitis; also for gastric, hepatic, splenic, intestinal, pulmonary, cystic and nephritic congestions.

For swellings of the limbs and joints *Verbascum* may be added in hot *Acetum*. Age soon renders this agent inert. With *Solidago* it is valuable in diphtheria, aphonia, pharyngitis and tonsillitis. *Polygonum* combined with alterants makes them of greater value by adding diffusive stimulation and increased arterial force. An infusion of the fresh herb may be used as a wash for foul ulcers and gangrenous sores. The Fluid Extract may be used for all purposes of the herb when the fresh material cannot be obtained.

#### POLYMNIA UVEDALIA.

Bears/oat. (American).

This is a coarse looking plant from four to ten feet high, growing in moist fertile grounds in the Eastern and Southern States. The leaves are a foot or more in length, and about the same in their greatest width.

The root is a stimulating, tonic alterant to the secretions, mucous and serous membranes and glandular system. It cleanses the mucous surface and increases nutritive activity. It is valuable in enlarged spleen, rheumatism, scrofula, enlarged and tender liver, sore throat, sore chest, inflamed breasts.

F. E. <i>Polymnia Uv.</i>	oz. i
Adeps	oz. ii

This forms an excellent ointment which when applied over enlarged or sore parts greatly assists the internal use of the agent, as in rheumatism, spinal irritation, glandular enlargement, ague cake, inflamed breasts, etc.

#### POLYPODIUM VULGARE.

Polypody.

The root is a soothing, demulcent stimulant, influencing the mucous membrane of the alvine canal and respiratory organs. To the bowels it is laxative and to the bronchi it is an expectorant. It is highly valuable in the treatment of coughs, consumption and chest diseases. A proved tonic in dyspepsia and alterative in skin diseases.

#### POLYTRICHUM JUNIPERINUM.

Hair-Cap Moss.

This plant is a pleasant., prompt, relaxing diuretic, serviceable in dropsy and the suppression of urine in either infant or adult. It very materially increases the urinary flow.

#### POPULUS CANDICANS.

Balsam Poplar, Balm of Gilead.

Gather these buds in the spring before they become expanded. They are a balsamic stimulant influencing the circulation and the mucous membrane throughout. The buds yield an exudation which water dissolves only in part. They may be tinctured in alcohol, which is then evaporated and the residuum triturated on sugar. This is quite stimulating in old coughs and is valuable for debilitated cases. It gives best service with more relaxing agents.

For the kidneys and bladder it should be used only in cases needing much stimulation. It is best with relaxing diuretics. It influences the circulation, but with some diffusive will do it much better. It assists in chronic rheumatism, sciatica and lumbago, but will be better if combined with *Phytolacca* and *Sodium Salicylate*.

<i>Pinus Canaden.</i>	
<i>Prunus Virgin</i>	aa. 5-1/20
<i>Populus Cand.</i>	
<i>Aralia Rac.</i>	aa. 8
<i>Sanguinaria Can.</i>	6

This is a good cough compound.

### POPULUS TREMULOIDES.

White Poplar.

The buds gathered in winter are very strongly medicinal. The inner bark and buds are a stimulating tonic alterant. Its influence is quite general. It promotes appetite and assists digestion when used in lax conditions, general weakness and depression. The bark of *Populus Tremuloides* rightly holds a high position as a universal tonic, taking the place of Peruvian Bark and Quinine. Continued administration has none of the drawbacks experienced by use of the last named drug.

In chronic diarrhoea, chronic dysentery, cholera infantum, it is a tonic, not an astringent.

It tones the mucous membrane, relieves indigestion and is somewhat anthelmintic.

The kidneys and bladder also feel its power. It gradually increases the urine and relieves the aching back. If more or less controlled by *Uva Ursi*, it will give good results in cystic and renal catarrh and congestions.

It is also of use in uterine, vaginal and anal weakness, both as a wash and for internal use. It is also a valuable wash for eczemas, purulent ophthalmia, chronic gonorrhoea and syphilitic sores.

*Populus Trem.*

*Myrica Cer.* aa. oz. ss

*Aqua* oz. xvi

Inject for anal prolapsus.

*Populus Trem.*

*Berberis Vulg.*

*Chelone Glab.* aa. equal parts

forms what is known as Dr. Samuel Thomson's spiced bitters, or No.5. It is a fine tonic hepatic.

F. E. *Populus Trem.* dr. iiss

" *Verbascum Thap.* dr. iv

" *Polygonum Hyd.* dr. iss

Syr. *Zingiberis* q. s. oz. iv

This may be given three to six times a day for chronic diarrhoea.

F. E. *Populus Trem.* dr. ii

" *Berberis Aqui.* dr. i

" *Hydrastis Can.* dr. ss

" *Aletris Far.* dr. i

" *Taraxacum Off.* dr. iv

" *Xanthoxylum Frax.* gtta. x

Syr. *Simplicia* q. s. oz. iv

This forms a good tonic alterant for debilitated cases, especially suited to females.

### POTENTILLA CANADENSIS.

Cinquefoil, Five-Finger Herb.

This herb is a mild, stimulating, astringent tonic, chiefly influencing the mucous membrane, and very serviceable in diarrhoea and dysentery of both children and adults. It is rather pleasant to the stomach and frequently allays nausea and vomiting, and is quite soothing to the nerves.

Locally it is a good wash to either the mouth, the vagina or the rectum, in case of either ulceration or irritation. It is splendid as a wash for cold sore eyes.

### POTENTILLA TORMENTILLA.

Tormentilla.

The roots are a mild, stimulating astringent, chiefly influencing the alvine mucous membrane and is serviceable in the ordinary forms of diarrhoea and mild hemorrhages.

## PRENANTHUS ALBA (Prenanthus Serpentaria).

Lion's Foot. Virginia,

N. Carolina.

This plant in mountainous regions grows about two feet high and has purple flowers. An infusion of the root taken internally and a poultice applied to the part bitten has much of a local reputation as an antidote for the bite of rattlesnakes. It is said to have been uniformly successful. The root is a bitter tonic. The leaves are also used as a poultice in case of rattlesnake bite. The whole plant is a moderately stimulating bitter tonic and nervine.

## PRINOS VERTICILLATOS.

Black Alder (Arnerican).(Ilex Verticillatos).

This bark is a mild, stimulating, tonic alterative, influencing chiefly the alvine mucous membrane and the secernents. It is a mild laxative to the bowels and a gentle hepatic and cholagogue. It is of service in biliousness, jaundice, atonic dyspepsia and dropsy arising from secernent failure. The berries are more cathartic and less hepatic.

## PRUNELLA VULGARIS.

Self Heal. Heal All.

This herb is a mild stimulating astringent influencing the mucous membrane throughout. To the throat it may be used as a gargle. It is soothing and toning to the urinary organs and will be of service in diabetes. It is a good addition to cough syrups, is serviceable in chronic bronchitis and phthisis where the expectoration is too free.

## PRUNUS DOMESTICA.

Prune. France.

This fruit is a pleasant nutritious laxative, and may be used in the relief of the habit of constipation, but if used too freely it may occasion flatulence.

## PRUNUS INSTITIA RUBRUM.

Wild Red Plum.

The bark of the root is a relaxing and somewhat stimulating agent influencing the mucous membrane especially of the respiratory organs. A syrup made from an infusion is an excellent agent for asthma.

## PRUNUS SEROTINA.

Wild Cherry. Virginian Prune.

The bark of the root is the best but the bark of the trunk is as frequently used. This is a mild, soothing, stimulating, astringent tonic to the mucous membrane especially of the respiratory organs and of the pelvic canal.

To the former it is a valuable tonic expectorant and to the latter it is a most excellent tonic, very mildly astringent if the alcoholic extract be used. Its tonic influence is felt by the liver and gall ducts and it is serviceable in the jaundice of children. For this purpose use an aqueous extract, made by putting cold water on the finely-cut fresh bark and frequently shaking for a few hours. Make it frequently fresh and use it very freely. It is successful.

Boiling dissipates the soothing property, but makes an excellent preparation for chronic diarrhoea. The fresh bark is much to be preferred. Grind or pound up fine the fresh bark and put into a self-sealing jar; pour boiling hot syrup over it and seal it up. Let it stand a few days and then pour off. You have then the nicest Syrup of Prunus that can be made. Or it may be made in this way; Take Prunus 6 ounces, steep in one pint of hot water three hours. Then strain and add 1 3/4 pounds of granulated sugar and two ounces of Glycerine.

Prunus improves the appetite, enlivens the digestion and tones the whole system. It is one of those agents whose influence may be directed to either the digestive of the respiratory organs, according to the agents with which it is combined, or the necessities of vitality in the individual case.

It quiets nervous irritability and relieves arterial excitement.

In chronic gastritis, weak digestion, typhoid fever, cholera infantum, diarrhoea, convalescence, and in diseases of the respiratory organs this agent cannot be too highly praised. In acute and irritable coughs it is a tonic expectorant of the highest value.

In moist catarrh a fine powder may be used as a snuff or the infusion may be atomized. Thus inhaled it will be of much benefit also to the lungs. As a wash in ophthalmia it, soothes, cleanses and tones weak, irritated and inflamed conditions, whether it be from simple, scrofulous or specific cause. It is one of the best washes for a weak or inflamed vagina and for the relief of a mild leucorrhoea.

F. E. Prunus Virgo	
" Cornus Flor.	aa. dr. iv
" Myrica Cer.	dr. ii
" Xanthoxylum Frax.	gtta. xv
Syr. Zingiberis	q. s. oz. vi

Teaspoonful four times a day for chronic diarrhoea. Prunus, Glycyrrhiza, Yerba Santa and Solidago in equal parts form an admirable troche for weak throat.

#### PRUNUS VIRGINIANA.

Wild Cherry.

A hot infusion of prunus, made fresh every six hours, given freely will frequently relieve the pains of sciatica. Dr. M. C. Keith advises the following for cholera infantum.

Prunus Virgo bark	
Leptandra Virg.	
Xanthoxylum Berries	
Asclepias Tub	
Rheum Off.	aa. oz. i

M.Sig. 1/4 teaspoonful to t cup of boiling water, add 1 teaspoonful of sugar and give one teaspoonful every two hours until a bilious discharge appears.

#### PTELEA TRIFOLIATA.

Wafer Ash.

The bark of the roots is a mild stimulating tonic, influencing chiefly the mucous membrane, alvine and respiratory.

In hot infusion it moderately influences the circulation.

Large and frequent doses are rather irritating to the stomach. Small doses are suited to gastric and alvine torpor, as in diarrhoea, cholera infantum, gastric and intestinal catarrh. Due to a soothing influence upon the mucous membrane it will promote appetite, being tolerated when other tonics cannot be retained. In bronchial catarrh it may be added to cough syrups with a good stimulating result.

Ptelein is the oleo-resin which, triturated on sugar, may be used for the same general purposes as other preparations of this agent.

ptelea-Pepsin (10 to 30) is a good compound for languid conditions of the gastric and intestinal mucous membrane, as in cholera infantum.

#### PTEROCARPUS MARSUPIUM.

Kino.

East and West Indies.

This gum obtained by incisions in the bark of the tree is a positive astringent gently stimulating, soothing, and toning, rather than drying. Its influence upon the alvine mucous membrane makes it an excellent agent in all forms of diarrhoea and dysentery, whether of infant or adult and whether acute or chronic.

It is one of the best applications for leucorrhoea, a weak vagina and prolapsus uteri. In hemorrhages, whether from the lungs, stomach or bowels, it renders good service used both locally and constitutionally.

Tr. Kino will frequently stop the toothache.



Cold water is very slow in dissolving Kino. Hot water is much better. For immediate use I like this much better than the Tincture which so frequently gelatinizes and loses its astringency. I have used it a few times successfully in oedema glottidis.

#### PTEROCARPUS SANTALINUS.

Red Saunders.

India, Ceylon.

This wood has but little smell or taste. It imparts its colour to alcohol but not to water, being a resinous principle, soluble in hot water and in alcohol, and but slightly soluble in the fixed oils with the exception of Oil Lavender and Oil Rosemary. Its chief use is that of colouring medicines, especially liniments, to make them more showy rather than adding any quality.

#### PUNICA GRANATUM.

Pomegranate.

Asia, Africa, West Indies.

The bark of the root is an anthelmintic for the expulsion of the round, pin and tape worms. A strong decoction may be used for these purposes. Large doses may nauseate hence it should be used in small and frequent doses. Of course in case of tape worm the patient should fast as long as he conveniently can prior to taking this dose, and it should be followed by a full dose of anti-bilious physic. If unsuccessful repeat in a few days.

The flowers and rind of the fruit are quite astringent and are valuable in diarrhoea and in the night sweats of phthisis.

#### PYCNANTHEMUM INCANUM.

Wild Basil.

This herb is an aromatic, diffusive, relaxing and stimulating antispasmodic nervine. In hot infusion it influences the circulation and is useful for colds, catarrhal fever, malarial fever, infantile convulsions. It will be rendered more diffusive by the addition of a little Zingiber.

#### PYCNANTHEMUM MONTANUM.

Mountain Mint.

This species may be used for the same general purposes.

#### PYROLA ROTUNDIFOLIA.

False Wintergreen.

The leaves are a mild, diffusive, stimulating, astringent tonic influencing the mucous membrane throughout.

With agents that especially influence the bronchi it is an expectorant. With those that influence particularly the uterus and vagina it stimulates and tones. In enuresis it gives favourable results, and also in diabetes. It decreases the irritation of the membrane and the amount of the urine. In chronic diarrhoea it tones and astringes the alvine mucous membrane. It is a good wash for cleansing foul ulcers and a good gargle for sore throat.

#### QUERCUS ALBA.

White Oak.

The inner bark of all the oaks yield a large proportion of tannin, and are largely used in the process of tanning leather. It is a stimulating tonic astringent and a powerful arrestor of hemorrhages whether external or internal. Locally it may be applied to sores, bruises, tetter, ringworm, scaly eruptions and to prevent the falling out of the hair.

It forms a good astringent wash for prolapsus uteri, prolapsus ani or relaxed vagina, spongy or bleeding gums, and for hardening them when false teeth are to be used. It is a good gargle for some forms of sore throat, ulcerated or inflamed, and in light cases of diphtheria. Per rectum it may be used for hemorrhoids, fissures and prolapsus ani.

Locally it is a good wash for sweaty and tender feet. Internally it may be used for diarrhoea, acute or chronic. Zingiber, Xanthoxylum or Capsicum make it more stimulating and diffusive.

For night sweats it may be used either locally or constitutionally or both.

F. E. Quercus	10
Tr. Capsicum	1
Glycerin	20

This is for either external or internal use.

The acorns are a mild, stimulating, tonic alterative.

### QUERCUS LUSITANICA.

Nut-Galls.

The excrescences upon the young branches formed by the puncture of a fly and immediately thereafter the deposit of an egg. The egg hatches, the fly grows and finally escapes. These excrescences are denominated nut-galls and from them is obtained Acidum Tannicum, a pure astringent without the stimulation. It is a very light powder readily dissolving in water. Tannin may be used upon a bleeding surface or used internally for hemorrhages and for diarrhoea.

Tannin and powdered Lobelia Seed in Vaseline forms a good ointment for hemorrhoids, or the powders may be enclosed and inserted in gelatine capsules for rectal itching and painful hemorrhoids. The tannin itself may be used in cases of prolapsus ani.

Tannic Acid enters into the manufacture of Pile Suppositories which many of the profession have found very effective in the treatment of rectal troubles.

Tannin and Populus Trem. in equal parts in Syrup of Zingiber forms a good preparation for cholera infantum when the discharge is watery and the patient weak. Tannin has been successfully used to remove tattoo marks. Cover the parts with a saturated solution of tannin and pick into the skin. Then rub with lunar caustic and allow to turn black. Now wash off the excess. It will pain for some two or three days. In fourteen to eighteen days the scab peels off and leaves a pink surface which disappears in a month or two.

Dissolve tannin in 45 p. c. alcohol and add lint to form a covering for raw and bleeding surfaces. It excludes the air and prevents hemorrhage.

Tannin	dr. ii
Glycerine	oz. i

Apply during the ninth month of pregnancy to toughen the nipples, and in cases of sore nipples.

Sulphur Lactate	dr. ss
Tannin	grs. xv
Petrolatum	dr. v

This is a good application for barber's itch.

Tannin	
Pul. Acacia Vera	aa. dr. iss
Tr. Arnica Flowers	dr. iiss

Paint the surface with this every five minutes until thick and hard. It will usually abort a boil.

Tannin	grs. x
Sulph. Quinia	grs. v
Aqua	oz. ii

Wash the lids with a little of this in purulent ophthalmia.

Acidum Gallicum is chiefly made from nut-galls and is a pure astringent. It is a good preparation for internal use as it does not act so fully on the mucous membrane and produce so much constipation. It is valuable for gastric, respiratory, cystic or uterine hemorrhages.

### QUERCUS RUBRA.

Red Oak.

The bark of this variety may be used for the same general purposes as that of the other varieties. In cancer as an escharotic use concentrated potash made from the ashes of red oak bark.

Apply until the cancer is removed and then overspread the surface with pure honey.

#### QUERCUS TINCTORIA.

The bark of this variety is more bitter and more stimulating than that of the alba, and is more suitable for very torpid conditions. It exerts about the same astringency as the alba and is a better application for old sores, tetter, ringworm and some eczemas. An infusion is the usual method of administering.

Py-oak tannin or blue methylene is a successful application for old ulcers.

#### RANUNCULUS BULBOSUS.

Butter Cup.

This plant has a solid, fleshy, turnip shaped root. Its flowers appear in May and June in the shape of small cups of a yellow colour.

The green root is quite acrid and stimulating when applied to the surface. An ointment made by simmering the root in lard is useful as an application to glandular swellings and scrofulous sores.

#### RAPHIDOPHORA VITIENSIS.

Tonga.

Fiji Islands.

The leaf, bark and woody fibre usually appear together in commerce. This is a gently stimulating and soothing nervine. It is especially valued by those who have used it for the relief of neuralgia especially of the head.

#### RHAMNUS CATHARTICA.

Buckthorn.

The berries furnish a juice which is quite a stimulating cathartic, and in large doses produces nausea, griping and watery stools. But most of these symptoms are prevented by administering the drug in Syr. Zingiberis.

#### RHAMNUS FRANGULA.

Buckthorn, Alder.

This is the European variety. The bark is a mild, stimulating laxative and cholagogue. It leaves a moderate tonic impression. In large doses, it is fairly cathartic. For more tonic purposes combine it with Euonymus, when it will be valued for habitual constipation arising from indigestion.

#### RHAMNUS PURSHIANA.

Cascara Sagmda.Sacred Bark.

California.

The bark is a very bitter tonic, a slow, mild, stimulating hepatic. Its influence is chiefly expended upon the stomach, liver, gall ducts and bowels. It is of value in chronic constipation, torpor of the stomach and liver and chronic dyspepsia. It influences peristaltic action but is more tonic than cathartic.

F. E. Rhamnus Pursh. oz. i

Syr. Juglans Cin. q. s. oz. iv.

This is an admirable hepatic and alvine tonic to be given morning and evening or at night only to overcome constipation.

The following preparation well disguises the bitter of Cascara and leaves it an excellent laxative.

Powd. Cascara Sagrada oz. xi

" Licorice oz. iii

" Magnesia Cal. dr. ii

" Cloves dr. ss

#### RHEUM OFFICINALE.

Rhubarb.(R. Palmaturn.)

Turkey, India.

The root is a mild, stimulating tonic to the alvine mucous membrane, the liver and gall ducts. In large doses it is cathartic, but its tonic influence borders on astringency, hence some slight constipation may follow its use. It is therefore not the agent to assist in overcoming chronic constipation, but its tonic hepatic influence is valuable in the treatment of diarrhoea, dysentery and cholera infantum. Heat somewhat increases its astringency. In such cases it is therefore best boiled or roasted. Calcined Radix Rhei is prepared by burning the root in an iron vessel till easily pulverized. Give doses of 3 to 5 grs., or use one dram to a half teacup of boiling water. Give a teaspoonful as required from fifteen minutes to three hours for cholera, infantum, or use Rheum, Prunus and Mentha, Piperita in equal parts, with one-fourth part Bicarbonate Soda. Triturate well and add a heaping teaspoonful to a half tea cup of boiling water. Give one or two teaspoonfuls after each operation of the bowels.

Rheum cleanses the mucous membrane of viscid mucous, and while large doses prove cathartic, small and frequent doses are tonic hepatic. The addition of some alkaline preparation as Bicarbonate Soda, Bicarbonate Potassa or Bitartrate Potassa., relieves acidity and increases its cathartic power.

Comp. Syr. Rhei et Potassae is a valuable compound for the making of which may different formulae are used.

Rheum	oz. viii	Rheum	
Cassia Cin.	oz. iv	Potas. Bicarb.	aa oz. ii
Potas. Bicarb.	oz. i	Hydrastis	oz. i
Hydrastis	oz. iv	Oil Cinnamon	M. 20
Oil Peppermint	M. 30	Oil Peppermint	M. 20

In many cases where children are suffering from cholera infantum the syrup is objectionable on account of its fermentative tendency and here the neutralizing mixture acts grandly.

Rheum	oz. xvi
Bicarb. Potas.	oz. vi

Add these to one gallon of strong green peppermint infusion and sweeten to suit. Zingiber and Hydrastis may be added if desired.

Rheum, Hydrastis, Cinnamon and Bicarbonate of Potassa in equal parts, with one-fifth part Pancreatine, may be formed into tablets of convenient size and be used for some forms of indigestion; or Rheum and Calcined Magnesia in equal parts with a half part of Zingiber may be used for the same purpose.

Pul. Rheum	grs. iii
Leptandrin	grs. ii
Hydrastia Sulphate	gr. 1-10

This may be formed into a pill or used in a capsule. Each pint of the Camp. Tincture represents

Rheum	oz. xvi
Cardamon Seed	
Saffron	
Coriander Seed	aa. oz. ii

Each pint of Rheum Aromatic, represents

Rheum	oz. x
Cinnamon	
Cloves	aa. oz. ii
Nutmeg	oz. i

Each pint of Rheum, Sweet, represents

Rheum	oz. 6 2/3
Glycyrrhiza	
Anise	aa. oz. 2 2/3
Cardamon	oz. 2/3

Dr. C. U. Collins gives the following formula for antacid compound.

Rheum Off.	
Calcined Magnesia	aa dr. ss
Sodium Bicarbonate	grs. XLV

Cardamon Semis Pulvis  
 Oleum Mentha Piperita  
 Hyclrastin aa. grs. v

The following is Dr. M. C. Keith's neutralizing cordial.

Rheum Off.  
 Prunus Virgo  
 Xanthoxylum Bac. aa oz. iv

Macerate fifteen days with one quart of alcohol. Then take

Leptandra Virgo  
 Asclepias Tub. aa oz. iv

Soft water, three quarts

Boil fifteen minutes. In bottom of the percolator put a half pound of Peppermint herb, add the Rhubarb, and macerate, then add the Leptandra Compound and percolate three quarts and press the dregs. Add four pounds of sugar; dissolve, strain and add three ounces Bicarbonate of Soda.

The following is my favourite F. E. Comp.

Rhei et Potassffi  
 Grd. Rheum oz. xii  
 " Solidago oz. viii  
 " Amphiachyris oz. iv  
 " Uva Ursi  
 " Hydrastis aa oz. iii  
 " Cinnamon oz. ii  
 Mentha Pip. oz. x  
 Alcohol oz. 32  
 Glycerine oz. 16  
 Water oz. 53

Macerate two weeks, transfer to a percolator and add boiling water till one gallon passes, add four ounces of Bicarbonate of Potassae and strain. This may be sweetened or not as desired.

Dr. H. A. Hadley prescribes the following for diarrhoea.

Syr. Rhei et Pot. oz. i  
 F. E. Dioscorea  
 " Valerian aa dr. i  
 Oil Anise gtts ii  
 Syr. Zingiber q. s. oz. ii

M. S. Teaspoonful every hour.

## RHUS AROMATICA.

Sumach.Fragrant.(R. Canadensis.)

This bush is of straggling growth three to seven feet high. It has a sweetish and rather pleasant perfume, especially if the leaves be crushed. The flowers are pale yellow; the fruit is globular, clothed with acid, crimson hairs.

The bark of the root is a stimulating, astringent tonic, influencing the mucous membrane and especially that of the urinary and alvine departments. This is a valuable remedy in the treatment of enuresis. Fifteen drops of the Fluid Extract may be given two to five times a day.

In diabetes 30 or 40 drops may be given as required.

F. E. Rhus Arom. dr. iii F. E. Rhus Arom.  
 Elix. Aromat oz. iss " Celastrus Scan. aa. oz. i

Aq. Cinnamon q.s. ad.oz. iii Syr. Simplex q. s. oz. iv

These formulae may be used in enuresis, diabetes or Bright's disease; or use

F. E. Rhus Arom. oz. ss

Glycerin	oz. ii
Syr. Simpl.	dr. ss
Aqua	q. s. oz. iv

As a tonic astringent it is of much importance in diarrhroa, dysentery and cholera infantum; also in hemorrhages from any organ or part. It is a very serviceable agent during the menopause with those of hemorrhagic diathesis.

#### RHUS GLABRA.

Sumach, Smooth.

The leaves, berries and bark are all more or less positive astringents. The leaves are the least astringent, but are valuable in dysentery and hemorrhage of lungs or uterus.

The bark is more stimulating, astringing and toning, and is valuable for leucorrhoea, inflammation of the bladder, and for rectal troubles, chronic diarrhoea and rectal hemorrhages. A hot infusion gives a somewhat fuller outward circulation. It is a good wash for aphthous sore mouth and spongy gums:

Dr. F. G. Hoener has with this agent cured several cases of prolapsus ani, and several cases of prolapsus uteri that had by others been pronounced incurable. The berries are a pleasant acid astringent. Fill a vessel full of berries. cover with boiling water and steep a half hour. Then strain and sweeten to suit the taste. This is a good beverage to allay irritation of the bladder and in the treatment of diabetes and for the relief of bloody urine.

Combined with pineapple syrup it is an expectorant, and is also useful in diphtheria. It may be atomized or gargled. Dr. P. G. Hoener uses the following gargle for sore throat and diphtheria:

Aci. Rhus Glabra Bac.	oz. iv
Elix. Phytolacca Rad.	
Syr. Pineapple	aa. oz. i

M. S. Spray the throat as often as necessary, and use internally the following:

Elix. Betonica Lane.	
" Eupatorium Perl.	aa. oz. iss
Tr. Capsicum	dr. ii
Syr. Simplex	dr. vi

M. S. One teaspoonful or more hourly, and if thirsty drink hot lemonade between times.

#### RIBES NIGRUM.

Black Currant.

The fruit is a pleasant, nutritious, mildly stimulating astringent, useful in diarrhoea. The leaves by infusion are very useful in febrile and inflammatory diseases, in hoarseness and affections of the throat. The root in hot infusion is a stimulating diaphoretic.

#### RIBES RUBRUM.

Red Currant.

This fruit forms an acidulated drink admirable in convalescence, especially from fevers. It is an appetizer and assists digestion. The root is a stimulating diaphoretic when used in hot infusion, and is very valuable says Dr. Bryson when the eruption of measles is very tardy. An infusion of the leaves and branches produces nearly as good results as a stimulating diaphoretic.

#### ROSMARINUS OFFICINALIS.

Rosemary.

The leaves are a diffusive stimulant and relaxant. In hot infusion they influence the circulation toward the surface and produce diaphoresis and soothe the nerves. It is chiefly used as a vehicle.

## RUBUS VILLOSUS.

Blackberry.

The root and leaves of this variety are a positive astringent tonic, influencing chiefly the alvine mucous membrane, giving good results in acute and chronic dysentery and diarrhoea., prolapsus ani and rectal hemorrhages.

Locally it is a good wash for aphthous sore mouth and bleeding or spongy gums, and to the vagina in leucorrhoea, prolapsus uteri and lax vagina. The berries are a pleasant and nutritious fruit, soothing to weak and irritable stomachs, and useful in diarrhoea and cholera infantum. For this purpose remove the seeds and prepace a cordial as follows:

Juice of Berries	oz. ii	Blackberry Juice	qrt. i
Allspice		Sugar	lb. i
Zingiber		Nutmeg	
Cinnamon	aa. dr. ii	Cinnamon	aa. oz. ss
Cloves	grs. iii	Cloves	
Allspice	aa. dr. ii		

In either formula bring the berries to the boiling point. Tie the spices in a piece of muslin and put into the berry juice; simmer one hour, covered. Press out the spices and add 1 1/4 lbs. granulated sugar.

## RUBUS IDIEUS. RUBUS STRIGOSUS.

Raspberry, Red.

The leaves are a mild, pleasant, soothing, diffusive stimulating, astringent tonic. It allays nausea, sustains the nerves, and tones the mucous membrane. It is effective in acute and chronic dysentery and diarrhoea. It is also of much service in urethral irritation. It soothes the kidneys and urinary ducts. When needed it also sustains the uterus and stops hemorrhage. In ophthalmia it is first-class wash. In leucorrhoea, gonorrhoea, dysentery and diarrhoea it is a good injection.

Dr. Thompson's No. 6	gtta. x
Infusion Rubus Strig.	oz. iv

will be found useful in diabetes. The expressed juice of the fruit is very nourishing in convalescence and for weak stomachs.

An infusion of the leaves is a good general gargle in sore mouth and canker of the throat. Acetum rubi idaei (prepared from fresh fruit) diluted with warm water early renders relief in sore throat or hoarseness.

Herbal practitioners-following Dr. Thompson and Dr. Coffin-always recommend Raspberry leaf tea, for use during the period of pregnancy. It's free use ensures good health during gestation, renders easy and speedy parturition, assists milk secretion and hastens convalescence.

When labour approaches the addition of one teaspoonful of Composition Powder will prove a valuable adjunct.

## RUDBECKIA LANCINATA.

Thimble Weed.

The flowers and leaves are a moderately bitter, diffusive, balsamic, alterative tonic. It tones the kidneys, increases the flow of urine, is useful in renal congestions, catarrhal cystitis and in the beginning of Bright's disease. It also soothes and tones the digestive, and the generative organs. In hot infusion it influences the circulation and soothes the nervous system. It is an excellent addition to alteratives. Dr. F. G. Hoener combines, it with Trifolium Pratense flowers in the treatment of gastric cancer.

## RUMEX ACETOSELLA.

Sheep Sorrel.

This herb is a positive stimulant which may be made into a soft extract for application to indolent ulcers and cancers. Refrigerant and diaphoretic it is of use in urinary and renal diseases.

## RUMEX CRISPUS.

Yellow Dock.

The root is a mild, slow stimulating, tonic alterative. It influences the mucous membrane, the skin and the secretions generally. It is of much importance in all forms of scrofula, skin diseases, syphilis, ophthalmia, glandular troubles, rheumatism and piles.

It is somewhat laxative to the bowels, is both hepatic and cholagogue and assists in the process of assimilation.

The fresh roots of rumex digested in fresh cream or lard and then strained is useful for swellings, irritations, scrofulous sores, scaldhead, eczema, tetter and itch.

Rumex	160	F. E. Rumex	dr. iv
Celastrus		" Celastrus	
Ampelopsis		" Ampelopsis	
Euonymous	aa. 80	" Euonymous	aa. dr. ii
Oil Anise		" Syr. Zingiber.	q.s. az. iv.
" Sassafras	aa, 1		
Rosewater	5		

Either of these are good alteratives.

Dr. F. G. Hoener prescribes the following as an antiscorbutic.

Rumex Crispus Rad.	
Galium Ap. Herb.	aa oz. i
Glechoma Heder.	
Arctium Lappa Sem.	aa dr. iv

Boil in three pints of water to one pint, sweeten and when cold add F. E. Stillingia oz. ii. and give a teaspoonful four to six times a day.

## SABBATIA ANGULARIS.

American Century.

This herb is a positive, diffusive, stimulating tonic to the heart, stomach, liver, generative organs and nervous system. In hot infusion it promotes the menses and influences a good outward circulation.

Cold preparations increase the appetite, assist digestion and assimilation in languid conditions, chronic dyspepsia and general debility. It is a good hepatic, maintains the portal circulation, but is best combined with more positive agents.

It is a good antiperiodic, and an efficient nervine tonic in nervous prostration, hysteria and general debility, the night sweats of phthisis, in chronic dysentery and diarrhoea, and in convalescence from fevers. Its tonic power over the stomach makes it a good vermifuge.

## SERENOA SERRULATA.

Saw Palmetto.(Sabal Serrulata.)

The berries are a mild, stimulating, tonic alterant, influencing the mucous membrane throughout but especially that of the urinary tract. It is a valuable agent in the relief of renal and cystic catarrh, prostatitis, sexual impotency, masturbation, irritation or inflammation of the renal mucous membrane and painful micturition. An excellent expectorant, it soothes the mucous membrane in coryza, acute and chronic laryngitis and bronchitis.

It increases appetite and digestion, and imparts tone and vigour to the organs of nutrition. It is soothing and toning to the urinary and reproductive organs in cystitis, urethritis, pyelitis, and sexual neurasthenia. It is valuable in enuresis, in impotence, and sexual excesses.

Serenoa Ser.	20
Carum Petrosel.	3
Cola Vera.	6
Santalum Album.	4
Aromatics.	q. s.



This is a good tonic diuretic.

### SALIX ALBA.

White Willow.

The bark is an intensely bitter, stimulating, tonic nervine slightly astringent. As an antiperiodic it is superior to quinine, and is much less exciting to the nerve centres. In decoction it is useful in general debility, chronic diarrhoea, chronic dysentery, convalescence from fevers, and in hot infusion stimulates the circulation. An infusion made of the tags is excellent for salt rheum and running sores. Salacin is an excellent tonic, nervine and antiperiodic. It relieves neuralgia and tones in convalescence. A small portion of Capsicum may be added when desired. It may be used for after pains and rheumatism.

Salacin	grs. x
Xanthoxylin	grs. v
Lactin	grs. XL

Make into five powders and use every four hours for rheumatism.

### SALIX NIGRA.

Black Willow. (American).

The bark of the roots is a positive bitter tonic nervine. It seems to direct its chief influence to the generative organs, where it, allays irritation and restores vigour to the entire sexual tract. Taken before retiring it quiets the nerves and prevents lascivious dreams and nocturnal emission. It. also relieves ovarian pain.

Dr. G. H. Mayhugh recommends the following for spermatorrhoea :

F. E. Salix Nigra.	
" Celastrus Scan.	aa. oz. ii
Syr. Simplex	oz. iv

M. Sig. One or two teaspoonfuls in water four times a day.

The aments are a stimulating, astringent tonic especially influencing the genito-urinary organs of both sexes. It is of importance in nymphomania, onanism, seminal incontinence, ovaritis, cystitis, prostatitis, spermatorrhoea and nocturnal emissions. It relieves irritation, soothes the nerves and tones the organs.

### SALIX PURPUREA.

Rose Willow (Comus Sericea).

The bark of the roots has about the same properties as Salix Alba.

### SALVIA LYRATA.

Wild Meadow Sage, Cancer Weed.

This is a stimulative alterative, used constitutionally and applied to the surface. in cases of warts, glandular swellings and cancer.

### SALVIA OFFICINALIS.

Sage. Red.

The leaves are a pleasant, mild, diffusive, stimulating tonic, slightly astringent. In hot infusion it is gently diaphoretic and quite soothing to the nerves. It cleanses and tones the mucous membrane and may be profitably used in throat troubles from colds and in respiratory, stomach or bowel troubles from the same cause.

Cold preparations are diuretic and excellent in night sweats, and are sometimes, used for the removal of the stomach worm.

Infusion of Sage	oz. ii
Powd. Borax	dr. i

Honey to Sweeten. Apply to mouth ulcers.

An excellent gargle for relaxed throat and tonsilitis, also for ulcerated mouth and throat, may be prepared by infusing one ounce of Red Sage leaves in half-pint of hot malt vinegar, adding half-pint of cold water. Use freely.

### SAMBUCUS NIGRA.

Elder.

The flowers are a mild, diffusive, relaxing diaphoretic and alterant. When given in hot infusion it is excellent for the removal of colds and feverish conditions therefrom, also in measles and chicken pox. It influences the glandular system and is an excellent addition to some alterative compounds. Its relaxing influence is felt by all the secretions. It is a gentle laxative for children and is very soothing to the nerves.

They form a fine soothing poultice to any inflamed part.

Cold preparations are diuretic.

The Bark is a stimulating cathartic. It thoroughly arouses the alvine mucous membrane and is excellent for the cleansing and toning of that membrane in cases of gastric and intestinal ulceration and in catarrhal conditions. It is a good gastric tonic and anthelmintic. An infusion is a good wash for the cleansing of sores.

Boil the green bark till the fluid is a soft extract.

Then combine with vaseline and you have an excellent salve for old sores, eczema rubrum, etc.

The fruit is nutritive and medicinal. It influences all the secretions and is mildly laxative. It may be made into a wine or jelly and partaken with profit in convalescence.

### SANGUINARIA CANADENSIS.

Blood Root.

The fresh root is a very harsh, positive stimulant to the mucous membrane; the dry root is much less so. It influences the mucous membrane, the secretions and the glandular system. Large doses are quite nauseating. As an alterant it is excellent in glandular troubles, scrofula and skin diseases. It is useful in diphtheria internally and externally, and in the cleansing of old sores in preparation for a healing dressing.

It is one of the best additions to cough syrups; it cleanses the mucous membrane, induces expectoration and relieves irritation of the bronchi. With acetous Syrup of Lobelia, or the 3rd Prep. of Lobelia, it is unexcelled in the treatment of membranous croup. The combination must be proportioned to the age of the child and the severity of the case. Give every few minutes until the child vomits and expels the membrane. Then give small doses at longer intervals to prevent a recurrence.

In asthma Sanguinaria is a valuable addition to Lobelia, and in whooping cough a small portion with the Acetous Syrup of Lobelia is a success. Give enough and give frequently enough to compel the spasmodic efforts to cease.

In sluggish cases it is a good emmenagogue.

An infusion of only moderate strength may be used as an injection in case of leucorrhoea but not where the vagina is irritated.

Sanguinaria may be combined with hepatics in torpid catarrhal conditions of the alvine membrane. Toning agents will then be more effective.

The Acetous Tincture is made by heating Acetum oz. xvi to the boiling point and adding to oz. iv of Powd. Sanguinaria.

Combined with Glycerin the infusion or fluid extract will invigorate the hair follicles and prevent the falling out of the hair, whether as a result of fever or other causes; but, it will not make hair grow on bald heads. Applied to the skin when inflamed by poisonous contact it will promptly relieve the itching and burning.

Sanguinaria and Lobelia may be used in equal parts in cases of pruritis.

Powdered Root or Tincture Sanguinaria acts energetically in cases of fungoid tumours and ringworm. The nitrate of sanguinaria is an escharotic. It is reported that the fresh leaf of this agent persistently applied to smoker's cancer of the lip is painless and will remove it whole. Sanguinaria in Syrup of Licorice will be found to give good results in asthma.

Dr. M. Hermance says for granulated eyelids, make a strong decoction with boiling water, then let it cool, filter and bottle. Then add tannin and shake until flocculent, opaque and of a creamy colour. Evert the lids and apply with a camel's hair brush to the under side of the lids.

Sanguinaria and Myrica in equal parts in fine powder mixed thoroughly and applied to a nasal polypus or a polypus elsewhere, Dr. Hermance says will remove the polypus in a few days.

The persistent use of small portions of Sanguinaria will in time cure hay fever, provided the nasal mucous membrane is duly cared for. (3x, third trituration) is excellent as a snuff in such cases.

The application of powdered Sanguinaria to fungus growths will often cause them to shrivel up and be cast off.

#### SANICULA EUROPEA.

Sanicle.

The root is a mild, aromatic, diffusive, stimulating and relaxing agent. Hot infusions are moderately diaphoretic and nervine, and may be used for colds with feverishness, whether of the head or the respiratory organs; also in the fever stage of the eruptive diseases, especially in measles.

The herb is astringent and alterative. Given with other herbs in the treatment of blood disorders its effect will be highly esteemed. It is also a useful remedy in leucorrhoea, diarrhoea and dysentery.

#### SANTALUM ALBUM.

Sandal Wood, Yellow or White Saunders.

India, Ceylon.

This evergreen glabrous tree grows 20 to 30 feet high and 2 to 3 feet in circumference, having a brownish bark. The wood chips yield an oil. Either is a mild, aromatic, astringent tonic, with diuretic and antiseptic action. In pharmacy it is sometimes used in combination with or as a substitute for Copaiba in gonorrhoea, gleet, or other urethral irritations.

#### SARRACENIA PURPUREA.

Pitcher Plant.

The root and leaves are a mild relaxing and stimulating diaphoretic. When given in hot infusion it is very valuable in measles, scarletina, small-pox, chicken-pox and other contagious eruptive diseases.

Dr. F. G. Hoener recommends the following for such conditions.

Sarracenia Purp.

Sambucus Nigra.

Eupatorium Perf. aa. equal parts.

Sarracenia Purpurea has lately achieved great reputation as a prophylactic against and a cure for smallpox.

#### SASSAFRAS OFFICINALE.

Sassafras.

(S. Variifolium).

The inner bark of the trunk and root is a pleasant, aromatic, warming, stimulating alterative. The wood and bark are frequently used as a pleasant alterant beverage, a popular drink in Spring when the bark has its greatest strength. It influences the glandular system, and is valuable in cases of varicose ulcers and those of a scrofulous nature. Give an infusion and poultice the sore with Sassafras and Ulmus. A poultice is also valuable for bruises, congested swellings, and chronic abscesses.

In hot infusion it is diaphoretic, diuretic, nervine and emmenagogue.

The oil is used for scabies and other contagious eruptions. It is a good stimulating and relaxing nervine for bruises, sprains, congestions, inflammations, rheumatism and neuralgic swellings.

Oil Sassafras

1

Oil Sassafras

F. E. Lobelia

" Cinnamon

" Cypripedium aa., 4

" Cloves. In equal parts.

The former is a stimulating and relaxing liniment the latter a stimulating liniment.

Oil Sassafras

gtta. i

Rain Water dr. i

forms an application for ulceration of the cornea.

The pith in the young shoots in cool water forms a mucilaginous wash of excellent service in acute and chronic ophthalmia. It soothes and heals. Gather the pith in spring and allow to dry.

#### SATUREIA HONTENSIS.

Summer Savory.

lating diaphoretic useful in colds, feverishness, and for the relief of the menses when stopped by cold.

#### SCROPHULARIA NODOSA.

Figwort.

The leaves are a mild, relaxing and gently stimulating alterative, influencing the secretions and useful in scrofula, and skin diseases, abscesses and wounds. The leaves may be applied as a poultice, and an infusion taken internally. It tones the pelvic viscera, increases the quantity of urine, and soothes and strengthens the generative organs.

#### SCUTELLARIA LATERIFLORA.

Scullcap.

This herb is a positive, diffusive, permanent, stimulating nervine and antispasmodic.

It is bitter but not nauseating. Its chief influence is spent upon the nervous system. It is an excellent agent in nervous prostration. In its way it is fully as stimulating as quinia, but its influence is more general than that, of quinine. Its stimulation extends to the brain, spinal cord and sympathetic system. To all it extends its tonic influence, which is quite permanent. With Lobelia, and Capsicum; Cypripedium and Capsicum; or with Gaulophyllum alone it is an excellent antispasmodic, which may be used in such conditions as chorea, epilepsy, hysteria, puerperal convulsions and other spasmodic conditions of infant or adult. Such combinations will give favourable results in hydrophobia, delirium tremens and morphia, mania. It may not cure bad cases of epilepsy, but it will help such conditions, especially with alkaline and hepatic preparations. Have such patients abstain from sweets, fats and starches to a great extent.

In the delirium of typhoid and in nervous dyspepsia it is an excellent agent.

In cases of insanity, after getting your patient well under the influence of Lobelia and Cypripedium put them on Scutellaria. It is also useful in hysteria, hypochondria, general nervousness, insomnia, convalescence from fevers, cranial neuralgia, uterine neuralgia, general female weakness. A hot infusion renders it more diffusive than is the fluid extract, except it be used in hot water. Scutellaria is but a moderate representative.

#### SEMPERVIVUM TECTORUM.

House Leek.

The leaves by pressure yield a juice that, makes a good application in acute ophthalmia and for all raw open sores of recent production, surface swellings, and inflammatory conditions of the skin. It is used as a cure for warts and corns.

Internally it is a moderate diuretic.

#### SENECIO AUREUS.

Life-Root.

This herb is a slow, stimulating and relaxing agent, influencing the nervous system and the generative organs. It gently promotes menstruation, relieves some forms of dysmenorrhoea, the aching back and some forms of hysteria, and tones the generative organs of both sexes.

With Sanguinaria it is a positive emmenagogue.

F. E. Senecio dr. iv F. E. Senecio  
" Viburnum Op. dr. ii " Caulophyllum aa. dr. iv

" Caulophyllum                    Syr. Zingiber q. s. oz. iv  
" Euonymous                    aa. dr. i  
Syr. Zingiberis q. s. oz. iv

These are good compounds for dysmenorrhoea.

With Aralia and Prunus it influences the bronchi and may be added to the cough syrups of the chlorotic. It is soothing, cleansing and strengthening to the lungs.

#### SENECIO MARITIMUS.

Cineraria Maritima.

A juice obtained from this agent is recently praised very highly in cases of cataract. It is claimed that its application in one or two drop doses daily will eventually remove cataract. It is very stimulating to the eye, creating a severe burning sensation for a short time. From reports we judge that it is either an uncertain agent or that it is adapted only to a peculiar class of eyes affected with cataract.

#### SIERRA SALVIA.

Mountain Sage, Sage-Brush.

(Artemisia Frigida.)  
Western U. S.

This herb is a bitter aromatic, diffusive, stimulating diaphoretic, and is also antiperiodic, alterant and nervine. Large doses nauseate and may produce vomiting. In hot infusion it influences the circulation, inducing a good outward flow of blood and free diaphoresis. It stimulates the entire peripheral circulation and sustains the heart and arteries. It quite thoroughly influences all the secretions and the mucous membrane, the liver, the gall ducts, the kidneys and the bowels. It gives excellent results in mountain fever, spinal irritation, meningitis; intermittent, remittent, congestive and rheumatic fevers; pleuritis, pneumonitis, sciatica, la grippe, scarletina and the other exanthemata. Also in muco-purulent leucorrhoea, in phthisis, and in amenorrhoea and dysmenorrhoea when the results of congestion.

#### SILPHIUM LACINIATUM.

Rosin Weed.

The leaves contain a resinous material, a rather bitter stimulant to the mucous membrane. It lessens expectoration, and lessens the alvine discharges in dysentery and diarrhoea. It is also beneficial in intermittent fevers.

#### SILPHIUM PERFOLIATUM.

Cup Moss.

The root and leaves are a diffusive stimulant, influencing the liver, gall ducts and spleen, and is laxative to the bowels. A decoction sweetened with honey is an excellent expectorant for children's coughs and whooping cough.

In hot infusion it is a gentle diaphoretic and useful in cases of biliousness, colds, remittent and catarrhal fevers. It is said also to be an antiperiodic.

#### SIMABA CEDRON.

Cedron Seed.

New Grenada

This tree grows to the height of about 15 feet. The stem when about twelve feet, ends in a terminal panicle of flowers covered externally with brownish hairs. It then sends forth side branches which do the same. The fruit is about the size of a large peach and covered with short hairs. Each fruit contains one seed having two halves. The intensely bitter seed is a stimulating and relaxing antispasmodic nervine. By those among whom the tree grows, it is successfully used in the cure of rattlesnake bite and that of other poisonous reptiles and insects, also in the cure of hydrophobia. It is used internally and applied to the surface of the wound, and in hydrophobia it is also used hypodermically.

Internally from 5 to 30 grains may be used every 3 to 6 hours. Large doses produce in some persons some griping sensations in the bowels.

This agent is also used in spasms, for toothache and as an antiperiodic in malarial complaints and agues. As an antiperiodic give two to four grains three to six times during the cold stage.

SINAPIS ALBA AND NIGRA.

Mustard. (Brassica Nig. and B. Alb.)

The seed is quite pungent to the taste and smell, stimulating and acrid. It is prepared for table use and in Spring the young leaves are eaten as greens. The powdered seed will blister the surface if left on long enough, and if used persistently with food it will irritate the stomach.

It is doubtful whether we can advise the use of an agent that will so quickly destroy a healthy surface. If used to destroy some portion of skin necessary to be destroyed, its blistering use would be legitimate. This agent should be used only to stimulate the surface, never allowing it to blister except as above stated.

It is sometimes used internally as a quick emetic in cases of poisoning, but preference may be given to Capsicum, Lobelia and Hi-Carbonate of soda for this purpose, but give the mustard if nothing better is at hand, a teaspoonful or less in four ounces of water.

It may be used to stimulate over the surface of a congested organ, or over the seat of acute pain, but, remove before blistering even if it is reapplied. If some flour and the white of an egg be added it, will usually not blister.

Sinapis is sometimes added to a foot bath to stimulate the extremities and circulation and aid diaphoresis.

SMILAX CANELLAEFOLIA.

Bamboo-Brier Root. (Aralia Nudieaulis).

S. China.

S. E. United States.

A wild specie of sarsaparilla. The root is a stimulating tonic alterative of considerable value in primary and secondary syphilis, rheumatism, serofula and eczema. An infusion may be used freely.

SMILAX OFFICINALIS.

Sarsaparilla. Jamaica.

Honduras, Jamaica.

The root is a mild, pleasant, relaxing and stimulating alterative. In hot infusion it gives an outward circulation of the blood. It is a very mild agent and deserving praise chiefly when combined with other alterants. In this way it is of service in scrofula, syphilis and skin diseases.

F. E. Smilax Off.

" Articum Lap.	
" Phytolacca Rad.	aa dr. iii
" Xanthoxylum	gtta. xv
Iodi. Potas.	dr. i

This is valuable for syphilis especially if gummata be present.

Sarsaparilla	320	Sarsaparilla	800
Rumex	160	Guaiacum	
Menispermmum	80	Iris.	aa 80
Oil Sassafras	1	Stillingia	240
Oil Anise	1		

These are good alteratives.

SOLANUM CAROLINENSE.

Horse Nettle, Bull Nettle.

S. E. United States.

The fresh juice of the fruit is concentrated by exposure to currents of air at a low temperature and preserved by the addition of some alcohol. This is the process. adopted by McHoy, Howe Co., of Indianapolis. They prepare it double strength. It is recommended largely in the treatment of epilepsy.

Powder of the root has during recent years gained some repute as a remedy in infantile and hysterical convulsions, but chiefly in epilepsy and paroxysms connected with menstrual derangements. Dose of Pdr. Root 10 grs. to 1 dr.

#### SOLIDAGO VIRGAUREA.

Golden-rod.

There are several varieties of this plant, but that bearing a plume-like flower is preferred. The leaves and flowers are a stimulating and slightly astringent tonic antiseptic to the mucous membrane. It is a sanative germicide, and is valuable in the presence of putrescence, as in diphtheria, scarletina, tonsillitis, pharyngitis or laryngitis. It may be boiled down and made into a confection or troche with sugar, suitable for sore throat of almost any kind, for children or for adults.

Solidago Virg.	4
Hydrastis Can.	
Myrrha	aa. 2
Chloride of Sodium	
Capsicum	aa. 1

This may be made into an acetous infusion for gargling, or for atomizing the throat; or the vinegar may be omitted and the infusion swallowed. In diphtheria and scarletina there is nothing better. In scarletina Arctium Seed should be added. In tonsillitis Solidago may be used alone.

Solidago	20
Lobelia	
Xanthoxylum	aa. 1

This may also be used for diphtheria and scarletina, in light form.

In catarrh and especially in la grippe, Solidago is very valuable. It cures quick and completely. I have had more complete eradication of la grippe from the use of Solidago, either alone in hot infusion, or in combination with other suitable agents, than with anything else.

In typhoid fever it stimulates and cleanses the alvine mucous membrane very successfully.

In phthisis pulmonalis and bronchial catarrh it is of much value, especially when added to other agents influencing the respiratory organs.

Boiled down to a thin paste and added to vaseline, an excellent salve is formed.

#### SPIGELIA MARILANDICA.

Pink-Root.

The root is a domestic anthelmintic. It is usually combined with Senna. Large doses produce dizziness, but no such symptoms attend the ordinary dose.

Dr. F. G. Hoener recommends the following as an anthelmintic:

Syr. Spigelia Mar.	
" Chenopodium Anth.	aa. oz. ii
" Cassia Acut.	oz. i

M. S. A teaspoonful or more four times a day for a few days.

#### SPIRAEA TOMENTOSA.

Hardhack.

The roots and leaves are a bitter mild, stimulating tonic astringent, useful in diarrhoea, cholera and bowel complaints. It may also be used as a tonic and astringent injection in female complaints.

#### STAPHYLEA TRIFOLIA.

Bladder Nut.

The bark is a mild, soothing, stimulant and relaxant to the mucous membrane. In hot infusion it influences the circulation and soothes the nervous system. In case of gastric, alvine, urinary and generative irritation it soothes and gently stimulates.

## STATICE CAROLINIANA.

Sea-Lavender, American.

Brazil, Paraguay.

The root internally is of a reddish brown colour, having a thick bark and its pith fully one-fourth of its diameter. The natives use this for all kinds of scrofulous enlargements and glandular swellings. It is a stimulating, astringent alterant. It is used locally as a wash, inhaled and given by way of the stomach.

The root is a positive astringent, useful in acute and chronic diarrhoea and that resulting in typhoid fever. It is also valuable in hemorrhages from whatever locality, and whether internal or superficial. It is useful as a wash for sore mouth and spongy gums.

The English Sea-Lavender (*Statice Limonium*) has similar properties.

## STELLARIA MEDIA.

Chickweed, Stitchwort.

This agent is stimulating to the mucous and serous membranes, improving digestion, increasing the appetite maintaining a good arterial circulation. It is of value in debilitated conditions, anaemia, consumption, rheumatism.

Dr. F. G. Hoener reports the case of a young lady believed to be suffering from incurable chlorosis who was cured by an infusion of this agent and vapour baths.

## STICTA PULMONARIA.

Lungwort, Lung, Moss.

This lichen grows upon rocks and upon the trunk of trees in New York and the New England states. It influences the mucous membrane especially of the respiratory organs, relieving bronchial irritation, congestion of neck, shoulders with stiffness of same, soreness and pain, dry irritable hacking cough, wheezing and tightness, asthmatic cough, nasal catarrh, croupal coughs, whooping cough, hay fever, la grippe, coryza, rheumatism, especially of the shoulders.

This herb is mucila. aginous, pectoral, astringent and healing. It is very valuable in the treatment of coughs, asthma, spitting of blood, in hemorrhages and affections of the lung, especially if combined with *Lycopus Virginica*. and *Hydrastis Canadensis*.

## STILLINGIA SYLVATICA.

Queens Delight.

The root is a positive stimulating alterative, laxative, tonic, diuretic. Large doses are cathartic and emetic and subsequently leave in the stomach and bowels a burning sensation.

It stimulates the alvine mucous membrane and the glandular system, and is valuable in the treatment of secondary syphilis, eczemas, ulcers and scrofula. It is best adapted to chronic cases and in combination with other agents less stimulating.

F. E. <i>Stillingia</i> Syl.		F. E. <i>Stillingia</i> Syl.	
" <i>Dicentra</i> Ex.		" <i>Sarsaparilla</i> Off.	
" <i>Iris</i> Ver.		" <i>Arctium</i> Sem.	
" <i>Chimaphilla</i> U. aa. dr. ii		" <i>Chimaphilla</i>	
" <i>Xanthoxylum</i> C. gtt. xv		" <i>Rumex</i> Cr. aa. dr. ii	
Syr. Simplex q. s. oz. iv		" <i>Xanthox.</i> Car. gtt. x	
Syr. Simplex q. s. oz. iv			
<i>Stillingia</i> Syl	5	F. E. <i>Stillingia</i>	oz. iii
<i>Dicentra</i> Ex.	3	" <i>Sanguinaria</i>	dr. iv
<i>Chimaphilla</i> U	2	" <i>Iris Versicolor</i>	dr. iss
<i>Xanthoxylum</i> Bac.	1 1/2	<i>Iodide</i> Potas	dr. iii
<i>Coriander</i> Sem.	1 1/4	Syr. Simplex	q. s. oz. xvi
<i>Iris Versicolor</i>			
<i>Sambucus</i> Flowers	aa. 1		



These are all good alterative preparations more or less stimulating.

Oil Stillingia  
" Lobelia                   aa dr. ii  
" Cajuput  
" Eucalyptol               aa. dr. iii  
Alcohol                   oz. iii

This is a good liniment for sore throat and wherever needed.

Oil Stillingia,  
Oil Lobelia,                   in equal parts, triturated on sugar or Sugar of Milk will generally relieve asthmatics of spasmodic and difficult breathing.

The following will be found an admirable compound to be used in eczemas, scrofula, gleet, syphilis, mercurial and cancerous sores.

Stillingia Syl.  
Corydalis For.  
Berberis Aquia           aa 2  
Xanthoxylum bark   1  
Trifolium Pro           5  
Ampelopsis               4

#### STYLOSANTHES ELATOIR.

Afterbirth Weed.

This herb is a soothing, stimulating, tonic nervine especially influencing the pelvic organism. It relieves the irritation and pains frequently present during the pregnant period, prevents miscarriage and quiets the false pains so frequently perplexing just prior to parturition.

It is a splendid preparatory to the parturient act, and nicely anticipates a long and tedious labour. Of the fluid extract 10 or more drops may be given three times a day for a month prior to confinement.

#### STYRAX BENZOIN.

Benzoin.

East Indies.

This fragrant balsam exudes through incisions made in the bark. This dries to a state of brittleness. An alcoholic tincture-Tr. Benzoini Comp.-is made which may be combined with cough syrups in the treatment of old coughs. In hot water it is quite fragrant and being inhaled will add to its power as a tonic expectorant. The tincture is externally applied to wounds, sores, etc. Benzoic acid is quite irritating.

#### STYRAX OFFICINALE.

Storax.

Southern Europe.

This balsam is a stimulating expectorant. It acts very beneficially upon the mucous membranes and is useful in combination with other suitable drugs in asthma, bronchitis, catarrh and pulmonary affections.

An Ointment preparation is a valuable application for many cutaneous disorders such as scabies and ringworm.

#### SWERTIA CHIRATA.

Chiretta.(*Ophelia Chirata*.)

This herb is an intensely bitter tonic, influencing the alvine mucous membrane and the liver, promoting appetite and assisting digestion. It is adapted to torpid and sluggish conditions and in small doses is useful in convalescence. Its bitter taste may be partly covered by orange peel.

#### SYMPHYTUM OFFICINALE.

Comfrey.

The root is a soothing, demulcent, gently stimulating tonic to the mucous membrane, especially of the respiratory organs. It allays irritation, increases expectoration and tones the bronchi.

It is useful in colds and coughs, and is a valuable addition to cough syrups generally.

The fresh material bruised is a good application to bruises, irritable sores and obstinate ulcerous wounds. Symphytum, Rheum, Inula, Aralia Racemosa, Symplocarpus and Marrubium, of each oz. iss. Boil in one gallon of water. Strain, and boil the liquid to one quart. Add sugar 3 pounds and alcohol 2 ounces. This forms a nervine cough syrup.

#### SYMPLOCARPUS FOETIDUS.

Skunk Cabbage.

The roots and seeds are a prompt, relaxing and stimulating, diffusive, antispasmodic nerve. It is good in cases of irritable hysteria., a. good addition to Cough syrups for irritable coughs, valuable for the restlessness of fevers, in chorea, whooping cough and in general irritation of the system.

#### SYRINGA VULGARIS.

Lilac.

The leaves and flowers are a mild bitter stimulating and relaxing agent influencing the mucous membrane, and in hot infusion gives a good outward flow of the circulation. It is useful in colds with feverishness and is a good addition to cough syrups.

Dr. F. G. Hoener says that the flowers are a specific in whooping cough.

#### TANACETUM VULGARE.

Tansy.

This herb is a bitter, diffusive stimulant and tonic. A hot infusion influences an outward flow of the circulation and a moderate free diaphoresis. It is used for the relief of colds and for the relief of the menstrual flow when obstructed by colds. It must not be used by the pregnant. The oil is even more dangerous to them.

A reliable anthelmintic it is largely used for expelling both thread and tape worms in children or adults. The infusion of one ounce to one pint of boiling water should be taken in teacupful doses night and morning, children half that quantity.

A poultice of Tansy will frequently relieve pruritis vulva.

#### TARAKTOGENDS KURZII.

Chaulmoogra.

(Hydnocarpus.)

Malaya.

This tree bears a fruit which when expressed or boiled yields a fixed oil of a rather unpleasant smell and somewhat acid taste and quite stimulating. It is used as an application to stiff joints and for sprains, rheumatism and neuralgia, also in cases of eczema, psoriasis and inflamed diseases of the skin. Vaseline is frequently combined with Chaulmoogra and used as an ointment. It may be made of any desired strength.

Internally it is quite irritating to the stomach and it must be taken in very small doses.

It is now being extensively grown and used in the treatment of leprosy.

#### TARAXACUM OFFICINALE.

Dandelion.

(T. Dens Leonis).

This root, in order that you may experience its best effects, must be gathered during the Summer months after it has accomplished its growth and before the freezing weather of Autumn begins. Boiling impairs its strength. It is a mild, slow, relaxing and stimulating tonic hepatic, influencing slowly the liver, alvine canal and kidneys. It assists digestion and assimilation. It influences the liver in both its secreting and excreting functions. It gives very favourable results in cases of torpid liver, indigestion, constipation, jaundice and dropsy. It needs to be given in large doses and to be frequently repeated. It may be used as an infusion or a diluted fluid extract. It is one of the best of the milder agents. Its influence upon the kidneys is also very favourable. Full beneficial action is best obtained when combined with other agents.

In typhoid fever its influence is excellent and maybe continued any length of time without wearying the system. As a gastric tonic it is very valuable in dyspepsia, and in irritation of the gastric and intestinal membrane, especially when there is torpor of the liver. The presence of Zingiber renders it more diffusive.

The roots roasted and ground and prepared as ordinary coffee is a pleasant substitute for that beverage and possesses all the beneficial properties ascribed to the Dandelion.

The leaves form an admirable salad in Spring. It is a medicinal food.

#### TEREBINTHINA.

Turpentine.

*Pinus Palustris* furnishes the common American or white turpentine.

*Pinus Sylvestris* furnishes the common European turpentine.

*Abies Balsamea* is that from which the Canada turpentine is obtained.

*Pistacia Terebinthus* furnishes Chian turpentine (*Terebinthina Chia*).

*Abies Larix* or *Larix Europrea* furnishes Venice turpentine.

Internally turpentine is volatile, pungent, strongly odourous, quite stimulating to the stomach and strongly influencing the kidneys. Inhaling it produces the same effects, and with some painters leads to jaundice. It is also used externally in liniments.

Oil Turpentine	oz 50
Oil Origanum	oz. 3
Oil Lavender	oz. 1

*Pix Liquida*, is the turpentine from the *Pinus Sylvestris* extracted from the wood burnt under ground and chemically changed by heat. The process by distillation yields pyroligneous acid and leaves the pitch. The oil of tar is a harsh stimulating and somewhat irritating agent.

Pine tar fumes are sometimes used for asthma. Chian turpentine taken in doses of 2 to 5 grains three or four times a day is reported by several to have cured some cases of cancer of the uterus and of other parts.

It is also reported successful in chorea.

#### THEOBROMA COCAO.

Cocoa, Chocolate Nuts.

This tree grows in Mexico, the West Indies, and is much cultivated in Venezuela. The nuts have an oily aromatic, slightly bitter taste, and an agreeable odour. They contain a fixed oil which is expressed in considerable quantities and denominated cocoa-butter. The shells have been occasionally used as a substitute for coffee. From the kernal a chocolate is prepared which is much used in the culinary art and as a drink at the morning meal.

A constituent of the seeds is Theobromine which has stimulating and diuretic action.

#### THUJA OCCIDENTALIS.

Thuja. *Abor Vitae*.

Northern States, Canada.

The tops are a stimulating alterant influencing the mucous membrane, the serous membrane and glandular structures. In hot infusion it influences the circulation and is somewhat emmenagogue and useful in amenorrhoea arising from congestion. Zingiber is a good addition in such cases. It is a rather unsafe agent for the pregnant to use.

In case of spermatorrhoea, nocturnal emissions and the results of masturbation this agent has proved successful.

In various cancerous conditions, especially scirrhus, condylomatous and epitheliomatous varieties, this agent may be used constitutionally and locally. If the os uteri be engaged and there be a tendency to hemorrhage use this freely. It controls capillary hemorrhage. A hot fomentation of the leaves forms a good application in cases of rheumatism.

It may also be used for syphilis and applied to venereal warts and sorts just before dressing them. It cleanses and considerably deodorizes. It forms a good application to rectal fissures and it may be injected into hemorrhoids instead of carbolic acid.

It may be used in enuresis with benefit, and in an equal portion of water it may be injected in case of hydrocele into the tunica vaginalis testis.

As an alterative an infusion may be taken very freely.

It may be combined with Vaseline and used as a salve.

Dr. C. B. Higgs uses the following for eczema:

F. E. Thuja Oc.

" Hamamelis Virgo. aa. oz. ss

M. Sig. Apply frequently to the affected parts, having given first a thorough Lobelia and Composition emetic. Then follow with a brisk cathartic. Repeat these occasionally as demanded by the conditions present, and continuously use some good alterative compound.

#### THYMUS VULGARIS.

Thyme.

This herb is a pleasant aromatic, diffusive, stimulating carminative. In hot infusion it is diaphoretic and influences the periods when they have been obstructed from cold. It also aids in the relief of colds and colic.

This plant yields a volatile oil (Oleum Thymi) which is added to various liniments.

Thymol is from this oil, an antiseptic. It is in large crystals and has an agreeable odour. It is insoluble in water, but readily soluble in oil. It is very pleasant to inhale in pulmonary troubles, and is a deodorant for the sick-room and places not properly ventilated.

#### TILIA AMERICANA.

Linden.

The flowers of this tree are a gently stimulating, soothing, diffusive tonic, influencing the circulation, and mucous membrane especially of the respiratory tract, and will be found useful in hot infusions in colds, coughs and eruptive diseases, bronchitis and acute catarrh.

#### TRIFOLIUM PRATENSE.

Red Clover.

The blossoms gathered when in the most perfect state are a mild stimulating and relaxing alterant. In hot infusion it influences the circulation to a good capillary distribution. It is mildly laxative to the bowels and soothing to the nerves. The Fluid Extract combined with Acetous Syrup of Lobelia is especially valuable in treatment of whooping cough in nervous children and those of scrofulous taint.

The Extract has a reputation as a plaster for the removal of cancers. It is a good wash for scaly skin and for indolent ulcers, promoting healthy granulations.

Trifolium Prat.	16
Stillingia Syl.	
Berberis Aqu.	
Arctium Rad.	
Phytolacca Rad.	
Cascara Am.	aa 8
Potas. Iod.	1
Xanthoxylum Cort.	42

This forms a Comp. Syr. Trifolium for syphilis, buboes and suppurating glands. Trifolium, Rumex and Menispermum make a good alterative compound.

#### TRILIUM ERECTUM AND T. PENDULUM.

Beth Root.

The root is a soothing, stimulating, astringent tonic, influencing the mucous membrane, especially that of the generative system. It is prompt and persistent but not drying. It is valuable in hemorrhages whether uterine, respiratory, gastric or rectal.

A few doses just before the completion of parturition will anticipate extra hemorrhage. It is useful in preventing miscarriage and in female weakness as leucorrhoea, weak vagina and prolapsus uteri. It may also be used in acute and chronic diarrhoea and dysentery. P. Beth Root and P. Slippery Elm in equal parts with a small quantity of P. Lobelia Seed will make a good antiseptic poultice.

#### TURNERA DIFFUSA.

Damiana.

(T. Aphrodisiac.)  
(T. Microphylla.)

California and Mexico.

The leaves, young shoots, flowers and seed are all used. In infusion it forms a refreshing beverage of lemon fragrance. It is a stimulating, toning nervine. The Mexicans drink of it freely to enable them to endure hardships and long journeys and to protect them from disease. It slowly but thoroughly stimulates the brain, spinal cord and the sympathetic nervous system, and is very valuable in debilitated conditions of the nervous system; in nervous prostration, paralysis and general debility. In such conditions we usually find an impaired digestion and a more or less impaired condition of the genito-urinary organs. This agent in such cases assists digestion, relieves constipation and stimulates the pelvic organism.

In cases of sexual debility and impotency, spermatorrhoea, masturbation, prostatic troubles, enuresis, cystic catarrh, it slowly but positively relieves constipation, increases digestive powers, strengthens the nerves and improves the general health.

F. E. Turnera Diff.	oz. i
Hydras. Sulph.	grs. v
Sodae Hypophos.	dr. ss
Syr. Aurantium Cort.	oz. ii
Aqua.	q. s. oz. iv

This may be used with benefit in renal and vesical troubles, albuminaria, and diabetes.

F. E. Turnera Diff.	dr. iv
" Rhus Arom.	dr. i
" Phytolacca Rad.	dr. iii
Syr. Zingiberis	q. s. oz. iv

This is a good nervine alterant for nervous prostration, prostatic troubles, seminal emissions and sexual impotency.

#### TUSSILAGO FARFARA.

Coltsfoot.

The leaves are a diffusive stimulant, relaxant and expectorant. In hot infusion it promotes a good capillary circulation and is soothing to the nervous system. In suitable cough syrups it increases expectoration, tones the bronchi and is valuable in debilitated pulmonary conditions. Coltsfoot, Marshmallow, Ground Ivy and Horehound in equal parts by infusion will prove a reliable cough remedy.

#### ULMUS FULVA.

Slippery Elm.

The inner bark forms one of the best demulcents for both internal and external use wherever there is an irritated condition. In constipation, dysentery, diarrhoea or cholera infantum, used both per oram and rectal injection it lubricates, soothes and relieves the intestinal irritation. It is a nutritious demulcent, soothing to the mucous membrane wherever needed and quieting to the nervous system. In diphtheria after the throat had been ridded of the decayed membrane it is quite raw; also during the scaling process in scarletina and measles and at times in typhoid fever.

Ulmus is then a very important agent. Ulmus is a good vehicle for Capsicum, Quinine, Gentian, Lobelia or Hydrastis.

Externally it is a superior agent combined with raw Linseed Oil for burns, scalds and abraded surfaces. Keep the surface well covered and there is nothing better.

With Lobelia it forms a good poultice for abscesses and boils. The ground is best for poultice, the powdered best for burns and the bark finely chipped for an infusion for the stomach.

Of *Ulmus Fulva* Potter's Cyclopaedia, says:-

It is one of the most valuable articles in the botanic practice and should be in every household. The finely powdered bark makes an excellent gruel or food and may be used as such in all cases of weakness, inflammation of the stomach, bronchitis, bleeding of the lungs, consumption, &c. It has a wonderfully soothing and healing action on all the parts it comes in contact with and in addition possesses as much nutrition as is contained in oatmeal. The food or gruel should be made as follows: Take a teaspoonful of the powder, mix well with the same quantity of powdered sugar and add 1 pint boiling water slowly, mixing as it is poured on. This may be flavoured with cinnamon or nutmeg to suit the taste and makes a very wholesome and sustaining food for infants. The coarse powder forms the finest poultice to be obtained for all inflamed surfaces, ulcers, wounds, burns, boils, skin diseases, purulent ophthalmia, chilblains, &c. It soothes the parts, disperses the inflammation, draws out impurities, and heals speedily. We cannot speak too highly of this remedy and are confident there is nothing to equal it in the world for its above-mentioned uses. Inflammation in the bowels of infants and adults has been cured when all other remedies have failed, by an injection into the bowels of an infusion of 1 ounce of powdered bark to a pint of boiling water, used while warm. It is also used in the formation of pills, troches and suppositions.

#### URTICA DIOICA.

Nettle.

The roots, leaves and tops are a positive, stimulating, tonic astringent; a powerful arrester of hemorrhages whether of the nose, lungs, stomach, bowels, uterus or urinary organs. It will also stop hemorrhages when applied locally and relieve painful hemorrhoids. The Fluid Extract when diluted forms a good wash for some eczemas.

Dr. F. G. Hoener, uses it for atelectasis pulmonum, haematuria and asthmatic coughs.

#### VACCINIUM CRASSIFOLIUM.

Bilberry.

This is of the huckleberry family and grows in the sandy bogs of the south, bearing a small blackberry. The leaves are a gently stimulating and mildly astringent tonic, influencing the mucous surfaces throughout. It is efficacious in toning the mucous membrane in chronic catarrh, gleet, leucorrhoea and in lax conditions generally.

#### VACCINIUM MYRTILLUS.

Huckleberry.

The root and bark are a gently stimulating astringent, influencing the mucous membrane, and useful in aphthous sore mouth, sore throat and leucorrhoea. In hot infusion it influences the circulation and assists in the arrest of hemorrhages.

The fresh ripe berries are an excellent fruit somewhat diuretic, refrigerant and astringent, and eaten alone or with milk and sugar form a cooling nutriment. The dried berries are used in medicine and prove of benefit in dropsy and gravel. A decoction of one ounce to a pint of water may be given in tablespoonful to wineglassful doses in diarrhoea, dysentery, and derangements of the bowels. Externally the decoction is used as a gargle; as a wash for sores, wound. and ulcers; and as an injection in leucorrhoea.

#### VALERIANA OFFICINALIS.

Valerian English.

The root has a foetid odour that, lasts long and is loud. It is a soothing, diffusive, relaxing and stimulating nervine. It is antispasmodic and useful for relief of irritability of the nervous system, of hysteria, insomnia, and the nervousness of children. Essence of Anise is frequently used to conceal its taste.

F. E. Valerian	dr. v
" Dioscorea	dr. ii

Ess. Anisi dr. i

Syr. Zingiber or Comp. Syr. Rhei q. s. oz. iv Use this for colic, diarrhoea and the restlessness of children.

F. E. Valerian, F. E. Dioscorea, F. E. Caulophyllum and Essence Anisi in equal parts in Syrup of Zingiber is useful in dysmennorrhoea, convulsions, hysteria., colic and crampings.

The following forms an excellent nervine powder which may be given in capsules or made into infusion and taken hot or cold as indications may require.

Powdered Valerian  
" Ginger  
" Lobelia aa 1  
" Asclepias Tub. 2

### VERBASCUM THAPSUS.

Mullein.

The leaves and flowers are a soothing relaxing and stimulating alterant. Influencing the glandular, serous and mucous structures. It is a very useful agent in the treatment of glandular swellings, hepatization or thickening of lung tissue, phthisis, asthma., hay-fever, Coughs, pleuritis and in all forms of dropsy.

F. E. Verbascum  
" Phytolacca  
" Sambucus Flowers  
" Gnaphalium aa dr. ii  
Syr. Simplex qs oz. iv  
F. E. Verbascum oz. ii  
Tr. Lobelia  
" Capsicum aa. oz. i

Give the former for bronchitis and croupy cough, and apply the latter over the lungs.

In the treatment of phlegmasia dolens use internally Verbascum 10 and Polygonum and Hydrastis each 1 and apply equal pads of Verbascum and Polygonum.

In dysuria, with or without stricture, you will find of good service a hot infusion of the leaves.

Externally Verbascum is of much value in the treatment of sprains, bruises, soreness of the chest, painful chronic abscesses. Many inflamed and painful conditions are relieved by a hot acetous fomentation of this agent. Cover green or recently dried Verbascum leaves with boiling vinegar and allow to simmer, covered, a half hour. Then strain and add Tr. Capsicum, Fld. Ext. Lobelia and Oil Sassafras in equal parts, q. s. according to the strength of application needed. This relieves painful and swollen joints. It scarcely ever fails to stop the pain and reduce the swelling.

Verbascum oz. iv F. E. Verbascum  
Lobelia dr. iv Tr. Lobelia  
Capsicum dr. ii Oil Sassafras, aa., oz. i  
Acetum qrt. I Mix.

Bring the former combination to the boiling point; then allow to simmer covered for a half hour.

Either of these preparations is excellent for rheumatism and stiff joints.

F. E. Verbascum F. E. Verbascum oz. iii  
" Polygonum Tr. Capsicum oz. i  
Tr. Capsicum aa. oz. i

Apply the former in chronic diarrhoea and the latter in peritonitis.

Verbascum Verbascum  
Solidago Cornus Flor.  
Cornus Flor. aa. equal parts. Hydrastis  
Kino aa. equal parts.

Use an infusion of either of these combinations as a vaginal wash.

F. E. Verbascum F. E. Verbascum oz. iv

Oil Sassafras	Tr. Capsicum oz. iiss
" Peppermint	" Lobelia oz. i
Tr. Zingiber.	Oil Origanum dr. ss
" Lobelia	aa. dr. ii
Alcohol	q. s. oz. iv

Apply the former for periostitis and the latter to dropsied limbs.

The expressed juice of the green leaves forms an extract or a salve for hemorrhoids that is very beneficial.

Dr. J. H. Smith advises the following in dysentery, to be used after each stool:

F. E. Verbascum Thap.	dr. ii
" Nepeta Cat.	
" Cypripedium Pub.	aa. dr. iii

M. S. Half teaspoonful to half teacupful tepid water for enema after each stool.

Gather the tops in bloom and subject them to heavy pressure. Apply this to enlarged submaxillary or other enlarged glands. It is also an excellent application in some forms of deafness. The oil can be obtained by filling a large bottle with the flowers. Use a cork having a hole in it. Invert this bottle so that the oil will drip into another bottle below. These bottles must be suspended in the hot sunlight. To preserve this a few drops of alcohol must be added. This is splendid in otalgia, scrofulous ophthalmia, and in enuresis; it may be given in 10 drop doses, or better, triturated on Magnesia.

Verbascum Thap.	oz. ss
Hydrastis Can.	grs. xx
Lobelia Infl. Herb	dr. i
Aqua	oz. vi

Filter. Wash the eyes every two hours and cover with a soft cloth wet with the same, in ophthalmia.

Dr. H. P. Nelson prescribes the following for the treatment of asthma.

F. E. Verbascum Th.	dr. iii
" Grindelia Rob.	dr. iv
" Lobelia	dr. ss
" Zingiber	dr. i
" Glycerine	q. s. oz. iv

## VERBENA OFFICINALIS

Vervain.

(Verbena Hastata.)

This plant is a bitter relaxing and stimulating nervine. In hot infusion it influences a good circulation toward the capillaries and soothes the nervous system throughout. The liver, gall ducts and bowels are all influenced by it. It gives favourable results in biliousness, periodic bilious attacks, and is somewhat antiperiodic. Boiling destroys considerable of its stimulating quality and leaves it a relaxing nervine.

Dr. F. G. Hoener uses the following for spleenitis :

Elix. Verbena, Off.	oz. ii
" Eupatorium Perf.	
" Xanthoxylum	aa. oz. i

M. S. One tablespoonful every two or three hours.

Syr. Verbena Off.	
" Chelone Glab.	aa. oz. iss
" Xantholylum	oz. i

This is a good tonic hepatic, and the following is splendid for sick headache:

F. E. Verbena Hast.	
" Scutellaria Lat.	
" Euonymous Atr.	aa. dr. iii
Syr. Zingiber.	q. s. oz. iv

In chronic cases this should be given three times daily for some time.



A cold preparation of Verbena is excellent in convalescence from fevers and other debilitating diseases.

#### VERNONIA FASTICULATA.

Ironweed.

The roots, leaves and flowers are a bitter, stimulating, tonic nervine. In hot infusion it arouses the circulation and soothes the nervous system, and is useful in acute febrile conditions. It is antiperiodic, gently hepatic, and useful in convalescence from fevers and other forms of disease.

The roots are most hepatic, the leaves are tonic and slightly astringent and will be found most excellent in chronic diarrhoea, cholera infantum and atonic and lax conditions of the stomach and bowels generally. Combined with *Amphiachyris* it may be formed into tablets and used locally and constitutionally for depressed conditions of the female organs. The roots give excellent results combined with cough tonics in lung troubles, and in preventing miscarriage and hemorrhage. The leaves will be found of good service in cough tonics in phthisis where the sputum is excessive and weakening.

#### VERONICA OFFICINALIS.

Speedwell.

This herb is a mild, relaxing and stimulating tonic alterant. In hot infusion it gives a good outward flow of blood and soothes the nervous system. It favourably influences the hepatic and renal organs and gives good results in jaundice, and in hot infusion in acute bronchitis and pneumonia, and with *Arctium* in skin diseases.

#### VIBURNUM LANTANOIDES.

Moosewood, Hobble Bush.

New England States.

This plant has large oval leaves having short brown hairs on the under side.

The leaves and twigs are gently stimulating and relaxing and somewhat mucilaginous influencing both the mucous membrane and the nervous system. It makes an admirable addition to cough syrups in the treatment of irritable coughs and bronchial irritations. In hot infusion it will be found successful in the treatment of feverish and inflamed conditions of the respiratory tract. Upon the nerves its action is antispasmodic. It will be found an excellent agent to be used in hot infusions in cases of recent colds throughout the system especially when feverish conditions are present.

#### VIBURNUM OPULUS.

Crampbark

The inner bark is an admirable relaxing and stimulating, antispasmodic nervine. It quickly relieves the crampings of the limbs due to pregnancy, and also when not due to this condition. It quiets pain and uneasiness due to the pregnant period and prevents miscarriage, and is still better when combined with such agents as *Dioscorea*, *Caulophyllum*, *Mitchella* and *Scutellaria*.

Viburnin is only a moderate representative of this agent; the Fluid Extract is preferable. Dr. R. L. Spann uses the following treatment for sciatica.

Viburnum Op.	dr. viii
Sorbilin	dr. ii
Kava Kava	dr. vi
Aqua Dist.	q. s.

Give in suitable doses every six hours.

#### VIBURNAM PRUNIFOLIUM.

Black Haw.

The bark of the root is a, soothing, stimulating, astringent tonic influencing especially the urogenital organs: It relieves after-pains, stops excessive lochia, prevents abortion when threatening, relieves chronic enlargements of the uterus, prolapsus uteri, vaginal laxity, and passive menorrhagia.

It is very valuable during the menopause to prevent excessive flow. The infusion of one ounce to a pint of boiling water may be taken in tablespoonful doses. Dr. F. G. Hoener advises the following :

Elix. Vib. Pruni.	oz. iiss
" Cyp. Pub.	oz. i
" Amaranth. Hypoch.	oz. i

M. S. One dessertspoonful every hour during period of threatening miscarriage.

#### VIOLA CALCARATA.

Blue Violet, Head's Ease.

America.

The leaves and roots are a gently stimulating and relaxing soothing nervine and alterative. It influences the alvine mucous tract, is somewhat laxative and diuretic, and well influences the lymphatic glands. It will be found of use in irritable coughs, irritable conditions of the mucous membrane throughout, constipation and strumous conditions.

#### VIOLA ODORATA.

Violet, Blue.Sweet Violet.

England.

The leaves and roots of this plant are to the taste rather bitter and mucilaginous. With distinct antiseptic properties the plant contains certain glucosidal principles. It has for some years been highly recommended and used with benefit in the treatment of cancer. Substantial claims are made that not only is pain early allayed, the growth or swelling gradually reduced, but perfect cure effected.

Viola Odorata is worthy of close investigation and research as to its value in that terrible disease. A simple method of use is to pour a pint of boiling water on to a handful of fresh Violet leaves, cover close and allow to stand for twelve hours. When strained the dose is a wineglassful every four hours. The infusion is also used with advantage applied as a saturated dressing covered with oilsilk. When fresh leaves are unobtainable the dried leaves may be used in similar manner.

The flowers possess expectorant with slight anodyne effects and are used in syrup form for coughs, colds, and inflammatory conditions of the chest and of the mucous membranes. Syrup of Violets possessing mild laxative properties is suitable for children.

#### VIOLA TRICOLOR.

Heart's Ease.

England.

In hot infusion this herb is a diffusive, stimulating diaphoretic, and useful in coughs, colds, glandular swellings and fevers.

#### VISCUM ALBUM.

Mistletoe.

This vegetable parasite grows upon a variety of trees and shrubs but seems to prefer oak, apple, poplar and Cottonwood. Its appearance is rather peculiar, having greenish yellow, woody, brittle stems. It branches freely and soon forms a dense mass. The leaves are fleshy, of color and brittleness similar to that of the stems. The leaves vary much in size. The flowers are very minute and the fruit is a small whitish berry, very viscid.

The leaves are a stimulating and relaxing antispasmodic nervine. It seems to give its especial influence where it is most needed by the vital force. During parturition when the pains are light, it produces prompt uterine contractions and well anticipates hemorrhage. It is also valuable in all uterine hemorrhages, and assists much in the expulsion of the placenta when retained.

As an antispasmodic it will be found useful in the relief of the extra, effort put forth in asthma, epilepsy and other spasmodic conditions. Nervine, tonic and narcotic properties make it of great value in hysteria, St. Vitus Dance and other nervous diseases.

## XANTHIUM STRUMARIUM.

Cocclebur. Clatbur.

The leaves are a mild, diffusive, stimulating, astringent tonic. In hot infusion they influence a good capillary circulation, and are valuable in cases of the bites of snakes, tarantulas, centipedes and various poisonous insects. Give an infusion very freely and apply a poultice of the boiled leaves.

The green leaves bruised and applied to the surface will blister the surface.

The expressed juice of the green leaves applied to the surface is a valuable local styptic, almost instantaneously producing contractions of the capillaries and the formation of coagulum. In cases of bleeding of the nose, stomach, rectum, vagina, a spraying or injection of this agent is very useful. In post-partem hemorrhage and in typhoid hemorrhages it should be given internally.

The Fluid Extract of the green leaves or an infusion of the green leaves or of the burrs, either is excellent for dysuria, strangury, scalding urine, bearing down with painful micturition, gonorrhoea and gleet. The infusion of the burrs is nearly tasteless but is very effective.

## XANTHOXYLUM AMERICANUM.

Prickly Ash.

(Xanthoxylum Fraxineum.)

The bark is a positive diffusive stimulant, especially inducing a good free capillary and arterial circulation. It is a valuable addition to alteratives and to diaphoretics. It warms the stomach, arouses the skin, and stimulates the salivary glands, the lymphatics and the serous and mucous membrane. It is a valuable addition in all chronic affections, rheumatism, neuralgia and wherever the skin and extremities are cold.

The seed or berries are also carminative and anti-spasmodic, and slightly more stimulating than the bark. In cases of a dry tongue and mucous surfaces use this agent and if need be add a little Lobelia. It is one of the best things in the world. It acts slower than Capsicum but its effects are more permanent. Give in small and frequent doses.

Xanthoxylum and Phytolacca are excellent in rheumatism, syphilis, scrofula, paralysis, aphonia, cholera, cholera morbus, congestions.

Xanthoxylum is a moderate representative of this agent. The oil is much better. Fill a bottle full of the berries then fill it with alcohol. Allow to stand a week or more. Then evaporate the alcohol and you have the oil. This may be used triturated on Lactin 1 to 9.

The dose of Xanthoxylum in any form is very small. The following may be used for lead poisoning.

Myrica Cer.	dr. i
Xanthoxylum	dr. ss
Tannin	grs. x
Aqua	oz. viii

M. S. Two teaspoonsful every half hour to two hours as required.

## ZEA MAYS.

Corn Silk.

(Stigmata, Maidis.)

This should be gathered immediately after its pollen has been shed. It is a demulcent, tonic diuretic. It increases the flow of urine, soothes the kidneys and bladder, and relieves the urine of that strong odour of ammonia which is sometimes present. It cleanses the cystic membrane in the relief of cystic catarrh, and of other morbid deposits showing its influence as an antiseptic. It assists in freeing the circulation of urea and is valuable in the treatment of renal and cystic inflammation.

Dr. C. B. Riggs recommends the following for cystitis:

F. E. Zea Mays	oz. iss
" Uva Ursi	oz. ss
Sodium Salicylate (Wintergreen)	grs. LX

M. S. Teaspoonful every one, two or three hours. This gives relief within a few hours and will give any practitioner a reputation in this class of cases. The Doctor says this has never failed him.

## ZINGIBER OFFICINALE.

Ginger.

Jamaica.

The root is an aromatic, diffusive stimulant. It is one of the most useful agents of the materia medica; though last, it is not least. In hot infusion it is diaphoretic. When detained by congestion, it relieves the congestion and assists in reinstating the menstrual flow. It is one of the best agents in most grades of feverishness.

In a large majority of compounds it is an excellent aromatic adjuvant. With cathartics it prevents nausea and griping.

In typhoid and other fevers and in all the exanthems there is nothing better, and so in bronchitis, pneumonia, pleuritis and angina.

It relieves flatulence, internal congestions, recent colds, and is useful in dysentery and diarrhoea.

Zingiber 1, Asclepias 'rub. 4, forms an excellent diaphoretic.

With Lobelia, Zingiber increases its antispasmodic power.

The Tincture may be used for all the purposes of the agent.

# PHARMACY.

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By J. M. THURSTON, M.D.

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## *Introductory.*

Pharmacy is the art of preparing remedial agents in the most effective and convenient form for administration in the treatment of disease. The Physio-Medical practice having for its fundamental guidance, a philosophy differing widely from all other schools of medicine, requires a readjustment of all known facts relative to Physiology, Pathology, and Therapeutics to this basic hypothesis, which avers the vital constitution and unity of the physiological whole, in health and disease, rendering all symptomatic, or perverted, as well as normal functional actions, essentially sanative in their intent, by virtue of an inherent vital force, whose manifestations through, and only by means of living matter, is always resistive of inimical influences, constructive and regenerative; it therefore follows that a Physio-Medical Pharmacopoeia, and the subject of pharmacy must be adjusted to this philosophical standpoint.

To this work we address ourself with many misgivings. Not however because of inherent difficulties in adjusting, and rearranging the present known facts, which have been valued by other schools of medicine, or the very large number of established truths that, have been discovered and used by Physio-Medicalists, during the last seventy-five years, to the theorem of our school of practice; neither because of the slightest doubt of harmony between Physio-Medical philosophy, and a single truth of pharmacy and therapeutics, but we shrink from the task wholly on personal doubts of our ability to fill the requirements of so great a need as that of a practical working pharmacology for the Physio-Medical profession.

The Physio-Medical philosophy is interdictory of alcohol as a therapeutic agent, and our pharmacy avoids its use as a menstruum, claiming for it only preservative properties, and admits only the smallest percentage. It is a well demonstrated fact that the most potent therapeutic agent is a hot infusion. Boiling water, therefore is the most effective and reliable menstruum for obtaining the full remedial constituency of vegetable drugs especially. But these infusions do not keep well, they are soon attacked by micro-organism and fermentative processes, that render them useless; so that a thoroughly reliable, therapeutically inert, non-alcoholic preservative for a percolate made with boiling water as a menstruum, is the great desideratum in Physio-Medical pharmacy. Such a preservative we shall endeavour to suggest for many of our fluid extracts, in the body of this work.

It will be readily understood from the facts set forth above, that the difference between Physio-Medical Pharmacy and that of other schools in the preparation of fluid extracts, especially of the Vegetable Materia Medica, is quite radical, and will no doubt subject this work to adverse criticism; but as to this we are indifferent, relying upon the integrity of our principles, and the experience of our profession, to demonstrate that the source of these strictures is ignorance, and prejudice. Owing to the large and wholly unnecessary percentage of alcohol in the fluid products of the leading manufacturing houses, whose business acumen rightly prompts them to pander to the more popular schools of medicine, whose false and dangerous notion of chemico-therapeutics, or the idea of the body-functions being the result of chemical disintegration of atoms, thus reasoning that medicines must also act by chemical equations in the living economy, as they do in the chemical laboratory, has brought into existence numerous "chemical companies," so that the Physio-Medical practitioner is compelled through the lack of pharmaceutical houses that shall devote proper attention to our wants, to prepare a large share of his own therapeutic supplies, or else purchase and use these highly alcoholic and irritating fluid extracts. Therefore the larger part of this work will be devoted to Practical Office Pharmacy, by which we hope to point out an economic outfit, and processes that will draw as lightly as possible upon the busy practitioner's time, also afford him efficient and elegant pharmaceutical products.

While in some respects, it is desirable to avoid combination of a considerable number of agents, and especially a routine formulae--practice, yet no experienced prescriber can be induced to confine himself exclusively to single administration of remedies, no more than he could be induced to treat a given disease, through all its phases and constitutional modifications of various patients, with one single agent. Neither is it possible to find a successful practitioner of several years' experience who has not a number of favourite formulae, which he prizes highly. This is our only apology for concluding this work with a somewhat extensive Formulary. Partly from necessity, but largely from natural taste for pharmaceutical work, the writer has devoted much time and money to laboratory equipment and pharmacy; which we hope may avail somewhat in presenting to the profession, some originality and individuality in the subject matter of this work that may aid in rendering it of practical value. However we would by no means exclude the large experience, and practical ability of our many friends and co-labourers, and shall present much from others of our own school, and some things of value from other schools of medicine, endeavouring carefully to give due credit to all in the proper place as we go along: the Author's original material standing unaccredited.

### FLUID EXTRACTS.

The object of pharmaceutical procedure in obtaining a fluid extract, is, the solution, in an effective and agreeable form, of the therapeutic principles of vegetable substances and of inorganic compounds or elements. The two qualities, that, of efficiency and elegance, are not always attainable. in a pharmaceutical product: indeed the problem of pharmacy is to overcome this antagonism between taste and therapeutic value: for the practitioner cannot afford to sacrifice the latter for the former. The writer's experience and observation in this direction is that the tendency of modern pharmacy is sadly in neglect of efficiency, for the sake of elegance. In addition to this harmful tendency is the false notion that the so-called "active, principles" and the "inert" constituents should be wholly separated, to the total exclusion of the latter; and to this end analytical pharmacy has been carried to a harmful, not to say ridiculous, extreme. "Organic chemistry" is a misnomer; approximate chemistry is the more appropriate term for the chemical treatment of organic substances, which, at its very first touch, obliterates the vital conditions and physiological continuity of the organic body, leaving us without a supposition as to either the physiological synthesis of the analytical products, or the therapeutic potency of these isolated principles. The fact is that the living matter, which not only constitutes the vita,] motor of the living plant, but when this same vegetable organism becomes a materia medica, it now, in a dessicated form, becomes the essential therapeutic constituent of the drug. This bioplasm is, in the vital living state, matter without atomic characteristics, and therefore absolutely without the pale of chemical law. We have the proof of this in the variance of organic chemical analyses; no two chemists obtain exactly the same results from the same organic substances, the same chemist failing to obtain identical equivalents by different analyses of exactly the same organic body; thus exhibiting the futility of all attempts at scientific accuracy, and impossibility of so-called organic chemistry, so far as it serves physiology, pharmacy, materia medica and therapeutics.

On the- therapeutic philosophy that all substances, as they stand in relation to the human organism, are divisible into three genera,] classes, viz., Food, Medicine and Poison, and that there is a radical difference and distinction between a medicine, and a poison, as well as a food and a poison, that a true food substance, when taken up in pabular state by the living matter of tissue-elements, affords materials that can be converted or assimilated by the bioplasm into its own substance, thus losing all atomic characteristics and becoming non-atomic living matter or bioplasm, and eventually tissues and structures. In other words, a food is a substance possessed of tissue and structural potentiality-true tissue-building constituency. The difference then between a food and a true medicine, or Physio-Medical remedy, is, the latter is a negative food; i.e., does not actually afford pabulum and increase of bioplastic substance or quality, and consequent tissue-building; but simply modifies and improves the bioplastic conditions, functional potency of the whole tissue unit, and consequently the functional activity of tissues, structures, organs and systems. Hence they are called sanative agents or medicines. Therefore it follows that the essential nature or quality of Physio-Medical fluid extracts would radically differ from that of the other schools of medicine, even when dealing with the same sanative drugs.

So that on the Physio-Medical theorem we regard much of the so-called "inert principles" of vegetable crude drugs essential to a fluid extract, as we require the full normal constituency of the crude article to insure therapeutic efficiency, drug identity, and consequently scientific precision in prescribing. Indeed, as before mentioned, an infusion is the most potent therapeutic form of these drugs; and this is because it represents in a synthetic state the vital soluble therapeutic constituency of the drug; and this therapeutic potency is the dessicated bioplasm. We shall therefore give to an infusion, according to Physio-Medical nomenclature, the name of Normal Fluid Extract.

Of the theory of bioplasm in a dessicated form constituting the therapeutic potency of vegetable drugs, we scarcely feel called upon to present further argument in defense; but attention is called to the following facts in support. Old and inert vegetable drugs are, so because the drying process is carried to the extent of total destruction of the living matter i.e., its return to atomic state.

Finally, the dessicated bioplasm affords the essential therapeutic potency of these vegetable drugs, because it furnishes the most assimilable form of pabulum to the bioplasm of the tissue elements, when administered to the living organism; and it represents the purest type of negative food.

As to the question of inorganic therapeutic agents, and the role that hot water plays in a freshly prepared infusion, this reaches beyond the limits of the present article, into the principles of therapeutics. Therefore, we deem it sufficient to simply mention the facts that cold infusions have equal therapeutic power to hot infusions, only slower in exerting that influence, and consequently more persistent; that inorganic substances are equally efficient in any form, whether cold or hot infusions, or fluid extracts, except rapidity of entering the circulation, afforded them by heat.

While the general rule is, that green fluid extracts, i.e., prepared from the fresh plant, have not met with general favour from the profession, yet there are some agents that furnish certain therapeutic results in the green state, which cannot be obtained from them in the dried form. *Phytolacca* root, and *juglans cinerea*, bark of root, are two instances of this kind; the former in the green state affords an excellent regulator of the vasa-motor nerves of head and face, and is consequently a most valuable remedy in certain forms of facial neuralgia; the dried agent affords no such influence. The fresh bark of green root of *juglans cinerea* is a prompt and powerful stimulant of the intestinal motor system, and gives, a valuable cathartic and hepatic action as a result of this influence; the dried bark of the root yields an astringent and tonic action upon mucous membranes. These will be referred to again in their proper province; we only mention them to show what these influences above named are because important therapeutic constituency of the drugs have been isolated or dispersed by drying. This fact in no degree constitutes an exception to the general rule already laid down, that a fluid preparation properly made with boiling water as a menstruum, is a normal fluid extract, and affords the absolute therapeutic constituency of the drug. Then in order to establish a necessary standard of Physio-Medical fluid extracts, in accordance with the foregoing facts and principles, we would suggest the following general rule.

A Fluid Extract is a fluid preparation whose menstruum is boiling water, or some other fluid that will extract and hold in solution the entire therapeutic constituency of the drug, to which is added the smallest percentage of preservative that will protect the product from fermentative and other deleterious action. Now we are aware that the inexperienced, and those who have been taught to believe alcohol a powerful menstruum, mistaking the burning, irritating action of the alcohol upon the mucous membranes for "strength," or therapeutic potency of the pharmaceutical product, will deem preparations on the above formula, entirely too "weak" and inadequate. But the experienced Physio-Medical practitioner has proved their reliability, "and all who give our fluid extracts, which are conformed closely to this rule, a thorough trial, divesting themselves of all prejudice or preconceived notions, will certainly not be disappointed. They will learn that alcohol is not a menstruum in the true pharmaceutical and therapeutic sense of the term.

#### Preparing the Crude Drugs.

The proper time to gather vegetable agents is at the stage of full maturity of the part to be used. If the whole plant, which includes roots, is desired, it must be gathered when in full foliage, and bloom, if a flowering plant. If only the roots entire are required, then early spring, when the plant is just shooting above ground. If the bark of the root, then a little later when the sap is starting, so that it peels readily.

Barks, and fruits, such as berries, nuts, etc., are gathered in the fall; the bark when the sap is starting down, about the early turning of foliage; fruits at their earliest maturity and ripeness.

**Cutting.**-The herb tops, barks and roots should all be cut while in the green state into the finest possible transverse sections. Bark of roots should be well washed and scraped as also the larger roots when used entire. For cutting there is nothing better than the old fashioned hand cutting-box, used by farmers in making chopped feed for horses, which can usually be got cheap at hardware and implement stores. A very good cutter can be cheaply made by attaching a ear-cutter to a large square block of wood, having a board nailed on one side.

**Drying.**-After cutting carefully, the materials are dried, at not too high a temperature, in the shade, never exposing them to the sun, nor in a room the temperature of which is above 85 deg. F. The atmosphere should be thoroughly dry and pure. They should be spread out so as to avoid contact of large masses, which will ferment and mould. See to it that they dry slowly without injury, and well protected from dust and insects during the drying process, as well as afterward. Dr. Joseph Weeks, of Mechanicsburg, Ind., has devised a series of drying racks, which he lays one upon another, after loading them, and swings up to the ceiling by ropes and pulleys, out of the way in the back room of his office, in a most favourable drying atmosphere. They consist of several box-frames about 3 inches deep, 37 x 42 inches square. The bottom is covered by coarse canvas; the sacking used by furniture dealers is best. This is supported by slats 2 x 3/8 inches nailed across the frame about 6 or 8 inches apart. After being loaded with the fresh cut drugs they are piled upon each other, the bottom one having rings for the attachment of swinging ropes. Over the top one is thrown it loose canvas or paper. The contents are thus thoroughly protected from dust, insects, etc., and yet a thorough circulation of air is allowed and the drying process is favoured. This is an excellent device, cheap and convenient.

**Comminution.**-After the drying process is carried to the proper extent, the drugs must be reduced to a suitable degree of comminution, or separation into fine particles favourable for obtaining in solution their medicinal properties. On a small scale, and especially for plant-tops, leaves, and the more tender barks, a large iron mortar and pestle serves the purpose, as it will for all other crude materials if one is not averse to the free use of muscular exertion. A good light-running hand drug-mill gives the most satisfactory results, and should be a part of the equipment of any considerable pharmaceutical laboratory. There are quite a number of good drug-mills on the market, and can be got from any hardware dealer, ranging in price from \$10.00 to \$25.00. The Hance Drug-Mill, on the whole, we think is the best one.

Pharmacists vary in their preferences as to grinding of drugs, some using exceedingly fine powder, others very coarse, and others preferring moderately fine powder. When we remember that the process of percolation, the one now universally used as the best for obtaining the therapeutic values of drugs, depends for its effectiveness wholly on the force of gravity plus the weight of the column of fluid or menstruum as it is called; that after the solvent action of the menstruum is complete, the mere mechanical force of gravity enables it to displace or disengage itself from the drug-residue, and fall from the lower end of the percolator laden with its full complement of extractive constituency, we can readily see that a very fine powder being more compact would render percolation quite slow, and thus restraining the passage through the drug-mass deprive the process of the aid afforded by gravity force. Therefore it would seem that after maceration is complete, that is, the full solvent action of the menstruum is spent, rapid percolation through a moderately fine powder should yield the richest percolate; our personal experience, which has been quite extensive in this direction, testing thoroughly the various grades of grinding, is wholly in favour of a moderately fine (No. 50) and moderately coarse (No. 40) powder.

We prefer to not sieve the grindings from a drug-mill. Most all crude drugs of the organic class contain parts more easily comminuted than others; they are mostly the intercellular strictures, and these contain the bioplasm of the plant; consequently, as we have before stated, are most potent in medicinal constituency. These more friable parts of the drug will be the finer as the mass comes from the mill, hence sieving separates them readily from the more woody parts, which also contain in many drugs important therapeutic principles, rejecting which, the percolating powder represents only partially the therapeutic value of the entire plant. The entire mixture gives a better powder for percolation.



While beyond question the fresher gathered and prepared the materials, the better the pharmaceutical product, and we strongly urge the physician who can at all, to have them gathered, and prepare all the botanical agents that grow in his immediate locality; yet he will have to depend on the general drug-miller for many valuable foreign agents. He should therefore sufficiently acquaint himself with the physical characteristics of these foreign drugs, and the requirements of first-class materials, to be able to make intelligent selections. As an aid to this end we offer the following general suggestions in purchasing.

Do not buy the crude packed drugs. As a rule they must be very dry to pack well, which over-dry state injures their medicinal value. Such drugs are exceedingly hard to grind, and the labour of comminuting overbalances the difference in price, unless time is of no value.

Deal with a Physio-Medical drug house, as they will be better able to furnish fresh and reliable botanic agents. If such a drug house is not within reach, order direct from the drug-mill. The grade of grinding drugs is usually indicated by the terms fine, moderately fine, moderately coarse, and coarse. The United States Pharmacopoeia has designated more definitely the degrees of fineness meant by the above terms, in relation to the number of meshes to the linear inch of sieve wire, as follows:

Very fine powder should pass through a sieve, of 80 meshes to the linear inch, and is therefore powder No. 80. Fine powder has been sieved through wire of 60 meshes to the inch, and is No. 60 powder. Moderately fine powder is sieved with wire of 50 meshes per inch, and is No. 50 powder. Moderately Coarse powder is sieved with 40 mesh wire, and is therefore No. 40 powder. Coarse powder is sieved through wire of 20 meshes per inch, and is No. 20.

Thus one can easily indicate to the drug-miller exactly what degree or grade of grinding is desired. In ordering drugs for percolation always specify, from the mill, unsieved. As already explained, the best drug, or in other words the ground product which will represent the full constituency of the plant, is that containing every part of it, and will be made up of different degrees of fineness. The cellular, intercellular and dense ligneous parts each will vary in fineness with the same setting of the mill. The drug-miller knows that the intercellular portions are more easily pulverized, hence he sieves these finer and richer parts out to be taken to the chaser-mill for pulverisation, while the coarser woody, and poorer medicinally, parts are sold for percolation. Of course the drug-miller does not know the difference in medicinal richness of these various parts; looking at the matter from a purely commercial stand-point, he does not think of selling percolate-powders direct from the mill.

#### Percolation-Its Purpose, Philosophy and Practical Methods.

The cylindrical vessel for the process of percolation, made of heavy tin, granite iron, glass or crockery-ware, is called a percolator. The menstruum is the fluid poured on drugs in the percolator; the percolate is the liquid containing the solvent principles which escapes from the lower end of the percolator; and the process is percolation, displacement or lixivation. This process is one of the very earliest methods of pharmaceutical practice, as well as one of the most important. The philosophy of percolation is very aptly set forth in the following, which we quote from Remington's Practice of Pharmacy, page 228 :

When a powder placed in a cylindrical vessel with a porous diaphragm below, is treated from above with a liquid capable of dissolving a portion of its substance, that portion of the liquid first in contact, in passing downward, exercises its solvent power on the excessive layers of the powder until saturated, and is impelled downward by the combined force of its own gravity and that of the column of liquid above it, minus the capillary force with which the powder tends to retain it. If the quantity of liquid added is not more than enough to satisfy the capillarity, no liquid will pass the diaphragm; but the careful addition of liquid upon the top displaces that absorbed in the powder without mixing materially with it, and takes its place, to be in turn displaced by a fresh portion of liquid.

The above, which undoubtedly is the true principle of percolative action, is in support of our idea that most powders as furnished by the drug-millers to-day for percolation are entirely too fine, and when wet they become so dense as to offer too much resistance to gravity-force, the most important factor in the process.

The Percolator.-Almost every conceivable form of percolator has been devised, both as regards natural percolation, or that by natural force of gravity plus the fluid weight, and special or forced percolation. The history of the development of this most important pharmaceutical process, as well as the various forms of percolator, we have not the time or space here to discuss.

We shall confine ourselves to the description of but one form of percolator for each process of percolation, that of natural and forced. With natural percolation, our personal preference, after experimenting with various forms, is the cylindrical vessel with just enough taper from top to bottom to facilitate unloading, with proportion between upper diameter and length of 1 to 4; that is, four inches of length to every 1 inch of diameter at the upper end, with the lower diameter inches less; which lower diameter is meant at the commencement of the funnel-shaped part.

This is made of the heaviest grade of tin plate. The upper end is straight for a depth of from 1 1/4 to 1 1/2 inches, sufficient to receive a close-fitting lid; from this it tapers gradually to the lower end, which terminates in a funnel extremity, the end of which flares so as to receive a No 6 or 7 cork, so that it can be thoroughly corked. A diaphragm is fitted so as to lie at the upper part of the funnel at the lower end of the percolator. This should be made of about No. 50 or 60 sieve wire soldered to a heavy iron ring. We do not use a diaphragm except in very resinous drugs, much preferring to fill the funnel end with absorbent cotton, packing the drugs directly on it. This gives a filtered percolate, yet allows free escape of the fluid; the only objection being that in drugs with much gum-resin it is liable to become clogged, when hot water is poured on, in the latter stage of percolation. The cork for the lower end can be grooved for one-half its length, so that when loosened, after being corked tightly, the flow can be exactly regulated.

We have three sizes of percolators made. The smallest is 20 inches long; 5 inches upper, 3 1/2 inches lower diameters; and will hold one pound of drugs, leaving ample room above to hold menstruum. The medium size is 30 inches long; 6 1/2 and 4 inch diameters; and will hold 3 to 5 pounds of drugs. The largest is 53 1/2 inches long; 10 and 8 inch diameters; and will hold from 30 to 40 pounds of drugs, giving room for menstruum above. The first size we use for making fluid extracts of single articles in one quart quantities. The second and third sizes are used for larger quantities of single articles, or for percolating compounds of several articles, in quantities. These percolators are given a heavy coat or two of paint on the outside, and if well cleaned inside after using, they are very durable and will not easily rust or corrode. Of course they will not answer well for green drugs, especially if macerated in the percolator. They can be made to order of glazed crockery, by the potter, but are heavy and must be handled carefully. The best, but most expensive material, would be granite iron ware; these would have to be made by special order at the works. We have heavy tin percolators that have been in use for fifteen years, and many green drugs have been percolated in them, yet they are now bright and clean.

Sometimes the drugs swell after hot water has been poured on them in the percolator, rendering it difficult to unload the vessel when done. This may be facilitated by blowing forcibly in the lower end of the percolator, with the vessel upside down. A stream from the hydrant turned in the small end works well.

A wooden frame or percolator rack can be cheaply constructed by any carpenter, and is a most convenient arrangement.

The Centrifuge.--Of the special apparatus and processes, we desire to call attention only to centrifugal displacement as the most thorough and rapid, far exceeding that of any other process with which we are acquainted. An apparatus can be constructed at a moderate cost that answers the purpose admirably.

Maceration.-The essential step of percolation is thorough permeation, saturation and solution of the therapeutic constituents of the crude drugs by a menstruum or solvent liquid. There are two ways of macerating the drugs, in the percolator, and in a separate vessel and then transferring to the percolator. The latter, though involving more attention and labour, is much to be preferred.

To macerate in the percolator, the tops of plants, and fibrous barks, in moderately coarse powder is best; however if properly managed any drug in fine and moderately fine powder can be used. With a large piece of absorbent cotton in the funnel part of the percolator, which is uncorked, the drugs are placed in lightly, avoiding the least packing, and the menstruum poured on at first freely till it pours from the lower end of the percolator, which is kept open till all dropping ceases; the menstruum is again returned and allowed to run off freely, returning it the third time the percolator is tightly corked as soon as it commences flowing freely; all the menstruum is now poured on, and the percolator tightly closed at bottom end, standing for eight to ten days when it is percolated.

The most effective method of maceration is done in a separate vessel or vessels, either mixing and changing the drugs thoroughly in the one vessel, or changing them from one vessel to the other, at intervals, so as to bring every part equally in contact with the menstruum, as the more thorough and even the saturation, the more complete will be its solvent action. Several macerating vessels made of heaviest tin plate, holding from one gallon to ten gallons, with closely fitting lids, should be kept for this purpose. The drugs should be sufficiently saturated with the menstruum to drip from them when removed to the percolator after eight or ten days' maceration.

The percolating process varies according to the menstruum used, and the nature of the product desired. If maceration has been in the percolator, and the powder is dense and very fine, percolation should be slow, as it necessarily will be. If a moderately fine or coarse powder, with light drugs, such as leaves and stems, it may be quite rapid, even with percolator maceration.

If maceration has been very thorough, as it will be if properly done in macerating vessels, then rapid percolation is best, because the menstruum being replete with the solvent principles, it only remains to disengage or displace it from the exhausted drugs, and the quicker the better; for a certain amount of evaporation must, take place in the open percolator during percolation, which means condensation and precipitation of the solvent constituents, returning to the drugs. Practically the process may be divided into two stages, viz., percolating the free menstruum, by which is meant that portion of loaded menstruum which will flow from the percolator by the force of its own gravity; and percolating the residual menstruum, which is that portion retained by the force of the capillary attraction of the dregs, after total cessation of flow from the open percolator.

During the first stage of percolation, the escape of percolate should be free and unrestrained, except by the cork at the lower end of the percolator; the lid should not now be very tight, as the atmospheric pressure if not fully admitted to the upper part will restrain the gravity of the menstruum. The cork should be loosened sufficient to allow the fluid to drop rapidly about 35 or 40 drops every fourth of a minute.

To obtain the residual menstruum, the second stage of percolation, the drugs are removed by some pharmacists and subjected to high pressure in a drug-press. This process is laborious and not absolutely effective, as a certain amount of fluid will remain in spite of the highest pressure, which in large quantities of drugs is considerable. By far the most thorough, rapid and convenient method is that of displacement in the percolator. If a fresh fluid is poured on the drugs after the free and fully charged menstruum has escaped, it will take the place of the residual menstruum, because the capillarity of the drugs will prefer the fresh fluid to that of the denser loaded residual menstruum. Cold or hot water answers perfectly for displacing the residual menstruum, and is inexpensive. Boiling water is much to be preferred for residual displacement, though in drugs containing a large amount of resinous matter, clogging of the percolator is apt to occur, and warm or cold water must be used. During this stage, percolation should be much more rapid, with the lid partly removed so as to allow free atmospheric pressure; the cork should be sufficiently withdrawn to allow a small stream to escape.

**Centrifugal Displacement.**-After thorough maceration, the drugs are placed in the centrifuge and the machine revolved by hand or power, at its highest speed, until all the fluid ceases to escape, which will usually take from three to five minutes; then boiling water is poured carefully in the centre of the revolving vessel, in quantity sufficient to make up the total of fluid extract to be obtained, the machine being kept at a speed sufficient to allow the fluid to gravitate slowly to the bottom of the vessel while being poured on; then it is worked at its highest, speed for three to five minutes longer. In this process the residual menstruum can be almost absolutely displaced and the drugs come out, of the machine dry.

The fluid extracts for Physio-Medical use we will designate, with regard to the menstruum used, as Normal Non-Alcoholic, Saturated and Expressed.

Normal Fluid Extracts are those made with boiling water as the menstruum, to the percolate is added a preservative, and the product is finished. As we have before explained, boiling water is the only menstruum that extracts the full complement of medicinal constituents of vegetable drugs as combined in the organic genesis of vegetable growth and development. Hence we call such a preparation a normal fluid extract.

Alcoholic Fluid Extracts .-According to Physio-Medical philosophy, the formula for alcoholic fluid extracts is a menstruum with the smallest percentage of alcohol that will thoroughly preserve the product; the other constituents of the menstruum being water alone, or in combination with some other solvent. This menstruum is used for drugs containing resins and gums in considerable quantity, upon which more or less of their medical qualities depend.

Saturated Fluid Extracts.-These are made by a menstruum, alcoholic or non-alcoholic, poured over a definite quantity of drugs, to the extent of covering the mass, and allowed to stand closely covered for an indefinite time, being decanted off as used, or finally filtered off from the drugs. This process is advantageous for drugs whose medicinal qualities depend almost wholly on gums and resins, such as gum kino or gum guaiacum.

Expressed Fluid Extracts are those made from oily or succulent drugs, such as seeds, fruits, and green plants. The materials are bruised in a mortar, ground in a drug-mill, or cooked into a pulp, a greater or less quantity of some form of menstruum incorporated with it, and the whole displaced with the centrifuge, or a drug-press.

Formula for Normal Fluid Extracts, e.g. Extractum Scutellariae, Fluidum Normalis; Normal Fluid Extract Scutellaria Lateriflora.

Scutellaria No. 50 (moderately fine) powder	lb. 1
Boiling Water	fld. oz. 32
Salicylic Acid	dram. av. 1 1/2
Nitrate Potassium	dram. av. 2
Sodium Sulphate	dram. av. 1 1/2

Place the powder in a macerator; pour on the boiling water, stirring thoroughly; cover tightly and keep hot in hot water or a steam bath, at a temperature of 160 F., for ten or twelve hours; transfer to a percolator, or much better, the centrifuge, and displace 32 fluid ounces while hot, adding more boiling water if necessary. Mix and triturate thoroughly together the salicylic acid, nitrate potassium and sodium sulphate, and add to the 32 ounces of percolate, after it is cold, let stand 24 hours and filter. Dose 20 drops to a teaspoonful.

These fluid extracts keep well during the hottest weather, in this climate; they mix readily in any quantity of cold or hot water without turbidity or sediment; the preservatives in no way interfere with their action, as alcohol does in many delicate constitutions; in fact they favour the therapeutic potency of many drugs. In testing the strength of these, by taste, compared with the strong alcoholic fluid extracts, as many most erroneously undertake to do, the pungent, irritating effect of the alcohol upon the mucous membrane of the tongue and mouth must not be mistaken for drug-strength; of course, if tested by such a misleading method these fluid extracts would indeed seem flat and weak. But a thorough, practical, bed-side test of these preparations by Physio-Medical prescribers will prove them to be quickly and kindly assimilated, without any local irritation of the mucous surfaces, and prompt and efficient in their therapeutic influence. If our physicians will only give these Normal Fluid Extracts, which are distinctly Physio-Medical, a thorough trial, the strong, poisonous, alcoholic fluid extracts of the Alopatic pharmacies would soon disappear from the Physio-Medicalists' shelves.

Almost all of our vegetable agents yield excellent Normal Fluid Extracts. The following list of agents are specially suited to this method of treatment :

Apocynum And., Apocynum Can., Anthemis Nob., Aralia Rac., Asclepias Tub., Arctium Lap., Baptisia Tinct., Berberis Ag., Barosma Cre., Capsella Bursa Pas., Celastrus Scan., Chelone Glab., Caulophyllum Thal., Capsicum An., Collinsonia Can., Cascara Sag., Cypridium Pub., Cimicifuga Rac., Dioscorea Vil., Eupatorium Perf., Eupatorium Purp., Euonymus Atro., Gentiana Lut., Hamamelis Virg., Helonias Dio., Hydrastis Can., Jeffersonia Diph., Liriodendron Tul., Leptandra Virg. Lobelia Infl. Herb, Lobelia Infl. Sem., Lycopus Europ., Lycopus Virg., Leonurus Card., Mitchella Rep., Myrica Cerif., Nepeta Cat., Nedandra Rod., Phytolacca, Dec. Rad., Polemonium Rep., Polygonatum Gig-an.. Polygonum Hyd., Prunus Virg., Podophyllum Pel., Ptelea Trifol., Quercus Alba, Rhus Glab., Rumex Crisp., Rubus Strig., Senecio Aur., Solidago Can., Salix Alba, Salix Nigra, Stigmata May., Taraxacum Off., Trillium Erec., Turnera Micro., Valerian a Off., Viburnum P.runi., Viburnum Op., Verbascum Thap., Xanthoxylum Frax. Cort, Zingiber Off.

Alcoholic Fluid Extracts are made with a menstruum containing a greater or less percentage of Alcohol as a solvent for certain therapeutic qualities of the drug treated. Absolute or undiluted alcohol as a menstruum possesses no solvent action on the medicinal constituents of vegetable drugs, except the resins and pigments. Its action upon the bioplasm and intercellular substances, which constitute by far the most valuable therapeutic constituency, is to so change them both in physical and chemical characteristics, as to render them absolutely inert therapeutically. This is not mere theoretical speculation. The proof of this important fact is not difficult.

Make a section at the apex-node of a growing plantstem, mount on a microscopic slide with a damp chamber, in Wolf's nutrient fluid, some of the fresh cells and many naked bioplasts are seen in the free cell-sap. Place under the microscope with a one-eight objective; now add gradually absolute alcohol, and note that the bioplasm, both naked and in the cell nucleus, becomes contracted into a dense, opaque mass, and that the alcohol has no solvent action on the bioplasm, or other intercellular contents. Prepare another slide in the same manner, but instead of absolute alcohol use hot water; the bioplasm swells, and finally disappears in solution, together with the intercellular contents.

Lastly, take a quantity of fresh dried drugs, divide into two equal portions, treat one with absolute alcohol as a menstruum, and the other with boiling water; with equal quantities of each as a dose, test them therapeutically on the same patient, and you will no longer doubt the scientific accuracy of our position. However, there are important therapeutic constituents resident in the gums and resins, and although boiling water will extract a considerable percentage of both, and quite sufficient for therapeutic purposes in most cases, yet there are some drugs containing quite a large quantity of these gums and resins, that it is desirable to obtain more than can be done by the treatment of normal fluid extracts. In such drugs the alcohol answers the double purpose of a solvent and preservative.

Glycerin possesses a far more powerful solvent action upon the gums than alcohol, the latter's chief solvent action being upon resins. Sugar has a considerable solvent action on gums, when it is dissolved in water in the form of a thin syrup. So that it is best to have a menstruum of alcohol, water and glycerin in equal quantities for drugs containing gums and resins. Again, where the gums predominate largely, the menstruum is made of alcohol, water and sugar.

Formula for Alcoholic Fluid Extracts, e.g. Extractum Aristolochim Fluidum Alcoholicum; Alcoholic Fluid Extract Aristolchia Serpentaria.

Serpentaria No. 60 powder	lb. av. 1
Alcohol	fld. oz. 16
Water, preferably distilled	fld. oz. 22

Place the powder in a macerator, mix the alcohol and water, and while yet warm from the energy of union, pour the whole quantity over the drugs, mixing thoroughly; let stand closely covered for eight or ten days, mixing and changing so as to bring the lower and wetter portions to the top. This is best done by transferring to another macerating vessel. Transfer to the percolator, which has been prepared with a large piece of absorbent cotton saturated with menstruum and placed loosely in the funnel end of the percolator, and covered with a layer of clean moderately fine sand. Packing should be done evenly and slowly, layer by layer. Rinse the macerator out with menstruum and pour on the dregs, after all are in.

Loosen the cork, immediately after the percolator is packed, sufficient to allow a flow of 30 or 40 drops per quarter minute; keep up the percolation at this rate till all the free menstruum has escaped, and dropping ceases; now pour on hot water at about 180 degs. F. until 32 ounces of percolate are obtained, which constitutes the full complement of fluid extract. The percolation may be continued until 12 ounces more is obtained, to which sufficient granulated sugar is added to make 16 ounces.

This makes an elixir of considerable strength, and is excellent in dispensing combinations of agents in syrups, etc. The centrifuge may be used instead of the percolator, being more rapid. Dose of alcoholic fluid extract 20 drops to a teaspoonful. Dose of elixir t to 1 teaspoonful.

Of the agents best treated by the above method the following are typical:

Abies Can., Amygdalus Pers., Apium Grav., Aralia Rac., Arctium Lap. Sem., Asarum Can., Barosma Cren., Cascara Sag., Chelone Glab., Fusus Ves., Gentiana.Och., Glycyrrhiza Glab., Guaiacum Lig., Hamamelis Virg., Helianthus. Leonurus Card., Leptandra Virg., Mentha Pip., Mentha Pul., Nectandra Rod.,

Nepeta Cat., Piper Ang., Polemonium Rep., Ptelea Trif., Rubus Stri., Rumex Cris., Salix Nig., Sanguinaria Can., Senna Alex., Solidago Can., Trillium Erec., Turnera Micro., Valeriana Off., Xanthoxylum Bac., Zingiber Off.

Formula for Glycero-Alcoholic Fluid Extracts, Extractum  
Myrrhoe Fluidum; Glycero-Alcoholic Fluid  
Extract Gum Myrrh.

Gum Myrrh No. 50 powder	lb. av. 1
Alcohol	fld. oz. 10
Glycerin	fld. oz. 8
Water	fld. oz. 20

Place the powder in a macerator; mix the three constituents of menstruum and pour over the drugs so as to insure -thorough and even maceration.

Displace with the centrifuge, obtaining 32 fluid ounces of fluid extract. Or transfer to the percolator, with a fine wire diaphragm over the funnel end, filled with absorbent cotton moistened with menstruum, and obtain 32 fluid ounces of fluid extract.

The percolation or displacement may be continued with hot water, obtaining 12 ounces of percolate, in which dissolve granulated sugar a sufficient quantity to make 16 fluid ounces of elixir gum myrrh. Dose of glycerio-alcoholic fluid extract 20 drops to a teaspoonful; of elixir one-half teaspoonful to a tablespoonful.

The following are typical agents for this treatment:

Asafoetida, Balsam Peruvianum, Balsam Tolutanum, Benzoinum, Gum Guaiacum, Pix Bergundia, Pix Canadensis, Styra.

Formula for Saccharo-Alcoholic Fluid Extract, e.g.  
Saccharo-Alcoholic Fluid Extract Kino.

Gum Kino No. 40 powder	lb. av. 1
Alcohol	fld. oz. 10
Water	fld. oz. 20
Granulated Sugar	oz. av. 10

Mix the alcohol and water, and dissolve the sugar in the mixture. Place the powder in a glass percolator, funnel end filled with moistened absorbent cotton. Pour on the menstruum with the percolator tightly corked. Cover the percolator and macerate for ten or twelve days; percolate slowly, obtaining 32 fluid ounces, adding cold water to the drugs if necessary.

The following are some of the drugs that may be treated by this menstruum:

Angelica, Balm of Gilead Buds, Balsam Tolu, Cinnamon, Cloves, Gum Benzoin, Juniper Berries dried, Xanthoxylum Berries.

These fluid extracts will be found amply efficient therapeutically, even in the same dose as the strong alcoholic fluid extracts, which are so heavily loaded with resin, largely inert matter, that they are inelegant and unwieldy in dispensing. They cannot be added to even a syrup without rendering it turbid and unsightly. All this class of agents, though largely gum-resinous, it is a mistake to suppose that this constituent holds all their medicinal qualities. These glycerio-alcoholic and saccharo-alcoholic fluid extracts represent the total therapeutic values of this class of drugs in their normal genesis. Besides, they are easily handled in prescribing. They mix readily, even with cold water, in most cases without the least turbidity; they combine with syrups and elixirs, making elegant preparations. Dose one-third to one teaspoonful.

Saturated Fluid Extracts, e.g. Saturated Fluir Extract  
Phytolacca Radix, Green.

Phytolacca Root, green, cut in thin slices	lbs. 5
Alcohol	pts. 2
Water	pts. 3

Put the sliced root in a jug or demijohn of proper size; mix the alcohol and water, and while yet warm from the energy of their union pour over the drugs, cork tightly, and with frequent shaking it is ready for use. After ten to fourteen days the fluid may be drained off by placing the drugs in the centrifuge, or in a percolator, with the funnel end filled with absorbent cotton.

Hot or cold water is poured on after dropping ceases, till the full complement of five pints of saturated fluid extract is obtained. Dose 5 to 30 drops.

Aurum Trif. green, Balm of Gilead Buds (*Abies Balsamea*), *Capsella Bursa Past.* green, *Capsicum An. Pods*, Gum Myrrh, *Juglans Cin. bark of root*, green. *Lobelia Sem. whole*, *Sanguinaria Can. green root*, *Stigmata Maydis green*.

All fluid extracts from the green agents should be made by this formula. They should be cut into the smallest possible transverse sections, pods, berries and seeds being slightly bruised in a mortar.

#### Expressed Fluid Extracts.

This method of pharmaceutical treatment is suitable for such agents as ripe berries, fruits and succulent green plants. Fruits and berries are used in the fresh state, whole; plants and leaves are cut into fine transverse sections. Digestion or cooking by slow and constant heat, is the essential step in the process; after which the menstruum or medicinal fluid is expressed or displaced by the centrifuge or a drug-press. The centrifuge is the most rapid and fully as thorough as a drug-press, and quite as cheap as the regular drug-presses; yet the lard-press, consisting of a screw press turned by a crank, and cog-wheels, which may be got at the hardware stores, is cheaper than the centrifuge, and does very well on a small scale of manufacturing.

After thorough digestion by slow heat, the drugs are transferred to a displacer, and the fluid obtained; the product is finished by adding some kind of antiseptic or preservative; in most instances this being sugar, which is also an excellent solvent; it is added before the digestive process.

Of course the medicinal strength of these products is not very definite-no attempt has yet been made at standardization, and fruits and berries especially are difficult to assay. The following formula for different articles and combinations, treated by this method, is aimed to establish a more definite standard; the principle of which is that one fluid pound of the finished product shall represent two pounds avoirdupois of the agent in its fresh state; e.g. *Extractum Fluidum Phytolacca Expressidum*; Expressed Fluid Extract *Phytolacca Berries*.

Phytolacca Berries ripe and fresh	Ibs. 16
Water	pts. 2
Sugar, granulated	Ibs.3

Place the berries in a suitable vessel, granite iron preferably, with cover; dissolve the sugar in the water, well heated, and pour over them. Digest, or cook slowly on steam or hot water bath, for three or four hours. Transfer to the centrifuge, or a drug-press, and obtain all the fluid. If more than one gallon, reduce by evaporation; if less, add boiling water in the centrifuge or press till sufficient, is obtained to make a gallon of the finished product. This may be flavoured with advantage therapeutically, by essence sassafras, reducing 6 ounces below one gallon and adding that quantity of the essence.

Other drugs that are therapeutically and pharmaceutically compatible may be combined, and a very elegant and convenient product obtained. The following, for example, which is valuable in molecular and nervous rheumatism; it is also efficient as an antifat.

Expressed Fluid Extract <i>Phytolacca Bac. Compo</i>	
Phytolacca Berries, fresh and ripe	Ibs. av. 8
<i>Fucus Marina</i>	Ibs. av. 4
<i>Senna Alex. No. 40 powder</i>	Ibs. av. 4
Water	pts. 5
Sugar, granulated	Ibs. av. 4

Dissolve the sugar in the water, hot, and pour over the drugs in a suitable vessel, digest over a hot water or steam bath for six or eight hours; transfer to the centrifuge or drug-press, and obtain the fluid, which, by evaporation, or the addition of boiling water in displacement, must be made to measure one gallon. Flavour with essence sassafras if desired.

Dose, a teaspoonful to a tablespoonful. Of the fruits that may be treated by this method, the following compound, a valuable tonic laxative, is given as typical:

Expressed Fluid Extract <i>Bromelia Compound</i> .	
Pineapples, ripe and fresh	3

Tamarind	Ibs. 3
Rhus Glabra Berries, fresh and ripe	Ibs. 2
Senna Alex. No. 40 powder	Ibs. 2
Water	gal. 1
Sugar, granulated	Ibs. 6

Place the tamarind, rhus glab. berries and senna in a suitable vessel, pour on water and digest, closely covered, over steam or water bath, for ten hours. The pineapples are previously cut in thin slices and covered with the sugar, standing closely covered, while digesting the drugs. Incorporate the pineapple with the drugs while hot" as they are transferred to the centrifuge or drug-press, and obtain the fluid, which should, by the addition of boiling water in the press or centrifuge, be made to measure one gallon of finished fluid extract. Dose a teaspoonful to a, tablespoonful.

#### Agents to be Treated by This Method.

Amygdalus Pel's. Fruc., Bromelia And., Cassia Fistu., Ficus Car., Fragaria Fruc., Phytolacca Bac., Prunus Ar. Fruc., Prunus Dom., Rheum Green Stems, Rhus Glab. Bac. fresh, Ribes Fruc., Rubus Stri. Fruc., Rubus Vil. Fruc., Senna, Alex. green, Xanthoxylum Bac. green.

### ELIXIRS.

Practically we divide elixirs into vehicles and medicinal elixirs. Vehicles or solvents are preparations of water, sugar and alcohol, intended to take up and hold in solution soluble inorganic substances, to act as adjuvants aiding the therapeutic efficiency of medicinal combinations, and to disguise and render palatable unpleasant agents. These we divide into simple elixirs, being the plain combination of alcohol, water and sugar; aromatic elixirs, or the addition of aromatic flavouring to a simple elixir; and adjuvants, or accessory elixirs, containing substances that aid the therapeutic action of other agents.

Medicinal Elixirs are those which contain the medicinal properties, in definite therapeutic. potency, of one or more agents in a menstruum which answers the purpose of an elixir at the same time.

#### Elixir Simplex.

Distilled Water	pts. 4 1/2
Alcohol	oz. 38
Granulated Sugar	Ibs. av. 2 1/2

Heat the water to boiling point, dissolve the sugar, strain while hot; add the alcohol when cold.

#### Flavoring for Aromatic Elixir.

Oil of Orange	dr. iv
Oil Caraway	
Oil Coriander	
Oil Cassia	aa. dr. ii
Oil Anise	dr. i
Alcohol	oz. xx

Mix the oils and add to the alcohol.

#### Aromatic Elixir.

Flavouring	oz. 1
Alcohol	oz. 38
Water, distilled	pts. 4 1/2
Granulated Sugar	lbs. 2 1/2
Carbonate of Magnesia	oz. 1/2

Dissolve the flavouring in 2 ounces of the alcohol and pour over the magnesia in a mortar, a little at a time, triturating thoroughly; mix the balance of the alcohol with the water and triturate 2 pints of it in successive small quantities with the magnesia in the mortar; filter all into the remainder of the alcohol and water, add and dissolve the sugar; filter through two or three layers of clean white flannel, or coarse filtering paper.



Adjuvant Elixirs; e.g. Elixir Glycyrrhiza Rad.

Peeled Licorice Root, No. 40 powder	Ibs. 3
Water a sufficient quantity	
Granulated Sugar	lbs. 2
Alcohol	pt. 1

Place the drug in a suitable vessel, dissolve the sugar in 2 pints of water, pour over the drugs and boil gently, well covered, for five or six hours; transfer to the centrifuge or a percolator, and treat with boiling water until 4 pints are obtained, to which when cold add the alcohol and strain through flannel.

This is an excellent base for cough syrups, etc., and is a powerful solvent and disguiser of quinine, salacine, etc.

#### Elixir Glycyrrhiza.

From Remington's Pharmacy, "unofficial" list.

F. E. Glycyrrhiza	fld. oz. 2
Alcohol	fld. oz 4
Syrup	fld. oz. 6
Oil Cloves	min. 10
Oil Cinnamon	min. 5
Oil Nutmeg	min. 12
Water	q. s. fld. oz. 16
Mix.	

#### Elixir Tolutana.

Balsam Tolu coarse powder	oz.8
Alcohol	
Water	aa. pts. 2
Granulated Sugar	1bs. 2 1/2

Mix the alcohol and water and macerate the balsam 24 hours, shaking frequently; add the sugar, macerate 10 or 12 hours, shaking frequently, and filter through one or two layers of white flannel.

#### Elixir Auranti; Orange Peel.

Fresh dried Orange peel, bruised in a mortar to a coarse powder	Ibs. av. 2
Water	pts. 2
Alcohol	pt. 1
Glycerin	oz. av. 8
Oil Orange	fld. dr. 2
Pulverized Sugar	lbs. I 1/2

Mix the water, alcohol and glycerin together and dissolve the sugar in it, reserving 6 ounces of sugar; pour over the orange peel in a macerating vessel and macerate three days; displace with centrifuge or percolator, using hot water to obtain 4 3/4 pints. Triturate the oil of orange with the 6 ounces reserved sugar, and dissolve in the percolate, by first rubbing in the mortal, by small additions 6 or 8 ounces of the fluid. Strain through white flannel.

Elixir Prunus; Wild Cherry Bark.

Prunus Vir., fresh bark, No. 40	powder lbs. 2
Water	pts. 2
Alcohol	pt. 1
Granulated Sugar	Ibs. 2

Mix the water, alcohol and sugar, pour over the drugs in a macerator, macerate four or five days, and displace with centrifuge or percolator (see saccharo-alcoholic fluid extract), using boiling water, if necessary, to obtain 5 pints.

This is an excellent adjunct to combinations for coughs, colds, and for pulmonary compounds.

## Medicinal Elixirs.

The U.S. Dispensatory, and Pharmacopoeia, define elixirs to be "aromatic spirituous sweetened preparations containing small quantities of active medicinal substances." This definition of an elixir is incorrect, because it is not in accord with the theory of practice of pharmacy and not consistent with their own therapeutics. For the U.S. Dispensatory, page 537, xv. edition, after admitting that "the object, sought in the modern elixir is agreeableness of taste," and to attain this, therapeutic values have been almost wholly sacrificed, says, "their principal activity is due to the alcohol, which has proved in many cases very injurious. These considerations have heretofore prevented an official recognition of elixirs. and the present Pharmacopoeia recognises but one; i.e., elixir of orange, which has been introduced merely as a vehicle. Owing to their extensive use by practitioners all over the country, it becomes necessary to notice some of the most important in this commentary."

The above is one of the many instances of the fallacy not to say ridiculousness, of sectarian "authority" attempting to dominate the utility of therapeutics. But, owing to the extensive preference by the profession all over the country for this valuable product-medicinal elixirs-the U.S. Dispensatory is compelled to give them notice, but pushes them off in the smallest type in an inconspicuous place, because, forsooth, they have not yet received that mystic stamp "Official." If these gentlemen could be distracted from the officinal whip, to the demands of advanced medical practice, they might be led to discern the difference between therapeutic value, and pharmaceutical elegance, medicinal potency and alcoholic pungency.

From the Physio-Medical standpoint, as explained in the beginning of this work, we learn that medicinal strength, or more properly speaking therapeutic utility, does not mean concentrated pharmaceutical products. Not to mention the baleful influence of alcohol in the highly alcoholic preparations, even a sanative agent in a highly concentrated form will, especially if its administration be long continued, expend its influence so locally upon the peripheral nerves of the mucous structures of the digestive tract, as to excite violent resistive and repulsive efforts, obstructing its assimilation and broader therapeutic influence, the agent being rejected by the Vital Force, and the physician is thwarted, although his selection of the agent were highly proper. Remembering these facts we realize the value of a fluid preparation affording the broad constituency of the drug in normal proportions, with as much palatableness and elegance as is consistent with these essential therapeutic requirements. Such a preparation we may have in a properly prepared Medicinal Elixir.

In consideration of these facts we shall define a Physio-Medical Elixir to be a normal fluid preparation of vegetable agents, with water as a menstruum, containing sufficient alcohol and sugar, as a preservative to also render the product as palatable as consistent with therapeutic efficiency; with a standard strength of one pound avoirdupois of the drug to sixty-four fluid ounces of the finished product. This gives a dosage of 2 grains to the fluid drachm.

Typical Formula for Medicinal Elixir single agents.

e.g. Elixer .Gentiana Lutea.

Gentian. No. 50 powder	lb. av. 1
Water a sufficient quantity.	
Alcohol	pt. 1
Granulated Sugar,	lbs. 4

Mix one pint of water with the alcohol and pour over the drugs in a macerating vessel; macerate for 8 or 10 days, transfer to the centrifuge, or a percolator, and when all displacement ceases pour on boiling water, setting aside the first quart obtained, continue the displacement with boiling water until 12 ounces are obtained, dissolve the sugar in this, add to the first percolate, and strain through white flannel.

This should measure 4 pints of the finished elixir; if therefore, after adding the sugar it is not enough, more percolate may be added.

Dose one teaspoonful to a dessertspoonful. 1/4

Elixir Compounds.

All fluid compounds such as the so called "Compound Syrup of Stillingia," "Compound Syrup of Mit. chella," etc., which, as they are now made, are not syrups, but elixirs; a true medicinal syrup is a different product. They should be standardised and made as elixirs.

We submit the following combinations, so popular with the Physio-Medical profession, made on the standard strength of 1 lb. av. or drug to 64 fluid ounces, 4 pints of finished elixir-2 lb. of drug per gallon of elixir, and as they have all originated with the Physio-Medical School, we do not hesitate to name them.

Standard Physio-Medical Compound Elixirs.

e.g. Elixir Mitchella Compound.

Mitchella, No. 50 powder	lb. av. 4
Virburnum Op., No. 50 Powder,	
Caulophyllum, No. 50 powder	aa lhs. av. 2
Cypripedium, No. 50 powder,	
Helonias, No. 50 powder	aa lb. av. 1
Water a sufficient quantity.	
Alcohol	pts. 10
Granulated Sugar	lbs. 20

Place the mixed drugs in a macerating vessel, mix ten pints of water with the alcohol and pour over them, macerate for 8 or 10 days, changing them every other day so as to insure thorough saturation, transfer to a centrifuge or percolator. After displacement ceases pour on boiling water, set aside the first 20 pints of fluid, continue the displacement with boiling water as menstruum till 12 pints and 10 ounces are obtained in which dissolve the sugar and add to the first percolate, strain through white flannel.

Dose a teaspoonful to a dessertspoonful.

Elixir Stillingia Compound.	
Stillingia, No. 50 powder	Ibs. av. 3
Iris Vers, No. 50 powder	
Corydalis, No. 60 powder	aa lbs. av. 2
Pipsissewa., No. 60 powder	
Sambucus Flor. No. 40 powder	
Xanthoxylum Bac., No. 40 powder	aa lb. i
Water a sufficient quantity.	
Alcohol,	pts. 10
Granulated Sugar,	lbs. 20

Place the mixed drugs in a suitable vessel and macerate for 8 or 10 days, mixing them every other day, to insure thorough saturation; transfer to the centrifuge, or percolator, and after displacement ceases, continue with boiling water, setting aside the first 20 pints, continue with boiling water till 12 pints and 10 ounces are obtained, in which dissolve the sugar and add to first percolate, strain through a white flannel strainer.

Dose, a teaspoonful to a dessertspoonful.

The following formula we have used for a number of years, and have found it reliable in all scrofulous, and syphilitic troubles.

Elixir Stillingia Compound.	
Stillingia, No. 50 powder	lbs. av. 2
Lappa Maj. Bad. No. 50 powder	
Lapp. Maj. Seeds, No. 50 powder	aa lb. av. 1
Sanguinaria Can., No. 50 powder	lbs. av. 1 1/2
Iris vers, No. 50 powder	
Pipsissewa, No. 50 powder	
Corydalis, No. 50 powder.	
Coriander, No. 50 powder	aa lb av. 1
Xanthoxylum Ber., No. 40 powder	lb. av. 1/2
Granulated Sugar,	lbs. 25
Alcohol	pts. 10
Water a sufficient quantity.	

Mix ten pints of water with the alcohol and pour over the mixed drugs in a macerating vessel, let stand for 8 or 10 days mixing frequently, transfer to the centrifuge or percolator, treat with boiling water, set aside the first 20 pints, continue till 12 pints more have passed, in which dissolve the sugar, add to it more percolate if necessary to make 5 gallon;, when the first percolate is added, then strain through flannel.

Elixir Rhei et Potassae Compound.

There seems to be no definite standard of strength, or formula for this most valuable and popular compound, like many other of our compounds; and it seems that Physio-Medicalists must wait till the U. S. Pharmacopoeia sets its "Officinal Seal." The following we present as a standard formula for a Physio-Medical Compound Elixir of Rhubarb and Potassa.

Elixir Rhei et Potassae Compound, Neutralizing Mixture,  
Physio-Medical.

Rhubarb, No. 50 powder	lbs. av. 5
Columbo No. 50 powder	
Ginseng, No. 50 powder	aa. lbs. av. 1 1/2
Peppermint, fresh dried herb	lbs. av. 2
Or, Oil Peppermint	oz. 1/2
Bicarbonate Potassa,	lbs. av. 2
Alcohol	pts. 10
Water, a sufficient quantity	
Granulated Sugar	lbs. av. 25

Mix the alcohol with 10 pints of water and pour over the mixed drugs in a macerating vessel, macerate for 5 or 7 days, mixing frequently, transfer to the centrifuge or a percolator and treat with boiling water, after first displacement ceases, setting aside the first 20 oz., continue till 12 pints more are obtained, in which dissolve the sugar, adding more percolate if necessary, to make 5 gallons in all; mix with first percolate and strain through flannel. If the oil of peppermint is used, it is to be poured in the absorbent cotton that is placed in the funnel end of the percolator, rubbing, picking, and triturating the oil through it thoroughly.

Dose, one half to one teaspoonful.

The Physio-Medical Dispensatory, page 661, gives the following formulae for Syrup Rhubarb and Potassa, Neutralizing Cordial. Rhubarb, well crushed, four ounces: dried peppermint herb eight ounces (or the green herb four ounces); golden seal and cinnamon, each, one ounce. Macerate for two days with one quart of brandy, or with the same quantity of 40 per cent. alcohol. Transfer to a percolator, treat with water and set aside the first pint and a half. Continue the process with water until three quarts have passed, express the dregs, add four pounds of sugar and dissolve at a gentle heat, evaporating until the addition of the first liquid shall make a gallon. When cold, mix the liquors and add one ounce and a half of bicarbonate (not carbonate) of potassa. The addition of the alkali turns the whole syrup deep red; and occasions a flocculent precipitate to remove which the whole may afterwards be filtered through flannel; though in practice this sediment may be allowed to remain and shaken up when used, as it contains no inconsiderable power though not so palatable as many desire.

On page 662 it also gives a formula of Dr. H. H. Hill, which has 2 ounces each of rhubarb and carbonate of potassa; one ounce each of golden seal and cinnamon to a gallon of brandy, four pounds of sugar, and twenty drops oil of peppermint.

There is too little rhubarb in both these formulas, and the large amount of spirits in both, especially brandy, when we remember that this preparation is largely used for stomach and intestinal troubles of children, is most objectionable. Besides the process of treatment particularly the first formula is laborious and yields an inelegant product.

This standardization of our Physio-Medical agents and compounds, into medicinal elixirs, with two pounds of the crude ground drugs to the fluid gallon of finished elixir, will, we feel confident, meet the approbation of the general profession.

This gives a preparation of ample strength for ordinary purposes; for extra cases the dose can be increased, or they can be made of double strength, and get the same proportionate standard maintained. These elixirs are especially adapted to the treatment of chronic cases requiring long continued administration, as they will be tolerated locally by the mucous membrane without unpleasant local effects.

## SYRUPS.

### Simple and Medicinal.

The object of simple syrups, like that of simple elixirs, is that of a vehicle, solvent, preservative" and to disguise the unpleasant taste of medicines. They are also used as excipients, forming the mass and consistency of pills, suppositories, etc.

A medicinal syrup, we shall define to be, a fluid preparation in which large quantities of sugar have been added as a preservative to a decoction, which when finished,. one pint will represent one pound avoirdupois of the drug used.

This establishes sufficient practical difference pharmaceutically and therapeutically, between Medicinal Syrups and Elixirs; and also we have a definite standard strength medicinally established on a therapeutical basis, instead of the now solely pharmaceutical standpoint, of heretofore vague and indefinite "shot gun" combinations and mongrel pharmaceutical products.

### Simple Syrups.

Simple syrups may be divided into two kinds, the plain or simple syrup and the aromatic Syrup. There is much variation among pharmacists as to the quantity of sugar, and method of preparing simple syrups, But the most lamentable fact is that the druggists, a very large per cent. of whom, be it said to the discredit of the medical profession who tolerate and patronize them, have never been inside a college of pharmacy; they are the most pretentious class of drug vendors. Unblushingly, they appropriate prescriptions of their physician patrons, and they become famous prescribers, donning the appellation of " Doctor," they gravely undertake to prescribe for the most serious and complicated diseases. They are geniuses of marvellous" headache powders," " specifics," for gonorrhoea, syphilis, "liver syrups," "antigermicides," and many" magic discoveries." Such druggists pride themselves on " extemporaneous pharmacy," they can make simple and aromatic syrups in a few minutes by "cold percolation," dissolving dirty sugar in dirtier cold water, in a percolator. Cold percolation or any other "cold method" of making syrups is unaseptic, unsanitary and unsafe; and all physicians who have the good of their clientele at heart, cannot be too severe in the condemnation of such methods, and druggists.

None but distilled water should be used in making simple and aromatic syrups, and this should always be heated to not less than 212 deg. F. and the sugar dissolved in it at this temperature. Of course in the medicinal syrups, distilled water is the best, for being devoid of nearly all the inorganic constituents, it will take up and hold in solution more of the medicinal constituents. However, not being easily obtained in so large quantities as is necessary often in making most medicinal syrups, the continued boiling that is necessary removes nearly all the lime-salts of hard water, renders the process objectionable from a sanitary standpoint. But when distilled water is not obtainable, good filtered rain water is the next best, lastly well or hydrant water.

As to the quantity and quality of sugar, we prefer granulated sugar, of the fine grade, because granulated sugar will be of more uniform dryness, an important point in obtaining accuracy of measurement, for one must know the exact increase of fluid bulk on the addition of the sugar. As a rule, with regard to consistency of syrup, one and one half parts of sugar to one of water is the minimum, and two parts of sugar to one of water the maximum.

The following formula gives the fluid increase on the addition of granulated sugar to distilled water at a temperature of 212 deg. F. after it has cooled to 77 deg. F.

Distilled water,	fl. oz. 8	
Granulated sugar,	oz. av. 16	fl. oz. 18.

The above formula is important in making medicinal syrup, as one must know the amount of decoction necessary to finish a syrup to the proper quantity on the addition of sugar.

The pharmaceutical object is to obtain a syrup of sufficient consistency to keep well. and yet not crystalize on standing, or become thick and unwieldy in cold weather, that is transparent and easily miscerable with other fluids with which it is compatible. Of course it is necessary often, for special purposes, to have a syrup of greater or less consistency. but the following formula will be found a good general working consistency.

#### Syrupus Simplex.

Distilled water	fl. oz. 16
Granulated sugar	oz. av. 24

Heat the water rapidly, closely covered, to the boiling point and dissolve in it the sugar, strain while hot through two thicknesses of white flannel previously wet in boiling water. This should make 32 fl. oz. This makes an excellent syrup for soda fountains, any of the flavourings or fruit extracts mix readily with it.

In the physician's dispensary a half gallon bottle of simple syrup flavoured well with strawberry, pineapple, orange or lemon, will aid materially in taking the "raw edge " off many of his dispensings.

Aromatic Syrups :--These are used for the same purpose as the plain or simple syrup, but are better as solvents and vehicles for the inorganic agents, such as alkalies. acids. and mineral salts generally.

#### Syrupus Aromaticus

Simple Syrup.	oz. 32
Oil Orange	dr. 2
Oil Caraway	
Oil Coriander	
Oil Cinnamon	aa dr. 1
Oil Anise	dr. 1/2
Cotton	oz. 1/2

Mix the oils and saturate the cotton, picking and rubbing it thoroughly with the fingers, and finally in a mortar with a little granulated sugar, place in the funnel end of a percolator, first putting in a small pledget of dry cotton, heat the syrup sufficient to make it quite fluid and pour into the percolator on the cotton, letting it percolate freely. If after cooling, some oil globules appear on the surface of the syrup remove with blotting paper, or little pledgets of absorbent cotton,

After the syrup has stopped dropping, a very light flavouring elixir may be obtained by percolating through the cotton a mixture of 4 ounce of alcohol and 12 ounces of water. A solvent and vehicle.

#### Syrupus Toulтанus

##### Syrup Tolu.

Glycero-Alcoholic Fluid Extract Tolu	oz. 3
Simple Syrup	oz. 29

Mix and shake thoroughly; if any precipitate appear, filter through white flannel previously wet with hot water. Use as a solvent, or adjuvant for other agents of a more positive character.

In the above preparation any of the glycero-alcoholic fluid extracts, such as orange, ginger, benzoin, gum myrrh or wild cherry may be added to simple syrup making adjuncts to compoundrls of other agents and solvents for inorganic substances.

#### Medicinal Syrups.

Many of the green drugs yield their properties best by this treatment, while others give better results in the fresh dried state. Agents whose influence is required locally upon the functions of the digestive tract, especially the intestinal division of same such as juglans, cin. green, podophyllum or leptandra should be treated by this process.

With a standard for medicinal syrups fixed at one pound avoirdupois of the drug used to one fluid pound of the finished syrup, whether the drug be green or fresh dried, if the selections be made in accordance with therapeutic requirements, the dosage will always be definite.

Syrupus Juglandus, Syrup White Walnut, Bark of Root  
Green.

Juglans cin. bark of root cut in thin slices	lbs. 40
Water, a sufficient quantity.	
Granulated sugar	lbs. 60
Salicylic acid	oz. 1
Sulphate of Soda,	oz. 2
Phosphate of Soda,	oz. 1

Place the bark in a granite iron, or common iron kettle and cover with water, boil briskly till about half the water is evaporated, strain off through a common sieve, set aside this decoction, continue covering the bark and boiling down to one half or one third until the fourth time. Mixing all but the first, evaporate by boiling rapidly until with the first decoction 2 gallons 5 1/2 pints are obtained, dissolve in this the sugar while boiling, boil a few minutes. Skim off, and strain through a flannel strainer while hot. After the syrup is nearly cold mix the salicylic acid, and soda-salts, triturate in a mortar, and dissolve in the syrup. This should finish up at 5 gallons.

We have found that the addition of oil peppermint to syrup juglans obviates griping, besides giving it a palatable flavour. To five gallons of syrup, two ounces oil peppermint rubbed in a mortar with a pound of the sugar reserved, add after syrup is cold.

Dose, a teaspoonful to a dessertspoonful.

#### MUCILAGES, MUCILAGINOUS MIXTURES, EMULSIONS, BALSAMS AND HONEYES.

Under this classification, we place 1st, Vehicles which have no direct solvent action, but simply hold in suspension minute particles of medicinal agents, such as gums, resins, and inorganic agents. These are mucilages.

2nd Combinations of gums, resins and inorganic substances with mucilages, making mucilaginous mixtures.

3rd Intimate combination of oils, and oleaginous gum-resins in suspension in mucilage, these are emulsions.

4th, Combinations of essential oils, and oleo-resins with a heavy syrup alone, or in combination with mucilage constituting balsams.

5th, Combinations of essences, of the volatile oils, tinctures, and fluid extracts with clarified honey, these are called honeys.

Mucilages are made of pure gums containing little or no resin, and consequently soluble in water, in which they are dissolved, to a proper consistency.

#### Mucilago Tragacanthae, Mucilage of Tragacanth.

Tragacanth, selected, No. 50 powder	dr. av. 7
Glycerin,	fl. oz. 2 1/2
Distilled water,	oz. 13 1/2

Mix the water and glycerin in a large mouth bottle of a little more than a pint capacity, set in hot water till near the boiling point, add the tragacanth, and digest for 4 to 6 hours with frequent thorough shaking, strain through 2 or 3 layers of plain antiseptic gauze, or cheesecloth.

This is a most useful mucilage to have in stock, it keeps in any weather, excellent for emulsions &c., it answers the general requirements of a pharmaceutical mucilage better than any we are acquainted with.

#### Mucilage Acacie, Mucilage of Acacia.

Acacia, select, No. 40 powder	oz. 3 1/2
Salicylic Acid	grs. 2
Sulphate Soda	grs. 2
Distilled water, a sufficient quantity.	

Put the acacia in 6 oz. of water in a large mouth bottle, heat by setting it in hot water to near the boiling point, digest with frequent shaking till dissolved; mix the salicylic acid and soda sulphate, rub well, dissolve in 2 oz. warm water and add to the mucilage, shake well.

A good base for mixtures and emulsions.

Mucilago Cydonii, Mucilage of Quince Seed.

Quince Seed, crushed,	dr. av. 3
Distilled water, a sufficient quantity.	
Salicylic Acid	gr. 2
Sulphate Soda,	gr. 4

Place the drug in 12 ounces of water, digest on a hot water bath for an hour or two, shaking frequently; mix and triturate the salicylic acid and soda., dissolve in 4 ounces of warm water, add to the mucilage, and filter the whole through two thicknesses of plain antiseptic gauze, or cheesecloth. This is a very agreeable mucilage, though rather light for emulsions.

Mucilago Ulmi, Mucilage of Elm

Ulmus, pulverized,	oz. av. 1/2
Distilled water	fl. oz 16
Salicylic Acid	grs. 2
Sulphate Soda	grs. 4

Mix and triturate the salicylic acid and soda., dissolve in the water and add the elm, macerate with frequent shaking, until an even mucilage is obtained. This is a very good general purpose vehicle. With one third part aromatic syrup it completely disguises quinine and other bitter medicines in powder.

Mucilago Sassafras Medullae Mucilage of Sassafras Pith.

Sassafras Pith, coarse powder,	dr. 2 1/2
Salicylic Acid	grs. 2
Sulphate Soda,	grs. 3
Distilled Water,	oz. 32

Mix and triturate the salicylic acid and soda, dissolve in the water well warmed, and add the sassafras pith, digest in warm water for 3 or 4 hours with frequent shaking, and strain through 2 thicknesses of plain aseptic gauze.

Used largely in cosmetics.

Emulsio Riciniae, Emulsion Castor Oil.

Castor Oil	fl. dr. 4
Mucilage Tragacanth,	fl. oz. 1 1/2
Simple Syrup	fl. oz. 1
Oil Orange,	drops 5

Pour the oils in mixed mucilage and syrup, into a bottle sufficiently large to allow free agitation, and shake violently for 20 or 30 minutes.

Dose 1 to 2 tablespoonsful.

Emulsio Copaiboe, Emulsion Copaiboe.

Cobaiba Balsam	fl. oz. 1/2
Mucilage Acacia, or Tragananth	oz. 3
Simple Syrup	oz. 1/2

Mix the mucilage and syrup, add the copaiba, shaking violently for 30 minutes. This can be flavoured with oil of peppermint or wintergreen or aromatic syrup, and used instead of simple syrup.

Dose, a teaspoonful.

Stimulating Balsam

Essence of Anise,	
“ “ Sassafras,	



" " Peppermint  
 " " Pennyroyal.  
 Tincture Guaiacum,  
 " Capsicum aa. oz. 1  
 " Myrrh, dr. 4  
 Simple Syrup (2 sugar to 1 of water) oz. 6  
 Mix and shake well.

This is copied from Wilkinson's Botanico-Medical Practice, except simple syrup is substituted for "sugarhouse molasses. "

Dose from a half to one teaspoonful.

#### Balsam of Honey.

Tincture Lobelia,  
 Essence Anise,  
 Essence Sassafras, aa. oz. 4  
 Strained Honey oz. 12  
 Mix.

For emetic in children, whooping cough, asthma and dry coughs. Dose not given.-Wilkinson's Practice.

### INFUSIONS, DECOCTIONS, AND AQUEOUS SOLUTIONS.

When vegetable agents are treated by pouring water either hot or cold, over them and macerated for a short time, and the fluid poured off, it is called an infusion.

When these agents are treated by continuous boiling in water to a more or less concentrated aqueous solution, it is called a decoction.

Aqueous Solutions are obtained from volatile oils, and agents containing oleoresins and resinous principles. All these preparations alone, without a preservative, are unstable, and belong to "extemporaneous preparations," and the processes of preparing them are denominated "extemporaneous pharmacy," they are mostly intended for immediate use.

Infusions and decoctions were used almost exclusively by the early practitioners of our school, because of the prejudice of the regular school, aroused by jealousy of many who were brought into competition with the "Botanics," as they were then called, whose success brought them into requisition by the people, our pioneers could not for many years enlist the aid of manufacturing pharmacists, hence we are compelled to rely on their own extemporaneous and crude pharmacy. It is seriously questioned by the older and more conservative heads of the Physio-Medical profession, whether our therapy and bedside practice, have materially gained by the large attention given our materia medica by modern manufacturing pharmacists. Certainly no one who has thoroughly and candidly tested the old, and the new pharmacy, will for a moment hesitate to pronounce in favour of infusions and decoctions when questioned as to therapeutic and practical efficiency.

The only objection being that of our modern homeosac-chapathic palates. If evidence is needed more than the practical bedside tests of the difference between hot infusions and decoctions, and elegant looking highly alcoholic products of modern pharmacy, we offer in evidence that the U.S. Pharmacopoeia, U.S. Dispensatory, and Remington's Pharmacy, all have honoured infusions and decoctions with the "Official" Seal.

While the writer is not the champion of retrograde return to the crude methods of the "tea doctors," as our early practitioners were dubbed. he does advocate the use of infusions and decoctions in all severe cases, and that in such emergencies the physician's better judgment shall not be in abeyance to fastidiousness. For we are sure that by using attractive forms of infusion-cups nicely decorated and artistically shaped, and in this way utilizing the modern tendency to fads, the hand painted china infusion-cup would do much to popularise and again bring into general use this most effective class of preparations. The powder triturates offer an elegant form of material for quick infusions, hot or cold.

## Infusion Vessels,

These are designed to effect solubility and suspension in hot or cold water, the therapeutic constituents of medicinal agents as thoroughly and rapidly as possible. One of the earliest forms of infusion vessel, the original form of which is shown in Remington's Pharmacy, is made of queensware or china. The drugs are held, covered by the upper stratum of water on a perforated diaphragm, movable to accommodate any quantity of drugs, and the difference of specific gravity of the heavily loaded fluid carries it to the bottom, from whence it is poured off through the spout which commences close to the bottom.

Another has a finely perforated colander of queen'sware, which fits in a jar made of the same material, decorated, or of silver, or of any other material desired; this descends to the bottom, containing the material to be infused, upon which the hot or cold water is poured; it is more in the nature of a percolator, and after the drugs are exhausted, they can be lifted out without disturbing the infusion.

The drugs for infusions will vary in degree of fineness; if dried ground drugs are used, from No. 60, fine, for barks; No. 50, moderately fine for plants whole and brittle roots of small size; No. 40 for dried berries, pods, and fruits, and for fibrous roots and stems; if leaves alone No. 20, coarse powder will do. If the green agents, such as stems and fibrous barks or small fibrous roots, they may simply be cut in very small transverse sections. If leaves and small plants, especially those containing volatile oils and oleo resins, they should be thoroughly bruised in a mortar; seed, pods and fruits green, may be infused whole or slightly bruised. If powdered drugs are used, and they are much to be preferred, they must be first thoroughly triturated with granulated or powdered sugar, or if sweetness is objected to, then sugar of milk.

The proportion of drug to water varies so widely, both as to the nature and condition of the drug used, and the urgency of the case at hand, that nothing more than a vague general rule can be laid down, either for proportion of drug or length of time for the digesting or "steeping" process, or for the temperature of the water used. All these things must be left wholly to the good judgment of the practitioner which will not fail to properly meet the exigency of each individual case.

The Physio-Medical Dispensatory places the proportion at one ounce of drug to the quart as the common proportion, to two or three ounces to the quart as the maximum, and thirty minutes to two hours, for digesting.

Remington's Pharmacy gives the following as the

### General Official Formula for Infusions.

The substance coarsely comminuted, 10 parts, or oz. av. 1

Boiling water, 100 parts fl. oz. 10

To make 100 parts, or fl. oz. 10

We are quite sure that in practice either of these will be found entirely too weak, either with green or dried drugs, unfortunately neither authority specifies the condition of drug as to green or dried state. We have found by actual measurement, that if the dried ground drug is used one and one half ounces to eighteen ounces of boiling water to be a good rule; and therefore suggest the following formulas for infusions :

### Standard Physio-Medical Formulae for Infusions.

The drug dried, ground in fine, moderately fine or coarse powder oz. av. 1 1/2

Boiling water, fl. oz. 18

Place the drugs in a proper vessel and pour over them the boiling water, cover closely, and keep hot in a water bath, on a warm stove or alcohol lamp while using; after 10 minutes it may be used.

Dose, a teaspoonful to a tablespoonful.

### Green Drug Infusion.

The drug fresh, green, cut or bruised, oz. av. 3

Boiling Water fl. oz. 16

Place the drug in a proper vessel, pour on the boiling water, cover closely and keep hot while using; after 15 minutes it may be used.

Dose, a tablespoonful to 2 ounces.

### Powder-Triturate Infusions.

The drug, powdered, triturated, 2 parts to 1

of sugar, or sugar of milk, oz. av. 1 1/2

Boiling water, fl. oz. 8

Moisten the drugs with moderately hot water into a thick paste, place in suitable infusion vessel, pour on the boiling water, cover closely and keep hot while using. If cold water is used macerate 1/2 to 1 hour.

Dose, one to three tablespoonfuls.

#### Decoctions.

As we have elsewhere remarked concentration does not always mean therapeutic efficiency, and decoctions illustrate the truthfulness of this rule, for generally speaking they are nauseous and repulsive used alone because they are too much condensed and their influence exerted locally upon the mucous membrane. However there are some agents that necessarily need to be treated in this way to get their proper influence, but even these should be well sweetened with sugar or syrup, when they come more properly under the head of medicinal syrups. Nevertheless those agents that will not readily yield their properties except by considerable boiling, and which the practitioner does not care to keep in the form of medicinal syrup, and whose administration it is desired to continue more especially in cold solution longer than an infusion would keep, may be very advantageously prepared in the form of a sweetened decoction.

From these considerations, and more especially as there seems to be no definite standard of strength, or manner of preparing decoctions, the U. S. Pharmacopoeia giving exactly the same strength and process as for infusions except longer maceration on a hot water bath—two hours; therefore we suggest as more in accordance with pharmacological nomenclature, instead of decoctions, the term extemporaneous medicinal syrups be used, and the medicinal strength placed at a standard of one half that of medicinal syrups. Accordingly the following formula is offered:

#### Extemporaneous Medicinal. Syrup.

The drug, dry, ground in moderately coarse powder	oz. av. 8
Water, a sufficient quantity.	
Granulated Sugar	lb. 1

Place the drugs in a suitable vessel and pour on 32 oz. of boiling water, loosely cover the vessel and boil gently either directly, or on hot water or sand bath till the fluid is reduced to 10 ounces, press off, and add to decoction the sugar and evaporate if necessary, to one pint.

Dose, a teaspoonful to a dessertspoonful.

#### Aqueous Solutions.

The object of these preparations is the solution of water of the volatile oils, oleoresins, and resins. We have already explained that agents containing the above constituents can be treated either with water alone, or with a very small percentage of alcohol, yielding preparations of sufficient therapeutic potency; because their full therapeutic constituency, ("organic chemistry" so called to the contrary notwithstanding) is not represented in these oils and gum-resins.

Aqueous solutions then, speaking strictly in accord with normal pharmacy and therapeutics, are aqueous solutions representing in part or whole of the therapeutic drug constituency. They sometimes become actual therapeutic agents, but are most oft-en used as solvents and adjuvants. There are several methods of obtaining aqueous solutions, the process depending on the nature of substance used. The following are typical formulae for the different classes of agents.

#### Volatile Oils, e.g. Aqua Anisi. Aqueous Solution of Oil Anisi.

Oil Anise	dr. 1
Carbonate Magnesia	oz. 1/2
Salicylic Acid	gr. 10
Distilled or boiled water	fl. oz. 16

Triturate the oil of anise with the magnesia and salicylic acid rubbed together first in the mortar, then by successive small quantities add distilled water, triturating at each time, until 6 or 8 ounces are mixed with the oil and magnesia, transfer to a filter paper arranged in a funnel, and filter, pouring on the remainder of distilled water.

#### Aqua Anisi Sem. Water of Anisi Seed.

Anise seed, moderately fine powder	oz. 2
Distilled water	fl. oz. 16
Salicylic acid	gr. 10
Nitrate Potassa	grs. 20

Mix the salicylic acid and nitrate potassa with the drug and rub well in a mortar, add distilled water triturating thoroughly at each addition until six or eight ounces are used, then transfer to a filter paper in a funnel and pouring on the remainder of water obtain 16 ounces in all. These solutions will keep almost indefinitely if well corked.

The following agents may be treated in this way.

Bay, oil or leaves. Cinnamon, oil or bark. Cloves, oil or berries. Coriander, oil or seed. Eucalyptus, oil or leaves. Fennel, oil or seed. Gum Camphor. Gum Myrrh. Lobelia, -seed and oleo-resin. Oil of Tar. Peppermint, oil or herb. Spearmint, oil or herb. Xanthoxylum, berries and oil. Yerba Rheuma, fluid extract and leaves. Yerba Santa, fluid extract or leaves.

#### TINCTURES, ESSENCES OR SPIRITOUS SOLUTIONS, VINOUS PREPARATIONS.

Tinctures, heretofore when little attention was paid to the part alcohol played in their influence upon the system, were largely used. In early pharmacy, whiskey and brandy being the principal menstruum, and later on, under the name of essential tinctures. and so called specific tinctures of the Eclectics.

But modern pharmacy happily has placed them on the back list largely; in which is shown a hopeful tendency also to reduce the percentage of alcoholic fluid preparations.

However, a few of these are still used largely by Physio-Medical practitioners, but they are of a strength that the name tincture is not proper, speaking in strict pharmacology. And from the Physio-Medical standpoint they are nothing more than alcoholic: fluid extracts. The confusion and impracticability of attempting to work pharmaceutically from a purely "officinal" and untheoretical standpoint is shown in Remington's Pharmacy, where some seventy-three "officinal" tinctures are named, and a table occupying two pages given to show the different menstruum strengths of each, "and other useful data." Percolation, maceration and by solution and dilution, are the various and laborious processes there given for making tinctures. The fact is that nearly all the products, recognised by the U.S. Pharmacopoeia come more properly under alcoholic fluid extracts already explained, while the drug strength of all these officinal tinctures are so varied that the intelligent prescriber must needs paste the officinal table in his hat to insure any degree of accuracy in dosage, a most serious thing to the patient in view of the free use of such virulent poisons as nux vomica, aconite, belladonna, digitalis or veratrum. In view of these facts we suggest the following:

#### General Formula for Physio-medical Tinctures.

The drug dry, ground to moderately fine powder	oz. av. 8
Distilled or boiled water	fl. oz. 25 1/2
Alcohol	fl. oz. 10 2/3

Mix the alcohol and water, pour over the drug a sufficient quantity to thoroughly moisten, let stand two hours and transfer to a percolator tightly corked, pour over the balance of menstruum, cover the percolator tightly and macerate for three days; percolate slowly until the menstruum has all passed and pour sufficient cold water on the drug to obtain thirty-two ounces of percolate.

As we have already mentioned, experience has proven that in agents containing volatile, resinous and gum-resinous principles a much more normal therapeutic value is obtained with a menstruum of thirty to forty percentage of alcohol; it is therefore a therapeutic mistake to treat these agents with seventy to full strength alcoholic menstruum, And in view of these facts we suggest a uniform alcoholic percentage of thirty three and a third for all tinctures; and that the process be percolation for all except the resins and gum-resins, and these be treated by saturation and maceration in a suitable vessel for from ten to fourteen days as directed for saturated fluid extracts.

Typical Formula for Resinous Agents, e.g. Tinctura Myrrhoe, Tincture of Myrrh

Myrrh, moderately coarse powder,	oz. av. 8
Distilled or boiled water,	fl. oz. 25 1/3
Alcohol,	fl. oz. 10 2/3

Place the drug in a large mouth glass bottle of at least two pints capacity, mix the alcohol and water and pour over it, macerate from 10 to 14 days shaking frequently; after 4 or 5 days maceration the tincture may be used, it can be poured off in dispensing without disturbing the drug; after maceration is complete place in a percolator and obtain 32 ounces. using water on the dregs if necessary.

Dose 10 drops to a half teaspoonful.

There are several Compounds that are used extensively in the tincture form by Physio-Medical practitioners, which we will give according to above standard, as follows :

Tinctura Myrrhoe Composita, Compound Tincture of Myrrh

Number Six (Thompson's name.)	
Myrrh moderately coarse pdr. oz.	av. 7
Capsicum pods bruised.	oz. av. 1
Water	fl. oz. 25 1/3
Alcohol	fl. oz. 10 2/3

Mix the powders and moisten with sufficient of the menstruum of alcohol and water mixed, transfer to a percolator, pour on balance of menstruum, close the vessel tightly and macerate for six or eight days, percolate adding cold water if necessary to obtain 32 ounces of tincture.

Dose 10 drops to a half teaspoonful.

Dr. Samuel 'Thompson's No .6.

Gum Myrrh pounded fine,	lb. 1
Capsicum	oz. 1

Put in a gallon of fourth proof brandy; let stand five or six days, shaking it well every day, and it will be fit for use.

The following from Botanic Physician published by Wm. Johnson about 1840, is his original formula for No.6.

Gum Myrrh	lb. 3/4
Golden Seal	oz. 2
Hemlock Bark	
Capsicum	aa oz. 1

Put into a gallon of alcohol, shaking once a day for five or six days, let settle, then pour off and bottle for use.

Compound Tincture of Myrrh.

Best Myrrh	oz. 12
Capsicum	
Balsam of Fir,	
Nutmeg	aa oz. 1
Brandy	gal. 1

Digest the brandy keeping in a warm place with frequent shaking for ten days; (Howard's Practice 1857.)

From the same author.

Simple Tincture of Myrrh.	
Myrrh,	oz. 12
Capsicum,	oz. 1
Peach or Cherry Kernals,	oz. 2
Brandy, alcohol or highwines,	gal. 1

Digest the drugs in the spirits for 10 days.

The author says of these, they are "powerful antiseptics and highly valuable to wash old foul ulcers that are obstinate to heal" Modern aseptic surgery has fully verified this statement made many years before its advent.

We would suggest as a menstruum thirty three and a third per cent, alcohol for all the above, instead of brandy, etc.

Cost's Domestic Medicine, published in 1859, gives the following compound tinctures which modified somewhat are still largely used.

#### Nervine and Anodyne Tincture.

Alcoholic extract. of cyripedium	oz. 1
Oil of Anise,	oz. 2
Camphor (gum)	oz. 2
Tincture of Garden Lettuce,	lb. 1

Dissolve the first three ingredients in the tincture and keep in tight bottles.

Dose, 10 to 30 drops.

#### Antispasmodic Tincture.

Lobelia Tincture, (prepared from the seed)	
Tincture Myrrh,	
Nervine Tincture.	aa. pt. 1

Mix. Dose one teaspoonful or more.

#### Tinctura Lobelie Composita, Compound Tincture Lobelia

Third Preparation, Thompson.

Lobelia Herb, No. 40 powder	oz. av. 4
Capsicum, No. 40 powder	
Cyripedium, No. 60 powder,	aa. oz. av. 2
Distilled or boiled water,	fl. oz. 25 1/3
Alcohol,	fl. oz. 10 2/3

Mix the alcohol and water and moisten the mixed drugs with a pint of it, after 4 or 5 hours place in a tightly corked percolator and pour on balance of menstruum, macerate for 5 days and percolate, adding hot water if necessary, to obtain 32 oz.

The addition of 3 drachms oil of anise to the tincture renders it more acceptable.

If lobelia seed instead of the herb is used then equal parts of that and capsicum, 3 ounces of each, should be used. Dose, 10 drops to a half teaspoonful.

Do not use the fine powders for these tinctures.

#### Dr. Samuel Thompson's "3rd. Preparation."

Ground Lobelia Seed,	
Capsicum,	
Cyripedium,	aa lb. 1/2
No.6. best,	gal. 1

Mix and shake well together. Dose from one to three teaspoonfuls.

#### Essences, or Spiritous Solutions.

In accordance with pharmaceutical nomenclature, essences or spirits are simply alcoholic solutions of volatile substances.

These are made in various ways by different manufacturing pharmacists. Remington's Pharmacy, as also the U. S. Pharmacopoeia, have five different ways according to the substance treated as follows.

1st. By simple solution. 2ml. By solution with maceration. 3rd. By gaseous solutions. 4th. By chemical reaction. 5th. By distillation. In fact there is but one method and one class of pharmaceutical essences, viz. those made by solution in an alcoholic menstruum.

Out of twenty-two officinal spirits, Remington's Pharmacy has but five that are made by any other method than solution, two of which, by distillation, are Spiritus Frumenti, Whiskey, and Spiritus Vini Gallici, Grape Brandy.

The trouble is, these authorities lose sight of pharmaceutical laws, and group all these preparations under the head of spiritus, spirits.

The term spirits, therefore in order to avoid this confusion, we shall define as Alcoholic Distillates, Spiritus, as Alcohol, Whiskey, Grape Brandy.

Essences or Spiritous Solutions we shall call alcoholic or spiritous solutions of volatile substances.

All of the volatile or essential oils and oleoresins either singly or in combination are soluble in definite proportions in a mixture of alcohol and water in relation, almost wholly, to the percentage of alcohol. Full strength alcohol will combine without turbidity with the volatile oils, such as sassafras, cloves, cinnamon, origanum etc., on the addition of small quantities at a time, agitating at each addition, to an unlimited extent, for when there is more oil than alcohol, so that 50 per cent alcohol or equal parts of alcohol and water will only dissolve 1 dr. of oil to 8 oz. of the menstruum. However, as the object is to combine these essences with other agents and combinations, and the lower the percentage of alcohol the more readily the essence combines with syrups, elixirs, etc., and as in this proportion they are of ample strength for practical purposes, we suggest the standard Physio-Medical essences at one dr. of volatile substance to eight ozs. of diluted (50 per cent.) alcohol.

#### "Typical Formula for Essence.

The Volatile Oil	dr. 2
Distilled Water,	
Alcohol,	aa. oz. 8

Mix the alcohol and water and after they have thoroughly combined add the oil, shake thoroughly once a day for three days, use for flavouring simple syrups, aromatic compounds, medicinal syrups, liniments, etc.

Compound Essences. Aromatic Essence of Ammonia. Aromatic Spirits of Ammonia, so called.

Carbonate of Ammonia,	dr. av. 4
Aqua Ammonia	oz. 1
Essence Lemon,	oz. 1/2
Essence Lavender,	dr. 3
Essence Pimenta,	dr. 2
Alcohol,	
Distilled Water,	aa. ozs. 7

Mix the alcohol and water and dissolve in it the carbonate of ammonia, next add the essences shaking thoroughly and lastly the aqua ammonia.

Dose. 20 drops to a teaspoonful, largely diluted with water, or simple syrup and water. A valuable antacid and heart stimulant.

Essentia Lavendulae Compositus. Essence Lavender Compound. "Compound Spirits Lavender."

Oil of Lavender,	dr. 2
Oil of Rosemary,	dr. 1/2
Oil of Cinnamon,	min. 10
Oil of Cloves	min. 5
Oil of Nutmeg,	min. 15
Tincture Saunders,	oz. 1/2

Alcohol, oz. 9 1/2

Water, oz. 5 1/2

Mix the alcohol and water, add the tincture saunders, mix the oils and dissolve in the mixture.

Dose. One half to a teaspoonful.

#### Wines and Vinous Preparations.

In the early days of "botanic medicine," as it was then called, before the immense commercial demand necessitated rapid and large outputs of distilleries and vintages inviting adulterations and artificial methods of production, when pure wines and liquors could be procured, spiritous and vinous medical compounds, wines and bitters were the leading pharmaceutical products of the physician's own manufacturing especially.

But these have fallen largely into disuse, because much depends upon purity of the spiritous, and more especially the vinous menstruum which are now villainous artificial concoctions. As Physio-Medicalists never use the stronger alcoholics, whiskies, brandies, etc., and rarely vinous products therapeutically, except of course in the absence of all other suitable agents, we would not here give place to this subject were it not for the purpose of calling attention of the profession to a method of obtaining an unfermented wine, or rather what we shall call Fruit Essence, which we are sure possesses a number of important advantages over all other alcoholic preparations for medicinal purposes. These advantages are:

A purely aseptic wine; there is no fermentative process, it is devoid of the ptomaines and corpses of millions of micro-organisms, and other debris of fermentation.

It is a pure fruit essence, with a percentage of alcohol in the menstruum for preservation only, consequently it furnishes in their normal genesis all the nutritive and therapeutic properties of the fruit used. A low percentage of alcohol, and high percentage of natural properties of the substance treated. Elegant appearance and delicious taste, retaining in its native lusciousness the taste and odour of the fruit, it is transparent and sparkling with the deep rich colour of the fruit used.

It is inexpensive, easily and quickly made by anyone. The physician can make it in quantities, prescribing and dispensing it to his patients at a good profit, without being liable to the revenue, or temperance law.

These wines are also excellent menstrooms for making medicinal wines and bitters, answering the purpose much better than any of the "purest" wines and whiskies "sold for medicinal purposes only." Also a most elegant vehicle and solvent for unpleasant medicines.

The writer has used these fruit essences in his practice as above indicated, for twenty years, and feels sure that all who make them according to the following formula will be well pleased with the elegance and therapeutic utility of the product.

Essentia Fructi. Fruit Essences. e.g. Essentia Vini. Essence of Grapes. Unfermented Grape Wine.

Fresh ripe Concord grapes, three gallon measure-fulls or	lbs. av. 10
Water, distilled or well boiled, cold,	pts. 18 1/4
Alcohol,	pt. 5 3/4
Granulated Sugar	Ibs. 12

Wash the grapes thoroughly in warm water before picking them off the stems, stem and place them whole in a five gallon demijohn; mix alcohol and water, dissolve the sugar in this and pour over the grapes. To proceed less accurately and more practically, fill the demijohn a little over half full of grapes, and fill full with a menstruum of 75 parts water, 25 parts alcohol in which mixture dissolve a little over t lb. granulated sugar per pint, which will take about three and a half gallons to fill the demijohn.

Macerate with occasional shaking for 4 or 6 weeks when the fluid may be drained off the grapes, without pressing. In from 4 to 6 days this will do to use. We have often let the fruit and fluid stand together for six months, but usually in seven weeks the grapes will be found tasteless, having yielded up their properties to the menstruum.



If sweet catawba grapes are used, less sugar may be employed, say about three ounces to the pint. While the quantity of alcohol in this menstruum may seem large at 25 per cent, when strong wine has no more than 15 or 20 per cent. yet when the sugar and the grape juice is added it is lowered to about 10 per cent. the smallest quantity that with the sugar will preserve the product from fermentation.

However as the quantity of sugar must be varied in proportion to the amount of acidity of fruit used, and as it may also be varied to suit the desire for a sweet or sour wine, the percentage of alcohol can be lessened in proportion to increase of sugar. The rule is that the alcohol and sugar together should aggregate at least 40 per cent. of the menstruum. To this of course is added during the process of maceration the fruit-juice, and we have a preparation that will never manifest the least sign of fermentation, but will improve in richness and elegance by age if kept in jugs or demijohns corked and in a moderately cool place. Though we have kept them loosely corked in jugs in a very hot pantry in summer and very cold place in winter, without the least degree of change.

The fruit must be thoroughly ripe; put into the menstruum whole immediately after they are taken off the stems before any chemical or fermentative change has taken place. Avoid all fruit that is wormy or has the least speck of rot.

The entire list of fruits may be treated by this method, and yield most elegant products. Especially cherries, red raspberries, dewberries, peaches, apricots, catawba, concord, muscatel, and all other varieties of grapes. Cherries, especially the early varieties; wild cherries, currants, and gooseberries thoroughly ripe and wild goose plums.

#### OILS, SAPONIFIED OILS. FATS. OLEATES. SOAPS.

We shall, for pharmaceutical purposes, divide the oils into fixed and volatile. As to the source, the fixed oils may be divided into organic or vegetable, animal and inorganic or mineral.

The fats, pharmaceutically. may be divided into animal and vegetable.

Saponified oils are combinations of fixed or heavy oil, with an alkaline solution, causing a white creamy consistence, the object of which is to render the oil more pleasant of administration, and increase its therapeutic effect.

Oleates.-By this term we mean not the chemical oleate, but oleaginous combinations for the purpose of obtaining miscibility of oils with aqueous and other fluids.

Sapo Soap.-A detergent or cleansing preparation made by boiling fats or oils with a strong alkaline solution, when a thick foamy mass is formed, to which a solution of common salt is added which causes the soap to rise to the top leaving the water underneath. This is called grain or soft soap. Hard soaps are made by evaporating the water instead of adding salt. Finer soaps such as toilet and surgeons' soaps, are made by redissolving grain soap in lye, heating and then adding salt solution. The oftener this is repeated the purer the product, but it necessarily becomes weaker.

The best soaps are made by first boiling fixed vegetable oil, olive oil being mostly used, with purified carbonate of soda, obtaining the grain soap, and then purifying as above and adding tallow sufficient to harden it.

Toilet Soaps are made by cutting and kneading grain soap in a machine for that purpose, perfume is added, and then it is pressed into cakes.

Castile Soap, which is mostly recommended and used by physicians and surgeons, is simply the purified soap, made as above stated. with olive oil and caustic soda.

Sapo Viridis or green soap is made in Germany and imported, it is made from the lighter fixed oils containing little stearin. It is a soft, jelly-like soap of a greenish-yellow colour.

Soaps are used in pharmacy for liniments, plasters, inunctions, and in making pill mass.

Medicated Soaps are made by adding various therapeutic agents, such as tar, balsam of tolu, fir, and antiseptics such as carbolic acid, etc., to the purified soap. The object being to combine with its detergent properties that of a local therapeutic application to the skin. While theoretically this seems plausible, practically it is a therapeutic inconsistency; for the detergent effect of the soap would leave nothing of the medicament on the surface,

The fact is that so-called medicinal soaps have nothing more than aseptic virtues, and in some cases this is quite desirable, yet with modern surgical technique nothing more is desired than a good plain soap.

### Volatile Oils.

Volatile or essential oils, are those light ethereal oils whose chief characteristics are odorousness, transparency, fluidity, and the rapidity with which they evaporate when exposed to the air at a very moderate temperature. They are obtained almost wholly from vegetable agents, mostly existing naturally, sometimes produced by chemical reactions, as destructive distillation, combustion, and by solution of the plant in water.

Pure fresh volatile oils are almost colourless, transparent and should have the odor and taste of the fresh plant or vegetable substance from which they are obtained. If exposed to the air and light or kept a long time in stock, they become thick, opaque, green, yellow, or red, and lose their characteristic odour and taste, becoming terebinthic.

The adulteration of volatile oils is a very common practice both by retail and wholesale druggists. The fixed oils are mostly used as adulterants, being much cheaper. To detect this, pour a few drops of the suspected oil on a piece of clean writing paper, evaporate over a spirit lamp, if adulterated with a fixed oil it will leave a greased spot. The pure volatile oil leaves no stain on the paper. Alcohol is also used; to detect which, place equal parts of oil, water, and glycerine in a test tube shake gently, the alcohol will mix with the water and glycerine, leaving a much diminished stratum of oil. Cheaper grades of the same oil are used for adulteration. But practice and experience with the use of the various volatile oils will enable one to readily detect inferior articles.

Volatile oils are chiefly obtained by distillation with water. Some can be distilled directly, a few by expression, and others by solution in some fixed oils. Distillation with water is done by placing the substance in a still covering with water, and by regulated heat carrying the oil over with the distilled water into a cooler or refrigeratory, where it can be readily skimmed from the surface.

The very lightest volatile oils, that are readily decomposed, and are not plentiful in the plants containing them, their extraction is best effected by various processes such as maceration, digestion percolation with some solvent, enflourage, or by the pneumatic process. The two last processes are for the treatment of delicate perfume laden flowers, and belong to the art of perfumery.

The chief pharmaceutic use of the volatile oils are in liniments, ointments, inunctions, flavouring, and adjuvants to medicinal compounds, being, most of them, diffusible stimulants to the vaso-motor apparatus, both internally and externally administered. The following list comprises the chief volatile oils in general use. The oleo-resins belong to another class pharmaceutically, and will be found elsewhere.

### List of Volatile Oils.

Oil Allspice,	Ol. Pimentae
" Anise,	" Anise.
" Bay,	" Myricae
" Bergamont,	" Bergamii
" Birch,	" Betulae
" Almonds,	" Amyg Am.
" Cajuput,	" Cajuputi.
" Camphor,	" Camphorae
" Caraway,	" Cari.
" Cinnamon,	" Cinnamomi.
" Chamomile,	" Anthemidis.
" Cloves,	" Caryophilli.
" Coriander,	" Coriandi.
" Dill,	" Anethi.
" Eucalyptus,	" Eucalypti.
" Fennel,	" Foeniculli.
" Hemlock,	" Abies Can.

" Juniper,	" Juniperi.
" Lavender,	" Lavandulae.
" Lemon,	" Limonis.
" Mustard,	" Sinapi.
" Orange Flor,	" Auranti Flo.
" Orange Peel,	" Auranti Cor.
" Pennyroyal,	" Hedeoma.
" Peppermint,	" Mentha Pip.
" Red Cedar,	" Juniperus V.
" Rosemary,	" Rosmarini.
" Rue,	" Rutae.
" Sandal Wood,	" Santali.
" Sassafras,	" Sassafras.
" Sabine,	" Sabinae.
" Spearmint,	" Mentha Vir.
" Tar,	" Picis.
" Turpentine,	" Terebinthae.
" Wormseed,	" Chenopodii.
" Wintergreen,	" Gaultheria.

The fixed oils are heavy, transparent or semi-transparent, white, yellow, or greenish. They are thick and greasy leaving a heavy stain on paper or fabrics. They vary in taste usually retaining the taste and odour of the substance from which they are derived.

The medicinal fixed oils are derived from plants, nuts and fruits, one or two of much value being mineral.

They are obtained chiefly by expression. The substance being bruised or ground to a pulp and pressed by powerful hydraulic presses, either cold, heated or steamed. Some are best obtained by pressure between hot rollers. The mineral oils exist in a free state or combined with other mineral matters or fluids.

#### List of Fixed Oils.

Oleum Amygdala Dulcis, Oil Sweet Almond.

- " Olivae, Oil of Olives.
- " Ricini, Castor Oil.
- " Lini. Flax-seed oil.
- " Gossypii Seminis, Cotton-seed oil.
- " Pepo. Pumpkin-seed oil.
- " Lycopodium, Oil of Lycopodium.
- " Myricae, Oil of Bayberry.
- " Juglans Cinerea, Oil of Butternut.
- " Juglans Nigra, Oil of Black Walnut.
- " Elais, Palm oil.

The fixed oils are used both externally and internally. Most of them for either use are rendered more efficacious by saponification, that is, emulsified by an alkali. Especially when administered internally they can be made more palatable and effective. The following formulae are for internal use.

Oleum Ricini Saponificatus. Saponified Castor Oil.

Castor Oil,	
Water,	aa fl oz. 1
Potassii Carbonas, (Sal Tartar)	grs. 15
Oil Coriander,	drops 5

Dissolve the potassa in the water, add the oils and shake violently for two or three minutes. There will be partial separation of oil from the solution on long standing, but a little agitation will mix them again.

Dose a dessertspoonful to two tablespoonfuls.

### Oleum Olivae Saponificatus.

Olive oil,	fl. oz. 1 1/2
Water,	oz. 1/2
Potassii Carbonas,	gr. 10
Oil Lavender,	drops 5

Dissolve the potassa in the water and add the oils, shake thoroughly.

Dose one or two tablespoonfuls.

### Oleum Lini Saponificatus.

Flaxseed oil,	
Water,	aa oz. 1
Potassii Carbonas,	gr. 15
Oil Bitter Almonds,	drops 5

Dissolve the potassa in the water and add the oils, shake thoroughly.

Use externally for burns, chilblains, and old sores. Internally for feverish irritated conditions of intestinal tract.

Dose one or two teaspoonfuls.

### Oleum Pepo Saponificatus, Saponified Pumpkin Seed Oil.

Oil of Pumpkin Seed,	oz. 1
Water,	dr. 3
Oil of Anise,	drops 5
Potassii Carbonas,	gr. 5

Dissolve potassa in the water, add the oils and shake thoroughly.

Dose one half to one teaspoonful.

### Oleum Pepo Saponificatus Compositus. Compound Saponified Pumpkin Seed and Castor Oil.

Oil of Pumpkin Seed,	dr. 2
Castor Oil,	oz. 1
Water,	oz. 1
Aromatic Syrup,	dr. 6
Potassii Carbonas,	gr. 15

Dissolve the potassa in the water, mix the two oils and add to the solution, shaking thoroughly, lastly add the syrup.

Dose one to three tablespoonfuls. A good tape worm remedy.

### Oleum Chenopodii Saponification

Oil of Wormseed,	oz. 1
Oil of Wintergreen,	drops 5
Oil of Cinnamon,	drops 10
Water,	oz. 1 1/2
Potassii Carbonas,	gr. 12
Simple Syrup,	oz. 1

Dissolve the potassa in the water, mix the oils, and add to solution, shake thoroughly and add the syrup. A most palatable and effective vermifuge. Dose one half to one teaspoonful.

### Oleum Amygdala Dulcis Saponificatus. Saponified Oil of Sweet Almonds.

Oil of Sweet Almonds,	oz. 1 1/2
Oil of Bitter Almonds,	gtta. 3
Water,	oz. 1/2

Powdered Borax, grs. 15

Dissolve the borax in the water, add the oils and shake thoroughly.

An excellent internal application for sunburns, pimples, and freckles. Also an excellent application in diseases of scalp.

#### Fats.

These are heavy semi-solid and solid fixed oils, derived from the animal kingdom chiefly, though many vegetables are rich in fats. The adipose tissue of all animals yields more or less fat, as also fowls, fish, reptiles and insects.

The chief fats used in pharmacy are,-

Adeps, Lard. Purified lard is obtained by a rather laborious process, and is used for pomades and finer ointments, embrocations, etc.

Fresh well rendered or boiled lard is best in pharmaceutical use, and almost all the mineral salts combine with it better than some of the other fats.

Oleum Adipis, Lard Oil is made by expression at a low temperature of lard. It is colorless, quite fluid, an excellent fixed oil but is difficult to obtain pure in market being usually adulterated with paraffin oil. It is used in making the thinner ointments, and where a heavy absorbent powder is to be incorporated with fat.

Sevum, Suet, Tallow. This is obtained from beef or mutton. Owing to the large proportion of stearin, tallow is dense, white, smooth, and melts at nearly the boiling point of water. Used in making ointments with the lighter oils, such as tar, sassafras, etc., and for hardening platters, suppositories, etc.

Lanoline. This is a white oily fat, about the consistency of fresh churned unsalted butter. It is procured from lamb's wool, by a special and patented process of Osear Liebreich's, Berlin, Germany.

This is a most excellent base for incorporating the powdered vegetable agents, and dry mineral powders into ointments, suppositories, etc. The following is a most useful and elegant formula. for piles, painful swellings and bruises.

Lanoline,	oz. 1
Oil of Sassafras,	dr. 1
Powdered Valerian	
Powdered Baptisia,	aa dr. 2
Powdered Ulmus,	a sufficient quantity.

Place the lanoline on a glass or marble slab, and with a spatula first mix the oil sassafras with it, then incorporate the valerian and baptisia, and lastly incorporate powdered elm until the consistency desirable is obtained.

Petrolatum Vaseline. Is a semi-solid, reddish yellow or clear white fat., obtained as a residue after distillation of petroleum or coal oil. It is purified by filtration through animal charcoal.

Any of the vegetable or mineral powders are readily incorporated with vaseline into ointments, plasters, etc. A number of brands or proprietary names for vaseline have been devised, such as "cosmoline," "malena," etc.

Paraffin. This is a solid, waxy substance, inodorous and tasteless, somewhat harder than tallow, and not quite so hard as white beeswax. It was at first obtained by the destructive distillation of wood; but is now on a large scale obtained from petroleum. Paraffin is valuable in pharmacy in making plasters, suppositories, etc.

Cetaceum. Spermaceti. A dense white fatty substance, obtained mainly from the head of the sperm whale, is used in plasters, ointments, suppositories, etc.

Oleum Theobroma, Butter of Cacao. This is in yellowish white oblong cakes of an agreeable chocolate smell and taste. It is obtained from cacao, or chocolate nut, cacao butter is valuable as a base for suppositories, pastiles, etc.

Glycerinum. Glycerin. This most useful pharmaca is a product of fats and fixed oils. It is thick, syrupy, transparent, and very sweet mixing in any proportion with water or alcohol. Originally it was made by its discoverer Scheele in 1789 by boiling olive oil and litharge in water. This of course contained lead which was hard to get rid of sufficiently to fit it for internal administration.

Subsequently it was found in soap maker's waste; but most of the fat used in the large factories is from dead and decomposing animals; glycerin made from such a source is of a strong odour and unfit for use in pharmacy, notwithstanding it is claimed to be rendered inodorous and pure by a patented process. Pure glycerin for pharmaceutical purposes should be that, made from pure olive oil, or fresh pure lard by distillation with super-heated steam 400 to 500 deg. F.

#### Oleates.

It is often desirable to quickly mix or combine a fixed oil or a fat with an aqueous solution or a syrup either in fluid form or an ointment or plaster. For this purpose we present the following formula for reducing these substances to what we shall for want of a better name call oleates.

#### Oleate Lanoline.

Lanoline,	dr.3
Corn Starch,	oz. 1 1/2
Potassii Carbonas	gr. 10

Mix the starch and potassa, melt the lanoline and adding it to the powder in a mortar in small quantities, triturate thoroughly. A few drops of oil of bitter almonds or any of the essential oils during the trituration may be added to give it a pleasant flavour.

#### Oleate Tar and Sassafras Compound.

Oil of Tar,	
Oil of Sassafras,	aa dr. 2
Corn Starch	oz. 1 1/2
Pulverized Elm,	oz. 1/2

Mix the corn starch and elm in a mortar and triturate the oils in successive small quantities.

### EXTRACTS. ABSTRACTS. OLEORESINS.

#### RESINOIDS and ALKALOIDS.

Solid extracts. These were formerly much in use among Physio-Medicalists, but like many other preparations of the fathers of our system, they have yielded to more elegant pharmacy. Before the advent of the machine pill coating with sugar and gelatine, home made pills from solid aqueous extracts were dispensed freely.

We are certainly of the belief that solid and semi-solid aqueous extracts have been and ever will be powerful therapeutic agents with proper selection of drugs, and careful preparation. And we earnestly recommend all practitioners who can obtain the fresh green or properly dried drugs to prepare their own extracts. The process is so simple and inexpensive, and one can obtain preparations much superior to that of the large manufacturing houses. who have to depend on the general gatherers for supplies which cannot be in good order after long shipments. These extracts can be sent by the home manufacturer to the manufacturers of pills, tablets, &c., and made into coated pills, tablets, etc., in accordance with your own private formula.

The object of extracts is to obtain the medicinal properties of vegetable agents in a solid or semi-solid condensed state, and they serve the double purpose of affording a base or mass for other agents in pill, tablet or suppository form, and as a therapeutic auxiliary to the product. It seems that no standard either of strength or consistency has yet been established for extracts, and for this reason the physician possessing any kind of facilities for office pharmacy and who can procure the fresh agent should make his own extracts, as those found in the market are wholly unreliable as to strength or consistency. Unless kept thoroughly sealed in glass or porcelain jars and in cool damp place, water evaporates, and the extract deteriorates, becoming hard and inert. The U. S. Pharmacopoeia has endeavoured to establish a standard of consistency by the term "pilular consistence," but this is no more definite than the term solid extract, as the consistency of a pill mass must depend on the nature and quantity of the powders to be incorporated.

The proper way, we think, is to establish it standard of strength representing a definite quantity by weight of the drug fresh green or dried, to commence with, which shall be represented by a definite quantity by weight of the finished extract, which should be always stated on a label upon the container. In this way the druggist or physician could easily ascertain, by weighing, whether evaporation by long keeping or being loosely stoppered, had reduced the product below the standard; in which case, if not otherwise deteriorated sufficient distilled water could be added to bring it up to the required standard of weight and consistency.

With the view of establishing a definite standard of strength for solid aqueous extracts we suggest the following typical formulae :-

Aqueous Extract of Eupatorium Perfoliatum. Green. Extractum Eupatorium Aquosum.

Eupatorium Perfol. fresh green herb,	
cut finely	Ibs. 5
Pure Water,	gal. 3

Place the herb in a macerating vessel, pour on one gallon of water and digest at a temperature of 200 deg. F., closely covered for 3 hours, strain off the liquid with some pressure, set aside and pour on two gallons of water, simmer slowly in an uncovered vessel until the quantity of liquid is about two-thirds evaporated, press off with a drug press, or displace while hot with the centrifuge, and mix with the first liquid, evaporate at a temperature not to exceed 200 deg. F. by direct heat, or over a steam, hot water or sand bath until the mass weighs 16 oz. av. Put in a large mouth glass or queensware bottle, cover with a thin stratum of glycerin and thoroughly dose with a good cork glazing Hw top and sides of same with hot bees-wax.

Aqueous Extract of Lobelia Herb, Dried. Extractum Lobelia Aquosum.

Lobelia Herb, No. 30 powder,	lbs. 3
Pure or distilled water,	gal. 3

Place the drug in a suitable vessel and pour over it one gallon of water. Digest at a temperature of 160 deg. for three hours, transfer to a percolator or centrifuge and displace pouring on the other two gallons of boiling water, set aside the first gallon; evaporate by boiling the last two gallons to five pints, mix with first and evaporate slowly over a steam or hot water bath until one pound of extract is obtained, put in a well stoppered large mouth bottle. cover with a thin stratum of glycerin.

Expressed or Inspissated Extracts.

These are made from succulent green plants, which are bruised to a pulp in a mortar, the juice pressed out with a drug press or displaced with the centrifuge and evaporated spontaneously in a warm place. They should be made on the same standard as aqueous extracts from the green plant, 5 lbs. of plant to 1 lb. of extract.

Hydro-Alcoholic Extracts.

These are made with a menstruum of alcohol and water. Some largely resinous agents are best treated in this way; but the percentage of alcohol need not be large, not exceeding 25 or 30 per cent., for the reason as already stated, that not all of the normal therapeutic constituents reside in the resins or gums of these plants, and for the additional reason that the loss of the alcohol, unless one is prepared on a large scale to regain it by distillation, renders the product unnecessarily expensive. Last but by no means the least objection, the larger the percentage of alcohol used, the less soluble the extract in the fluids of the alimentary tract.

The following is offered as a typical formula for a standard hydro-alcoholic extract.

Extract Hydrastis. Hydro-Alcoholic.

Hydrastis, No. 40 powder,	Ibs. 3
Alcohol,	pts. 4 3/4
Distilled water, a sufficient quantity.	

Place the drug in a macerating vessel, mix 4 pints of the water with the alcohol, pour over the drugs and macerate for five days, transfer to the centrifuge or a percolator and displace, setting aside the first six pints, continue the displacement with boiling water until two gallons of percolate in all are obtained, evaporate the last percolate by boiling slowly to a half gallon, mix with the first percolate and evaporate on hot water or a steam bath to one pound of extract put in a well stoppered large mouth bottle, covering with a thin stratum of glycerin.

Alcoholic Extracts are made with a pure alcohol menstruum. As above stated, such extracts are not desirable because of their insolubility and expense. Those agents containing large quantities of gum and resin are treated in this way under the notion that their medicinal properties are therein contained. The fact is that the gums as a rule are sparingly solvent in alcohol, while the resins only partially represent the therapeutic constituency of such agents.

#### Abstracts. Saccharated Extracts.

The U. S. Pharmacopoeia in 1880 introduced officially under the name Abstracta, preparations made by spontaneous evaporation of an alcoholic tincture and adding sufficient sugar of milk so that when dry or powdered the product would be one half the weight of the quantity of drug used. These preparations had been previously made and sold by a drug firm under the name of saccharated powdered extracts. They were thought to be a great improvement over the solid extracts both as a standard strength and therapeutic efficiency, but after an extensive use of them by the profession, for a short time they fell into disfavour, as they could not be kept from solidifying and they were found to be insoluble by the digestive fluids.

In place of the above we suggest the following typical formula, the product of which we shall call abstract triturate.

Trituratum Abstractum Scutellariae.....AbstracTriturate of Scutellaria.	
Scutellaria, No. 30 powder,	lb. 1
Alcohol,	pts. 1 3/4
Water, a sufficient quantity	
Pulverized Scutellaria""	

Mix the alcohol with 2 pints of water and pour over the No. 30 Scutellaria powder in a proper macerating vessel, macerate 5 days, transfer to a centrifuge or a percolator and displace, adding boiling water, set aside the first quart, continue until three quarts in all are obtained; evaporate by boiling the two last quarts to one pint, mix with first percolate and over a hot water or steam bath evaporate slowly to a very thick extract, transfer to a mortar and triturate with it sufficient powdered Scutellaria, to make one pound in all; if not reduced to a dry powder, spread it on thin muslin stretched on a frame in a warm place till quite dry, then triturate again, adding more powdered Scutellaria if necessary to make one pound by weight.

This preparation gives the advantage of first the normal powder of the drug, second, extraction and addition to the normal powder such constituencies as yield most readily to a hydro-alcoholic menstruum, and thirdly rapid and perfect solubility by the gastric and intestinal fluids with consequent complete assimilation of the drug, which constitutes the therapeutic desideratum of a pharmaceutical product.

#### Oleoresins.

A number of vegetable agents contain a fixed oil which is intimately combined with gum-resinous constituents from which the oil cannot be separated without destructive distillation, while the oil resin and gum can be readily obtained in combination and represents a large therapeutic constituency of the drug. To such a product the name oleoresin is given. Of course an oleoresin, however well prepared does not represent the full therapeutic constituency of the drug, nevertheless they are the most concentrated preparations as far as they go in drug constituents of the plant of any other fluid products; but for this reason if no other their therapeutic usefulness is curtailed because such a product must necessarily have a powerful local influence am] though from a mild sanative agent may become a dangerous local irritant. Consequently they have from a former rather extensive employment fallen much into disuse amongst Physio-Medicalists, so that a comparatively few oleoresins are now in general use.



Another objection is the menstruum which is stronger ether as employed by the U. S. Pharmacopoeia, of which it is impossible to rid the product of its principles by the necessarily imperfect spontaneous evaporation.

Still another objection is that it is almost impossible to establish a definite standard strength for these products. As illustrative of what is said above, the following formula is copied from Remington's Pharmacy, page 867.

Oleoresina Capsici U.S. Oleoresin of Capsicum.  
Capsicum, No. 60 powder 100 parts or 32 oz. av.  
Stronger Ether, a sufficient quantity  
To make about 1 1/2 fl. oz.

Put the Capsicum into a cylindrical percolator, provided with a cover and receptacle suitable for volatile liquids, press it firmly, and gradually pour stronger ether upon it, until one hundred and fifty parts (or 4 pints) of liquid have slowly passed.

Recover the greater part of the ether by distillation on a water-bath, and expose the residue in a capsule, until the remaining ether has evaporated. Lastly, pour off the liquid portion, transfer the remainder to a strainer, and, when the separated fatty matter (which is to be rejected) has been completely drained, mix all the liquid portions together.

Keep the oleoresins in a well stoppered bottle.

The oleoresins mostly in use as prepared by this method are.

Oleoresina Capsici.	Oleoresin of Capsicum.
" Lobeliae	" " Lobelia Seed.
" Cubebae.	" " Cubebs.
" Lupulini.	" " Lupulin.
" Piperis.	" " Black Pepper.
" Zingiberis.	" " Ginger.

#### Resinoids or Resins, Resinae U. S. P.

These preparations were early produced and used by the Botanics and Eclectics together with products containing extractive gums and alkaloidal constituents of plants which were simply crude alkaloids. They became very popular for a time but have given place to the more elegant alkaloids of modern pharmacy. However, some of the resinoids have maintained their popularity amongst Physio-Medicalists and are most valuable agents.

Resinoids are made by maceration and displacement with a full strength or high percentage alcohol as a menstruum, and the resin precipitated by adding to the alcoholic solution an excess of water.

These preparations are almost wholly non-therapeutic to use the term, as they represent in an isolated state a single therapeutic constituent of the drug. Consequently their therapeutic range is limited. They simply represent the resinous constituent which is alone soluble in alcohol.

The fact of this limited therapeutic range of resinoids, dependent on the absolute alcoholic menstruum, we urge as additional proof of the fad which we have emphasized in the beginning of this article, that an aqueous solution represents the normal therapeutic constituency of organic agents.

#### Normal Fluid Extracts, Alkaloids.

Under the above name the U. S. Pharmacopoeia places what was formerly termed resinoids and alkaloids, of the early Botanics and Eclectics. The fact is that these alkaloids are simply resinoids made by a more perfected method by which the resinoidal inorganic salts of the plant may be isolated. Ether is the principal menstruum.

The resinoids and alkaloids take the name of the original drug with the last syllable terminating in ine for the alkaloids, and in for the resinoids, thus quinine, salacine, and podophyllin, leptandrin.

The following is a typical formula for resinoids.

Podophyllin, Resinoid of Podophyllum.

Podophyllin, No. 50 powder, lb. av. 1  
Acetic Acid, oz. 1  
Water,  
Alcohol, of each a sufficient quantity.

Place the podophyllum in a suitable macerating vessel and pour on sufficient alcohol to thoroughly saturate, cover closely and macerate 4 or 5 days, mixing each day so as to insure thorough saturation, transfer to a centrifuge or percolator and displace, adding more alcohol until the drug is exhausted (about 1 3/4 pints of percolate), evaporate or distill off the alcohol till the fluid is as thick as molasses; to one pint of water add the acetic acid, cool to a temperature of 40 or 50 deg. F. and slowly stir in the thick extract, let stand till all precipitation ceases, decant the supernatant liquid and wash the precipitate by pouring on fresh cold water and decanting two or three times, spread the precipitate on a thin muslin or flannel stretched over a frame and when thoroughly dry reduce to a fine powder.

The alkaloids are made commercially by processes which the manufacturers keep strictly secret, the general plan is to proceed as in the above formula for resinoids, using hydrochloric acid instead of acetic, and after decanting the first fluid it is made alkaline with ammonia or soda and the precipitate returned to it, shaking and allowing it to settle, then decanting and washing with cold water. Or the drug in very fine No. 80 powder is mixed into a paste with fresh lime dried and then digested in alcohol, decanted and acidulated, then precipitated as in the above formula, washed thoroughly with acidulated cold water, dried and powdered. Some agents yield better therapeutic products with the resinoid, while others are better with the alkaloidal treatment.

SUPPLEMENT.

AGRIMONIA EUPATORIA.

Agrimony.

See Page 52.

This agent improves the appetite, tones the digestive organs and assists nutrition. It checks profuse, catarrhal secretions and is serviceable in cholera infantum and congestions of the mucous membrane generally. The following will be found valuable in acute and chronic catarrh, with it the nostrils and throat may be sprayed three or four times daily.

F. E. Agrimonia Eup. m xxx  
Glycerine, dr. i  
Aqua Rosae, q. s. oz. i

ALNUS SERRULATA.

Tag or Small Alder.

See Page 57.

The following is an alterative formulated by Dr. M. C. Keith.

Alnus Serrulata lbs. ii  
Iris. Versicolor lb. i  
Larix Americana  
Xanthoxylum Bark  
Capsicum aa. lb. ss  
Soft Water gals. iv

Boil twenty minutes.; strain and add three quarts of New Orleans Molasses; boil into a syrup and skim. When cold add one quart of alcohol to one gallon of the preparation. Dose, a dessertspoonful before eating.

ALPINIA OFFICINARUM.

Galangul. Bombay Root.

East Indies.

The root is a stimulating, spicy, warming, aromatic alterative.

It considerably excites the mucous membrane especially of the stomach, and its use is best in atonic and depressed conditions of the digestive tract. In hot infusion it arouses the circulation and gives general warmth. It promotes menstruation especially when the same has been checked by congestion, in either acute or chronic cases Zingiber, Asclepias or Camomile may be added as required. It has been recommended as an alterative in sarcoma, uterine fibroids, lymphatic swellings and in syphilis.

The following is Dr. J. M. Thurstston's formula for his Alpinia Compound :

Apinia Off.,	2
Trifolium Prat.	
Phytolacca Dec. Rad.	aa. 1

#### ALSTONIA CONSTRICTA.

Fever Bark. Bitter Bark.

Australia.

The bark of this shrub is intensely bitter and is a stimulating tonic, hepatic and nervine. It is valuable in atonic and depressed conditions. It warms up the circulation and strengthens the nervous system. It is somewhat antiperiodic and favourably influences the digestive and secretory functions. It will be found valuable in the treatment of intermittent, remittent or typhoid fevers, and dropsy.

The ALSTOXIA SCHOLARIS is somewhat similar in influence.

#### AMPHIACHYRIS DRACUNCULOIDES.

Broom-weed.

See Page 60.

Prof. E. G. Anthony recommends the following for atonic conditions of the naso-pharyngeal mucosa;\_

Tr. Amphiachyris Drac.	gtta. vi
Sodium Hyposulphite.	grs. x
Glycerine	dr. i
Aqua Rosae,	q. s.oz. ii

M. Sig. Apply as a spray three times a day.

Dr. J. M. Massie advises the following in capillary bronchitis :-

Powd. Amphiachyris Drac.	oz. iii
" Polemonium Rep.	oz. ii
" Glycyrrhiza	
" Zingiber	aa oz. i

M. Sig. A heaped teaspoonful to a pint of boiling water, and give warm as freely as needed.

The following will be found a very useful cough tonic.

F. E. Amphiachyris Drac.	oz. ii
" Polemonium Rep.	oz. i
" Prunus Virg.	oz. i
Syr. Glycyrrhiza	q. s. oz. xvi

M. Sig. Teaspoonful or less every half hour to four hours.

The following forms a very excellent tonic, alterative cough compound.

Amphiachyris Drac.	
Aralia Rac.	
Sanguinaria Can.	
Populus Candicans. Buds	aa 4
Sassafras Off.	aa 1
Prunus Virg.	20
White Pine Bark	10

Make into an elixir.

## ANANASSA SATIVA.

Pine Apple.

The fresh juice of this fruit contains a ferment which at 100 degs. very readily digests proteins and reduces both animal and vegetable albumenoids. This is sometimes called bromelin, a valuable antiseptic and digestive tonic which will be found applicable in catarrhal diphtheric and other foul forms of sore throat somewhat derived from some form of indigestion. It assists in cleansing the surface of the digestive tract, and may very profitably be used in many cases during convalescence and as a vehicle in the treatment of chronic diseases of the digestive organs of an atonic and foul character.

## ANEMONE PULSATILLA.

Pulsatilla.

See Page 67.

This agent is of much importance in the treatment of spinal irritation, irritation or inflammation of the female organs, especially of the ovaries. Its influence is also of importance in the treatment of enlarged and sensitive prostatic affections, in cases of sensitive urethra or vagina and of conditions giving a constant desire to micturate.

## APOCYNUM ANDROSAEMIFOLIUM.

Bitter Root.

See Page 70.

The following is Dr. M. C. Keith's. vermifuge.

Apocynum And.

Podophyllum.

Spigelia Marilandica

aa oz. iii

Alcohol

pts. iss

Macerate 14 days, having put a handful of Sage in the bottom of the percolator. Then take

Chelone Glabra

Asclepias Incarnata

aa, oz. iii

Boil in three quarts of water twenty minutes and turn into the percolator while hot and percolate three quarts. Give one or two teaspoonfuls on rising in the morning for three mornings and omit three mornings. Wash the abdomen with salt water.

Arbutin is denominated the active principle of the Uva Ursi but is also found in the Chimaphilla, Gaultheria, Arctostaphyloa glauca and Epigea repens. It appears in small white, silken crystals, soluble in water. Dose ten to twenty grains. Its properties are similar to the Uva Ursi.

## ARCTOSTAPHYLOS GLAUCA.

The leaves of this evergreen possess properties very similar to those of the Uva Ursi. It is a stimulating tonic diuretic, giving tone throughout to the urinary mucous membrane and somewhat influencing the alvine mucous membrane. It will be found of service in cystic catarrh, gonorrhoea, gleet and hematuria.

## ARISTOLOCHIA SERPENTARIA.

Serpentaria.

See Page 80.

This agent may be added to hepatics with excellent effect in cases of chronic constipation, Dr. E. Anthony prescribes the following for cases of profound nervous prostration.

Tr. Zingiber Afr.

Tr. Serpentaria

Tr. Lavender Camp.

aa. dr. iii

Syr. Simplex

q. s. oz. vi

M. Sig. One teaspoonful hourly or as needed.

## ARUM VIRGINICUM.

Peltandra Virginica.

This plant, a species of Indian turnip, grows in shady moist places, in wet ditches and swampy woods. The whole used medicinally, but the root chiefly. In its green state it is quite acrid, but this quality is much less in the recently dried state and when boiled. In hot infusion it stimulates the circulation and is diaphoretic; cold preparations are a stimulating diuretic although it influences the entire mucous membrane, and is best in torpid conditions.

#### ASPIDOSPERMA QUEBRACHO-BLANCO.

Quebracho.

Brazil.

The bark of this evergreen tree is of service especially in dyspnea whether from bronchial, lung or heart troubles. It strengthens the circulation and lessens the frequency of hurried respirations as frequently met in asthma, angina, bronchitis, phthisis, pleuritis, thrombosis and cyanosis. It stimulates the respiratory and circulatory centres.

#### BALSAMODENDRON MYRRHA.

Myrrh.

See Page 91.

The influence of this agent tends to the preventing of septic conditions, to the purification of the blood current and to the rapid increase of white blood corpuscles.

Two to five drops of the Fluid Extract will be found excellent in the relief of fermentation in atonic indigestion, and in the nausea incident to pregnancy.

The following preparation will be found useful as a spray to the nostrils in ulcerous coryza.

Tr. Myrrh

Tr. Cinnamon

Aqua Camphor

Aqua Rosae

aa. dr. ii

dr. i

q. s. oz. x

#### BAPTISIA TINCTORIA.

Wild Indigo.

See Page 92.

This agent will be found useful in amenorrhoea. Combined with Eucalyptol and Boracic Acid as an application it gives very favourable results, sustaining the local arterial circulation, and preventing decay. It is also a valuable addition to alteratives in degenerate cases.

#### BAROSMA BETULINA AND CRENULATA.

Buchu.

See Page 95.

This agent very readily eliminates the urates and relieves the system of uric acid. It has a very valuable influence in both acute and chronic rheumatism.

#### BENZOIN ODORIFERUM.

Spiced Wood.

Laurus Benzoin.

Spiced Bush.

Fever Bush.

This is an indigenous plant four to ten feet high, growing in moist shady places in the United States. It flowers in spring long before its leaves appear. It bears small clusters of oval berries which when ripe in the early fall are a crimson hue.

The bark berries and small branches are an aromatic and stimulant influencing the mucous membrane throughout, and especially of the respiratory tract. It forms a pleasant drink in fevers, and is an excellent addition in acute and chronic lung and bronchial troubles. It is of especial service in the treatment of asthma.

#### BERBERIS AQUIFOLIUM.

Mountain Grape.

Oregon Grape Root.

See Page 96.

This agent is a most valuable hepatic alterative. The following combination will be found very serviceable in tubercular trachoma.

F. E. Berberis Aq.	
" Lycopus Virg.	aa. dr. iv
" Xanthoxylum bark	dr. ii
Stillingia Comp.	q. s. oz. vi

M. Sig. Teaspoonful three times n day.

The influence of this agent on the liver makes it one of the best agents in chronic liver troubles and skin discolourations and blotches therefrom.

#### BETONICA LANCEOLATA.

Wood Betony.

See Page 97.

This is a different variety from the *Betonica Officinalis*, and much superior medicinally. Dr. F. G. Hoener describes it as being superior in medical merit to the *Officinalis*, stating that it is found from New York to Wisconsin and south to Virginia, flowering in August and September. It is aromatic, somewhat acrid, anodyne, carminative, deobstruent, diaphoretic, expectorant, febrifuge, nervine, stimulating, stomachic, styptic, sudorific, tonic and alterative. He elixates one pound of the dried plant to two pints, and adds five ounces of alcohol to keep it.

He combines it with *Agrimonia* or *Amygdalus* for relief of the kidneys; with *Vernonia Fasciculata*, *Prunus*, *Hydrastis* and *Gentiana Lutea*. for the relief of dyspepsia and with *Cimicifuga*, *Jeffersonia* and *Phytolacca Baccae* in relief of rheumatism. In catarrhal or malarial fevers he combines it, with *Eupatorium Perfoliatum*, and *Chionanthus*, and in cystitis, peritonitis and prostatitis he combines it with *Eupatorium Purpureum*, *Aletris Farinosa*, *Hydrastis*, *Agrimonia*, and *Aralia Nudicaulis*. It is also of service in piles, hematuria, bearing down pains, and in the hemorrhages of typhoid fever. For spasmodic asthma he combines it with *Lobelia Inflata* or *Laurus Benzoin* or *Hepatica Triloba*. He recommends it as excellent in meningitis, and cerebral paralysis of children, also in cerebral hyperaemia, cerebral anaemia, and apoplexy.

#### BETULA LENTA.

Birch.

See Page 98.

Birch leaves should be gathered in spring and dried. They are excellent in dropsy from renal disease, increasing the flow of urine and cleansing the mucous membrane of albumen, epithelial cells, casts, mucous, etc. The increased flow of urine creates no irritation of the passages but rather soothes the entire mucous membrane. An infusion of from two to four ounces to the pint may be taken in three doses during the day at 9 a.m., and 3 and 9 p.m.

#### BIGNONIA CAROBA.

Caroba.(Brazil.)

See Page 98.

This is of the same family botanically as the *Bignonia Catalpa*. The leaves of this tree yield a stimulating, balsamic, astringing, tonic alterative, chiefly influencing the glandular and mucous structures, and serving a very excellent use in the eliminating of viri from the system. It will be found very valuable in all chronic eczemas, phthisis, gonorrhoea, gleet, scrofula and syphilis. Combined with vaseline it makes a good application to be used in cases of eczemas.

#### BORAGO OFFICINALIS.

Borage.

Europe.

This annual plant is a diffusively stimulating and relaxing mucilaginous agent, soothingly antispasmodic. It influences the mucous membrane, throughout and a hot infusion is of much service to the skin and in relief of colds, coughs, acute catarrh; irritation or congestion of the urinary tract is best relieved by cold preparations.

## CALENDULA OFFICINALIS.

Marigold.

See Page 100.

Dr. C. U. Collins uses the following as an injection in the treatment of internal hemorrhoids, injecting into the rectum twice a day.

Tr. Calendula.	dr. iv
Dist. Ext. Hamamelis	oz. i
Boracic Acid	dr. ss
Aqua Ster.	q. s. oz. iv

For a weak stomach and but little desire for food, the following will be found a very desirable preparation.

Tartrate of Iron and Potassa	dr. i
Tr. Calendula	dr. i
Lemon Juice	dr. i
Glycerine	oz. i
Aqua Dist.	oz. viii

M. Sig. Teaspoonful before meals.

Calendula is a moderately active hepatic and has been recommended for biliousness, jaundice and gallstone; and locally for pruritis vulvre and pruritis ani.

Dr. F. G. Hoener says that the following is superior to Arnica for bruises, sprains, sore muscles, varicose veins and ulcers.

Calendula flowers	lb. ss
Alcohol	45 p.c. pts. ii

Tincture some seven or eight days and strain. This may also be combined with other liniments.

## CAPSICUM F ASTIGIATUM.

Red Pepper.

See Page 102.

The tincture of Capsicum applied to the dorsal vertebrae before rising in the morning will frequently allay the vomiting incident to pregnancy.

Tr. Capsicum	5
Tr. Guaiacum	3
Spts. Camphor	4

M. Sig. Give in minute doses for the relief of the pains incident to cholera morbus, flatus, etc.

Dr. Anton Mueller says that he believes that Capsicum alone will eliminate syphilis.

## CARICA PAPAYA,

Papaw, Melon-Tree. Tropics.

This is a tree some twenty feet or less high bearing a small melon shaped fruit which when ripe is eaten by the people. The unripe fruit through small incisions made in its rind yields a milk-like juice somewhat acid, bitter and astringent. By the use of alcohol a precipitate is formed which is denominated Papain, Caroid or Papoid, a whitish or creamy looking powder almost tasteless and odourless and soluble in water and glycerine.

It is a vegetable pepsin, a more active digestant than animal pepsin, and of some worth in gastric and intestinal catarrh, in atonic dyspepsia, intestinal indigestion and flatulence. It cleanses and tones the mucous membrane, and digests the fats, albumenoids and starches. Emulsifying the fats equal to pancreatin, converts the starches into maltose and peptonism; the albumenoids. It stimulates the secretion of the natural digestive ferments; is antifermentative and antiseptic. It may be used to peptonize cow's milk, and makes it much resemble breast milk. It is of service in gastralgia, enteralgia, gastric catarrh and atonic dyspepsia. Give about, an hour after meals. In convalescence from fevers it promotes assimilation and improves the appetite. It relieves some of the unpleasant symptoms of the pregnant state. The usual dose is from one to two grains.

CASSIA ANGUSTIFOLIA.

Senna.

See Page 112.

The following forms an excellent antibilious physic which may be given in infusion, or in capsules, or made into an elixir or glycerio-alcoholic fluid extract.

Powd. Cassia Angus.	4
" Ipomea Jalapa.	2
" Zingiber	1

The average dose is a heaped teaspoonful to a half cup of boiling water, in a half hour the liquid may be taken at once or at two or three times fifteen minutes apart. Then the patient should recline for an hour else there may be some nausea. It usually moves the bowels in about three or four hours. One-half part phosphate of soda may be added in case of gastric acidity.

The following is a favourite formula which I have used for many years in typhoid fever. It is successful in its thoroughly eliminating influence.

Powd. Capsicum	
" Chloride Sodium	aa 1
" Balsamodendron Myr.	
" Hydrastis	aa 2
" Cassia Angus.	12
" Ipomea Jalapa	
" Zingiber Jam.	aa 6
" Asclepias Tub.	
" Solidago	aa 20
" Uva Ursi	10

M. Sig. Teaspoonful more or less according to age and requirements to a large cup of boiling water.

This to be given warm in quantities as required by each case. This compound I have recently made into a glycerio-alcoholic extract a superior preparation of much value. In cases of fever it should be added to warm water and given as required according to age and conditions.

CASIMIROA EDULIS.

White Zapote.

Mexico.

The seed is a stimulating and relaxing, antispasmodic nervine. It is soothing to the mucous membrane through out, and useful in gastralgia, colic, enteralgia, threatened miscarriage, hiccough, asthma, sustains well the heart, and leaves no narcotic influence.

CAULOPHYLLUM THALICTROIDES.

Blue Cohosh.

See Page 116.

Dr. E. Anthony advises the following for the spasmodic condition of chorea.

Powd. Caulophyllum Thal.	dr. ii
Oil Lobelia (trituated with twenty parts of sugar)	dr. iv

M. F. Chart. No. 1. No. 1. capsule every two hours.

In cases of dysmenorrhoea the following will be found of service.

F. E. Caulophyllum Thal.	dr. ii
Senecio Aur.	dr. i
Aqua	q. s. oz. iv

M. Sig. A teaspoonful four times a day and every two hours give

F. E. Virburnum Op.	dr. iii
" Anemone Puls.	dr. i
Aqua	q. s. oz. iv



### CELASTRUS SCANDENS.

False Bitter Sweet.

See Page 118.

The following will be found of much service in scrofula and skin diseases generally, especially where there is hepatic torpor.

F. E. Celastrus Scan.	
" Berberis Aquif.	aa. oz. i
" Iris Versic.	oz. ss
Syr. Rhei.	oz. ii
Syr. Zingiberis	q. s. oz. viii

M. Sig. Dessertspoonful three or four times a day.

### CHAMAELIRIUM LUTEUM.

Helonias.

See Page 126.

Dr. Hermance says that the following given to a female will insure her against any unnatural complication during her pregnancy and secure for her a prompt, and easy delivery. Give for about two months prior to delivery if the patient is troubled and delicate. If needed it may be given more or less all through the pregnancy.

Helonin	gr. i
Macroton	gr. t

M. Sig. Give every night.

In cases of diabetes the following will be found very valuable in that it decreases both the quantity of water and of the sugar.

Helonias  
Chelone Glabra in equal parts in infusion and given as required.

### CHELIDONIUM MAJUS

Garden Celandine.

See Page 127.

This has been recently lauded as a cancer cure, given both by the stomach and hypodermically. It is said the cancer becomes softer, becomes encapsulated and shells out. It is best used in hot infusion and in large doses. The fresh juice which is somewhat acrid has been successfully used in the exfoliation of corns and warts.

### CHONDODENDRON TOMENTOSUM.

Pareira Brava.

See Page 130.

Dr. E. G. Anthony uses the following for catarrhal inflammation of the bladder.

F. E. Pareira Brava	
" Althaea Off.	aa. oz. ss
Syr. Simplex	q. s. oz. iii

M. Sig. One teaspoonful six times a day.

### CIMCIFUGA RACEMOSA.

Black Cohosh.

See Page 132.

Dr. E. Anthony advises the following in cases of chorea where there is hyperaemia and a digestive deficiency.

F. E. Cimicifuga Rac.	
" Xanthoxylum Frax.	aa. dr. iv
Syr. Rhei et Pot.	q. s. oz. vi

Teaspoonful three to six times daily.

Dr. Black prescribes the following for chorea.

F. E. Cimicifuga Rac.	dr. iv
" Valerian	

" Scullcap aa. dr. ii  
Syr. Simplex aa. oz. iv

Dr. Hermance says, " It is my experience for forty years that the following will cure the worst cases of St. Vitus Dance."

Macrotin gr. ss  
Scutellarin grs. ii

M. Sig. Give three or four times a day.

In measles and scarletina, Asclepidin may be added to Cimicifuga, and then added to a hot infusion of Ginger and Sage.

#### CHINCHONA.

Peruvian Bark.

See Page 136.

Quinae Sulphate scr. ii  
Hydrastin  
Caulophyllun aa. scr. i  
Capsicum Pulv. grs. iv

M. Fill capsules No. XL.

Sig. Give one capsule every four hours.

Dr. C. U. Collins, advises the use of this compound in aseptic cases after abortion; and advises the following in septic cases.

Quinae Sulphate scr. iv  
Helonin scr. ii  
Caulophyllin scr. i  
Hydrastin scr. ss  
Capsicum Pul. grs. iv

M. Fill capsules No. XL.

Sig. Give one capsule every four hours.

Quinae Sulph. dr. ss  
Byr. Rhei Arom. oz. iii ss  
Tr. Lavender Comp. dr. i  
Syr. Zingiber dr. iii

This disguises the quinin and makes a palatable preparation.

#### CRATAEGUS OXYCANTHA.

Hawthorn.

Europe and America.

The fruit of this shrub is highly commended as a heart tonic and by some is thought to be superior to Cactus in angina, oedema, regurgitation, enlargement, fatty degeneration. It influences the general system much as an alterant and is valuable in inflammatory rheumatism.

#### CYPERUS ARTICULATUS or C. ODORATUS.

Anti-Emetic Root.

See Page 157.

The natives employ this agent much in cases of Asiatic cholera and with success at times when other remedies fail, They use an infusion.

#### CYPRIPEDIUM PUBESCENS.

Lady's Slipper.

See Page 157.

Cyripedium Pub.  
Caulophyllum Thal.  
Lobelia Infl.  
Zingiber Afric aa. equal parts.

in boiling water will form a preparation which will quickly allay some forms of nervousness and muscular jerking.



Proportioned as needed by each particular case will be found to give good results in the treatment of sciatica.

#### ECHINACEA ANGUSTIFOLIA.

Echinacea.

See Page 166.

The application of this agent in fluid form almost instantly relieves the burning in cases of erysipelas, and in poisoning from poison ivy.

F. E. Echinacea	1
" Lobelia	3

Gives excellent results in cuts, bruises and wounds. The proportion of Echinacea may be increased as required. In cases of painful and swollen joints, bruises and other swellings especially of a rheumatic, scrofulous or syphilitic origin give freely of the following compound.

F. E. Echinacea	dr. i
" Cimicifuga	m xxx
Aqua	q. s. oz. iv

And make free application of the following liniment.

F. E. Stillingia	
" Lobelia	
Glycerine	aa. oz. ii
Oil Cajeput	dr. ii
F. E. Echinacea	
" Sarsae Jam.	
" Arctium Lap.	aa. dr. ii
" Celastrus Scan.	
" Juniper Bac.	aa. dr. i
Syr. Simplex	q. s. oz. viii

M. Sig. Teaspoonful or more at 9 a.m., 3 and 9 p.m., will give good results as an alterative.

#### EQUISETUM ARVENSE.

Scouring Rush. Horsetail.

This plant is perennial, and flowerless and grows in damp soils, is a stimulating and somewhat astringent, tonic diuretic, increasing gradually the flow of urine and eliminating the solids. It is useful in cystic congestion, cystic catarrh, haematuria, suppression of urine, prevents the formation of calculi and is of excellent service in dropsy. It also sustains and tones the generative organs and will be found useful in depressed forms of gleet, and in the incontinence of urine of both the youth and the aged. This agent loses much of its medical value by age; an infusion or fluid extract of the green stalk is best when it can be obtained.

Printed in Great Britain For The National Association of Medical Herbalists of  
Great Britain, Ltd.,

By

Marmaduke Pilling & Sons, Ltd.,  
The Cross, Elland.

1932

