Materia Medica

and

Clinical Therapeutics

BY

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INTRODUCTION

THERAPEUTICS

Primary Action  Secondary Action

The object of the author in writing this book, was to give to the medical profession a work on materia medica and therapeutics with reference to the primary and secondary action of drugs as well as to the physiological action. To write an entirely original work on the subject embodied in this is an impossibility. By drawing from the best works at command and adding such original matter as the author has found of special value, a condensed volume of much practical value to the busy and thoughtful physician is herewith presented. In a work of this nature a few words of explanation are not only advisable, but a positive necessity. In this age of progress the progressive spirit demands a recognition of all that is good. More and more the intelligent practitioner realize's that medicine is a science. If we make mistakes it is not the fault of the science of medicine but of ourselves. The Eclectic school of medicine realized this long ago.

It is the school that was born under the stars and stripes, one that has gradually worked its way upwards, and we can now with pride point to the fact that our system is the most successful. The old school uses drugs for their physiological action, the homeopath for their primary action only. We, as a school, realized that the dosage of the old school of medicine generally is too large, and, for that reason, we use many remedies for their mild physiological or secondary action, while others we use for their primary effects. The Eclectic knows that many drugs are of value in the practice of medicine only in their secondary form; others again are too strong for medical purposes in this form and are only used for their primary effect. Again, other drugs have marked medical virtue in both their primary as well as secondary form. Should the progressive up-to-date physician ignore the value of a drug in its primary form because he has only used it in the secondary form, or vice

versa? A drug must be studied in its entirety. The sooner the sectarian study of drugs is eliminated from medicine, and the sooner it is understood that the smallest dose with which it is possible to get an effect is to be preferred to large and irritating or depressing doses, the sooner it will be understood that medicine is a science. Should we condemn nux vomica, belladonna, glonoine and other useful remedies in their secondary form, when they are often our best friends in need?

Should we condemn arsenicum 12x; carbo veg 12x; colocynthis 2nd; veratrum album 2nd and others, when in emergency they are often our main reliance?

We should study the basic indications for all, and if they are plain we shall not be disappointed whether they point to the primary or secondary form. The study of drugs can be much simplified by comparison in general and in those that have an apparent dual action by using the physiological action basic symptoms as a key to the basic indications for the drug in its primary and secondary form. The following will serve as an illustration of the dual action of a drug where there is medical virtue both in the primary and secondary form. By getting the basic symptoms of the physiological action it is easy to know what the indications are for the drug in its primary and secondary form, viz.:

Glonoine: *Physiological basic indication*: Marked cerebral engorgement; face becomes very red, throbbing carotids and a general feeling of fullness in head followed by severe headache; cannot bear hat on; warmth or heat aggravates condition. Bending head backwards aggravates headache.

Secondary basic indications: In temporary cerebral anemia, amemic headache which is relieved by bending head backwards. Head may feel cool and warmth ameliorates to some extent. In sudden collapse, sunstroke, etc.

Primary basic indications: In the 12th dilution or higher. Flushed face with marked cerebral engorgement, throbbing carotids, which may be accompanied or followed by headache; cannot bear to have pressure or weight on bead: wants head uncovered, least jar aggravates headache. Warmth or heat will increase headache

As can be readily seen , the physiological action is our key to its primary

and secondary use. The basic physiological symptoms are the indication for the drug in its primary form. In the secondary we have the reverse instead of engorgement there is anemia of the brain, etc

The selection of guiding indications on the basis of the physiological action is not outlined in this work; but above will serve as guide in the study of those drugs that have a dual action in medicine. No matter if we deal with remedies that have a dual action or not the basic indications should be learned. These can often be best memorized by comparison with another drug whose action is the reverse, or at least some of the leading indications are. The reason that the writer has given the treatment of some diseases and conditions, both in Part I and II, is that the general forms of treatment for those special conditions have been so much more satisfactory than others with the writer, that it almost appears to be a duty to give a short outline of the same. This is the only excuse I have for making these digressions in a Materia Medica and Therapeutics.

As the reader will see, this work is divided into two parts. Part one is devoted to drugs and their indications as used by the Eclectic school of medicine. Part two is devoted to the use of drugs in their primary form, mostly in potencies, except in a few instances where tinctures are specified. In the preparation of this work the writer has freely consulted all the best works on the subjects of our school of medicine as well as many others. However, those which deserve special credit are Ellingwood, Scudder, Webster, Locke, Watkins and H. B. Nash.

In the hope that this work will prove what it was intended to be, a guide for students and a handy reference book for the busy practitioner,

I am fraternally,

F. J. PETERSEN, M.D.

PART I

FORMS OF MEDICINE.

Cerates: Are of a consistency between ointment and plaster. They are soft enough to spread easily, but do not liquefy when heated to body heat. They adhere to the skin when applied. Their main constituent is wax.

Collodions: Fluid solutions of gun cotton in a mixture of alcohol and ether.

Decoctions: Are prepared by boiling the drug in water. Take coarsely ground or bruised drug or drugs 1 part, cold water 20 parts and boil for 15 to 20 minutes, then cool and strain. Powerful drugs should only be used in smaller quantities, as much less of them is required. As decoctions ferment in a short time they should be renewed often. They should never be made in tin dishes.

Dilutions, Homeopathic: In the low potencies the writer makes his own dilutions, say up to the 2nd or 3rd. By taking 10 drops of homeopathic mother tincture or of Lloyd's specific medicines to go drops Of 95% alcohol, and, shaking the mixture a few hundred times, we have our first dilution. Of the first dilution 10 drops to 90 drops of 95% alcohol, will give us the 2nd dilution. Larger quantities may be used in the same proportion. The higher dilutions the writer prefers to buy ready made.

Emulsions: By emulsions we understand a mixture of oils with water in a mechanical way, not distributing it chemically. Substances used for this purpose are acacia, gum resins, yolks of eggs., etc.

Extracts: Are prepared by evaporating alcoholic or other vegetable medicinal solutions.

Fluid Extracts: Alcoholic fluid preparations of vegetable drugs, prepared by percolation and subsequent concentration of a portion of the percolate by evaporation. In some cases water or glycerine may be used as a menstrum. However in most cases, alcohol is the menstrum needed. Fluid extracts are so constructed as to represent one grain of the crude drug in each minim of fluid extract.

Glycerites: Mixtures or solutions of medicine in glycerine.

Infusions: Are solutions of soluble constituents of vegetable drugs, prepared by pouring hot water on same, and allowing them to macerate and cool. Coarsely ground or bruised bark, herbs, flowers, seeds or roots 1 part to boiling water 20 parts; cover tightly and let stand in a warm place for 20 minutes to $^1/_2$ hour and then strain. Of powerful drugs much less must be used, and then great care exercised. Infusions should never be made in tin dishes. As the infusions soon ferment they should be renewed often. In most cases, if procurable, the green drugs are preferable.

Liniments: Are fluid or semi-fluid preparations generally of oils, although alcohol, etc., may be employed. Olive oil or cottonseed oil are often used as a base.

Medicated Waters: Are solutions of volatile substances. May be prepared by direct solution in hot or cold water, or by filtering water through some inert powder, or cotton impregnated with volatile body. These waters are chiefly employed as vehicles.

Medicated Wines: Are fluid preparations in which soluble medical principles are dissolved in wines.

Oleoresins: Consist generally of fixed or essential oils, associated with resins, and extracted from the crude drug with ether, the latter evaporating later.

Ointments: Fatty preparations about the consistency of lard or petrolatum, which usually constitute their bulk. When applied to the skin they become fluid by the heat of the body.

Pills: Composed of a medicine or medicines, combined with substances which cause them to retain their shape and firmness. They may be sugar, chocolate or gelatin coated as desired.

Plasters: Usually applied to the body on a fine piece of fabric. They require heat to spread them. When applied to the body they adhere; but do not become soft. They are chiefly composed of some resinous body. May be medicated or not.

Poultices: Substances that are tenacious when wet and accommodate themselves to the parts. They are applied to relaxed tissue and also to exclude air. May be medicated or not.

Powders: These are medicines reduced to various degrees of fineness. The degree is usually designated by number; the numbers having reference to the number of meshes to the linear inch in the sieve through which the powder has been passed. The U. S. P. divides them as follows, viz. : A very fine powder is No. 80; a fine powder No. 60; a moderately fine powder No. 50; a coarse powder No. 20.

Resins: Are the solid resinous constituents of vegetable substances generally prepared by precipitation of an alcoholic solution of the drug in acidulated or simple water.

Spirits: Solutions of essential oils and other volatile substances in alcohol.

Suppositories: Pressed, rolled or moulded solid bodies, generally prepared from cocoa butter and the desired medical agent. Used in pelvic orifices. Sometimes wax is added to prevent their melting too easily.

Syrups: Concentrated aqueous solutions of sugar or thick solutions of sugar in medicated aqueous solutions.

Tablets: Are medicated candies either moulded or compressed. They are usually prepared from triturations with the addition of some harmless ingredient.

Tinctures: Are practically identical with fluid extracts, but much lower in strength. Prepared by percolation, maceration, generally the former. May be prepared from fresh or bruised herbs. The average proportion being 2 ounces of the drug to 1 pint of diluted alcohol.

Tinctures: *Lloyd's Specific Medicines* are of a special strength and purer and clearer than the ordinary tinctures. In fact, they are stronger and much more reliable than fluid extracts. The green drug is used in their manufacture.

Triturations: Are made by triturating (rubbing) a medical substance with sugar of milk, the latter serving simply as a diluent; they generally

being. made of a certain drug and sugar of milk. There are two methods in use, one in which one part of the drug is triturated with nine parts of sugar of milk. This is known as the decimal system. The other method is to triturate 1 part of the drug with 99 parts of sugar of milk, this being known as the centesimal system.

Vinegars: Solutions of active constituents of a drug or drugs in vinegar or diluted acetic acid.

CLASSES OF REMEDIES.

Abortifacients: Remedies that produce abortion.

Alteratives: Such remedies as increase metabolism and thus favor elimination of waste products, from the system.

Anaphrodisiacs: Remedies that act as sexual sedatives and in this way decrease sexual desire.

Anhidrotics: Will suppress or diminish perspiration.

Antagonists: Remedies that will counteract the action of other remedies, or oppose their action.

Anthelmintics: Will expel or destroy worms in the intestinal tract.

Antidotes: Remedies that will neutralize or counteract the action of poisons.

Antigalactagogues: Remedies that decrease the secretion of milk.

Antilithics: Remedies that prevent the formation of calculi, or counteract their formation.

Antiperiodics,: Remedies, that counteract or antagonize diseases that have a periodic tendency.

Antiphlogistics: Remedies that will reduce or counteract inflammatory processes.

Antipyretics: Remedies that reduce the temperature of the body either by decreasing oxygenation or by inhibiting the heat center in the brain.

Antispasmodics control spasms and convulsions, acting on sets of nerves, or some particular nerve or tract.

Antizymotics: Such remedies as will prevent or antagonize fermentation, including antiseptics and disinf ectants.

Apositics: Remedies that will suspend hunger.

Aphrodisiacs: Such remedies as will increase or stimulate sexual desire and power.

Astringents: Remedies that in contact with tissues of the body cause them to contract and check secretion.

Carminatives: Medicines that expel flatus from the gastro-intestinal tract and thus relieve pain produced by pressure.

Classes of heart remedies: These are divided into stimulants or tonic and sedative. *Vaso-motor stimulants* which stimulate vaso-motor constrictor nerves and thus increase blood pressure; *vaso-motor sedatives* which act on the vaso-dilator nerves and thus decrease blood pressure.

Classes of Intestinal Remedies: Such remedies as act on the intestinal tract and produce evacuation.

Cholagogues act on the liver. increasing flow of bile, thus causing bilious stool.

Drastic cathartics are violent and quick in action.

Hydragogue cathartics produce watery stool.

Laxatives are mild in their action.

Purgatives produce semi-solid stool and are more powerful than laxatives.

By this can be seen that cathartics , generally speaking, are purgatives, but whose actions are different according to what class of the above they belong.

Demulcents: Mucilaginous or oily substances for external use or application to allay irritation.

Deodorants: Destructive to offensive odors.

Depressants: Have a depressing effect on the nervous action, either generally, partially or locally , and are divided into classes:

Anodynes depress the nerve centers and thus relieve pain.

Hypnotics induce sleep.

Anesthetics depress the cerebro spinal centers, and in this way causes insensibility. Locally applied they cause local anesthesia.

Diaphoretics: Increase secretion of the skin. *Sudorifics* produce marked perspiration, while the simple or mild diaphoretics only produce moisture or mild perspiration.

Diuretics: Increase secretion of urine by their action on the kidneys. They are divided into depurants which increase solids in the urine, and hydragogue, which increase the watery elements of the urine.

Emetics: May act as follows , viz.: by contact with terminals of the pneumogastric nerve in the stomach ; by acting on the vomiting center in the brain, or by acting directly or indirectly through the nervous system.

Emmenagogues: Remedies that stimulate the menstrual flow.

Emollients: Remedies used for external application to soften tissue.

Escharotics: Substances which, if applied to the skill, will produce eschars; in other words, caustics.

Excitants: Stimulate nerves beyond their normal action, and, if continued or given in too large doses,, will cause irritation or spasms of the muscles. In these cases the mental faculties will be excited and confused. They may also act through the nerves on a set of muscles or certain muscles.

Expectorants: Such remedies as will increase or promote the secretion from the bronchial mucous membrane; these may be stimulating or depressing.

Galactagogues: Such remedies as will increase the secretion of milk by

stimulating the lacteal glands.

Hemostatics: Remedies that will arrest hemorrhages are termed hemostatics. These may be local or general. They are sometimes called styptics.

Hepatics: Pertaining to the liver and generally refer us to remedies which exert a direct influence on the liver.

Parasiticides: Any substance that will destroy parasites.

Parturifacients: Remedies that hasten parturition by increasing uterine contractions.

Refrigerants: Reduce the bodily heat.

Restoratives: These are remedies that will supply any lacking elements to the system either by chemical changes or direct action.

Sedatives: Are remedies that relieve nervous irritation, decrease nerve activity and have a soothing influence on the nerves on which they act. They are divided into general, local and special according to their action, whether they act on the general nervous system, locally, or on certain nerves only.

Sialagogues: Remedies that increase the flow of saliva.

Stimulants: Are agents that stimulate nerves to normal action. Some act on the general nervous system; others on special nerves.

Tonics: Remedies which strengthen the nervous system, improve nutrition, restore waste material and favor normal activity of all the organs of the body.

Trophics: Such agents as supply nutrition or stimulate the tissues to absorb the required nutrition are called trophics.

POISONS AND THEIR ANTIDOTES.

In poisoning, emetics or the stomach pump are indicated if the poison

has not yet been absorbed, and where other less severe means are not effective. In order to produce vomiting warm water may be given, or, if necessary, a tablespoonful of mustard stirred to creamy consistency with water; this to be followed by large draughts of water. Generally this is later followed by demulcent drinks, such as flaxseed, whites of eggs beaten tip in water, slippery elm, etc. No emetics should be given, however, in poisoning by acetic, hydrochloric or muriatic, nitric and sulphuric acid..

Acids-Acetic, Hydrochloric, Nitric and Tartaric: Use alkalies, oil, stimulants, demulcent drinks; large draughts. of water or milk with whiting, baking soda or magnesia; strong soap suds to neutralize acid; olive oil; these to be followed by demulcent drinks.

Acid Chromic: Chalk, milk, demulcent drinks; emetics if necessary.

Acid Hydrocyanic: Stomach pump if possible. Ammonia, atropine and diluted cardiac stimulants; artificial respiration. Carbonate of ammonia 3 to 5 grains every 15 to 30 minutes. Fresh air is important,

Acid Nitric: Alkalies, soap, demulcents, stimulants.

Acid, Oxalic: Lime, chalk.

Acid, Sulphuric: Chalk, magnesia, soap, demulcent drinks.

Aconite: Emetics, afterwards powerful stimulants, both externally and internally. Nux vomica has been used with success. Animal charcoal followed by emetics is recommended. Carbonate of ammonia 5 grains every 20 minutes to $^1/_2$ hour is very good.

Alcohol: Evacuate stomach; coffee, electricity, amyl nitrite, hot and cold douches.

Alkalies: The caustic alkalies, such as ammonia, potassium, soda, etc. Try and induce vomiting with large quantities of water. Give lemon juice diluted, olive oil or vinegar. The white of eggs beaten up with water or demulcent drinks of slippery elm, linseed or flaxseed.

Ammonium and Its Compounds: Demulcents; vegetable acids.

Antimony and Its Compounds: Tannic acid, demulcent drinks, opium, alcohol, external heat, strong tea or coffee; emetics if necessary.

Antipyrin: Recumbent position, warmth, nux vomica, stimulants, oxygen. Artificial respiration.

Apomorphine: Cardiac and respiratory stimulants.

Arsenic: Persulphate of iron solution. Solution of iron chloride and calcined magnesia, mix in $^1/_2$ cup of water, and when well diluted give to patient. The water should be warm. Ferric hydrate is a good antidote, it combining with arsenic, forming arseniate of iron, which is a harmless salt; 35 parts are needed to neutralize one part of arsenic.

Auri et Sodii Chloridum: Albumen is an antidote.

Belladonna: Emetics, stomach pump, iodine, purgatives, ammonia, cold to head in comatose stage. External stimulants.

Bryonia: Infusion of galls.

Caffeine: Emetics, stimulants, warmth, morphine, atropine.

Camphor: Evacuate stomach, give stimulants. Warmth, hot and cold douches.

Cannabis Indica: Evacuate stomach and give stimulants.

Carbolic Acid: Olive oil until vomiting is produced; if no other remedy is at hand use vinegar or diluted acetic acid. Alcohol is the best in local poisoning from carbolic acid.

Cantharides: Stomach pump, demulcents, opiates and stimulants. Oils are injurious and should not be used.

Chloral Hydrate: First give emetics, then stimulants, such as brandy, digitalis, nux vomica. The heart must be stimulated. Use also local means to stimulate.

Chloroform: Draw out tongue, use faradism. Hot and cold douches. Amyl nitrite or ammonia. Hypodermic injection of strychnine or

nitroglycerine. Dilate the sphincter ani by all means as this is the best and quickest way to cause reaction. Slapping the soles of the feet is very good. If taken by mouth evacuate the stomach and give stimulants.

Coal Gas: Fresh air, artificial respiration, ammonia, oxygen, coffee, hot and cold, douches. The first measure should be to put patient in a position the reverse from standing to eliminate gas, and then start respiration by proper means, stimulation being very important.

Conium: Evacuate stomach, then give vinegar.

Croton Oil: Evacuate stomach, demulcent drinks camphor; morphine; stimulants; poultice to abdomen.

Cocaine: 1% solution of glonoine in one or two drop doses is very good. Artificial respiration. Amyl nitrite or other powerful stimulants.

Digitalis: Evacuate the stomach at once by warm water or drinks; sinapisms to wrists and ankles. This should he followed by stimulants. Carbonate of ammonia in 5 grain doses every 1/2 hour or less. Tannic and gallic acid are good. Patient should in all cases maintain the recumbent position.

Gelsemium: Brandy, quinine or aromatic spirits of ammonia. When indicated tincture of opium may be given with above.

Hyoscyamus: Emetics, stomach pump, stimulants, acids, galvanism.

Iodine: Starch water amyl nitrite. Emetics followed by demulcent drinks if necessary.

Iodoform: See iodine.

Jaborandi: $^{1}/_{60}$ grain of atropine will counteract the effect of an overdose.

Lead Poisoning: Sulphate of soda, sulphuric acid and sulphate of magnesia.

Lead Acetate: Evacuate stomach, dilute sulphuric acid; Epsom salts; milk; morphine; potassium iodide to eliminate poison.

Lobelia Inflata: Evacuate stomach; tannic or gallic acid; stimulants; strychnia; warmth; recumbent position.

Morphine: Cocaine is, the best antidote; caffeine. Permanganate of potash is very good if poison is not absorbed by the system. Keep patient moving.

Mercuric Chloride: Albumen in some form. Raw whites of egg or flour; evacuate stomach; opium; potassium iodide.

Nitroglycerin: Recumbent position; cold to head; atropine.

Nux Vomica: Chloral in large doses is useful. Morphia. Our best antidote, however, is jaborandi in large and often repeated doses, gradually decreasing doses and giving at longer intervals as symptoms subside.

Nitrate of Silver: Solution of salt, say 4 drachms in warm water as an emetic.

Opium: Active cathartic. The patient should be kept in motion and cold water dashed on the head and shoulders. Give tincture of green coffee. Belladonna. Slap the soles of the feet.

Physostigma: Nux vomica or atropine.

Phosphorus: Emetic of sulphate of copper. Give also copious draughts of water with magnesia. Turpentine is a partial antidote.

Resorcin: Induce vomiting; give olive oil; stimulants.

Rhus Tox.: *Grindelia robusta* internally and locally is our best remedy. Echinacea in large doses internally and locally in 25% solution is good treatment. Rhus tox. 12d in the primary form is useful in rhus tox. poisoning. In recent cases, locally a solution of sodium hyposulphite is recommended by some. Others have used locally a mild solution of carbolic acid and claim success in recent cases.

Santonin: Evacuate stomach; stimulants; chloral.

Savin: Evacuate stomach; castor oil in large doses. Morphine. Poultice

to abdomen.

Silver Salts: Salt and water; evacuate stomach; a large amount of milk.

Strophanthus: Coffee and brandy should be given freely to counter-act.

Stramonium Leaves: Evacuation of the stomach,, after which vinegar and water may be administered, followed by mucilaginous drinks, with strong coffee and any stimulating cordial, according to the prostration.

Snake Bites: Rattle snakes, etc, Echinacea is our best remedy. In these cases it must be given in very large doses. In adults say 20 to 30 drops every 1/2 hour, and this to be continued for some hours, then as the severer symptoms subside gradually decrease dose and give at longer intervals. Also apply the tincture pure or little diluted with water to the wound freely. Locally formaldehyde diluted is a good application. In cases where depression is great muriate or carbonate of ammonia in solution may be alternated with echinacea. Locally chloroform on a flannel applied over swelling is recommended.

Tarantula Bites and other poisonous spiders or insects use echinacea as directed under snake bites, only modify the dose in cases that are not so severe. In other words the dose depends on the severity of the case. In cases where depression is great muriate or carbonate of ammonia in solution may be alternated with echinacea.

Tobacco: Carbonate of ammonia 5 grains as a dose is a good antidote.

Veratrum Viride: Morphine or laudanum with brandy, coffee. Recumbent position.

APPEARANCE OF TONGUE AFTER SOME POISONS ARE TAKEN BY THE MOUTH.

Acid, Carbolic: Mucous membrane is shriveled and puckered into folds. The spots where the acid has touched are, if acid is pure, white. If acid is impure spots will be brownish.

Acid, Chromic: Tongue is shriveled and of a lemon yellow color.

Acid, Hydrochloric: Tongue a lemon yellow color.

Acid, Nitric: Tongue is shriveled and of a lemon yellow color.

Acid Nitrate of Mercury: Color of tongue red.

Acid, Sulphuric: Tongue has a parchment-like color or appearance. At first it is white, then gray or brownish gray, then gets covered with a thick slough which when it separates leaves a swollen excoriated patch.

Ammonia: If swallowed in poisonous doses undiluted will make the tongue white.

Cantharides: Produces large lingual blisters and sores.

Corrosive Sublimate: Tongue appears white and shriveled, and the papillae at the base are unusually large.

Potash Caustic: Softens mucous membrane, making it pulpy and easily detached.

Sodium Caustic: Softens mucous membrane, making it pulpy and easily detached.

INCOMPATIBLES.

Aconite: Alkalies, alkaline earths and their carbonates; vegetable astringents, lime water.

Alcohol: With strychnine.

Belladonna: Alkalies, tannin, vegetable astringents, opium, gelsemium.

Bromides: Such agents as stimulate the vaso-motor nerves, as digitalis, ergot, belladonna, etc., are incompatible with the bromides.

Codeine: With chloral hydrate.

Cocaine: With morphine.

Carbolic Acid: With chloral hydrate.

Colchicum: Acid renders the vinous tincture drastic; alkalies render it milder in its operation.

Conium: Strong acids, alkalies, tannin, etc.

Digitalis: Salts of iron and lead, tannin, vegetable astringents.

Gelsemium: Opium, belladonna or its alkaloid atropine.

Hyoscyamus: Acetate of lead, nitrate of silver, sulphate of iron, tannin and vegetable astringents.

Infusions: With metallic salts.

Infusions and Bitter Tinctures: With metallic salts of iron or lead.

Iron: Should not be given with medicine or anything containing tannic acid.

Oils, Essential and Fixed: With aqueous liquids.

Opium: Alkalies, alkaline earths and carbonates, nitrate of silver, salts of copper, iron, zinc and lead, tannin and gallic acid.

Pepsin: Alkalies, alcohol, tinctures.

Stramonium: Caustic, fixed alkalies or soda and potash.

Strychnine: Alcohol, chloral, hydrocyanic acid, nicotine.

Vegetable Preparations: That contain tannic acid are incompatible with salts of iron and lead.

CHEMICAL INCOMPATIBLES.

Acids: In general with alkalies and weak salts of other acids.

Acid Chromic: Mixed with sugar, glycerine or other alcohol producing agents will explode.

Acid Hydrochloric: With alkalies and weak salts of other acids.

Acid Hydrocyanic: With salts of iron, chlorides, nitrates, sulphates. Mixed with metallic salts such as as well as carbonates, hydrates, nitrate of bismuth or calomel is poisonous.

Acid Nitric: Mixed with phosphorus or glycerine will explode and is dangerous. Nitric acid, muriatic acid and tinct. nux vomica explode after a few hours.

Acid Nitro-Hydrochloric: Mixed with dry organic substances may explode.

Acid Salicylic: Iron and its compounds, lime water, iodide of potassium.

Acid Tannic: With glycerine, chlorate of potassium, will explode on addition of water.

Acacia Gum: Alcohol, borax, ether and etheral tinctures. Iron, mineral acids and solution of lead.

Albumen and **gelatine** and substances containing them are incompatible with tannic acid, or anything containinit.

Arsenic: Tannic acid, magnesia, lime salts and oxides of iron.

Bismuth Subnitrate: Mercury, sulphur, tannin.

Camphor: With water,

Chlorates: With glycerine and tincture of chloride of iron and chloride of lime triturated with sulphur in a mortar have produced explosions.

Chloride of Iron: With glycerine and chlorate of potassium if warmed

will explode.

Chloral Hydrate: Ammonia, alkalies, mercury compounds, alcohol, potassium bromides and cyanides.

Chlorides: Hydrogen peroxide, lead and silver salts.

Chloroform: Amyl nitrite.

Hydrogen Peroxide: Alkaline citrates.

Iodine Tincture: With ammonia forms the iodide of nitrogen which becomes highly explosive, especially if triturated when mixed with water.

Iron Salts: With anything that contains tannic acid.

Mucilage: With iron salts, alcohol and acids.

Morphia Muriate: Added to the oxide of silver is explosive if it be mixed quickly with extract of gentian, but if mixed slowly it is more safe.

Oxidizers: Such as chromic acid, nitric acid, hydrochloric acid, chloral, potassium nitrate, potassium permanganate, etc., mixed with the readily oxidizable substances, such as oils, phosphorus, ether, turpentine, dry organic substances, tannin, sugar, sulphur, the sulphites, vegetable powders, glycerine, alcoholic or ethereal tinctures result in explosions.

Potassium Chlorate: To mix with other salts is dangerous. Mixed with powdered catechu or powdered nut galls it will explode. Mixed with oils and ether it will explode. With alcohol, ammonia, ethereal oils, glycerine and organic substances is dangerous.

Potassium Permanganate: Mixed with alcohol, ammonium salts, ethereal oils, glycerine and organic substances is dangerous.

Potassium Cyanide: Mixed with metallic salts, such as hydrates, carbonates, subnitrates or subchlorides, as, the carbonates or nitrates of bismuth, or with calomel, is poisonous.

Potassium Iodide: Very strong acids and salts of same, alkaloids, iron, potassium chlorate, nitrate of silver, mercurial salts. Mixed with chlorate

of potassium it is very poisonous.

Silver Nitrate: With acids (with exception of nitric acid) alkalies, bromides, carbonates, iodides, sulphur.

Sodium Biborate: Sodium bicarbonate, glycerine and water, if corked, are liable to explode.

Sodium Bicarbonate: With acids and their salts, alkaloids, metallic salts, tannic acid.

Sodium Bromide: Mineral acids, mercury and its compounds, chlorine water.

Sodium Hyphophosphite with potassium chlorate is explosive if water is added.

Urva Ursi Fluid Extract: With certain samples of the spirits of nitre or chromic acid with glycerine, permanganate of potassium with glycerine, nitric acid with glycerine, nitrate of silver with creosote, the oxide of silver in pill with extract of gentian, potassium.

CONTRA-INDICATIONS FOR DRUGS IN THEIR SECONDARY ACTION.

Apocynum Cannabinum: Contra-indicated in anaemia when the pulse is full and strong.

Bromide of Potassium: Contra-indicated in pale, anaemic people.

Cactus Grandiflorus: Contra-indicated in increased arterial tension, exaltation of nerve force and excess of strength in heart action.

California Laurel (*Umbellaria Californica*) : In active inflammation of the intestinal tract and stomach.

Capsicum: Contra-indicated in fevers, inflammation, recent cases of hemorrhoids and where there is marked burning, sensation in the rectum.

Chloral Hydrate: Contra-indicated where there is marked depression,

cerebral anaemia, in weak heart, especially in alcoholism.

Cinnamomum: Contra-indicated in all gastro-intestinal tract inflammation.

Colchicum: Contra-indicated in great debility, profuse diarrhoea, asthenic form of gout.

Colocynthis: Contra-indicated in fever and inflammation.

Conium: Contra-indicated in debility.

Convallaria Majalis: Will not agree when tongue is clean and red or there are red edges on tongue showing irritation. Useful where there is a heavy coated tongue, pale and flabby. Do not use when tongue shows irritation of the digestive organs. Also in fatty degeneration of the heart.

Copaiba: Contraindicated in inflammatory stage of gonorrhea with great irritation and profuse discharge. In some cases not to be used at all.

Elaterium: Contra-indicated in cases, of debility and in acute. intestinal inflammation.

Emetics: Contra-indicated, as a rule, where there is marked determination of blood to the brain. In apoplexy, cerebral congestion, pregnancy, hernia, aneurism or some other defect of the circulatory apparatus. In marked gastro-intestinal irritation or inflammation advanced stage of inflammatory fever and in cases of marked debility.

Ergot: Contra-indicated as a parturient when os is hard and rigid; when there is an obstruction of the soft parts or excessive debility.

Epsom Salts: Contra-indicated in great debility brought on by old age or wasting disease. Do not use in cholera. Dangerous to use when suffering from chills.

Ferric Acetate. Contra-indicated in gastric catarrh.

Fowler's Solution: Contra-indicated when there is irritability of the sympathetic and nerve centers.

Galium: Contra-indicated in disease of a passive nature on account of its refrigerant and sedative effects on the system.

Gelsemium: Contra-indicated when eyes are dull, pupils dilated and circulation feeble. Under these circumstances it is poison even in small doses.

Guaiac: Contra-indicated in fever or vascular excitement.

Ipecac: Contra-indicated in nausea from organic disease of the stomach.

Jaborandi: Contra-indicated when pulse is weak; weak heart. Never give in large doses unless specially indicated; it may cause diarrhea and other disagreeable symptoms. Always be careful in giving it when the heart is feeble.

Juniperus: Contra-indicated in inflammatory conditions of the urinary tract.

Lobelia: Contra-indicated in general relaxation, in dyspnea from fatty or enlarged heart or enfeebled heart with valvular incompetence.

Myrrh: Contra-indicated in fever and inflammation.

Opium: Contra-indicated where there is congestion or a tendency to congestion. When there are kidney affections or when face is flushed, contracted pupils, pulse full and bounding, tongue red and turgid, eyes blood-shot, pain in head with wild delirium: In such cases it may kill and will always do harm. In dry skin, dry and dirty tongue and where there is a lack of secretion.

Origanum: Contra-indicated in active inflammation.

Passiflora: Contra-indicated when tongue is dirty and heavily coated. In insomnia with flushed face and determination of blood to the brain. In such cases gelsemium is useful.

Peppermint: Contra-indicated where there is pain or pressure on the stomach, inflammation of the gastro-intestinal tract indicated by dry, possibly contracted tongue, with red edges and tip.

Pichi: Contra-indicated in structural degeneration of the kidneys. In Bright's disease.

Podophyllum: Contra-indicated when pulse is small and wiry; also where there is irritation of the intestinal tract.

Potassium Acetate: Will not act well when tongue is red and pointed.

Potassium Iodide: Contra-indicated when tongue is red and pointed.

Pulsatilla: Contra-indicated in fevers, inflammation and determination of blood to the head.

Quinia: Contra-indicated when pulse is hard, vibratile, wiry. If skin is dry and tongue dry it will not give good results. If stomach is alkaline it will not be absorbed. Here it should not be given or else preceded by acid or lemonade.

Rochelle Salts: Contra-indicated when there are deposits of phosphates in the urine.

Rhus Aromatica: Contra-indicated in active inflammation. Use in glycerine and not in water.

Salicylic Acid: Contra-indicated when tongue is red and pointed.

Santal Oil: Contra-indicated in gonorrhea if there is swelling of the testes.

Savine: Contra-indicated in active inflammation.

Scammonium: Contra-indicated in debility and inflammation.

Senega: Contra-indicated in fevers.

Serpentaria: Contra-indicated in asthenic conditions.

Spotted Spurge: Contra-indicated in acute diarrhea or dysentery.

Squill: Contra-indicated in inflammation of the urinary organs and fevers.

Strophanthus: Contra-indicated in any circulatory and respiratory troubles of vaso-motor origin. In active hyperaemia; also in tendency to visceral hemorrhage. In ascites of tumors, hepatic, splenic and pelvic.

Sulphur: Contra-indicated in fevers and inflammation.

Thuja: Contra-indicated in inflammation of the urinary tract.

Turpentine: Contra-indicated in all active inflammatory conditions of the urinary organs.

Veratrum. Viride: Contra-indicated where inflammation has resulted in marked structural changes. In asthenic cases and where there is irritation of the stomach.

Zingiber: Contra-indicated in any inflammation, especially of the gastro-intestinal tract.

Zinc Sulphate: Contra-indicated if irritant poisons have been taken.

DOSES—VARIATION AT DIFFERENT AGES.

From 20 to 45 years adult doses are given; 50 years $^{5}/_{6}$; 60 years $^{4}/_{5}$; 80 years $^{2}/_{3}$ of adult doses.

Doses for children under 12 years: The dose of most medicines must be diminished in proportion of the age, to the age increased by 12. Thus at 4 years the dose will be $^{1}/_{4}$ of that of adults, viz.: $^{4}/_{4}+12=^{4}/_{16}$ or $^{1}/_{4}$; at 6 years it will be $^{6}/_{6}+12=^{6}/_{18}$ or $^{1}/_{3}$. Of narcotics use even less than above, especially in infants.

Another way of calculating doses at various ages is as follows, viz.: Taking the dose of an adult as one, or 1 drachm as base. The dose of a person from 7 to 14 years will be $^{1}/_{2}$ or $^{1}/_{2}$ drachm, The different proportion of doses at different ages will be: from 4 to 7 years $^{1}/_{3}$; 4 years $^{1}/_{4}$; 3 years $^{1}/_{6}$; 2 years $^{1}/_{8}$; 1 year $^{1}/_{12}$ and $^{1}/_{2}$ year $^{1}/_{15}$ of one or, in other words, $^{1}/_{15}$ of the adult dose. 14 to 21 years would be $^{2}/_{3}$ of one.

Hypodermic Injections: As a rule hypodermic injections should be about $^1/_2$ Of that by mouth. By rectum about $^4/_5$ of that by mouth.

Comparison of Doses: Approximately. A drop corresponds with a minim; a teaspoonful with a fluid drachm; a dessertspoonful with 3 fluid drachms; a tablespoonful with $^1/_2$ ounce; a wineglassful to 2 ounces; a teacupful with a gill or 4 fluid ounces.

Solutions: Rules in regard to making solutions. Taking 1 grain as a base of 1% solution; we mean 1 grain of drug or 1 drop of a drug to 100 drops of water. Therefore, 1:1000 would mean $^1/_{10}$ of a grain or minim to 100 drops of water, etc.

WEIGHTS AND MEASURES.

Apothecaries Weight: Dry measure. 20 grains (gr) make 1 scruple; 3 scruples (℈) make 1 drachm; 8 drachms (ʒ) make 1 ounce; 12 ounces (℥) make 1 pound.

Apothecaries Measure: 60 minims (m) make 1 fluid drachm; 8 fluid drachm (fʒ) make 1 ounce; 16 fluid ounces (℥) make 1 pint; 8 pints (O) make 1 gallon (cong.)

Metric System:

The metric system is based upon the **meter**, which is the standard unit of length of that system, and equal to 39.370432 inches, or about 10 per cent. longer than the yard.

The metric unit of fluid measure is the **liter**—the cube of $^1/_{10}$ meter, or 1000 cubic-centimeters-equal to about 34 fluid ounces.

The metric unit of weight is the **gram**, which represents the weight of one cubic-centimeter of water at its maximum density. It is equal to about 15 **grains**.

One **cubic-centimeter (cc)** is equal to about 16 **minims**.

In writing prescriptions it is sufficiently accurate and safe to consider 1 gram as exactly equal to 15 Troy grains, and to consider 1 cubic-

centimeter as equal to 15 minims. We accordingly have:

1 **Gram** equal to 15 troy grains.

1 **troy grain** equal to $^1/_{15}$ Gram.

1 **Cubic-centimeter** equal to $^1/_4$ fluid drachm.

1 **fluid drachm** equal to 4 Cubic-centimeters.

Hence-

1. To convert troy grains into grams, or minims into cubic-centimeters:
    a. Divide by 10, and from the quotient substract one-third; or,
    b. Divide by 15; and

2. To convert apothecaries' drachms into grams, or fluid drachms into cubic-centimeters, multiply by 4.

The Gram and the Cubic-centimeter (fluidgram) when referring to liquids, may be considered as equal quantities, except the liquids be very heavy or very light.

Measures may be discarded and weights exclusively employed, if preferred. All quantities in a prescription would then be expressed in Grams.

The average "drop" (water) may be considered equal to 0.05 c.c., or 0.05 Gm. An average teaspoon holds 5 c.c., and an average tablespoon 20 c.c. Decimal numbers should be used as far as practicable. It is safe to prescribe 30 Gm. for one troy ounce, and 250 c.c. for eight fluid ounces.

DOSES OF MEDICINES.

In the medicine table that follows, the doses given are those of Lloyd's Specific Medicines. They are reliable, of uniform strength and used by most Eclectics. However, good, reliable fluid extracts may be used in similar doses.

Most herbs, flowers, leaves, roots and barks lose their strength by drying, therefore, should be prepared from the green herbs, flowers,

leaves, roots or bark. As Lloyd's Specific Medicines are made to conform with these rules, they are, as stated before, reliable and of uniform strength. The doses given are the average, and the physician has to use his judgment in this matter, adopting the size and frequency of dose to conditions present.

Some medicines, and under certain conditions are best given before meals; again others after or a little after meals. That every physician should dispense his own medicines will find more and more favor, and in course of time will be adopted by most all physicians. It keeps him in touch with the drugs he uses and thus will help him in the knowledge and study of his materia medica and therapeutics. All those marked with **S**. should be kept in stock in 4 ounce quantities at least, while those marked **SS**. it is advisable to keep in pound lots. Those marked **P**. are such that are desirable to be carried in the pocket case. Any remedy in the following table that is marked * indicates that it is a drug outside of Lloyd's Specific Medicines. ***T*** refers us to teaspoonful.

Signs	Names of Drugs.	Quantity	Water or Menstrum	Dose	How Often
S	Acidum Hydrochloricum, dil.	3 i	℥ iv	T	Every 2 to 4 Hours.
	Acidum Nitricum	gtt.i to ii	℥ iv	T	Every 3 to 4 Hours.
S	Acidum Sulphuricum, dil.	3 ii	℥ iv	T	Every 3 to 4 Hours.
S	Achillea Mill	℥ i	℥ iii	T	Every 3 to 4 Hours.
SP	Aconite	gtt. v to xv	℥ iv	T	Every 1 to 2 Hours.
S	Aesculus Hip.	gtt.xx to 3ii	℥ iv	T	Every 2 Hours.
	Ailanthus	gtt.x to xxx.	℥ iv	T	Every 2 Hours.
	Aletris Farinosa	3ss to ii	℥ iv	T	Every 2 Hours.
S	*Ammonia Carbonate.	3ss to ii	℥ iv	T	Every 2 to 3 Hours.
SP	*Ammonia Muriate	3ss to ii	℥ iv	T	Every 2 to 3 Hours.
SP	Apis M.	gtt.v to xv	℥ iv	T	Every 2 Hours.
SP	Apocynum Can	3ss to ii	℥ iv	T	Every 3 Hours.
SP	Asclepias T.	3ss to 3 ii	℥ iv	T	Every 2 Hours.
S	Avena Sativa	3i to iv	℥ iv	T	Every 2 Hours.
SP	Baptisia	3ss to ii	℥ iv	T	Every 2 Hours.
	Barosma	3ss to i			Every 3 to 6 Hours.
SS	Berberis Aquif	3i to iv	℥ iv	T	Every 3 to 4 Hours.
S P	Bryonia Alba	gtt.x to xxx	℥ iv	T	Every 2 Hours.
SP	Belladonna	gtt.v to xv	℥ iv	T	Every 2 Hours.
S	*Capsella Bursa Pastoris.	3i to iii	℥ iv	T	Every 3 to 4 Hours.
SP	Cactus Grand	3ss to i	℥ iv	T	Every 2 to 3 Hours.
S	Calendula	3ss to i	℥ iv	T	Every 3 to 4 Hours.
SP	Cannabis Indica	gtt.x to 3ii	℥ iv	T	Every 2 Hours.
SP	*Colocynthis, 2d dilution.	gtt. v to xx	℥ iv	T	Every ½ to 3 Hours.
S	*Carduus Marianus	3ss to ii	℥ iv	T	Every 1 to 3 Hours.
SP	Caulophyllum T	3ss to ii	℥ iv	T	Every 1 to 3 Hours.
S	Ceanothus Am	3i to ii	℥ iv	T	Every 2 to 3 Hours.
S	Chimaphila Umb.	3ii to vi	℥ iv	T	Every 3 Hours.
SP	Chionanthus	3ss to ii	℥ iv	T	Every 2 to 4 Hours.

Signs.	Names of Drugs.	Quantity	Water or Menstrum	Dose	How Often
SP	Cimicifuga	3ss to ii	℥ iv	T	Every 2 to 3 Hours.
S	Collinsonia	3ss to iv	℥ iv	T	Every 2 Hours.
S	Convallaria Majalis.	gtt.xv to 3ii	℥ iv	T	Every 2 to 3 Hours.
S	Corydalis Formosa	3 ii to vi	℥ iv	T	Every 3 to 4 Hours.
	Cypripedium	3ss to iv	℥ iv	T	Every 2 to 4 Hours.
SP	Cinnamomum	gtt.x to 3ss			Every 3 to 4 Hours.
SSP	Crataegus	gtt.xxx to 3 ii	℥ iv	T	Every 3 to 4 Hours.
S	Damiana	3ii to vi	℥ iv	T	Every 3 to 4 Hours.
S	Digitalis	gtt.x to xxx	℥ iv	T	Every 3 to 4 Hours.
S	Dioscorea Vi1	3ss to iii	℥ iv	T	Every 1 to 3 Hours.
S	Drosera	3ss to ii	℥ iv	T	Every 2 Hours.
S	Dulcamara	3ss to iv	℥ iv	T	Every 2 to 4 Hours.
SSP	Echinacea	3ii to vi	℥ iv	T	Every 1 to 4 Hours.
	Epigae Repens	3ss to i	℥ iv	T	Every 3 Hours.
SP	Ergot	gtt.x to 3ii	℥ iv	T	Every 2 to 4 Hours.
S	Erigeron	3ss to ii	℥ iv	T	Every 2 Hours.
S S	Eriodictyon Glut.	3ss to iv	℥ iv	T	Every 2 to 4 Hours.
S	Eryngium	3ss to i	℥ iv	T	Every 2 Hours.
S	Eucalyptus	3ss to iii	℥ iv	T	Every 2 to 4 Hours.
	Eupatorium Per.	3ss to ii	℥ iv	T	Every 2 to 4 Hours.
	Eupatorium Purp.	3ii to iv	℥ iv	T	Every 3 to 4 Hours.
S	Euphrasia Off.	3ii to iii	℥ iv	T	Every 2 to 3 Hours.
	Gaultheria	3i to iv	℥ iv	T	Every 3 Hours.
SP	Gelsemium	gtt.xv to 3i	℥ iv	T	Every 2 Hours.
S	Geranium	3ss to ii	℥ iv	T	Every 2 Hours.
S	Gossypium	3ss to ii	℥ iv	T	Every 2 Hours.
S S	Grindelia Robusta	3i to iii	℥ iv	T	Every 3 to 4 Hours.
S	*Grindelia Squarrosa	3ss to i	℥ iv	T	Every 3 to 4 Hours.
S	Hamamelis	3ii to vi	℥ iv	T	Every 3 to 4 Hours.

Signs.	Names of Drugs.	Quantity	Water or Menstrum	Dose	How Often
S	Helonias Dioica	3ss to i	℥ iv	T	Every 3 to 4 Hours.
S	Hydrangea	3i to vi	℥ iv	T	Every 3 to 4 Hours.
S	Hydrastis	3ss to i	℥ iv	T	Every 3 to 4 Hours.
SP	Hyoscyamus	3ss to i	℥ iv	T	Every 2 to 3 Hours.
SP	Ignatia Am	gtt.x to xx	℥ iv	T	Every 3 to 4 Hours.
	Inula Hel.	3ss to ii	℥ iv	T	Every 2 to 3 Hours.
SP	Ipecac	gtt.x to xxx	℥ iv	T	Every 2 Hours.
S	Iris	gtt.xx to **3** i	℥ iv	T	Every 3 to 4 Hours.
SP	Jaborandi	3i to ii	℥ iv	T	Every 2 Hours.
S	Juglans	3i to 3 iv	℥ iv	T	Every 3 Hours.
S	Leptandra	3ss to 3 ii	℥ iv	T	Every 4 Hours.
SP	Lobelia	gtt.x to **3** i	℥ iv	T	Every 2 to 3 Hours.
	Lycopodium	3ss to 3 ii	℥ iv	T	Every 3 Hours.
S	Lycopus v.	3i to ii	℥ iv	T	Every 2 Hours.
SP	Matricaria	3i to 3 ii	℥ iv	T	Every 1 Hour.
	Mitchella	gtt.x to **3**ii	℥ iv	T	Every 2 to 3 Hours.
SP	Nux Vomica	gtt.x to xx	℥ iv	T	Every 3 Hours.
S	Nepeta Cataria	3i to 3iii	℥ iv	T	Every Hour.
S	Oenanthe Croc.	gtt.v to vi	℥ iv	T	Every 2 to 3 Hours.
S	Oxydendron	3ss to 3ii	℥ iv	T	Every 2 to 3 Hours.
SP	Passiflora Incarnata	3ss to 3iv	℥ iv	T	Every 4 Hours.
SP	Phytolacca	3ss to 3ii	℥ iv	T	Every 2 to 3 Hours.
	Plantago Major	3ii to iv	℥ iv	T	Every 3 to 4 Hours.
SS	Potassium Acetate	3i to 3iv	℥ iv	T	Every 2 to 4 Hours.
SP	Podophyllum	3ss to 3i	℥ iv	T	Every 4 Hours.
S	Prunus V.	gtt.x to 3ii	℥ iv	T	Every 4 Hours:
SP	Pulsatilla	gtt.x to **3**i	℥ iv	T	Every 2 to 3 Hours.
S	Pinus Canadensis	3ss to 3ii	℥ iv	T	Every 1 to 2 Hours.
S	Piper Methysticum	**3**i to **3**iv	℥ iv	T	Every 2 to 4 Hours.

Signs.	Names of Drugs.	Quantity	Water or Menstrum	Dose	How Often
	Podophyllin Trit. 1 to 100....	grain i to x	- -		
S	Polymnia Uvedalia.	3ss to 3ii	℥iv	T	Every 1 to 2 Hours.
	Polytrichum Junip	3ii to 3iv	℥iv	T	Every 2 to 3 Hours.
	Rheum	3ii to iv	℥iv	T	Every 2 to 3 Hours.
S	Rhus Aromatica	3ss to iii	℥iv	T	Every 2 to 4 Hours.
SP	Rhus Tox	gtt. v to xxx	℥iv	T	Every 1 to 3 Hours.
SS	Salix Nigra Aments	3ii to iv	℥iv	T	Every 2 Hours.
S	Sanguinaria	gtt.x to xxx	℥iv	T	Every 2 to 3 Hours.
SS	Saw Palmetto	3i to iv	℥iv	T	Every 2 to 3 Hours.
S	Scutellaria	gtt.x to 3 ii	℥iv	T	Every 2 to 3 Hours.
S	Senecio	gtt. x to 3 ii	℥iv	T	Every 2 to 3 Hours.
S	Sodium Sulphite	grain v to xx	- -		Every 3 Hours.
S	Sodium Phosphate	grain v to x	- -		Every 3 Hours.
S	Staphisagria	gtt. x to 3i	℥iv	T	Every 3 Hours.
S	Sticta	gtt. x to 3ii	℥iv	T	Every 2 Hours.
S	Stramonium	gtt. x to xx	℥iv	T	Every 2 Hours.
SP	Strophanthus	gtt. x to xxx	℥iv	T	Every 2 to 4 Hours.
S	Senna	gtt. x to 3i	℥iv	T	Every 2 Hours.
S	Solanum Car	gtt. x to 3ss	℥iv	T	Every 4 Hours.
	Stigmata Maydis	3ss to iv	℥iv	T	Every 2 to 4 Hours.
S	Stillingia	3ss to ii	℥iv	T	Every 3 to 4 Hours.
S	Syzygium Jambolanum	3ss	℥iv	T	Every 3 to 4 Hours.
S	Triticum	3ii to iv	℥iv	T	Every 2 to 4 Hours.
S	Thuja	gtt. x to 3i	℥iv	T	Every 2 to 3 Hours.
S	Tiger Lily	3ss to iv	℥iv	T	Every 2 to 3 Hours.
SP	Veratrum V.	gtt. x to 3ss	℥iv	T	Every 2 to 3 Hours.
S	Vesicaria Communis	3i to 3 iv	℥iv	T	Every 2 to 4 Hours.
SP	Viburnum Prunif.	3i to ii	℥iv	T	Every 1 to 3 Hours.
SP	Viburnum Opulus	3ss to ii	℥iv	T	Every ½ to 3 Hours.

Signs.	Names of Drugs.	Quantity	Water or Menstrum	Dose	How Often
S	Xanthoxylum	3ii to iv	℥ iv	T	Every 1 to 4 Hours.
	Zinziber	3ii to vi	℥ iv	T	Every 1 to 3 Hours.

NOTE-Besides some of Lloyd's Specific Medicines and some drugs in their primary form, the writer carries in his pocket-case the following of Abbott's Alkaloidal Granules, viz.: Aconitine, atropine, glonoine, hyoscyamine, morphine, lobe1in, pilocarpine, and strychnine. These are reliable, effective and take very little space, therefore convenient to carry in a small pocket case.

DOSES OF MEDICINES OTHER THAN SPECIFIC TINCTURES.

Signs	Names of Drugs.	Quantity	----------	How Often
	Arsenicum Fowler's Sol. ...	gtt i to iii	----------	. . . . .
	Arsenious Acid ----------	gr. 1/50 to 1/100	----------	. . . . .
	Acidum Benzoicum ----------	gr. i to x	----------	Every 3 to 4 Hours.
	Acidum Gallicum ----------	gr. ii to x	----------	As Necessary.
	Ammonium Benzoate -------	gr. i to v	----------	Every 3 to 4 Hours.
	Amyl Nitrite ----------	gtt. ss	----------	As necessary.
	Bismuth Sub-nitrate ----------	gr. ii to xv	----------	Every 2 to 3 Hours,
	Condurango Gonolobus -------	gtt. x to xxv	----------	Every 3 to 4 Hours.
	Caffeine	gr. i to ii	----------	Every 3 Hours.
	Camphor ----------	1/8 to i gr.	----------	Every 2 to 3 Hours.
	Camphor Mono Bromide ------	gr. i to vi	----------	Every 2 to 3 Hours.
	Capsicum Tinct. ----------	gtt. iii to xv	----------	In milk when required
SS	Cascara Sagrada Fl. Ex. ...	gtt. x to xxx	----------	Every 4 Hours.
	Chloral Hydrate ----------	gr. v to xx	----------	. . . . .
	Codeine Sulp ----------	gr. 1/4 to 1/2	----------	. . . . .
	Copaiba Balsam in Capsules.	gtt. x to xxx	----------	Every 4 Hours.
	California Laurel Fl. Ex. -----	gtt. v to xv	----------	As necessary.
	Erigeron Can. Oil. ----------	gtt. iii to v	----------	Every 3 to 4 Hours.

Signs	Names of Drugs.	Quantity		How Often
SS	Eucalyptus Oil	gtt. ii to v		As necessary
	Ferri Acetat., Tinct	gtt. i to v		Every 4 Hours.
S	Ferri, Acid. Sol. (Howe's)	gtt. i to v		Every 4 Hours.
	Ferri Citrat	gtt. i to v		Every 4 Hours.
	Ferro Cyanide of Iron	gr. i to iii		Every 3 to 4 Hours.
	Ferri Carbonas	gr. ii to vi		Every 3 to 4 Hours.
	Ferrum Reductum	gr. i to iii		Every 3 to 4 Hours.
	Glycyrrhiza Tinct.	gtt. v to x		Every 2 to 3 Hours.
	Guaiacus Tinct.	gtt. v to x		Every 2 Hours.
	Hydrastine Sulphate	gr. ½ to i		Every 3 to 4 Hours.
	Hysterionica Fl. Ex	gtt. v to xx		Every 2 to 4 Hours.
	Lithium Carbonate	gr. i to v		Every 3 to 4 Hours.
	Lithium Benzoate	gr. i to iii		Every 1 to 3 Hours.
	Manaca Fl. Ex.	gtt. ii to x		Every 2 Hours.
	Morphia Sulph.	gr. 1/8 to 1/4		
	Musk	gr. ½ to iii		Every 3 Hours.
	Magnesium Sulphate	well diluted		As necessary.
		gr. xv to 3ss		As necessary.
	Myrrh Tinct.	gtt. v to 3ss		As necessary.
	Male Fern Fl. Ex	3ss to ii		As necessary
	Mistletoe Fl. Ext	gtt. ii to viii		Every 2 to 3 Hours.
SS	Olive Oil.	3 i to 3 iv		Every 3 to 4 Hours.
	Opium Tinct	gtt. ii to x		
	Pichi Tinct.	gtt. x to 3ss.		Every 4 Hours.
S	Piscidea Erythrina Fl. Ex.	gtt. x to xxx		Every 3 to 4 Hours.
	Potassium Carbonate	gr. v to x		Every 3 to 4 Hours.
	Potassium Chlorate	gr. ii to v		Every 3 to 4 Hours.
	Potassium Iodide	gr. ii to xv		Every 3 to 4 Hours.
	Quebracho Tinct.	gtt. x to xx		Every 1 to 2 Hours.

Signs.	Names of Drugs.	Quantity		How Often
S	Quinine Sulphate	gr. i to x		Every 3 to 4 Hours.
	Santonin	gr. i to iii		
	Spigelia Fl. Ex	3ss to i		
S	Sodium Bi-Carbonate.	gr. v to xv		Every 3 to 4 Hours.
	Sodium Salicylate	gr. ii to v		Every 4 Hours.
	Sodium Sulphate	gr. ii to x		Every 2 Hours.
S	Spiritus Ammoniae Aromaticus	gtt. v to xxx		As necessary.
	Spiritus Etheris Nitrosi.	gtt. v to xv		Every 3 to 4 Hours
S	Strychnia	1/60 to 1/40 gr.		Every 4 Hours
	Tulu Tinct.	gtt. v to x		Every 2 to 3 Hours.
S	Wormseed American FL Ex..	gtt. xv to xxx		

MATERIA MEDICA AND THERAPEUTICS.

A thorough knowledge of the physiological and therapeutic action of drugs, is very important to any physician. Too many ignore this fact and fail where the better therapeutist, whose knowledge of drugs is less limited succeeds. To become fully familiar with our whole materia medica is almost a life study. For this reason the best drugs and their most important action only are given, thus enabling the reader to become familiar with those medicines, upon which his, success depends.

There are hundreds of drugs that are good or of some benefit in many conditions, but what we want is the drug that does the work best and that fully meets the indications. The aim of the author has been to give the cream of our materia medica in a manner easily comprehended.

Certain drugs that are only indicated in a certain condition and are of no value outside of that are omitted except in the chapter of general information.

Although single drug administration is favored by many it is very often impossible to adhere to this rule. A few drugs, if indicated and if not antagonistic in their action to the other drug or drugs, certainly are not out of place and often assist in a more prompt cure of the conditions present. In chronic troubles especially, this often becomes necessary. A thorough knowledge of the physiological and therapeutic action of drugs, indications and contra-indications, will guard against mistakes.

The following abbreviations will be used in this work, viz.:Syn. refers us to synonyms; P. E. to part employed; N. 0. to natural order; N. H. to natural habitat; Prop. to properties in which latter the most active properties, where possible, are mentioned first.

Acids: The physiological action of various mineral acids locally applied, such as the phosphoric, nitric, hydrochloric, sulphuric, are so much alike in their general action that it is not necessary to classify them separately. All strong acids are escharotic. They destroy protoplasm, combine with albumen and abstract the water from all tissues. The phosphoric and the sulphuric acids will completely decompose tissues and have a strong affinity for water. Most of these acids will again dissolve albumen after precipitation, with the exception of nitric acid,

which does not. Nitric and hydrochloric will cause a yellow color of the tissues, while sulphuric acid will color them black. Taken internally diluted acids cause a feeling of constriction in the mouth and throat and roughness of the teeth. The secretion of saliva from parotid and sub-maxillary glands is stimulated. The alkaline intestinal secretions are promoted, while the acid secretions are checked by supplying acid artificially. If given before meals in small doses acidity of the stomach is decreased; in other words, it checks the acid gastric juices secretion by supplying it artificially, consequently if continued for some time they will cause irritation of the stomach and digestive trouble. They will check fermentation. Are astringent to tissues. Sulphuric acid is the strongest, while hydrochloric is the weakest astringent. Nitric acid is not as penetrating as other acids if applied locally. Acids should never be used when contraindicated.

In poisoning by these strong acids the destruction of tissue is so rapid that but little, as a rule, can be absorbed. The direct antidotes are alkalines to neutralize their action chemically. Stomach pump or tube is contra-indicated, as there is danger of perforation, which easily results, on account of the destruction of the walls of the passages to the stomach.

Acidum Hydrochloricum: This is one of the strongest as well as most important acids. It fumes in the air , is very destructive to all organic matter, corrosive, dissolving many metals. It has a pungent odor and is very irritating to the respiratory organs. The acid, if pure, is colorless, if yellowish it shows that it contains impurities of iron or is old.

Toxic Effects: Pain throughout the digestive tract, vomiting, feeble pulse, clammy skin, collapse; eschars externally; yellow stains on clothing but none on the skin. This is a peculiarity of this acid if taken internally.

Acidum Hydrochloricum Dilutum:

Syn.—Hydrochloric acid dilute. Muriatic acid dilute.

As the pure hydrochloric acid is too strong for medical use, it is used in the diluted form, which is made by using 3 ounces of the pure concentrated acid with 7 ounces of pure water. Should be kept well corked. Of this dilution v to xx drops may be taken as a dose internally when indicated. Should it produce any disorder of the gastro-intestinal tract or colic it should not be used.

Properties: Restorative, antalkaline, antiseptic.

Indications: Deep red tongue and mucous membrane. Dry and cracked coat on the tongue; tongue contracted with brownish stripe in center. Sordes on the teeth. Digestion slow; pungent heat of skin; nervous prostration with other indications for this remedy.

Use: To correct undue alkalinity. Best to take through a glass tube to prevent its affecting the enamel of the teeth We find it often indicated in typhoid fever, tuberculosis of the lungs, catarrh or cancer of the stomach, neurasthenia, inflammatory conditions of typhoid form and low forms of fever. It will counteract phosphatic deposits in the urine. It is a good restorative and valuable remedy when indicated, but should be discontinued if the indications for its use have disappeared. Where there is undue alkalinity of the blood it is generally indicated, and, if so, should be used no matter what the disease. It is best to give it in the 2d to 3d homeopathic dilution.

Acidum Nitricum:

Synonym—Nitric acid.

It is a colorless liquid of a sour taste, very irritating odor, and has powerful corrosive action except on gold and platinum. It will turn the skin yellow, also wool fabrics. It is very powerful and should be used with care even if well diluted.

Indications: Tongue and mucous membrane bluish or violet color. Marked deficiency of secretion from mucous membrane and of the glandular structures with above indications. In all cases where acids are indicated with above indications nitric acid is of value.

Use: In gastro-intestinal troubles it may be given after meals; in cases where the uric acid and oxalic acids are excreted in abnormal quantities, with above indications, it has been recommended. The dose is 1 to 2 drops in 4 ounces of water; a teaspoonful 2 or 3 times a day. Some authorities claim that if taken internally diluted as above it will cure the tendency to formation of warts. Externally, in full strength, it may be applied to chancres and chancroids; it will destroy the specific poison and generally one application is sufficient. Care should be taken not to touch the adjoining healthy tissues with it. Nitric acid will readily coagulate tissue, but is less penetrating than most other acids.

Acidum Sulphurosum:

Synonym—Sulphurous acid.

Prepared by dissolving $6^1/_2$ % of the weight of sulphurous acid gas in $93^1/_2$ % of pure water.

Toxic effect: Black stains; pain throughout digestive tract; vomiting often of tarry matter; feeble pulse, clammy skin, profuse and bloody saliva.

Indications: In low forms of fever with feebleness and prostration. Tongue looks red, sleek or narrow and is dry and pointed, showing a want of tone of the stomach and a deficiency of acid generally in the system.

Use: In dyspepsia with vomiting of yeasty material intestinal dyspepsia with gas and flatulence and general deficiency of acid in the system; in pneumonia with purulent expectoration; bronchitis with fetid discharge; in diphtheria, and, in fact, any disease presenting above indications. In scabies, applied locally, it is even more prompt in action than sulphur.

Acidum Sulphuricum Aromaticum:

Synonym—Aromatic sulphuric acid. Elixir of vitriol.

Made by combining 3 $^3/_4$ fluid ounces of sulphuric acid, $1^5/_8$ fluid ounces of tincture of ginger, and alcohol a sufficient quantity to. make 33 $^3/_4$ fluid ounces. Keep well corked.

Indications for its use: Broad and full tongue, glutinous brown coat, viscid, sordes on teeth, tissues full and dirty looking. A raw beef tongue with mawkish odor of breath is also an indication.

Acidum Benzoicum:

Syn.—Benzoic acid.

It evaporates freely, melts at 249.8 F.; dissolves in 200 parts cold or 25 parts of boiling water; in 10 parts of glycerine. Very soluble in most essential oils, alcohol or ether.

Use: It neutralizes alkalinity in the body; lessens urea if given in large

quantity, by appropriation of nitrogen, and does not dissolve uric acid as is generally believed. It is a good remedy in excessive secretion of phosphates. As its action is chemical it does not persist if its use is withdrawn. Incontinence of urine caused by irritation of the urine charged with gravel or by excessive alkalinity of the urine is cured by it. In cystitis, where there is ammoniacal urine it is a good remedy. In uremic poisoning it is one of our best remedies. While in some patients a fraction of a grain is sufficient others may require 2 to 3 grains as a dose. In all cases its effect should be watched and any marked cathartic effect avoided.

Acidum Boricum:

Syn.—Boracic acid. Boric acid.

Physiological action: It is soluble in 3 parts of boiling water, almost entirely without taste, slightly acid and has a satin-like, pearly appearance. Taken internally in very large doses it will depress the heart and spinal nerve centers, causing a slow and feeble pulse, impaired respiration, nausea, vomiting, great depression of the mind, hiccough, stupor and coma. Eruption of the skin may also occur. In exceptional cases these symptoms more or less severe may occur if used locally as a dressing for wounds, etc. In these cases no doubt it is too easily absorbed and the patient too susceptible to its influence.

Use: It is a good antiseptic, although, as a germicide. its power is not very great. As a dressing for wounds and in surgical operations it is extensively used, being a clean, odorless, nonirritating and nontoxic dry dressing. We think of it in stomatitis and ulceration of the mouth as a wash. In cystitis a solution is very useful for irrigating the bladder, Of use in mild forms of conjunctivitis. As a dressing for carbuncles and boils it is better than a poultice. Locally applied in bromidrosis is assists the action of alteratives. Open abscesses or ulcers, after cleansing, may be dressed to advantage with boracic acid. In cervical leucorrhea, the result of excessive acid condition of the vagina, boracic acid applied dry to cervix and held there by a pledget of cotton, repeated every few days will cure in a very short time.

Acidum Carbolicum:

Is a useful antiseptic, antagonizes fermentation, putrefaction, micro-organisms; coagulates albumen. As we have, however, more powerful antiseptics that are less harmful to the tissues and less toxic in their

effects the writer has little use for it. A general description of it, however is in place. Applied locally it causes irritation and burning, followed by an anesthetic effect. If applied longer it may cause sloughing, and, on account of its coagulating and constringent effects on tissues and the capillaries, gangrene may result. It often is absorbed when applied locally and thus systemic poisoning may result. If taken internally it causes burning, nausea, vomiting, scanty and smoky-colored urine, contracted pupils, cold skin, pallor, collapse and paralysis of respiration which results in death. If carbolic acid has been swallowed we can see the effects in white appearance of skin or the mucous membrane with which it has come in contact. Often we find that carbolic acid will not dissolve well in water, and especially in very cold water. If dissolved in glycerine first it will mix well with water. Say drachm 1 of carbolic acid to drachm 1 of glycerine is a good proportion; if then mixed with water it will readily dissolve.

Acidum Hydrocyanicum:

As this acid is extremely powerful and, as we can well dispense with it in the practice of medicine it is not deemed necessary to give its therapeutic action. Therefore, the physiological action is only given to enable the reader to recognize its action in poisonous doses. In full poisonous doses it causes almost immediate death. The patient will gasp, become convulsed and die. Eyes are staring and open; teeth are clenched, froth appears at the mouth, face becomes purple and respiration will cease before the heart stops pulsating. The touch of the tongue to hydrocyanic acid often has produced immediate death by the powerful reflex irritation to the nerve centers in the medulla oblongata. In small but toxic doses heart action becomes slow, breathing becomes labored, mental disturbances take place, and there is a gradually increasing cyanotic appearance of the face. Nausea and vomiting often follow muscular spasms, spasmodic erection of the penis in the male, involuntary defecation, collapse and death. If life can be prolonged 25 minutes recovery may be possible as it is rapidly eliminated. Its paralyzing effect is on the nerve center in the medulla oblongata, manifesting itself first in the terminals or, in other words, in the peripheral nerves, and then in the muscles, showing its action on the spinal motor nerves. It stops the heart by irritation of the vagus root in the medulla oblongata and paralysis of the cardiac motor ganglia. If given in large medicinal doses it will cause anesthesia or paralysis of the nerve endings, headache, dizziness, vertigo, mind and nerve forces become impaired, temperature will fall, cyanotic appearance, palpitation

of the heart, labored breathing which becomes shallow and rapid, cold perspiration and general muscular weakness follows.

Acidum Salicylicum:

Syn.—Salicylic acid.

Properties—Antiseptic, deodorant.

Soluble in 450 parts of water, 14 parts of boiling water or 2% of alcohol. That which is produced from natural oil of wintergreen is the only kind that should be used for internal administration.

Physiological action: It will produce, in large doses, roaring in the head, flushed face, sometimes pressure in the head, fall of temperature and impaired reflex action. In very large doses it will increase above symptoms; pulse becomes very feeble, breathing more difficult, restlessness, delirium and even involuntary discharge of feces. It depresses the heart's action and function of the central nervous system, temperature sometimes falling way below normal. Destroys the red blood corpuscles, and, if continued for some time, will consequently impair the vital forces, cause general prostration, anemia and pallor. In the kidneys it may cause suppression of urine, temporary albuminuria and hematuria. The salicylate of sodium is milder in its effect and more soluble, and, for that reason, preferable in cases where indicated.

Use: As it is destructive to red blood corpuscles, depressing the heart's action, irritating the kidneys, sometimes producing congestion of same and hematuria, it should be used with care; should not be taken any length of time, and not in too large doses. It is contra-indicated when the tongue is red and pointed, showing irritation of the digestive tract.

We think of it in rheumatism and especially in the acute or subacute form, sciatica, locally in old, indolent ulcers, cold abscesses, cancer, corns, bunions, chilblains, and as a surgical dressing. As it prevents fermentation it may be used in fermentive dyspepsia, but as we have better and less irritating remedies for this trouble it is not to be recommended. To preserve fruit from fermentation it is used extensively. If urine is wanted for future analysis it will prevent it from fermenting. In fetid nasal catarrh it may be combined with nonirritating remedies, well diluted, and used with an atomizer.

Aconitum Napellus:

Syn.—Aconite, monkshood, wolfsbane.
N. O.—Ranunculaceae.
N. H.—America, Europe, Asia.

Properties: Arterial sedative, anodyne, slightly diaphoretic.

Physiological action: The first effect of a physiological dose is a sense of numbness and tingling in the throat, tongue and lips., Respiration and the pulse are diminished and there is depression and weakness. If larger dose is taken, all of above symptoms are increased, pulse becoming more slow. If a toxic dose is taken the pulse will become irregular and slower, even as low as 40 beats a minute. Respiration may go as low as 12 per minute; there is a tingling sensation in the skin, dimness of sight, dizziness, skin gets moist and cool, burning in the throat and stomach, nausea, vomiting, loss or impairment of hearing and sight, followed by impairment of speech, dilated pupils, headache, muscular and gastro-intestinal spasms, death-like appearance of face, consciousness remaining until death results by syncope. Aconite is a powerful heart depressant, acting through the vaso-motor nervous system. It influences first the terminals of sensory then the trunk of the nerves, the heart, respiration and the nerve centers of the cord. It paralyzes the heart through the inhibitory centers. It paralyzes respiratory centers and functions of the spinal cord, first sensory then motor. Destroys reflex action and voluntary power by its depressing effect on the centers in the spinal cord. The cerebrum however it appears is not affected.

Indications: In sthenic fevers. Small, frequent, hard, sharp and quick pulse; dry and hot skin; secretion suppressed; light and frequent chills, chilliness up and down the spine; numbness and tingling in the throat.

Use: It is a heart sedative in sthenic fever when indicated. Its use must be discontinued after this stage is passed; also if there is evidence of feeble heart's action or failure of nerve force. Aconite has a marked influence in acute inflammation of the mucous membranes, giving tone and power in the arterial capillaries and is opposed to blood stasis. It retards exudation, suppuration, adhesion, induration and hypertrophy. It hastens resolution and promotes absorption of inflammatory products. Under its influence the heart beats slower, pulse becomes fuller and mild diaphoresis is induced. We think of it in fevers in children, acute colds, measles, tonsillitis, bronchitis pneumonia, pleurisy, peritonitis, gastritis, enteritis, dysentery, mastitis or any sthenic condition where indicated.

Aesculus Hippocastanum:

Syn.—Horse chestnut.
P. E.—Bark and fruit.
N. O.—Sapindaceae.
N. H.—Asia, Europe, America.

Properties: Tonic, mildly astringent, anti-spasmodic.

Use: Exerts a direct influence on the portal circulation and uterine cervix. Overcomes capillary stasis. Disorders of a congestive nature, especially of the viscera and venous structure of the rectum. In hemorrhoids from portal congestion or reflexes from this condition such as headache, spasmodic asthma, dyspepsia, lumbar and sacral pain, spasmodic stricture, rectal neuralgia and fissures it is indicated. In hemorrhoids with fullness and dryness of rectum, purplish color of hemorrhoids, a constricted feeling without constipation, painful and difficult stool, throbbing of the abdominal and pelvic vessels it is indicated. In neuralgia of malarial origin it is of some value

Ailanthus Glandulosus:

Syn.—Tree of heaven.
N. H.—China and Japan.
P. E.—Bark.
N. O.±Simarubaceae.

Properties: Nerve tonic.

Physiological action: In toxic doses it produces headache of severe nature, dizziness, tingling and numbness, soreness in spine, arms and legs and general prostration The pulse and respiration are decreased, cold and clammy' sweat, a feeling of chilliness follows, and, in fatal doses the respiratory centers are paralyzed and death results.

Use: In some forms of epilepsy, not the result of mechanical injury or obstruction, it has, been highly recommended. Of value in malignant scarlet fever, typhoid fever, hiccough and asthma. It is of value in prostration from septic causes. It stimulates the brain and spinal nerve centers. Of value in low forms of inflammation and fever and in septic conditions. In weak and relaxed conditions of the mucous membranes, and as a tonic to the nervous system it is of value and may be used in some forms of prostration, especially from septic cause.

Aletris Farinosa:

Syn.—Aletris. Starr Grass.
P. E.—Root.
N. O.—Liliaceae.
N. H.—United States.

Properties: Tonic, cathartic, emetic, narcotic.

Use: A valuable tonic in uterine diseases where there is a sense of extreme uterine weakness. It has a direct influence on the pelvic organs. Labor-like pain is an indication for it. Of great value in too frequent menstruation from weakness or deficient menstruation or pale and insufficient flow from the same causes. In anemia and chlorosis with insufficient flow, in prolapsus with relaxed and enfeebled tissue it is of value. It improves the function of the ovaries, overcomes sterility and assists in correcting habitual abortion. Improves digestion and appetite and thus assists in making good blood.

Ammonia:

Normally exists in the blood and assists in keeping fibrin in solution, thus maintaining the fluidity of the blood. The glycogenic function of the liver is increased by its action, and, lastly, it is changed into urea and eliminated as such. Inhaled it is a very powerful irritant to mucous surfaces, causing a sense of suffocation and weight, and, if prolonged, may cause inflammation of the respiratory tract. Through nasal branch of the fifth nerve it excites reflexly the vaso-motor centers and in this way increases arterial tension. If taken internally undiluted or in toxic doses it may cause gastro-enteritis, suffocation by its vapor acting on the respiratory tract, coma and death may result. It has a stimulating effect on the nerve centers if taken in medicinal doses and increases respiration and circulation. If taken in too large or too frequent doses the stimulating effects on the cord will result in motor and spinal paralysis. Locally applied it is a vesicant if evaporation is prevented. If evaporation is not prevented it is a rubifacient. It is a powerful irritant, if applied directly to muscles causes tonic contraction. Carbonate of ammonia taken internally is decomposed by the hydrochloric acid of the gastric juice, setting free nascent ammonia which is absorbed. Phosphate of ammonia is diuretic, claimed to decompose urates of sodium in the blood, changing them to phosphate of sodium and urate of ammonia in this way causing their elimination. Chloride of ammonia

Increases the secretion of urea. In large, doses it is a purgative. Benzoate of ammonia is diuretic and is eliminated as hippuric acid.

Ammonia Aromatic, Spirits of:

Made by dissolving carbonate of ammonia in water and adding a solution of oil of nutmegs, oil of lemon and dilute alcohol. This is more palatable than other forms of ammonia.

Use: In great weakness and prostration , with feeble action of the heart. Stimulates the capillary circulation of the brain. Neutralizes hyperacidity and is of use in some forms of sick headache.

Ammonium Carbonate:

Syn.—Carbonate of ammonium

Properties: Stimulant, expectorant, diaphoretic.

Use: A prompt and valuable stimulant for sudden and extreme depression. Arouses the heart's action and is therefore, a valuable remedy in threatened collapse and syncope. In surgical shock it may be combined with digitalis. In collapse of profound anesthesia to overcome the depression of the heart and the respiratory functions. In cases of greatly diminished vitality from long illness it is of great benefit. Where there is excessive acidity of the gastric and intestinal secretions it is a valuable remedy. As it is a stimulating expectorant we think of it in chronic bronchitis, or latter stages of acute bronchitis or pneumonia to support the vital power. Useful in spasmodic coughs, with scanty expectoration. Where there is diminished cutaneous circulation, the skin cold and pallid, pallid whitish mucous membrane and a pale, broad or thick tongue. Chemical incompatibles such as acids must be avoided. It is best taken in milk, which will disguise its taste. As it evaporates in the air and then becomes useless, it should always be well corked. It can be dissolved in hot water or 5 parts of cold water.

Ammonium Muriate:

Syn.—Muriate of ammonium. Chloride of ammonium.

Properties : Stimulant, expectorant.

Use: It is soluble in 3 parts of cold water or 1 part of boiling water soluble in alcohol. We think of it in conditions where there is a lack of

secretion. In bronchitis or pneumonia where stimulating expectorants are needed. In some forms of catarrh of the bronchi with relaxed mucous membrane. In catarrh of the stomach with excessive acid secretion. In neuralgia of a rheumatic or malarial nature with a tendency to periodicity, especially if in the face and head, it is a good remedy in large doses. A very good remedy in great weakness and prostration. It does not differ much in its action from carbonate of ammonia, but acts less powerfully on the heart and is less transient in its effect.

Amyl Nitrite:

Syn.—Nitrite of Amyl.

Indications: Fluttering and irregular pulse, pale and cold surface, increased arterial throbbing, tensive spasmodic condition of heart.

Use: Amyl nitrite is produced by the action of nitric acid on amylic alcohol. It is a restorative in extreme conditions. On account of its relaxing effect on the muscular system it may be used in general or local spasms. Useful in angina pectoris, tetanus, asthma, whooping-cough. Internally it may be given in $^1/_4$ to $^1/_2$ drop as often as required, or larger doses if the emergency demands it. Inhale from 1 to 3 drops or more as the case may demand. The 3 to 5 drop glass capsules are convenient for inhalation. They can be broken in a handkerchief and then inhaled It should not be used where there is determination of blood to the head. Its action should always be carefully watched, and it should never be used if contra-indicated.

Amygdalus Persica:

Syn.—Amygdalus, peach tree.
P. E.—Leaves and bark of young twigs.
N. H.—America, Europe, Asia.

Properties: Sedative, slightly laxative, mildly diuretic.

Indications: Tongue elongated and pointed with red edges, showing irritation of the gastro-intestinal tract.

Use: In nausea and vomiting the result of irritation of the stomach. In vomiting of pregnancy it often proves beneficial. Often will relieve the vomiting of cholera infantum.

Anthemis Nobilis:

Syn.—Chamomile.
P. E.—Flower heads.
N. O.—Compositae.
N. H.—Europe.

Properties: Tonic, anti-spasmodic; in large doses emetic.

Use: Griping colic , pain ill region of umbilicus and lower, especially in children, stool green and slimy, smelling like rotten eggs. Reflex nervous irritation. In teething children it allays nervous irritation. Of benefit in reflex pain in the last months of pregnancy, reflex cough and muscular twitching and cramps. In amenorrhea with sense of weight and heaviness in uterus, bloating of the bowels, pain resembling labor pains, intermittent in character, it is of value.

Apocynum Cannabinum:

Syn.—Apocynum, Canadian hemp, bitter root, Indian hemp.
P. E.—Fresh root.
N. O.—Apocynaceae.
N. H.—United States and Canada.

Properties: Diuretic, cathartic, emetic.

Indications: The remedy thought of in dropsy. Edema of the cellular tissue, puffiness of face, beginning in the cellular tissues tinder eyes, followed by an edematous condition of hands, feet and a general dropsical condition, with scanty urine, diarrhea with sharp and griping pains in bowels, flatulent discharge, some cases of jaundice. We think of it in dropsy, depending upon feeble heart, rheumatism, rheumatic neuralgia, diseases of joints and mucous membrane, sciatica. A good remedy for anemic females with relaxed and flabby tissue with a tendency to metrorrhagia or menorrhagia, especially where the uterus is relaxed and the flow more of a watery color. Useful in general sluggish circulation. It is a pronounced heart tonic and improves the circulation. Increases blood pressure and capillary action. We think of it in conditions where exudation takes place from the blood vessels, the result of atonic conditions of the vessels. Combined with cactus it makes a very good heart tonic. Apocynum should be given in small doses so as not to get the cathartic effect.

Apis Mellifica:

Syn.—Apis, honey bee.

Properties: Diuretic, diaphoretic, alterative.

Indications: Itching with burning. A peculiar burning pain, such as is present in the sting of a bee. Dark red urine with constant desire to urinate, but patient unable to urinate freely.

Use: Apis is made by taking the honey bees, putting them in a bottle, then shaking them until they get excited. Then alcohol is poured over them and tincture made. The poison generated by exciting them is the medical principle. Apis is the remedy in cases of dropsy which appear suddenly as in edema of glottis, diphtheria, scarlet fever, effusion from pleuritis, peritonitis or other acute serous inflammation. In irritation of the bladder; in retention and suppression of urine in children and old people from weakness it is a useful remedy. Incontinence of urine in the aged and feeble. Passive hematuria intractable to other remedies. Urticaria, where there is much itching, has been cured by apis. Inflammation of the subcutaneous tissue if accompanied by irritation of the skin and pain of a lancinating nature.

Arsenicum Album:

Syn.—Arsenic, acidum arseniosum, arsenious acid.

Physiological action: Locally applied it acts as an irritant and escharotic. Applied to a large surface diluted it may be absorbed and give rise to symptoms of arsenic poisoning. Taken internally in toxic doses it may have such a profound action in some cases as to cause profound narcosis immediately. If not, its toxic effect will manifest itself as follows: It powerfully irritates the gastrointestinal tract, causing burning pain in the throat and stomach salivation, metallic taste in the mouth, nausea, vomiting, thirst, great pain, especially in the gastro-intestinal tract; albumen in the urine, feeble pulse, great anxiety, rapid, oppressed breathing, cold and clammy sweat, cold breath, delirium, convulsions, and finally death. The symptoms resemble somewhat those of cholera. In small doses it promotes appetite and digestion, increases peristaltic action, intestinal secretion, respiration and heart's action, exalts mental activity. In large or long continued medicinal doses it will cause itching of the skin and skin eruptions, swelling of the eyelids, salivation, nausea, vomiting, dyspnea, pain and soreness in the epigastric region, diarrhea, jaundice, impaired sensibility, albuminuria. As the habit of

using it may be formed it should be used with discretion. Water, if taken with it, will increase its rapid absorption. Symptoms of chronic arsenic poison caused by inhalation, which may be from the dust of wall paper or other cause are colicky pains, cough, dysentery, irritation of the eyes, white tongue more of a silver gloss, coryza and general prostration. A valuable remedy when indicated, but should be used with care and not when contra-indicated. The best, and, as a general rule, the only form to administer this drug, is in the 3x to 12x homeopathic trituration. In most cases, but especially in diseases where there are malarial conditions to be taken into consideration the chininum ars., 2x is the best form to administer, in fact the author has given this almost exclusively.

Indication and use: In edematous or engorged conditions of the cellular tissues of the body accompanied by a lack of elasticity of the tissues and skin; in those conditions where the skin has lost its elasticity, where when it is raised with the fingers it does not spring back as normally. The tissues look puffy and unnatural; also with the above indications where there is an abnormal, unnatural increase in tissue so often met with, especially in women at the climateric. In debilitated conditions, conditions following malaria it exerts on the nerve centers and the sympathetic nervous system a marked tonic influence. It will cure malaria where quinine fails; however, in these conditions chininum ars. 3x is the best form to use. Arsenic taken on an empty stomach is carried directly to the liver by the veins. If not empty it is carried to the general circulation by the lacteals which absorb it. It promotes the flow of digestive fluids and tones up the stomach. We think of it in disease marked by exhausted vitality; intermittent fever and typhoid fever with great thirst and debility. Stomach and bowel troubles, with burning pain, atonic dyspepsia, gastralgia, ulcers of the stomach, severe vomiting, diarrhea with watery green or dark burning stool; diarrhea in greatly run-down conditions of nervous nature or origin, shreds of mucus passing with stool and large evacuations. In some cases of dropsical complaints it acts well. In skin diseases of the scaly nature with burning attended with discharge of thin, watery fluid; obstinate ulcers with burning or itching or with a bloody, thin or fetid discharge; also of benefit in colds, influenza and bronchitis with difficult expectoration where there is marked exhaustion of the vital forces. In cholera it no doubt is a valuable remedy. Arsenic is claimed to be a preventive of variola, cholera and yellow fever, especially the latter two. In order to be effective as a preventive in time of epidemics “acid

arsenious" $^{1}/_{100}$ of a grain 3 times a day the first week; twice a day the second week and once a day thereafter during an epidemic.

Asclepias Tuberosa:

Syn.—Asclepias, pleurisy root, butterfly weed.
P. E.—Root.
N. O.—Asclepiadaceae.
N. H.—United States.

Properties: Diaphoretic, expectorant, cathartic, tonic.

Indications: Strong pulse, dry skin, cough, pleuritic pain which is aggravated by motion, in fevers with above indications.

Use: Stimulates secretion of the skin, salivary glands and kidneys. Increases secretion of mucous and especially serous membranes. Its influence is mostly exerted upon sudoriparous glands, and it is a distinctive eliminative agent. Has a direct action upon the thoracic organs. We think of it in disturbances of the centers that supply the bronchial arteries, intercostal pains, peritonitis, pleurisy, pneumonia, and acute rheumatism, combined or alternated with such other remedies as may be indicated. It is not as powerful a remedy as jaborandi, but much less depressing. Certainly a good remedy in catarrhal conditions either of the pulmonary or gastrointestinal tract which are the result of a cold. As it is not irritating to the stomach it is a remedy that can be taken without disturbing the gastro-intestinal tract. A valuable adjunct to other indicated remedies in inflammatory rheumatism.

Avena Sativa:

Syn.—Oats.
P. E.—Seed.
N. O.—Graminaceae.
N. H.—America, Europe, Asia.

Properties: Antispasmodic, nerve stimulant, diuretic and tonic.

Indications: Nervous prostration, convalescence from prostrating diseases; general prostration from worry or overworked condition of the brain. Occipital headache in general neurasthenia; sexual neurasthenia; nervous palpitation of the heart.

Use: We think of it in masturbation; spermatorrhea the result of excessive sexual indulgence or masturbation. In hysterical conditions the result of uterine or ovarian disorders; nervous headache at the menstrual period; and in atonic amenorrhea; neuralgic and congestive dysmenorrhea with cold extremities and poor circulation. In the morphine, tobacco and alcoholic habit. In prostatic irritation used with saw palmetto its action is very satisfactory. It is best administered in 10 to 15 drop doses in a cup of hot water, or, where case demands, in a cup of cold water. In hot water its action is much quicker. It is always best to give it well diluted. If it produces pain at the base of the brain it should be discontinued for a few days and then given in reduced doses. It is a stimulant sedative and nutritive tonic in wasting nerve force. Of value in chorea, nerve tremor, paralysis and wasting diseases of old age. In local paralysis of diphtheria it is a good remedy. Its stimulating influence is similar to that of nux vomica; after prostrating fevers its action is similar to quinine and its restorative power to that of phosphorous, it is not as powerful as these remedies but its beneficial effect is more lasting. It increases nerve force and increases the nutritive force of the whole system. The writer finds that effective as this drug may be, it is often overrated.

Baptisia Tinctoria:

Syn.—Baptisia, wild indigo.
P. E.—Part, root and leaves.
N. O.—Leguminosae.
N. H.—United States.

Properties: Antiseptic, stimulant, astringent.

Physiological action: Very large doses will cause severe purging and vomiting. Respiration and reflexes are over stimulated, resulting in asphyxia from paralysis of the reflex centers and death.

Indications: Dusky, purplish full face, dark or purplish tongue, lips and mucous membrane.

Use: We think of it in typhoid fever and other diseases showing typhoid symptoms. In delirium of typhoid or of typhoid nature; diphtheria, diphtheretic laryngitis; dysentery with offensive breath and fetid discharge of a dark prune juice character. Useful in tonsillitis if indicated. As baptisia is not a very powerful antiseptic it will be found to

be of great advantage in most cases to associate it with echinacea.

Barosma Betulina:

Syn.—Buchu.
P. E.—Leaves.
N. H.—Africa.

Properties: Diuretic, tonic, stimulant.

Use: It is slightly diuretic, increasing both the watery and solid constituents of the urine. Has a soothing, tonic and restorative effect on the urinary apparatus, bringing, about normal action. We think of it in mucous and mucopurulent discharges from the kidneys, bladder and urethra, gonorrhea, catarrhal conditions of the bladder and in irritation of the bladder from excess of uric acid. It is also a good tonic to the muscular wall of the urinary apparatus. As it is not objectionable to the stomach, in fact, being of value in some form of dyspepsia, it may be given with confidence in any weak and irritable conditions of the mucous membranes of the urinary apparatus.

Belladonna:

Syn.—Atropa belladonna; deadly nightshade.
P. E.—Roots and leaves.
N. O.—Solanaceae.
N. H.—Europe.

Properties: Anodyne, antispasmodic, suppresses secretion.

Physiological action: In full physiological doses it is a cerebral excitant, producing active hyperemia, and a full but active cerebral capillary circulation which manifests itself first by dry throat followed by excitement, exhilaration, dilated pupils, burning of throat, face flushed intolerance of light, impairment of vision, nausea and insomnia. In large toxic doses above symptoms are aggravated, followed by incoordination of muscles, motor paralysis, difficult deglutition, wild and furious delirium, muscular twitching, a scarlet rash appears on the body, pulse becomes feeble, general prostration, deep coma, convulsions and death from paralysis of the inhibitory nerves of the heart, and later the heart muscles. At first contracts the blood vessels in the cord, increasing arterial tension, then, as its paralyzing effect is manifested, it dilates the blood vessels and reduces pressure. On account of overstimulation of the capillaries exudation takes place, resulting in the

characteristic scarlet rash. The powerful determination of blood to the face and head causes flushed face. Dilation of the pupil causes the intolerance of light as well as impairment of vision. Belladonna is a powerful vaso-motor stimulant, paralysis from overstimulation results when given in large doses. Indication: Dullness, drowsiness, eyes dull, dilated pupils, dullness of mind and tendency to, sleep, impaired capillary circulation of skin. Blueness of face and extremities, coldness of hands and feet, cerebral congestion. Pain in head, heavy, tense and sleepy, showing that it is the remedy in passive congestion, especially of the cerebro-spinal centers.

Use: It is a direct sedative in fevers, but combats fever processes. Induces powerful capillary circulation. The influence is extended from the nerve center to the periphery, and, if given in overdoses, stimulates the capillaries so abnormally as to produce a red rash. It antagonizes congestion. Its influence in restraining secretion does not prevent its use in capillary stasis. If used in small doses its influence on the circulation precedes that of secretion, as its first influence is on circulation, then on secretion. Combined with aconite the action of restraining secretion is not nearly so marked in inflammatory conditions. If given early with aconite when there is fever only the hyperemia and consequent inflammation is abated. It is our most important remedy in equalizing the circulation and preventing local hyperemia, which is essential to all local inflammatory action. It is a powerful vaso-motor stimulant; stimulating capillary circulation. It has a direct action on the heart, increasing its action, slowing and strengthening the pulse. In urinary affections the result of capillary congestion, with perhaps throbbing pain in the back in the region of the kidneys, it is a good remedy. In sore throat, where the mucous membrane is dry and swollen we think of belladonna. Spasms of the orifices of the body of a passive nature are relieved by it. In incontinence of urine, especially in children, it is an effective remedy if indicated, but we generally succeed in overcoming this condition with other less powerful remedies.

Berberis Aquifolium:

Syn.—Berberis, Oregon grape.
P. E.—Root.
N. O.—Berberidaceae.
N. H.—Pacific coast states, U. S. A.

Properties: Alterative, tonic, anti syphilitic, slightly laxative and diuretic.

Use: In disordered conditions of the blood and especially skin diseases due to above, such as eczema, acne, psoriasis, pityriasis, chronic dermatosis, scald head, salt rheum, etc. It removes pimples and roughness of the skin, promoting a soft and natural skin in sensitive young ladies if the cause is not from irritation in the reproductive organs. It acts favorably on the liver and is a good tonic. A valuable remedy in syphilis, especially if combined with other alteratives. As a general tonic, to improve appetite and digestion and to purify the blood it is one of our best remedies. In uterine troubles it acts as a general and local tonic, overcoming relaxed and weakened condition. In skin diseases it acts best in those of a dry and scaly nature, but is of benefit in other forms as well. We also think of it in chronic hepatitis, acute Bright's disease, phthisis, coughs, dyspepsia, chronic throat troubles, etc., in conjunction with or alternated with other indicated remedies.

Bromides:

The writer does not favor the use of the bromides and never uses them in his practice, as we have less harmful agents that fill their indications. As there are some that occasionally use them or come in contact with cases that have contracted bromism through large doses or long continued use of the drug in its various forms the physiological action as well as indications and use will be given below.

Physiological action: When inhaled are very irritating to the mucous membranes of the respiratory tract, producing hoarseness, cough, and in some cases dyspnea. Internally in large doses bromides will cause severe gastro-intestinal inflammation, general depression, muscular trembling, paralysis of motor then sensory nerves, collapse and even death. The bromides are powerful cerebro-spinal depressants. They are eliminated slowly with every secretion of the body. They reduce the heart's action, respiration, lessen the activity of the brain, diminish sensibility of the peripheral nerves and mucous membrane, impair the sexual function, cause emaciation and pallor, lower the temperature, cause characteristic fetid breath, impair co-ordination. If long continued will produce a rash on the skin, at first papular, later pustular with ulceration, impair mental facilities; in some it will produce melancholy, others hallucination; again in others tendency to suicide and even maniacal excitement. Bromides cause, if continued long or taken in large doses retrograde metamorphosis, insufficient oxygenation of the blood, acting as a depressant on the sympathetic. Lower or impair muscular contractibility. The capillary vessels contract to such a degree

as to cause insufficient circulation, arterial tension is lowered, finally anemia of the brain, cord and skin results. Bromide of sodium is the least harmful.

Indication: The bromides are indicated in all cases of nervous excitement which are the result of irritation, marked determination of blood to nerve centers, capillary fullness and any condition where the nerve force is temporarily increased. General cerebral fullness with irritation of the nerve centers. They are therefore indicated in spasms, hysterical mania, delirium tremens, sexual hyperaesthesia, nymphomania, insomnia, with above indications or conditions present. In insomnia the bromide of sodium is preferable. In whooping cough where there is an irregular heart's action as a result, the bromide of potassium is preferable. In lithemia the bromide of lithium should be used. In most conditions we have less harmful and as effective remedies as the bromides, and, for that reason, their use should be limited as much as possible. They should not be taken any length of time and not taken in large doses except in emergencies. The writer never uses them. The bromide of sodium is the least poisonous and least irritating and therefore is preferred in most cases.

Bryonia Alba:

Syn.—Bryonia.
P. E.—Root.
N. O.—Cucurbitaceae.
N. H.—Europe.

Properties: In medicinal doses it assists other sedatives to control fever, when indicated. In large doses it is a hydragogue cathartic.

Physiological action: In full physiological doses it is a powerful hydragogue cathartic, being so irritating that it may produce gastro-intestinal inflammation. It excites the peripheral nerves and capillaries to such an extent as to produce irritation and even inflammation. In toxic doses it will cause dizziness, lower temperature, pulse becomes weak, cold perspiration over the body, delirium, dilated pupils and a general depression of the nervous system.

Indications: Hard, quick pulse; short, quick, harsh, hacking cough, quick, sharp, cutting, stitching pain, aggravated by movement, transient pain increased on inhalation. Flushed face, especially the right cheek. Frontal pain extending to basilar region; orbital or supra-orbital

pain; hemicrania; headache of rheumatic origin. Being of special use in inflammation of the serous and synovial membranes, it can be readily seen why it is indicated where pain is aggravated by motion of the affected parts.

Use: In acute serous and synovial membrane inflammation, with or without exudation. Retards exudation and encourages absorption if exudates have formed. A remedy of great value in the treatment of all acute inflammation of the thoracic viscera, in which case it is alternated or associated with other indicated remedies. The remedy in pleurisy and pneumonia and influenza. In rheumatism in any part of the body when indicated. When there is pain in the liver, of a cutting nature it has proved of value. Bryonia should never be given in as large doses so as to get its hydragogue. cathartic effect. The average dose of v to xx drops in 4 ounces of water, teaspoonful every 2 to 4 hours answers for all medicinal purposes.

Cactus Grandiflorus:

Syn.—Cactus, (Selene-)cereus grandiflorus, night blooming cereus.
P. E.—Stems and flowers.
N. O.—Cactaceae.
N. H.—Mexico.

Properties: Tonic, antispasmodic, diuretic.

Indication: Irregular pulse with feebleness of the heart's action. Oppressive sensation in the region of the heart, sensation of constriction as if a tight band was around chest. Feeble and irregular pulse. Headache in top of head. Indicated where there is feebleness and irritability of the heart; asthenic conditions.

Use: Increases heart's action by stimulating the vasomotor and spinal motor centers. It increases their tone and activity and thus improves the nutrition of the nerves and muscles of the heart. Has a direct action on the sympathetic system, influencing it to normal performance of action. Increases the contractile power and tone of the heart muscles through the inter cardiac ganglia and accelerator nerves; increases arterial tension and force of pulse wave. A fine heart and nerve tonic and restorative having none of the irritating qualities on the heart muscles as strophantus, nor the gastric irritating and accumulating qualities of digitalis. In enfeebled heart muscles, progressive valvular insufficiency with irregular and intermittent pulse in mitral or aortic regurgitation.

In endocarditis and pericarditis following severe disease. Bicycle and tobacco heart. In intractable temporary blindness, neuralgia, general excited action, the result of wrong of heart's action, it has been used with success. Cactus cannot be called a sedative nor a stimulant, but it has a tendency to bring about normal action of the heart.

Calcium Sulphide:

Syn.—Sulphurated lime.

Use: Its special influence is on the glandular system, blood and skin. We think of it in glandular, pustular and suppurative inflammation, especially of the skin, In carbuncles and the tendency to formation of crops of boils it is one of our best remedies in syphilitic skin disorders, soft chancre, suppurative bubos it is of value. Calcium sulphide is claimed to be of value in bronchitis, pneumonia tubercular conditions, tonsillitis and tubercular joint diseases. It is recommended by some authors in bronchial and laryngeal troubles; also in suffocating cough and croup. Has been recommended in smallpox. It should not be given in so large doses as to cause irritation of the gastro-intestinal tract. The first trituration is, no doubt, the best form to administer, although some recommend the 2nd trituration. It may be given in 2 to 5 grain doses, 3 to 4 times a day. It is best to give it in water or during meals mixed with the food.

Calendula Officinalis:

Syn.—Calendula, marigold.
P. E.—Leaves and flowers.
N. O.—Compositae.
N. H.—Europe.

Use: In superficial inflammation of the skin and cellular tissue and to prevent suppuration. Valuable locally in recent wounds, cuts, open sores, chronic ulcers, capillary engorgement and severe burns. It is mildly antiseptic and prevents the formation of pus. Has the advantage over many other remedies in that it causes the scar or cicatrix to form without or with very little contraction of tissue. Favors union of fresh wounds by first intention and relieves pain to some extent. May also be given internally to assist local action in many cases.

Cannabis Indica:

Syn.—Indian hemp, cannabis sativa.
P. E.—Flowering top of female plant.

N. O.—Cannabinaceae.
N. H.—India.

Properties: Anodyne, sedative, anti-spasmodic, narcotic.

Physiological action: In large doses it will produce hallucination, which, in some, are of merriment and in others of a violent nature, even tendency to crime. It dilates the pupils, pain is relieved, the natural perception of objects is perverted; sounds or noise appearing intensified. In poisonous doses it will cause spasms, convulsions general collapse, anesthesia of skin, clamminess; face pale, pulse weak, profound weakness and collapse, death resulting from paralysis of respiration. Its habitual use will cause bloating, injected eyes, insanity, and even death from general wasting of the system.

Indications: Nervousness, insomnia, hallucination, illusions of sight and hearing, stupor, vertigo, pain and burning in the urethra. Menstrual headache and neuralgic pain in dysmenorrhea.

Use: It influences the nervous system. We think of it in disordered mental states, the result of disturbed functions of the nervous system; in melancholy affections of the brain with nervous vertigo; in wakefulness of old people and restlessness of nervous exhaustion. A good remedy in involuntary muscular movements, especially if of a distressing nature. Will relieve to some extent the girdle pain of locomotor ataxia and the distress of spondylitis, hip joint disease and rickets. Of value in sexual excitement, in hysteria and emotional excitement at the menstrual period. Claimed to be a good remedy in chronic alcoholism. In subinvolution of the uterus it is of benefit. Relieves irritation of the urinary organs and is therefore of value in cystitis, gonorrhea and gleet.

Capsicum Fastigiatum:
Syn.—Capsicum, Cayenne pepper.
P. E.—Fruit.
N. O.—Solanaceae.
N. H.—East Indies, Africa.

Properties: Stimulant, rubifacient, carminative.

Use: Capsicum is a stimulant. Rapidly increases capillary circulation to a part when applied. Taken internally by its stimulating properties, it promotes its own absorption and thus produces its effect on the nerve

centers. It increases the tone of the entire system; increases circulation and produces a feeling of warmth all over the body. On account of its local and general effects it is indicated in atonic conditions, relaxed muscular fibers, and a general deficiency of functional force. We think of it in dipsomania, delirium tremens, malaria, congestive chills and atonic dyspepsia. In malignant intermittent fever combined with quinine it is one of our very best remedies. It is best given in cream or milk as it is less irritating to the mucous membrane in this form.

Carduus Marianus:

Syn.—St. Mary's thistle.
P. E.—Seeds.
N. O.—Compositae.
N. H.—Europe, United States.

In chronic cases where there is venous engorgement. Whenever there is venous stasis with veins enlarged, perhaps clogged with blood, this is the remedy.

Useful in many chronic liver and splenic troubles of a congestive nature. In varicose veins it has cured where all other remedies failed. Must be given a long time as it acts slowly. The dose of tincture of Lloyd's specific is 2 to 5 drops 3 to 4. times a day for an adult. If this cannot be had the homeopathic mother tincture should be used.

Cascara Sagrada:

Syn.—Rhamnus purshiana, Sacred bark.
P. E.—2-year-old bark.
N. O.—Rhamnaceae.
N. H.—Pacific States, U. S. A.

Properties: Tonic laxative.

Use: It is a bitter tonic that has a direct influence on the stomach and intestines. Its action is on the vasomotor system, increasing secretion of the intestinal tract and increasing peristaltic action, thus restoring normal activity. As it influences the venous and capillary circulation of the intestinal tract it is a remedy that acts favorably in hemorrhoids. Cascara is not a harmful cathartic; but has a tendency to restore normal action, and, for this reason, is of great value in chronic constipation. It is best to give it in small doses first and gradually increase; then when stool becomes normal continue the last dose for a week or so and then

gradually decrease dose and give at longer intervals. Given in this way it has proved to be a valuable remedy in chronic constipation, chronic indigestion, gastric or intestinal catarrh and in the temporary constipation of pregnancy. It should not be given in so large doses as to produce pain or griping.

Caulophyllum Thalictroides:

Syn.—Caulophyllum, blue cohosh.
P. E.—Root.
N. O.—Berberidaceae.
N. H.—United States.

Properties: Antispasmodic, emmenagogue, parturient, anti-rheumatic, diuretic.

Indications- Irregular menses, colicky pain in bowels after eating, pain in fingers and toes without structural change; dysmenorrhea, spasmodic uterine contraction, uterine pain, fullness, weight and pain in the legs.

Use: In chronic uterine disorders. Amenorrhea in young women. Painful menstruation. General atonic conditions of the organs of generation of the females which manifest themselves by spasms, nervousness, irritability., insomnia. False pains of spasmodic nature in pregnancy, threatened abortion. The action of caulophyllum in pregnancy is to prolong gestation to the normal period. In labor it is of value when the pains are feeble from atony of the uterus, patient weak, nervous. In rheumatism of the joints and hand it is a good remedy.

Ceanothus Americanus:

Syn.—Ceanothus; Red Root; New Jersey Tea.
P. E.—Root.
N. O.—Rhamnaceae.
N. H.— States.

Properties: Astringent, expectorant; stimulating to mucous surfaces.

Physiological action: Taken in large and continued doses in healthy state it will produce sticking pain in the spleen, increased by motion., inability to lie on left side, enlargement of the spleen, then these same symptoms in the liver with enlargement and congestive pain worse on touch; pain in umbilical region; pain and soreness on the exterior part of thigh; loss of appetite; tongue coated with dirty white coating,

emaciation and general weakness. Urine may be colored green with bile, stool clay colored. In fact under the physiological doses long continued all the symptoms of chronic malaria will develop.

Indications: Doughy, sallow skin, expressionless face, pain in the region of the liver or spleen.

Use: An alterative which has a powerful influence over the portal circulation, indicated where there is sluggish circulation and inactivity of the liver, especially if these conditions are the result of malaria. In enlargement of either spleen or liver, it is a valuable remedy and if combined with polymnia uvedalia is even more effective. Its use is confined to chronic conditions as above. Its astringency renders it of value in catarrhal conditions of the mucous surface with hyper secretion and without inflammation. In splenic pains, chilliness with splenic pains and leucorrhea, it has proved to be of value.

Cephaelis Ipecacuanha:

Syn.—Ipecacuanha; Ipecac.
P. E.—Root.
N. O.—Rubiaceae.
N. H.—South America, New Granada.

Properties: In minute doses tonic and stimulant; in large doses expectorant, diaphoretic and emetic.

Physiological action: Powdered ipecac applied to the skin will produce irritation, redness and pustulation. The powder when inhaled is an irritant to the mucous membrane and will cause in many, sneezing, asthmatic breathing; epistaxis, spitting of blood, and in some cases swelling of eyes, face and throat. This may often be counteracted with quebracho or uva ursi. In small doses it is a stimulant. In large doses a depressant. In small doses of $^1/_8$ to $^1/_4$ of a grain it stimulates salivary and gastric secretion and has a general tonic effect on the stomach. In doses of $^1/_2$ to 1 grain it is a good expectorant, while in 2 grain doses it is diaphoretic. In larger doses of x to xx grains its first effect is stimulating, after which it will produce nausea and vomiting. It is milder and slower than other emetics but is less depressing. Ipecac has a marked effect on the pneumogastric nerve. In many cases repeated emetic doses will produce a toleration of the stomach, the emetic affect being lost, and it acts as a cathartic, the feces having a bilious color. Specific ipecacuanha

is preferable to the powder in most cases.

Indications: Persistent irritation of the mucous membrane with lack of secretion, especially in acute inflammatory condition. Irritation of digestive tract indicated by contracted elongated pointed tongue with red edges. In all these cases it should be given in small doses. As an emetic in large doses it is indicated where there is an accumulation in the stomach, with broad, flabby, pale and heavily coated tongue, showing inactivity. Nausea and vomiting with pale relaxed membrane. Taken in cold liquid in minute doses it is useful as a styptic, arrests nausea and vomiting and diarrhea. It is diaphoretic, expectorant and emetic. As an emetic it is slower than lobelia but is less depressing and often acts both as an emetic and laxative. Taking it in warm water makes its action more prompt in such cases. We think of it in acute bronchitis, bronchitis in children. In infantile pneumonia it is an excellent remedy. Cough with deficient secretion. In hemorrhage it is a useful remedy in good sized doses. In dysentery and diarrhea it is one of our best agents, especially if combined with aconite. In croup, associated with sanguinaria, it is of great value. Its long continued use may cause a diarrhea in some people and therefore discretion should be used. In minute doses it is one of our best remedies to excite the stomach to motor activity. Here it is given in small doses after meals. Syrup of ipecac is made of tincture ipecac 1 ounce; simple syrup 7 ounces. Used as an expectorant.

Chelidonium Majus:

Syn.—Chelidonium: Celandine; Tetterwort.
P. E.—Plant.
N. O.—Papaveraceae.
N. H.—Europe.

Properties: Drastic purgative in moderate or large doses.

Indications: Full, pale, sallow tongue and mucous membrane, skin pale, doughy, sometimes even greenish. Slow pulse, dull pain or heaviness in the region of the liver, sense of weight in the stomach; dull, stretchy, tired feeling, cold extremities, frontal headache, dull sick headache, vertigo, irregularity of the bowels, melancholy, pain under angle of right shoulder blade; all or any of the above indications the result of sluggish portal circulation and impaired functional activity of the glandular organs of the abdominal cavity.

Use: In jaundice due to obstruction from swelling of mucous membrane that lines the biliary ducts; caused by catarrhal inflammation. In general catarrhal condition of the biliary ducts. Corrects tendency to formation of gall stones. In conditions where no bile is secreted by the liver and in consequence white or gray colored stools result it is the remedy; in such cases urine may be pale. Also where there is obstruction of the biliary ducts from catarrhal conditions. In diseases of the liver and digestive apparatus, the result of sluggish portal circulation and functional inactivity of the glandular organs of the abdominal cavity, it is a valuable remedy. It has been recommended for hydrocele internally. Locally of great value in ringworm and tetter. In inflammation of the liver it is our best remedy if alternated or associated with other indicated remedies. Chelidonium is claimed to be a valuable remedy in varicocele; but must be used for some time. Claimed to be of value in varicose veins and to have some aphrodisiac power.

Chenopodium Anthelminticum:

Syn.—American wormseed.
P. E.—Seeds of fruit.
N. O.—Chenopodiaceae.
N. H.—United States.

Properties: Anthelmintic, antispasmodic, slightly diuretic.

Use: The writer prefers this in the form of fluid extract, to remove worms from the intestinal tract. Fifteen to thirty drops in proper menstruum $^1/_2$ to 1 hour before breakfast and just before retiring is the average dose for a child about 10 years old. This should be continued for 3 or 4 days followed by a good laxative at the expiration of this time. To be repeated after some days if not successful. It will act more powerfully if combined with spigelia and male fern.

Chimaphila Umbellata:

Syn.—Chimaphila; Pipsissewa.
P. E.—Whole plant.
N. O.—Ericaceae.
N. H.—United States, Europe.

Properties: Tonic, astringent, diuretic, diaphoretic, alterative.

Indications: In chronic diseases of the genito-urinary organs, with

scanty urine; smarting sensation on passing urine.

Use: It removes irritation of the kidneys, urinary tract, wrongs of the skin, lymphatic glands and blood, which are caused by presence of waste products, resulting from defective catabolism. Is a tonic to the general system, removes dropsical accumulation and restores the excretory functions to normal condition. We think of it in uric acid diathesis, lithemia, gravel, excess of uric acid, brick dust sediment in urine, chronic catarrh of the bladder. In dropsy from disease of the kidneys and where there are enlarged glands and a general debilitated condition it is a valuable adjunct to other indicated remedies.

Chionanthus Virginica:

Syn.—Chionanthus; Fringetree.
P. E.—Bark of root.
N. O.—Oleaceae.
N. H.—Southern States, U. S. A.

Properties: Aperient; cholagogue; mildly diuretic.

Indications: Clay colored stool, high colored urine, yellowness of skin and conjunctiva result of jaundice. Itching of the skin result of absorption of bile and jaundice. Sense of uneasiness in right hypochondrium or abdominal pain simulating colic. Where there is torpor of the bile secreting functions, it will arouse cellular activity of the biliary apparatus.

Use: It overcomes the catarrhal conditions of the bile ducts, thins the bile and prevents formation of calculi and favors the passage of those formed. In jaundice, acute or chronic congestion of the liver with deficient discharge of bile or catarrh of the bile ducts it is our best remedy when indicated. In jaundice from occlusion of the bile ducts, impacted gall stones or obstruction from a tumor or growth it of course is of no value. It acts nicely with iris versicolor, polymnia, podophyllum, leptandra or sodium phosphate.

Chloral Hydrate:

Syn.—Chloral.

Properties: Hypnotic, anesthetic, sedative and narcotic.

Physiological action: In overdoses it will produce profound narcosis, a

marked reduction in temperature, pulse and respiration. The pulse becomes more irregular, rapid, feeble and thready; complete muscular relaxation, coma and death result from paralysis of the respiratory nerve centers and cardiac motor ganglia. In full therapeutic doses if indicated it produces sleep which is not followed by headache or depression. It appears to cause an anemia of the central nervous system, and for that reason is indicated where there is marked cerebral excitement with engorgement. It has no anodyne properties but is a hypnotic and thus sometimes overcomes pain to some extent, by overwhelming the centers and acting indirectly as an anesthetic. It must be borne in mind that it has little control over pain. Used hypodermically it often produces inflammation and ulcers, and for that reason should never be used in that manner. In small doses it increases the fluidity of the blood, while in large doses it destroys the blood corpuscles, especially the white. Used for some length of time it will cause those symptoms for which it is generally given. A red rash will appear on the skin, which is generally followed by desquamation. Appetite is impaired, bad taste and breath, fetid discharges and a general disturbance of the gastro-intestinal tract, with deficient secretion.

Use: It acts first upon the cerebral ganglion cells, then on the spinal ganglia and then upon the heart. During its use the temperature is reduced, muscles relaxed , showing that its first action is on the sympathetic ganglia. It is then plain that chloral should only be used in conditions where there is increased heart's action and nervous excitement. In conditions where there is great restlessness with nervous excitability it will produce a natural sleep. We think of it in sleeplessness, delirium tremens, chorea, hysteria, asthma, whooping cough; in which cases it will produce quiet rest and sleep. In pruritis from nervous causes it has given relief. Where there is a rigid os uteri no progress being made in labor and where the vagina is hot and there is irritating pain, it is a valuable remedy and it will correct the rigidity and nerve excitement. In delirium of fevers, especially inflammatory, it may be given. It is a valuable hypnotic if indicated. Some people will not bear the drug well and it should therefore first be given in small doses and its effect watched. It should never be given in any condition where there is marked depression. As this remedy is profound in its action we find that milder remedies such as passiflora or gelsemium are safer, and if effective should be substituted.

Chloroform:

Properties: Anesthetic, antispasmodic, sedative. A colorless, heavy liquid having a sweet, burning taste. It is not inflammable, but when heated will burn with a ,green flame. Dissolves sparingly in 200 parts of water. Dissolves in alcohol, ether, benzene, essential and fixed oils. Chloroform has great solvent power. Decomposes, in daylight or sunlight, therefore should be kept in dark bottle or in a dark place.

Physiological action: Taken internally it is a powerful irritant to the mucous membrane, producing heat, burning and gastric irritation. If taken undiluted in sufficient quantity it will produce narcosis followed by violent gastro-enteritis. In 5 to 10 drop doses in water it produces a feeling of warmth in the stomach. In $^1/_2$ teaspoonful doses taken in water the pulse will become slower, circulation a little slower and a mild anesthetic effect follows. It should always be well diluted if taken internally. Locally applied it relieves pain and diminishes sensibility. If applied oftener and evaporation is prevented it will cause pain, redness and vesication.

Use: Its action is mainly on the brain and spinal centers. If inhaled it lowers arterial pressure and depresses the heart's action. Death results generally from paralysis of the heart; while death from ether is by asphyxiation. The action of chloroform is in 3 stages. In the first stage only slight effect is noticed, patient being conscious, but senses are blunted somewhat. Pulse will beat a little faster in this stage. In the second stage the consciousness and sensibility are abolished and muscles become relaxed, the pulse beating about normal. In the 3rd stage there is full narcosis with stentorous breathing, rapid and weak pulse. If chloroform is administered prepare patient if possible; nothing should be eaten for at least 2 hours before as vomiting may result otherwise; loosen clothing and place in recumbent position. See that the patient is calm and if too nervous and weak a little opium may be given shortly before giving the anesthetic. Alcoholic stimulants may be given. Give no more than needed and watch the respiration carefully, the face, pulse, lips and cheeks. If breathing becomes stentorous, if face becomes pallid or purple, if patient gasps for breath danger is near, especially in the latter case. To resuscitate use artificial respiration, lower the head, pull out tongue, if necessary stretch the sphincter ani muscle, slap chest, see that patient gets fresh air. Always have an assistant at hand. During operation if patient looks conscious and flinches or has pinched

expression with eyelids turned up, give more. In heart disease or disease of the lungs it is dangerous to use. Outside of its full effect in operations, etc., we think of it for giving immediate relief in all spasmodic troubles. In spasmodic asthma it is our best remedy; if enough is inhaled to relax muscles and produce normal respiration. Use in attacks of hysteria as a last resort, in puerperal convulsions, in chorea and tetanus if no other. remedy relieves, in whooping cough. In obstetrical practice it is of great value as it relieves pain and does not interfere with uterine contractions, while it does relax, and mitigates the suffering. It is a good local anodyne in neuralgia or lumbago. Chloroform is dangerous to use for those who have taken the gold cure for liquor habit.

Cimicifuga Racemosa:

Syn.—Cimicifuga; Black cohosh; Macrotys.
P. E.—Fresh root.
N. O.—Ranunculaceae.
N. H.—United States and Canada.

Properties: Tonic, nervine, antispasmodic. In large doses diaphoretic.

Physiological action: The vaso-motors and the cardiac ganglia are influenced by this drug. The first sign of its physiological action in large doses is a bursting and tearing headache with flushed face and injected eyes. If continued it will be followed by gastro-intestinal irritation, dimness of sight, vertigo followed by a slow pulse and profound prostration and relaxation.

Indications: In muscular pains of a tensive, aching nature, especially from rheumatism. Pains comes in waves and there is a feeling of soreness as if from overwork or overstrain; muscular movement increases the pain. The remedy in muscular rheumatism.

Use: It relieves irritation of the nerve centers that cause contraction of muscles. Its influence manifests itself mostly at the nerve periphery, quieting excitement and relieving capillary. congestion. We think of it in muscular rheumatism, hysteria with flushed face. In chorea give in large doses. Will correct wrongs of menstruation, relieving pain and tending towards normal functional activity; especially if there is sacro pubic pains of a wavy nature radiating in all directions. Soreness and dragging pain in the back due to rheumatism or rheumatic neuralgia of the uterus or ovaries are relieved by cimicifuga. Of value in dysmenorrhea and amenorrhea. It will relieve after-pains, false pains

during labor and unpleasant sensation in the uterus of pregnant women. In uterine diseases with tensive aching pains and a sense of contraction in absence of inflammation it is the remedy. Of value in the muttering delirium of pneumonia or typhoid fever, especially in the latter. In rheumatic heart troubles, roaring in the ears, the result of rheumatic conditions, it is of value. Generally we associate it with aconite or veratrum viride. Cimicifuga is an excellent remedy in muscular rheumatism in any part of the body.

Cinnamomum Zeylanicum:

Syn.—Cinnamon.
P. E.—Inner bark.
N. O.—Lauraceae.
N. H.—Ceylon.

Properties: Astringent, stimulant.

Use: One of our best remedies to control post partum hemorrhages. In flooding during miscarriage, in menorrhagia, and, in fact, in all forms of passive hemorrhages it is a fine remedy. May be combined with hamamelis or erigeron or both to advantage. This will control most passive hemorrhages better than other combinations. Of value in epistaxis. It works best in the parturient state where there is a condition of atony and a general relaxed condition of the uterus. In hematuria and pulmonary hemorrhage it is of great value. It sometimes irritates the stomach and is contra-indicated in inflammation of the gastro-intestinal tract.

Cocaine Hydrochlorate:

Cocaine is an alkaloid of erythroxylon coca and cocaine hydrochlorate is produced by the action of hydrochloric acid on cocaine. It is soluble in alcohol, ether and water, has a bitter taste, no odor, is of a white color and is in form of crystals. It is mostly used hypodermically; the strength varies from 2% to 4% solution, according to conditions and susceptibility of the patient.

Physiological action: Used internally it acts as a stimulant to the brain, in medicinal doses, and causes a feeling of strength and endurance and even exhilaration. After this effect is worn off, depression and general lassitude follow. In toxic doses the pulse, which may be strong and rapid, will become rapid, small and intermittent; respiration becomes

slow and shallow with a feeling of tightness around the chest, cold and clammy skin, dilated pupils: a feeling as if death was near; inco-ordination of muscles, hallucinations, delirium and death resulting from paralysis of the sensory spinal, respiratory and cardiac motor ganglia. Locally as an anesthetic it paralyses the terminal nerves, and, by conveying this paralyzing action to the nerve centers, we can readily see why at times it becomes a source of danger, especially if near the brain centers. When injected it produces an anemia followed by coldness and finally by loss of sensation. It has little effect on the skin if unbroken; but is very easily absorbed by the mucous membrane. As a local anesthetic in minor operations, ophthalmic practice and ear and nose practice it is extensively used and with success; but its effect should be carefully watched as some persons are very susceptible to its influence. Surgical wounds will not heal so well where cocaine has been used, and for that reason it is objectionable in many cases.

Use: As stated before, it is quite extensively used as a local anesthetic in minor operations. In epistaxis a 1% solution sprayed into the nose will often promptly stop the bleeding. No matter in what form and how it is used its action should always be very carefully watched, and, if any symptoms of poisoning appear, it should be discontinued at once and if necessary its effects counteracted. It should not be used internally unless positively necessary; nor be used any length of time hypodermically to avoid the danger of forming the cocaine habit. Solutions made of cocaine will not keep, but a grain or two of boracic acid added to 1/2 ounce of a 1 to 4% solution will preserve it for some time. Of late cocaine has been injected into the spine in the lumbar region in major operation of the legs and even of the pelvic organs. This needs further investigation.

Colchicum Autumnale:

Syn.—Colchicum; Meadow saffron.
P. E.—Bulbs and seeds.
N. O.—Liliaceae.
N. H.—Europe.

Properties: Cathartic; sedative. In large doses powerful irritant poison.

Physiological action: In very large doses it will cause severe irritation and even inflammation of the gastrointestinal tract, followed by severe griping, vomiting, purging, spasms of the muscles, general collapse, and, in extreme cases, delirium, coma and even death. In large but less

toxic doses it will cause irritation of the gastrointestinal tract, appetite becomes impaired, vomiting, pain in the abdomen of a colicky nature, with diarrhea of a mucous and even bloody nature. In moderate doses where there is a cathartic effect it is very depressing to the heart and general circulation, and for that reason should never be given in so large doses as to produce this effect.

Use: In chronic rheumatism and gout. It should never be given in doses to produce its cathartic effect, as it is too irritating, nor should it be continued any length of time on account of its depressing effect on the heart and nervous system. In rheumatic carditis or pericarditis in the sthenic stage it has proved to be superior to other remedies in. many cases.

Collinsonia Canadensis:

Syn.—Collinsonia; Stone root.
P. E.—Whole root.
N. O.—Labiateae.
N. H.—North America.

Properties: Tonic, stimulant, carminative, alterative, diuretic, diaphoretic and astringent.

Indications: Sense of constriction, pain and constriction with irritation in throat, larynx, bladder and anus; a feeling as if a foreign body was lodged in the part. Pain in the rectum and lower bowels.

Use: Has a special influence on the nervous system and mucous membranes, removing congestion and improving circulation of the capillaries. This influence is most marked in relaxed conditions of the mucous membranes of the throat and lower bowels. A valuable remedy in sore throat, laryngitis, pharyngitis, with relaxed and enfeebled capillary circulation. May be combined to advantage with other indicated remedies in atonic dyspepsia, catarrhal gastritis with defective circulation and irritable condition of the heart from weakness. In hemorrhoids, when indicated, it is our best remedy. In these cases it should be used in small doses. Scudder recommends it in nurse's sore mouth, and no doubt it is effective in such cases where there is relaxed condition with impaired capillary circulation in the parts. It is generally given in doses of 4 to 6 drops, with the exception of hemorrhoids, where $^1/_2$ to 1 drop doses are more effective than the larger doses.

Colocynthis:

Syn.—Citrullus colocynthis.
P. E.—Dried fruit without seeds.
N. O.—Cucurbitaceae.
N. H.—Asia.

Properties: Drastic hydragogue cathartic; in large doses a powerful irritant.

Physiological action: In very large doses it causes vomiting, diarrhea with bloody stool, colicky pain, sometimes even spasms and death.

Indications: Spasmodic cutting pain in the stomach and bowels. Intestinal colic. Infantile colic where child draws up the legs and cries, otherwise appearing to be well. Colic that is relieved by bending forward or by pressure and where there are more of nervous phenomena than inflammation.

Use: We think of it in infantile colic, neuralgic colic, and flatulent colic. In large doses it is a powerful depressant and drastic cathartic; therefore it is contra-indicated in inflammatory and feeble condition. In dyspepsia or colic, where the pain is near and above the umbilicus, of a sickening nature, intense and vibrating, extending to the spinal column,, it is a good remedy. A valuable remedy in gastric pain, especially if combined with nux vomica in absence of irritation or inflammation of the gastro-intestinal tract. Colocynth should always be given in small doses. (See colocynthis in part II.)

Convallaria Majalis:

Syn.—Convallaria; Lily of the Valley.
P. E.—Whole plant.
N. O.—Liliaceae.
N. H.—Europe, Asia, America.

Properties: Cardiac tonic, diuretic.

Indications: In organic weakness of the heart with valvular insufficiency, especially if accompanied by dropsy. A valuable remedy for dropsical infiltration anywhere if due to heart inefficiency.

Use: As it is not a poisonous remedy and has no cumulative action it is a

valuable and safe remedy to use if not contra-indicated. It strengthens the heart's action, slows a rapid and feeble pulse, improves tone and power of the heart and improves the whole capillary circulation. Its influence is permanent. It is more of a tonic than cactus. In dropsy where there is sluggish circulation and diminished blood pressure it may be given in large doses in a cup of hot water. In Bright's disease, general depression, depressing effect of protracted fevers or inflammation. In rheumatism of the heart, rheumatic carditis or pericarditis. In mitral insufficiency and constriction, dilatation of the heart, chronic asthma, result of enfeebled heart, tobacco and bicycle heart. Although the physiological action of convallaria is not fully understood a fact remains that it will produce irritation in large doses, in which cases it will cause restlessness, tremor, stupor, dilated pupils, subnormal temperature, rapid and irregular pulse, flushed face, shallow respiration and even convulsions.

Cornus Florida:

Syn.—Cornus; Dogwood.
P. E.—The bark of the root.
N. O.—Cornaceae.
N. H.—United States.

Properties: Tonic, antispasmodic, slightly astringent.

Use: It is a tonic and antiperiodic and of special value in chronic malaria with weak pulse, depressed temperature, relaxed and feeble tissues and general exhaustion, in which cases it should be combined with other indicated remedies. It tones up the system, counteracts the malarial poison, improves digestion and appetite.

Corydalis Formosa:

Syn.—Corydalis; Turkey corn.
P. E.—Root.
N. O.—Fumariaceae.
N. H.—United States.

Properties: Tonic, alterative, antisyphilitic, mildly diuretic.

Use: An alterative of great value where indicated. Increases the vitality and influences metabolism. Especially indicated in all glandular derangement with general depraved condition of the system, where the nutritive forces are impaired. It increases waste and improves nutrition.

More especially indicated in above conditions where there is an enlarged abdomen, the result of atony, or where there is a persistently coated tongue and fetid breath. In diarrhea and dysentery where tongue is coated, breath fetid and digestion poor, it is a good remedy. In amenorrhea, dysmenorrhea and leucorrhea where there is a relaxed condition of the uterine supports it is a valuable adjunct to other indicated remedies. In eczema and other skin diseases with relaxed conditions it is curative. It is an antisyphilitic and can be used in all stages of syphilis, strumous conditions, nodular swelling, enlarged glands, with good results.

Crataegus Oxyacantha:

Syn.—-Crataegus; Hawthorn.
P. E.—Fruit.
N. O.—Rosaceae.
N. H.—North America, Europe.

Properties: Heart tonic and restorative.

Use: This is a superior remedy in various heart troubles, it not only relieves, as many other remedies do, but often proves curative as well. Being a good heart tonic and restorative it improves circulation and consequently favors better oxygenation of the blood. We think of it in hypertrophy, valvular insufficiency, praecordial oppression, tachycardia, neuralgia of the heart, cardiac dropsy, or dropsy the result of weak heart's action; vertigo, apoplexy, angina pectoris, pericarditis and myocarditis. Of value in Bright's disease and diabetes. It appears to have solvent and absorbent power, and has been found to be of value on that account in atheroma, sclerosis of the arteries And also in calcareous and other similar deposits in the arteries. This drug needs further investigation. Crataegus oxyacantha has often given good results where other heart remedies have failed. If it should cause nausea or fullness in the head the dose should be reduced. A valuable heart tonic.

Cucurbita Citrullus:

Syn.—Watermelon.
P. E.—Seeds.
N. O.—Cucurbitaceae.
N. H.—Cultivated in most all countries.

Properties: Diuretic.

Use: The fluid extract or an infusion of the seeds may be used. A remedy used for infants to a great extent where urination is painful and scanty. Useful in irritation and inflammation of the bladder. Relieves irritation, heat and burning during urination, giving a cooling sensation as well as relieving pain in the region of the kidneys from irritation. A soothing remedy in pains in the back from irritation of passing urates and phosphates. Fluid extract may be given diluted in $^1/_2$ to 1 drachm doses but infusion is preferable.

Cypripedium Pubescens:

Syn.—Cypripedium; Yellow Lady's Slipper.
P. E.—Root.
N. O.—Orchidaceae.
N. H.—North America.

Properties: Tonic; stimulant; antispasmodic; slightly diaphoretic.

Use: A mild stimulant to the nervous system, useful in nervousness caused by functional derangement. If the nervous condition depends on disorders of the reproductive organs, especially of females, it will relieve the restlessness, excitability, mental depression, pain and sleeplessness. May be used to advantage in children in teething when there is determination of blood to the brain. In sinking spells in fevers, nervousness and pain associated with neuralgia, irritation from atony, nervousness from mental over-exertion, in threatened convulsions of children, hypochondriasis, nervousness and depression from gastro-intestinal irritation. As it acts very mildly and in functional disorders only, and its effects are temporary, we must give it in large doses of say from 5 to 30 drops as a dose.

Digitalis Purpurea:

Syn.—Digitalis; Foxglove.
P. E.—Leaves of second year's growth.
N. O.—Scrophulariaceae.
N. H.—Europe.

Properties: Cardiac tonic, indirectly diuretic.

Physiological action: In large doses digitalis is an irritant to mucous

membrane, therefore will cause gastrointestinal disturbances, sneezing, nausea, increased action of the kidneys, sometimes even vomiting. In toxic doses the above symptoms are much more pronounced, there is purging, with green colored feces, violent vomiting, heart's action becomes irregular, vertigo, impaired vision, cold sweats, respiration becomes rapid and feeble, pulse irregular, great debility, coma, convulsions, and death follows from paralysis of the heart. It is a heart tonic and vascular stimulant. In small doses a heart stimulant, while in large doses it is a very powerful sedative. It gives the heart a rest by prolonging the diastole; thus permitting the vessels to become filled to their fullest capacity. In medium doses it slows the heart's action and increases its force. It stimulates the cardiac inhibitory apparatus, the cardiac motor ganglia and vaso-motor centers; thus contracting the arterioles and increases arterial tension. If too large doses are taken, or too frequent, it will result in overstimulation and finally paralysis; the heart's action being arrested in systole.

Use: As digitalis is a direct heart stimulant it is indicated in marked asthenic conditions; in prostration, surgical shock, in crisis of extremely exhausting diseases given with stimulants it generally acts promptly. It sustains the heart's action; but does not give tone to it, therefore it should be followed as soon as possible by other indicated agents. In asthenic fevers it will slow a rapid and feeble pulse; in prolonged fevers where temperature remains high and there is rapid, feeble and easily compressed pulse or irregular heart's action; all showing a failure of the vital forces, it is a valuable remedy. It will reduce the temperature, control pulse and improve the action of the heart. Here other sedatives may increase the trouble and are very often contra-indicated. On account of its cumulative action in the system and its irritating action on the digestive tract it should not be long continued and its effect carefully watched. Its cumulative effect often shows itself by decreased quantity of urine, and when this is noticed it should be discontinued. In emergency after taking large doses the recumbent position should be maintained. Its action is mainly on the inhibitory nerves and on the heart muscles. Although digitalis is used extensively the writer seldom uses it in his practice. We have less dangerous, less irritating and non-cumulative remedies, that give far better results in most cases. In many sthenic conditions where digitalis is used, lycopus virginica answers the purpose much better. However, as an emergency remedy, digitalis has its value.

Dioscorea Villosa:

Syn.—Dioscorea; Wild Yam.
P. E.—The rhizome.
N. O.—Dioscoreaceae.
N. H.—United States.

Properties: Antispasmodic, cholagogue, slightly diaphoretic.

Use: In spasmodic griping pain in stomach and bowels, especially if from malarial cause or from wrongs of the hepatic functions. A specific in bilious colic. We think of it in pain and muscular spasms of the intestines; pain resulting from the passing of gall stones and in spasmodic colic generally. If no relief is obtained in a few hours no results can be expected in spasmodic conditions. It is especially indicated in pains in the gastrointestinal tract that are relieved by bending backward. It is of use in neuralgic dysmenorrhea, ovarian neuralgia, spasmodic pains in cholera morbus, dysentery, cholera infantum and colicky pains in general, being sedative to the muscular structures of the intestinal tract. Can be used to advantage in the tympanitis of typhoid fever. In dysmenorrhea it appears to work best where the irritation of the cervix of the uterus is of a spasmodic nature. For colic and spasmodic griping pain it should be given in doses of even 15 to 20 drops and repeated when necessary, while in ordinary cases to act on the hepatic functions or to correct a tendency to flatulence, 1 or 2 drachms to 4 ounces of water; a teaspoonful after meals and before retiring answer the purpose well. For colic it may be given in hot water to advantage. It is not a powerful remedy, but where indicated is very good.

Drosera Rotundifolia:

Syn.—Drosera; Sundew.
P. E.—Fresh plant.
N. O.—Droseraceae.
N. H.—United States and Europe.

Properties: Antispasmodic, expectorant, tonic.

Indications: Dryness of mucous membrane of the respiratory tract, with irritation of the nervous system. Spasmodic cough of an explosive nature, hoarse cough without secretion.

Use: Relieves coughs of sympathetic origin, nervous coughs. Our best remedy for cough in measles and following measles. Valuable in

whooping cough. In chronic coughs of dry, irritating nature, especially if there is irritation of the central nervous system. Of value in some forms of gastric disorder.

Echinacea Angustifolia:

Syn.—Echinacea; Black Sampson; Cone Flower.
P. E.—Root.
N. O.—Compositae.
N. H.—In the Western states, U. S. A.

Properties: Alterative., antiseptic; anti-syphilitic.

Use: The remedy in all depraved conditions of the blood. Has an alterative and restorative effect on the tissues, hastens retrograde metamorphosis and has marked antiseptic properties; therefore its range of usefulness in both acute and chronic affections is large. We think of it in scrofula, syphilis, typhoid fever, puerperal fever, diphtheria, uremic poisons, appendicitis, cholera infantum, cholera morbus, diarrhea, cerebral spinal meningitis, carbuncles, septic fevers, boils, tonsillitis, smallpox, measles, pneumonia, and, in fact, all septic and depraved conditions of the blood it is the remedy, and should be given in good sized doses either alone or with other indicated remedies. In ulcers, ulcerated sore throat, catarrh, nasal catarrh, inflammation of the male and female urethra, and of the vagina, in eczema, erysipelas, rhus tox poisoning, use it internally and locally. In poisonous bites of rattlesnakes, tarantulas, wasps, etc., give in $^1/_4$ to $^1/_2$ teaspoonful doses every $^1/_4$ to $^1/_2$ hour, until relieved; then in smaller doses and at longer intervals; it should also be applied to the sore pure or in 25 to 50% solution according to the severity of the case. In hemorrhoids it may be injected in the tumor, 15 to 20 drops, repeated if necessary. Of value in gonorrhea. Has been recommended in hydrophobia. In skin diseases of systemic origin echinacea should not be forgotten, both locally and internally. In ulcers, sores, boils, etc., where it fails to cure, the cause will be found to be a deficiency of the lime salts, such as calcium phos 2X, calcium sulph. 1x, or in some cases silica 3x, and if such is the case these elements should be supplied and the trouble will be corrected. As echinacea has a tendency to correct abnormalities and exerts this same influence on the temperature of the body, it is a valuable remedy in both sthenic and asthenic conditions and may be associated or alternated in these cases with other indicated remedies. Used with some of our special sedatives it will to some degree counteract their depressing

effect. As a wet surgical dressing it has no equal. The average dose of echinacea is from 5 to 10 drops 3 to 4 times a day; but in severe cases and poisoning of the blood by poisonous bites, etc., it must be used in much larger doses and at short intervals. Locally use pure or in 25 to 50% solution. In constitutional syphilis it is a great remedy if associated with other alteratives such as berberis aquifolium or iris versicolor. In septic conditions from abortion or in puerperal septicemia it is the best remedy we have.

Epigaea Repens:

Syn.—Epigaea; Trailing Arbutus.
P. E.—Leaves.
N. O.—Ericaceae.
N. H.—United States.

Properties: Astringent, diuretic.

Use: A good remedy in cases where there is an excess of uric acid. In extreme and nauseating backache, result of the crystalline constituents of the urine not being properly dissolved and washed out of the tubules. We think of it when the urine is heavy and dark, brick dust sediment, irritation and congestion of the kidneys, renal sand and gravel in bladder. In hemorrhage or cystitis, result of irritation of the solids in the bladder it is an excellent remedy. Must be drunk freely, preferably well diluted in hot water. Infusion is a good form to take it in; but the tincture may be given in 5 to 10 drop doses in $^1/_2$ a cup of hot water. May also be taken in cold water when desirable.

Erigeron Canadensis:

Syn.—Fleabane; Erigeron.
P. E.—Herb.
N. O.—Compositae.
N. H.—United States and Canada.

Properties: Astringent, slightly diuretic and tonic.

Use. Erigeron is an astringent; but has also tonic effects on the muscles and mucous membrane. It is a useful remedy in hemorrhage from any part of the body, and as it has an astringent effect on the capillary vessels it is of value also in conditions where there is profuse mucous discharge of a chronic nature depending on atony and relaxation. We

think of it in hematemesis, hemoptysis, hematuria, epistaxis, post partum hemorrhage, uterine hemorrhage and hemorrhage of the bowels in typhoid fever. In many cases, especially in uterine hemorrhages it may be combined to advantage with cinnamon. In chronic diarrhea, chronic dysentery, tympanitis, flatulent colic , it may be given where there is a condition of atony and relaxation; in these cases it should be preceded by a cathartic to empty the bowels. It is especially valuable in all passive hemorrhages in absence of marked general irritation and fever.

Dose of the oil in hemorrhages is from 5 to 10 drops, repeated every $^1/_2$ to 1 hour as long as necessary. Average dose of oil otherwise is 1 to 3 drops 2 or 3 times a day. Dose varies according to condition. In hemorrhage 10 to 40 drops of the tincture diluted may be given and repeated every $^1/_2$ to 1 hour until desired effect is obtained. Average dose otherwise is from 3 to 10 drops 3 or 4 times a day.

Eriodictyon Glutinosum:

Syn.—Eriodictyon; Yerba Santa; Mountain Balm.
P. E.—Leaves.
N. O.—Hydrophyllaceae.
N. H.—California, U. S. A.

Properties: Tonic, expectorant, astringent, sedative, diaphoretic.

Use: A valuable remedy in diseases of the respiratory organs. One of our best remedies in chronic bronchitis, chronic laryngitis, and chronic gastric catarrh. Under its influence the cough will gradually leave, expectoration becomes less, appetite will improve and health is restored. In paralysis of the bronchial muscles it relieves the congested or thickened epithelium. In aphonia of tubercular nature or from chronic laryngitis it is our best remedy. Our best restorative remedy for the respiratory organs. We also think of it in hemorrhoids, coughs and colds, asthma, pneumonia, and in kidney and Bright's disease. Of value in cystitis and chronic derangement of the kidneys. In tuberculosis of the lungs and asthma it is one of our best remedies. Eriodictyon is valuable in both acute and chronic diseases of the respiratory organs. It should be given in doses Of 2 to 8 drops every 2 to 3 hours; or eriodictyon drachms 2 to 4, syrup or glycerine 4 ounces, a teaspoonful every 2 to 4 hours. Where a stimulating effect is needed good rock and rye may be used as a menstruum in place of syrup or glycerine, and will often be

found better, especially in tuberculosis of the lungs; or colds where stimulation is indicated.

Eryngium yuccafolium:

Syn.—Eryngium aqauticum; Button Snake Root; Water Eryngo.
P. E.—The rhizome.
N. O.—Umbelliferae.
N. H.—United States.

Properties: Diuretic, diaphoretic, expectorant, in large doses emetic.

Use: Its principal use is in irritability of the urinary organs, indicated by itching and burning of the parts. Of some value in leucorrhea, dysmenorrhea, gonorrhea, gleet and spermatorrhea. In respiratory troubles with excessive secretion it has a tonic effect, and in this way lessens secretion. In some forms of gastro-intestinal irritation with nausea, tenderness, and a red tongue, it is of value. In catarrhal inflammation of the upper air passages, with relaxed condition, it is of value. In influenza it is said to be a good remedy. It is a mild tonic to the reproductive organs and useful in nymphomania and satyriasis. Of much value in urethritis and cystitis.

Ether:

Syn.—Sulphuric ether.

Properties: Anesthetic, stimulant. A colorless liquid containing 96% ethyl oxide and 4% alcohol, with a little water added. Specific gravity 0.725 to .730. Has a sweetish and burning taste and characteristic odor. Soluble in water 10 parts; but mixes well with alcohol, chloroform and oils. It should be used and handled with care, because its vapor if mixed with the air is very explosive. As ether is used externally and for inhalation as an anesthetic it is not necessary to refer to its effects if taken internally. When inhaled ether causes an increase in volume and frequency of pulse. It seems to depress the respiratory centers; but irritates the respiratory tract and in this way may sustain a patient longer than chloroform. At first it excites, face becomes flushed, followed by pallor and unconsciousness. Though safer than chloroform, on account of its slow action, irritation of respiratory tract, stomach and head symptoms, chloroform is most generally used, and in the hands of a careful physician its dangers are not so great. As ether reduces the temperature from a degree to even 3 or 4 degrees, all means should be employed to maintain the bodily heat. No food should be taken for some

hours before ether is used. It should be given slowly and at least 25% air admitted when administered; 1/2 to 1 ounce is generally required to produce the desired effect. When inhaled it produces a burning in the fauces followed by exhilaration and a roaring sound in the head. In the 1st stage they often rage, weep or laugh. In the second stage there is complete loss of consciousness, respiration is irregular and its effect should be most carefully watched. If respiration becomes stentorous there is danger that the respiratory muscles become paralyzed. Shallow and irregular breathing is always dangerous and the ether be discontinued until deeper and more regular respiration is established. Pale and livid appearance of the face will tell you that the heart is failing or that the respiratory centers are becoming paralyzed. Death results from the latter. This is shown to be a fact by the heart continuing to beat for some time after respiration has entirely ceased. It is often given with chloroform with good results. In case of danger, artificial respiration, electricity to the spine, lowering the head, dilating sphincter ani muscle, etc., should be resorted to. Outside of its use as an anesthetic we think of it in obstetrical practice where there is a feeling of fear in the patient, with great nervous excitement. It will relax a rigid os and lessen pain. Ether may be given as an anesthetic in all cases where it is considered safest. It is often given with chloroform. with better satisfaction than either one alone. In general, however, the careful surgeon prefers chloroform.

Eucalyptus Globulus:

Syn.—Eucalyptus; Blue Gum Tree of Tasmania.
P. E.—Leaves from older parts of tree.
N. O.—Myrtaceae.
N. H.—Australia.

Properties: Antimalarial, antispasmodic, tonic, febrifuge, antiseptic.

Physiological action: In very large doses it increases the activity of the kidneys greatly, produces pain in the gastro-intestinal tract, indigestion and at times diarrhea; this is followed by drowsiness, general depression, diminution or loss of power of the lower extremities. Skin becomes pale, cold and sometimes clammy, pupils are contracted, pulse small and feeble, respiration becomes short, interrupted and jerky, and in a few cases death has resulted. Its poisonous effects may be counteracted with belladonna, nux vomica or alcohol.

Use: In malarial conditions it may be given where quinine is contra-indicated. It is not as prompt in its action as the latter, but more permanent in its effects. In low form of fevers, scarlet fever, diphtheria, phthisis pulmonalis, chronic ulceration of the stomach, catarrh in any part of the body, asthma, nephritis, etc., it is of great value if used with other indicated remedies. In ulceration of the cervix of the uterus, catarrh of the uterus and ovaries; the oil should be applied to the cervix 2 to 5 times a week. Castor oil should be used as a menstruum: say 1 part of oil of eucalyptus and 2 parts of castor oil, in this way the medical effects will remain a considerable length of time, which is not possible with any other menstruum. This also serves a good purpose in cancer of the uterus and ovaries as well as the breasts. In influenza, where abdominal symptoms are prominent 2 to 5 drops of eucalyptus oil may be taken before dinner and supper for a few days. This often is very effective. As the oil is not well borne by the stomach and its action on the kidneys too pronounced it should not be given often. For general internal use the specific tincture is to be given only.

Eupatorium Purpureum:

Syn.—Queen of the Meadow; Gravel root; Trumpet weed.
P. E.—Root.
N. O.—Compositae..
N. H.—United States.

Properties: Diuretic, tonic, astringent, antilithic.

Indications: Frequent desire to urinate accompanied with difficulty; pain and a sense of obstruction. Pain in the region of the kidneys extending to bladder and a scanty and high colored urine. Shooting pains in the urethra, tenesmus. constant desire to urinate in pregnant women attended with cough, urine passing at every effort to cough.

Use: Has a specific action on the kidneys. It increases amount of urine and solid constituents; increases the tone and activity of the kidneys and is a valuable remedy in many painful affections of the kidneys and urinary apparatus. We think of it in dropsy, the result of lack of renal activity; in chronic irritation of the bladder, irritation of the bladder during pregnancy; urinary calculi and albuminuria. In the last it is one of our best remedies.

Euphrasia Officinalis:

Syn.—Euphrasia; Eyebright.
P. E.—The herb.
N. O.—Scrophulariaceae.
N. H.—North America, Europe.

Properties: Astringent, tonic.

Use: This remedy is useful where there is an irritation of the mucous membrane of the upper respiratory tract, when accompanied by a thin, watery discharge. Profuse secretion of a watery nature from the nose and eyes. We, therefore, think of it in acute catarrhal inflammation of the mucous membrane of the tipper respiratory tract with above indications, in acute coryza, coryza of measles. In snuffles of infants 5 to 10 drops in 4 ounces of water, a teaspoonful given every $^1/_2$ to 2 hours will soon give relief. It has a marked action on inflammatory conditions of the lacrimal apparatus. Therefore of value in acute inflammation of the eyes; whether catarrhal or rheumatic, and in sore eyes from measles.

Felix Mas:

Syn.—Aspidium Felix Mas; Male Fern.
P. E.—Plant.
N. O.—Filices.
N. H.—Europe and America.

Properties: Astringent, anthelmintic, tonic.

Use: To remove tape worms. Being a powerful irritant to the gastro-intestinal tract it is contra-indicated in irritation or inflammation of this tract. It should be given in doses Of 30 to 60 drops of the fluid extract 1/2 hour before breakfast and before retiring, in a little sugar water or thin syrup. This to be continued for a few days or even longer. The diet should be light. Follow by a vegetable or saline laxative. No oils should be used as they favor the absorption of the poisonous elements of the drug.

Ferrum:

Syn.—Iron, metallic iron.

Taken internally it increases the ability of the red blood corpuscles to

carry oxygen. Oxygen absorbed produces ozone; thus iron proves to be a nutriment to the red blood corpuscles. It is absorbed slowly and only in very small quantities, and for that reason should only be given in small doses, when it is easily absorbed and far less irritating. In large doses it will color feces black. If continued for some time in large doses it causes gastric irritation. If it should cause constipation on account of its astringent qualities a mild laxative should be given with it. People with the mental or motive temperament will require iron more than those with a vital temperament. Iron is not eliminated very speedily from the system if given in small doses, but retained. In anemia, chlorosis or any condition where the red blood corpuscles are deficient in hemoglobin iron is indicated. It is generally well to give with other indicated tonics, In plethora and inflammatory conditions iron is contra-indicated. As different conditions will require iron in different forms the various preparations that are mostly used and most easily assimilated will be given with their indications and use. Anything containing tannic acid should be avoided when iron is taken. As tea and coffee contain tannic acid they should not be taken with iron. If they are used at meals the iron should be given at least an hour or more after meals to give time enough for the absorption of tannic acid they contain, especially tea. Otherwise the tannic acid will combine with the iron and form insoluble tannate of iron. Iron is a normal constituent of the blood. By its molecular activity in the stomach through its oxidation it sets free hydrogen. The salts in small doses are converted into chlorides in the stomach, and into alkaline albuminates in the duodenum. In large doses the chlorides, iodides, nitrates and sulphates are poisonous and powerful astringents. The persalts in large doses are powerful irritants. Locally many irons are good astringents and hemostatics.

Acid Solution of Iron (Howe's):

Indications: Pallid mucous membrane, debility and general weakness, anemia, alternate pale and flushed skin, poor digestion. As it does not disturb digestion, but, on the contrary, improves digestion, it is our best form of iron when not contra-indicated. In anemia we use it with the happiest results. A valuable tonic in constitutional syphilis if alternated with other antisyphilitic remedies. It may be given 2 to 3 drops in a little water; or in orange syrup: Howe's acid sol. of iron 1 drachm; syrup of orange 4 ounces. Sig: 1 teaspoonful in a little water before meals.

Ferri Acetas:

Indications: We think of it in conditions where there is pallor, blueness of tongue, aversion to motion in anemia. In malarial cachexia with above indications it is of value. Should not be given to patients troubled with gastric catarrh.

Ferri Carbonas:

Syn.—Carbonate of iron.

Use: A non-irritating, tasteless preparation of iron having great restorative power in debilitated conditions. Its action on the stomach is stimulating and the least astringent of iron preparations. It will improve digestion. May be given with quinine if the latter is indicated. In atonic conditions it may be combined to advantage with nux vomica, xanthoxylum, hydrastis or corydalis, using such as are indicated. Of value in some forms of pustular eruption of the skin, crops of boils if not the result of deficiency of the lime salts, silica or sulphur, or taint in the blood. We think of it in chorea, anemia, amenorrhea due to anemia, and in any condition where a mild non-irritating iron tonic is indicated. Dose for adults is about $^1/_2$ to 2 grains 3 or 4 times a day.

Ferri Ferrocyanidum:

Syn.—Prussian blue; Ferrocyanide of iron.

Properties: Tonic and antiperiodic.

Use: In pernicious intermittent malaria and neuralgia. In malarial conditions it is usually given with quinine, sometimes it is of benefit to add capsicum.

Ferrum Reductum:

Syn.—Iron by hydrogen, Quevenne's iron; Reduced iron.

Use: This form of iron has a gray color and if lighted with a match should take fire and burn with a red glow. If it will not completely ignite it is of no value. Insoluble in water or alcohol. Being finely divided it is a nonirritating, pure iron tonic and may be given with confidence to children where other preparations of iron may be objectionable. Its astringent effect is hardly worth mentioning, being so slight. Dose for adult is about 1 to 3 grains during meals.

Formaldehyde:

Properties: Germicide, disinfectant, antiseptic.

Use: The 40% liquid solution is the commercial formaldehyde used in medicine; also known by the name of formalin or formal. A gaseous body produced from methyl alcohol by oxidation. It is a light green, almost white, volatile liquid. Formaldehyde gas which is generated by special apparatus made for the purpose, is our best disinfectant. It is far superior to sulphur, not discoloring or destroying the finest fabrics, books, paintings or woodwork. It will not cause iron or steel to rust, nor copper, nickel or bronze to tarnish; therefore it is a good sterilizer for surgical instruments. With a proper generator such as can be bought in the market, the gas is the best form for disinfecting rooms. This can be done by passing the gas through a tube through the keyhole, and after sufficient has entered the room, it should be kept closed for some time. No person should be in the room at the time of disinfecting nor some time after, as the gas is dangerous to animal life. It is claimed that it will cause fleas, mosquitoes, moths, etc., to die or depart if possible. Its germicidal properties are equally effective whether in form of liquid or gas. The 40% liquid solution is too irritating to the tissues of the body ; but well diluted it is one of our very best antiseptics. Its power to effect chemical changes in albuminous or nitrogenous matter makes it a valuable surface disinfectant and far superior to other germicidals. As it combines readily with hydrogen sulphide and the volatile compounds of ammonia it is a valuable deodorizer; will also remove the odors of decomposing animal and vegetable matter. A 4% solution of the 40% liquid solution is a very good application in gonorrhea of the female; to be used as a swab on cotton. It destroys the gonococci and restores the parts to health. Diluted according to the requirements of the case; it is used with success in diphtheria, whooping cough, open and infected wounds, ulcers, etc. In fact it is a valuable wash and dressing. In chancroid apply 40% solution full strength and it will heal promptly. In severe cases of diphtheria full strength may be applied to the membrane. The following liquid solution of the commercial formaldehyde as used in medicine may serve as a guide to its use: 1:2500 destroys micro organism in 1 hour: 1:500 useful as a mouth wash, to irrigate, clean catheters, etc.; 1:250 useful as a spray in sick rooms, as a deodorant, for cleaning hands, instruments, etc.; 1:100 may be used in skin diseases; 1:50 will sterilize catgut, silk, etc., but a weaker solution may be used, in which case they must remain longer. Infected

wounds, carbuncles, etc., a .2% solution is useful. A 1% solution may be inhaled or used as a spray in whooping cough and hay fevers. In suppuration a 25% solution is the best proportion. In packing and drainage of sinuses, pus cavities, abscesses, etc., it is superior to any other antiseptic. It answers the purpose of iodoform and is a thousand times better; does not poison the system and certainly the odor is by far more to be preferred than that of iodoform, which should be entirely dispensed with in surgery. The solutions recommended are as a rule by far too strong. A 4% solution answering in most all cases of antiseptic surgery, drainage, packing, etc. If too strong it will harden tissue and this is to be avoided unless undesirable or dead tissue is to be removed. Moist inhalations are of great value in tuberculosis of the lungs. Applied to corns, after hard epidermis is removed by salicylic acid and warm foot baths, it will dry them up. It may be applied to cancers to great advantage, serving both as a deodorizer, destroyer of cancer cells and general antiseptic. Should be applied under oiled silk. As uterine or vaginal douches the 4% solution or milder is very good treatment in inflammation of these parts and in septic conditions. Formaldehyde should not be mixed with glycerine as it impairs its value and is less harmless as a disinfectant. In this combination if used to fumigate it will injure fabric which it otherwise will not do. Where the physician is unable to have a generator for fumigation or disinfecting, formalin lamps can be used; these are reasonable in price and answer the purpose well. The fluid diluted is a good disinfectant but not as powerful or penetrating as the gas produced by generators.

Gelsemium Sempervirens:

Syn.—Gelsemium; Yellow Jasmine.
P. E.—Green root.
N. O.—Loganiaceae.
N. H.—Southern States, U. S. A.

Properties: Sedative, febrifuge, antispasmodic, narcotic.

Physiological action: In large doses it causes drooping of the eyelids; this is the first manifestation of its physiological action, being caused by paralysis of the levator palpaebrae superioris. This is followed by vertigo, staggering gait, double vision, drooping of the lower jaw, dilated pupils; heart's action becomes feeble, temperature lowered, breathing difficult, pulse weak and intermittent and death results from paralysis of the respiratory muscles and those of the diaphragm; consciousness remaining until carbon dioxide narcosis sets in. Its influence seems to be

on the base of the brain, spinal cord and the splanchnic nerves. In large doses it paralyzes both motor and sensory nerves; the effect on the latter appearing later. Relaxes sphincters by inhibiting the nerve force of the visceral organs. In medicinal doses it prevents the determination of blood to the head and brain. For this reason it is indicated where there is flushed face, contracted pupils, restlessness and exalted nerve force. Gelsemium is a vaso-motor depressant. It is readily eliminated from the system.

Indications: In nervous and arterial tension and exaltation of both motor and sensory functions; indicated by nervous phenomena, such as excitability, flushed face, bright eyes, contracted pupils, rapid, full, vibratile pulse, nervous twitching, showing determination of blood to the brain. It removes high nerve and arterial tension by suppressing excessive activity of the nerve centers.

Use: In fevers it has a direct action on the cerebrospinal centers, slows the heart's action, reduces temperature and quiets respiration; in fact is a relaxant. We think of it in spinal and cerebral inflammation, neuralgia, in reflex and spasmodic coughs and whooping cough. In influenza, hay fever, rhinitis, intercostal neuralgia; otitis media, acute nephritis, spasmodic stricture, dysmenorrhea ovarian neuralgia; in after pains, puerperal fever and convulsions, chorea, spasms and convulsions. Gelsemium acts on the kidneys, is readily eliminated, and must therefore be given often to be effective. Of value in some forms of hysteria. We find it indicated very often where there is sharp pain in the back and loins; also in arterial throbbing in which pulsation is distinct and painful; pain sharp and restless, exalted sensibility. Although the general dose of gelsemium is about x to xxx drops in 4 ounces of water, teaspoonful every 1 to 3 hours, in cases where there is a marked indication for it, and in emergencies we have to use much larger doses. In otitis media to abort rupture of the ear drum, as much as 5 to 10 drops may be given every hour until relieved, then in smaller doses at longer intervals. In this condition it is well to associate bryonia with it and also large doses of echinacea. These remedies may be alternated to advantage with kali mur 3x. In spasms and convulsions as much as 1/4 to 1/2 drachm may be given as a dose to relax; that is, if there are marked indications for the remedy. In all these emergencies the action should be carefully watched so as not to carry it to the danger point. In puerperal fever and convulsions and chorea it may also be given in large doses if indicated. In many inflammatory conditions it is well to combine it with large doses of echinacea, as in this way it will

make its action more effective and less depressing; this will also prevent exudation and if exudation has taken place it favors absorption.

Geranium Maculatum:

Syn.—Geranium; Cranesbill.
P. E.—Rhizome.
N. O.—Geraniaceae.
N. H.—United States and Europe.

Properties: Tonic, astringent, alterative.

Indications: Relaxed enfeebled mucous membrane, without inflammation. Excessive discharge of mucus or blood in above conditions.

Use: In chronic or sub-acute diarrhea, catarrhal gastritis, mild form of passive hemorrhage, hematuria when indicated. In phthisis pulmonalis it will retard symptoms to a marked degree and is of value in night sweats. Dose from 5 to 15 drops every 2 to 4 hours: Should not be given in active inflammation. Nasal polypus injected with tincture will dry up and soon fall off.

Glonoine:

The alcoholic solution of nitro-glycerine is the preparation used in medicine and is termed glonoine or spirit of glonoine. It is made by combining 1 part of nitro-glycerine with 99 parts of alcohol; this is the one per cent solution generally used. It should be handled with care, kept in a cool place and care taken that the alcohol will not evaporate as there is danger of explosion.

Physiological action: A few drops will often cause cerebral engorgement, face becomes very flushed, followed by severe headache. As it is a very powerful brain stimulant in moderate doses, causing cerebral hyperemia, fullness and a feeling of pressure and even pain in the head, it must be used with care. It will also stimulate the heart, produce nausea if a large dose is taken.

Use: In the 1% solution in moderate doses we get the physical effect. Therefore indicated where a powerful brain or heart stimulant is needed as in cerebral anemia that comes on suddenly, anemic headache, sunstroke, neuralgia of the heart, angina pectoris, asthma, post partum

hemorrhages, palpitation of the heart, in fact any condition where there is marked anemic condition of the brain and a heart stimulant is needed temporarily. Small doses act better if it has to be persisted in for some time. In emergencies it is our best remedy if indicated. We also think of it in fainting spells, sluggish heart's action with pale appearance of the patient, skin perhaps cool. If we want its sedative or primary effect small doses of the 3rd to 6th dilution should be used. In these doses it will be found to be indicated where there is flushed appearance, determination of blood to the head and headache resulting from same. The general indications of glonoine in physical doses also apply to nitro-glycerine.

Glycerinum:

Syn.—Glycerine.

Glycerine is a colorless liquid now generally obtained from decomposition of tallow. It is odorless and has a neutral reaction. Abstracts moisture from the air. Specific gravity is 1.25. It will dissolve in water and alcohol and to some extent in chloroform, but not in ether. In density it is about like syrup, has a sweetish taste and it feels oily to the touch. If heated much it will decompose, giving off irritating fumes. Glycerine has remarkable solvent power, dissolving alkalies, vegetable acids and neutral salts. Will dissolve iodine, bromine, tannates, chlorine, tannin and many of their compounds. Heated with strong nitric acid one of our most powerful explosives, “nitro-glycerine” results. Glycerine is a solvent of pepsin, and if taken internally will abstract this digest from the mucous membrane of the stomach. As it antagonizes decomposition it is of some value as an antiseptic although only in a mild degree. When taken internally it produces a feeling of warmth or heat and in large doses may produce irritation and symptoms similar to alcoholic poisoning. Increases the quantity of urine and colors it dark. Glycerine is readily eliminated by the kidneys. On account of its power of abstracting water from tissues it is of great value in all conditions either local or internal where there is a demand for an action of this kind. On this account it is of value in constipation as it will act as a hydragogue cathartic if given internally or per rectum. In congestion of the uterus or in subinvolution of this organ where we wish to draw the watery secretion from the parts it is of value. In some cases of acidity of the stomach it is useful. Locally we think of it in chapped hands and conditions of similar nature.

Gossypium Herbaceum:

Syn.—Gossypium; Cotton.

P. E.—The bark of the fresh root.
N. O.—Malvaceae.
N. H.—United States, Europe.

Properties: Emmenagogue, in large doses a parturient.

Use: As an emmenagogue and parturient. Indicated as an emmenagogue where there is backache, with a sense of dragging in the pelvis; a feeling of fullness and weight in the bladder, accompanied with difficult micturation. In suppression of menses from any cause. In hysteria of females it is of some value. As a parturient it is one of our best remedies, producing firm, regular and strong uterine contraction. In uterine inertia it will increase expulsive power and prevent danger of postpartum hemorrhage. May be successfully combined with cimicifuga and caulophyllum. Also useful to control hemorrhage of cancer and uterine fibroids. No danger of gangrene from it as from ergot. As a parturient it is much safer than ergot, as it brings on regular intermittent contraction, while ergot produces tonic contraction.

Grindelia Robusta:

Syn.—Wild Sun Flower; Yellow Tar Weed; Gum Plant.
P. E.—Leaves and flower.
N. O.—Compositae.
N. H.—Pacific Coast, United States.

Properties: Antispasmodic, expectorant.

Physiological action: It is not very toxic, but in very large doses the following has been observed, viz.: Sensibility is at first diminished then destroyed; the peripheral nerves first affected, then the trunk of the nerves and then the motor centers in the spinal cord. Mobility is affected in the same order, paralysis beginning in the nerve terminals, then motor nerve trunks and finally motor centers of the cord. It stimulates the cardiac inhibitory centers and thus slows the heart's action. Stimulating the vaso-motor centers blood pressure is raised. Respiration is increased in frequency by its stimulating effect on the respiratory centers and terminals of the pneumogastric in the lungs. There is an increase in the secretion of urine. Then in cases that terminate fatally respiration becomes slower, jerky, and death results from arrest of respiration, the heart's action continuing for some time. Cerebral effects are quite pronounced a condition of narcosis ensues of more or less severity according to amount of drug taken. This cerebral, cardiac and

renal action may suggest its use in many conditions. In small doses it constricts. In moderate doses it first causes contraction, then dilatation, while in very large doses it dilates arteries at once. Moderate doses decrease excitability of muscles and the nerves. It is never given in such large doses as to cause marked toxic effects.

Use: In full and frequent doses it is an excellent remedy in asthmatic breathing, producing expectoration, and its continued use in smaller doses will remove the entire train of symptoms. May be combined with other indicated remedies such as lobelia, yerba santa or stramonium to advantage. Its influence on asthmatic breathing is more permanent than any other agent. It is not indicated in spasmodic asthma with complete relief between the attacks. Applied locally and used internally it is a fine remedy in rhus tox poisoning. Locally applied to old, indolent ulcers it gives good results. We also think of it in acute or chronic bronchitis, chronic bronchial cough of spasmodic nature, asthmatic breathing, irregular heart's action if accompanying chronic coughs, pneumonia and chronic coughs, that often follow pneumonia. In vaginitis it is of value if applied locally.

Grindelia Squarrosa:

Syn.—Ague weed.
P. E.—Fresh herb.
N. O.—Compositae.
N. H.—Western States, U. S. A., Mexico.

Properties: Expectorant, antispasmodic, nerve sedative.

Physiological action: In continued physiological doses it will produce an almost unbearable fullness in the head, followed by pain in the left eyeball and later also of the right eyeball. Pain in the knee joint, pain in the whole region of the liver and spleen, which becomes more severe. All are of the nature of acute rheumatism. To move the eyeballs is terribly painful and the pain appears to reflect backwards into the brain. Later interruption of respiration takes place, so that it can sometimes only be carried on by will power. This will show that its influence is on the nervous system in such a manner as to affect the optic nerve first and lastly the par vagum, thus interrupting respiration. The drug, however, is never given in such large doses and therefore is a safe remedy to use; but if it is taken in $^1/_2$ to 1 drachm doses often repeated its physiological effect will be noticed as above.

Indications: A pale, puffy appearance of tissue, pain in the right or left hypochondriac region, enlarged spleen or liver, chills and fever, pain in the eyes, dull pain in the head, determination of the blood to the head, in fact any of these conditions if caused by malarial poison.

Use: It is the remedy for chronic or old cases of malaria, malarial cachexia, splenic hypertrophy, stomach troubles, neuralgia, irritable coughs with nervous erythism, the result of malaria. It must be continued for some time to affect a cure. In sore and painful eyes, pain worse on movement from cold, it is of value. Locally in skin disease it may be used with glycerine.

Hamamelis Virginica:

Syn.—Hamamelis; Witch Hazel.
P. E.—Leaves and bark.
N. O.—Hamamelaceae.
N. H.—United States.

Properties: Soothing, astringent and tonic.

Use. Taken internally it is a positive tonic to the walls of the veins, stimulating and strengthening their muscular coats. We therefore think of it in passive hemorrhages, in venous stasis, varicose conditions of the veins especially in the lower extremities. In venous hemorrhoids, congestion and fullness of the ovaries and testicles, due to venous engorgement. On account of its soothing, healing and astringent qualities we think of it locally in leucorrhea, catarrh of the uterus, burns, scalds, bruises, sore throat with relaxed mucous membrane. In lameness and soreness after labor or from muscular exertion it is of great value if applied to the abdomen hot. In soreness from violent muscular exercise, strains, bruises and exposure to cold it is of value. Also in sore throat locally where there is relaxed condition of mucous membrane and dark blue color, showing venous stasis. In inflammatory rheumatism it is of value if combined or alternated with other indicated remedies. It appears to act as a sedative.

Haplopappus laricifolius:

Syn.—Bigleovia Arborescens, Ericameria laricifolia, Yerba del Pasmo.
P. E.—Herb and root.
N. O.—Compositae

N. H.—California, Mexico.

Use: In cardiac dyspnea, result of nervous condition, it is of value. Has a pronounced influence on the pneumogastric nerve. It has some value as an aphrodisiac. Highly recommended in chorea. This drug needs further investigation.

Helonias Dioica:

Syn.—Chamaelirium dioica, Helonias; Starwort.
P. E.—Root.
N. O.—Liliaceae.
N. H.—United States.

Properties: Tonic, diuretic, in large doses emetic.

Indications: A bearing down sensation throughout the floor of the pelvis; a feeling as if parts were about to fall out, consequently a tendency to hold up or support the extreme lower abdomen and its contents.

Use: In relaxed condition of the reproductive organs, especially of females, improving their functions and nutrition. A good blood maker and tonic to digestive apparatus. In cystic troubles in the male it is a good remedy if indicated. Also acts favorably in liver troubles where there is deficient or perverted action; but its action in this direction is only mild. Helonias is a general tonic to the genito-urinary organs. Valuable in phosphatic diathesis. In albuminuria where the liver is at fault it is highly recommended. Helonias should be associated with such other remedies as are indicated.

Hydrangea Arborescens:

Syn.—Hydrangea; Seven Barks.
P. E.—Root.
N. O.—Saxifragaceae.
N. H.—United States.

Properties: Tonic, diuretic, cathartic.

Indications: Frequent urination, accompanied by a sense of burning and sharp, quick pain in the urethra. Pain from the irritation of passing renal sand. Aching in the back with irritation and partial suppression of urine.

Use: It is a mild but permanent tonic to the mucous structure of the genito-urinary apparatus. Corrects the tendency to formation of calculi. We think of it in lithemia, acute nephritis and irritation of the urinary apparatus, especially of an acute nature. It appears to have a favorable action in preventing the formation of calculi, and if formed relieves the pain when passing. In irritation from presence of uric acid and phosphoric crystals it is of value.

Hydrargyrum:

Syn.—Mercury; Quicksilver.

Mercury is of a silver white color, freezes at -40 degrees Fahrenheit and boils at 680 degrees. It is a liquid metal and forms amalgams with various metals, iron excepted. For extracting gold and silver from ores it is quite extensively used. The backs of mirrors are coated with its amalgam with tin. Mercury is used in medicine in various forms, but the writer does not favor its use. When we take into consideration what harm is done by the frequent administration of mercury in its various forms a word of warning is not out of place. The writer never prescribes it and finds that we have other remedies that act more pleasantly and are less harmful. Calomel is the form of mercury most generally prescribed. To those who insist on using it, will say that if used at all it should only be given in very small doses and in the following conditions only: If the tongue is broad and flabby, with a thick coat, in so-called bilious conditions, it is admissible; but only until this heavy coating is relieved. When the mucous lining of the digestive tract is thickly coated with mucus, preventing proper secretion of the digestive juices it may be used. Calomel is a powerful mucous membrane solvent and we can thus understand why it may be used in above conditions only. It should be associated with other remedies to cause rapid elimination. If given where mucous membrane is thin, sensitive, irritated or inflamed it is very harmful. The abusive use of calomel is the cause of many conditions of the system, among others, salivation, appendicitis, etc. As the reader will come in contact with many of these troubles the physiological action is given below.

Physiological action: Given for a long time it will produce hydrargyrism. Although inert in itself, when combined with the fluids of the body, as oxyalbuminate of mercury it is easily absorbed and enters all parts of the body. In the stomach it is converted into double chloride of sodium and mercury, which is soluble in excess of albumen or sodium chloride

which naturally exists in solution. It is therefore easily absorbed and decomposed, changing into oxyalbuminate of mercury. Its purgative affect is due to irritation of the duodenum, part of it only being absorbed, the rest passing off as sulphide with the feces. It diminishes the red blood corpuscles, is destructive to mucous tissue and will disturb digestion. Through the tissues it enters the blood and will cause softening and destruction of bones, if continued for any length of time. It stimulates the salivary and pancreatic glands and will be found, when taken internally, in all the secretions of the body. In small doses, if taken for some time, it will cause tender and spongy gums, metallic taste, will loosen and destroy teeth and cause bleeding of the gums, increase of flow of saliva which finally results in salivation and destruction of the teeth. The more severe poisoning symptoms are swollen and spongy gums, with bluish margins, loosened and sore teeth, stomatitis, fetid breath, marked salivation, metallic taste in the mouth, loss of appetite, ulceration of the mouth. This continued will result in marked general and nervous disturbance, necrosis of the bones, pustular eruptions, emaciation, pallor, headache, neuralgia, muscular tremors, paresis of the extremities, coma and convulsions. Paralysis agitans, chorea and even locomotor ataxia have resulted from its use. A large or full dose may cause a form of coryza, conjunctivitis, nose bleed and purulent discharge from the nose. Inhaled it will produce the same symptoms as if taken internally. Bichloride of mercury is a violent poison, causing severe gastro-intestinal irritation, vomiting, purging of mucus and blood, inflammation and ulceration of the rectum, collapse and death speedily result, which may be preceded by convulsions. Calomel (subchloride) is less irritating, acts more on the upper intestines. This is decomposed by alkaline secretions of the intestines forming oxide of mercury. If alkaline chlorides are present it is changed into bichloride in small quantity.

Hydrastis Canadensis:

Syn.—Hydrastis; Golden Seal; Yellow Puccoon.
P. E.—Root.
N. O.—Ranunculaceae.
N. H.—United States.

Properties: Tonic, alterative, laxative.

Physiological action: It has stimulating properties, influencing the nervous system, similar to nux vomica. However, its action is much slower but more permanent in its results. In very large doses it may

cause anesthesia of the skin, showing its powerful action on the peripheral nerves and circulation. Convulsions have been known to result from excessively large doses.

Use: Its influence is on the nervous system and it is indicated in general relaxed condition of the system and mucous membrane. Therefore of value in chronic or subacute catarrhal conditions of the mucous membranes when they are relaxed, showing atony. However, its widest range is in functional disorders of the stomach. Atonic conditions of the digestive organs, catarrhal gastritis, atonic dyspepsia, hepatic congestion, catarrh of the gall ducts, prostrating night sweats. In uterine subinvolution which has menorrhagia or metrorrhagia as a result. In ulcers of the stomach it is a valuable remedy. Hydrastis stimulates the removal of excess of intra-uterine fibrous growths and is therefore of use in fibrous tumors. Of value in cancers locally and internally. In gonorrheal leucorrhea it is a good local remedy used in a douche. It stimulates circulation, respiration, imparts tone to the muscular structure of the heart and increases arterial tension. Increases capillary blood pressure, increases peristalsis and gives tone to the gastro-intestinal tract.

Hyoscyamus Niger:

Syn.—Hyoscyamus; Henbane.
P. E.—Leaves and seeds.
N. O.—Solanaceae.
N. H.—Europe, Asia.

Properties: Anodyne, antispasmodic.

Physiological action: In large doses it causes dry throat, dilated pupils, vision becomes impaired, headache, thirst, nausea and vomiting, hallucinations, weakness of lower extremities, spasms, rapid and intermittent pulse, cramps, paralysis, delirium and even death, resulting from paralysis of respiration. Hyoscyamus is a calmative, hypnotic and narcotic. Relieves pain and promotes sleep. It is not irritating nor does it suppress secretion. May often be used when opium is contraindicated. In small doses it is a mild nerve stimulant, its action however being transient. If used continuously for some time it will cause a dry, red rash which is very annoying on account of its itching. In cases that have recovered from toxic doses it is sometimes found to leave a bloody diarrhea, showing that in large doses it acts as an irritant to the gastro-intestinal tract. The delirium of hyoscyamus is not furious

and is accompanied with sleeplessness. It excites cerebral activity while the spinal functions are depressed. It stimulates the vaso-motor and cardiac acceleratory apparatus and has a soothing influence on the urinary passages.

Indications: Nervousness, restlessness, irritability, flushed face, dilated pupils, delirium, violent mania, hallucinations; dry cough, worse at night and relieved by sitting up.

Use: It allays irritation of the cerebro-spinal, and to some degree of the sympathetic nervous system. We think of it in excitable mental conditions where it will subdue the excitement and promote sleep. In insomnia from exhaustion and debility. In chronic dementia with destructive tendencies, hallucination, talkativeness, tendency to vulgarity. In violent delirium of fevers and inflammation where patients sing and talk almost continually. In children it has proved a valuable hypnotic in small doses, not suppressing secretion as opium or morphine do. In irritation of the bladder and urethra, in gonorrhea and vesical tenesmus. Added to purgatives it will greatly modify griping.

Ignatia Amara:

Syn.—Bean of St. Ignatius; Strychnos Ignatii.
P. E.—Seeds.
N. O.—Loganiaceae.
N. H.—India, Philippine Islands.

Properties: Tonic and stimulant to vascular and nervous system.

Physiological action: As the most active principle of this drug is strychnine its physiological action is similar to nux vomica and, therefore, the reader is referred to physiological action of nux vomica for ignatia amara.

Indications: In hysteria, dragging pains in the pelvis, colicky uterine pains, burning in soles of feet, sexual apathy, dysmenorrhea and amenorrhea, continued coldness of legs and feet in women during the change of life. Chorea, the result of fright; twitching of the eyelids, headache, gloomy forebodings or sleeplessness, the result of general nervous weakness. In some cases of nervous debility.

Use: Although ignatia amara is prescribed in similar conditions to nux vomica it appears to be better adapted to females. It is not as powerful

as nux vomica but should be used with the same care. Although one indication for this drug is twitching of the eyelids, it must be understood that it is only in such conditions where stimulation is in place; furthermore if this drug is taken and produces twitching of the eyelids is should be discontinued as that is one of its physiological effects. This also applies to nux vomica. Ignatia amara has a direct action on the spine and to a less degree on the cerebrum. Is of special value in hysterical women, with general nervous weakness and depression brought on by long continued uterine disorders. A good remedy in nervous dyspepsia. Best results are obtained by using small doses.

Inula Helenium:

Syn.—Inula; Elecampane.
P. E.—Fresh root.
N. O.—Compositae.
N. H.—America and Europe.

Properties: Tonic, expectorant, diaphoretic, mild stimulant.

Use: In irritation of the pulmonary membranes. Its main action is on the large air passages, the trachea and bronchi. Lower down it is of little value. We think of it in the cough of influenza, chronic bronchitis, teasing coughs, profuse catarrhal secretions, bronchitis, night sweats, catarrhal discharge of the uterus, vagina and bladder, in fact in a general atonic condition of the viscera. It imparts tone to the urinary tract, stomach, intestines and respiratory tract.

Iris Versicolor:

Syn.—Iris; Blue Flag.
P. E.—Root.
N. O.—Iridaceae.
N. H.—North America.

Properties: In small doses alterative; in medium doses antisyphilitic; in large doses cathartic, emetic.

Indications: Of use in malarial jaundice where there are clay colored stools, scanty urine. In irritable condition of the digestive tract, manifesting itself by neuralgic pains over the eye, generally of the right side; often pain in the face of same side; nausea and vomiting of acid liquid with burning sensation in the throat and stomach; regurgitation of food, especially after eating fats or very rich pastry. Diarrhea with

sour, watery discharge. In most cases it should be associated with other indicated remedies.

Use: In chronic jaundice from catarrhal conditions of the duodenum or obstruction of the bile ducts. In syphilis and strumous conditions where there is glandular inactivity it is a fine remedy. In glandular enlargements, enlargements of the lymphatics of a soft nature, especially of the thyroid it is used with success. Of value in recent cases of goitre. In skin diseases of chronic nature, oozing ulcers, it is of great value, especially if combined with other indicated remedies; also in sick headaches caused by morbid accumulations in the stomach. It stimulates the whole glandular system, lymphatics and skin to action, and especially the pancreas and salivary glands and-the upper intestinal tract and liver.

Juglans Cinerea:

Syn.—Juglans; Butternut.
P. E.—Inner bark of the root.
N. O.—Juglandaceae.
N. H.—United States.

Properties: Mild intestinal stimulant and laxative. In large doses cathartic and emetic.

Use: In skin diseases it is a fine remedy, provided the lesion results from or is associated with digestive disorders or wrong of assimilation. It stimulates waste and improves nutrition. In small doses it is of value in dysentery and bilious diarrhea with irritation and tendency to inflammation. In medium doses it is a valuable remedy in chronic constipation if stool is clay colored and dry from lack of bile and glandular secretion. In bowel complaints of children it is useful, having a tendency to correct abnormal conditions, and for that reason is useful in constipation and early stages of diarrhea.

Leptandra Virginica:

Syn.—Veronicastrum virginicum, Leptandra; Culver's Root; Veronica Virginica.
P. E.—Small roots.
N. O.—Scrophulariaceae.
N. H.—United States and Canada.

Properties: Tonic, laxative, cathartic and cholagogue.

Indications: Malaise, soreness on pressure and fullness in the region of the liver. Inactivity of the gastrointestinal organs, torpid liver, constipation, dull headache, loss of appetite, cold skin and extremities, mental depression and great lassitude. All of which indicate deficiency in the action of the liver and gastro-intestinal tract. It tones up these organs and improves their function. We think of it in malarial conditions, in which cases it stimulates the secretion of bile and improves the function of the liver. We think of it in remittent and intermittent fevers, and if given with quinine the affect of the latter is much more marked. It tones up the gastrointestinal tract, increases the activity of the glandular organs, is therefore indicated where there is inactivity or torpidity of these organs.

Lilium Tigrinum:

Syn.—Tiger Lily.
P. E.—Flowers and leaves.
N. O.—Liliaceae.
N. H.—China, cultivated in United States and Europe.

Properties: Tonic, astringent, demulcent.

Indications: In congestion or engorgement of the reproductive organs of the females. Has a direct influence on the ovaries, uterus and vagina and subdues chronic inflammation of these parts.

Use: We think of it in chronic inflammation of the reproductive organs of the females, neuralgic pains in the uterus, ovaries or mammae, sometimes extending down inside the thighs. Uterine displacement or prolapsus from debilitated conditions of the patient. Amenorrhea with pain or burning in ovaries, distressing sensation about the heart, a sense of weight in the lower abdomen. Some forms of dysmenorrhea. In leucorrhea with acrid discharge, cancer or ulcers of the uterus it is of value locally.

Lippia Mexicana:

Syn.—Lippia Dulcis.
N. O.—Verbenaceae.
P. E.—Leaves and stalks.
N. H.—Cuba , Central America.

Properties: Demulcent, expectorant.

Indications: Persistent dry hard resonant or ringing bronchial cough. Useful in chronic bronchitis, having a soothing and sedative effect to the mucous surface of the post-nasal region and bronchial tubes, soothing and relieving irritability, of these surfaces, and is a valuable expectorant in these conditions. Its action is limited to the air passages.

Lithii Benzoas:

Syn.-Lithium Benzoate.

If carbonate of lithium is decomposed with benzoic acid this salt results. It is soluble in cold water (4), in boiling water (10), alcohol (12).

Use: It assists in dissolving uric acid and favors elimination of same. As it is very irritating to the stomach in a concentrated form it should always be taken well diluted. We think of it in gout and rheumatism where there is excess of uric acid in urine, gravel, cystic irritation, the result of pressure of renal sand. It is directly indicated where there is an uneasy sensation in the loins extending to the bladder, earthy phosphates, gravel, uric acid deposits in the urine, a feeling of fullness and tension in the region of the perineum, frequent desire to micturate, with difficulty in passing urine.

Lobelia Inflata:

Syn.—Lobelia; Indian Tobacco; Vomit Weed.
P. E.—Whole plant.
N. O.—Lobeliaceae.
N. H.—North America.

Properties: Sedative, antispasmodic, emetic.

Physiological action: In large, poisonous doses lobelia is a powerful depressant, causing extreme prostration and relaxation. Rapid and feeble pulse, burning in the throat and stomach; nausea, vomiting, purging, general gastric distress; cold, clammy skin, tremor, shallow respiration, feeble heart's action, anxiety, muscular relaxation, sweating, great debility, convulsions, coma and death resulting from paralysis of the pneumo-gastric nerve; the action of the heart continuing after the former has ceased. In large but not toxic doses it will cause headache, dizziness, nausea and vomiting. In small doses it is a stimulant, acting especially on the nerves that control secretion and digestion. It acts on the involuntary muscles first, then on the

voluntary; impaired circulation, slow pulse result. It is of value on account of its stimulating effect on the nervous system, showing its power over the sympathetic nervous system. It is a local, irritant, but will not produce inflammation., Has a decided action on the nervous system and particularly on the centers of the pneumo-gastric nerve.

Indications: Full oppressed pulse; difficult, irritable, spasmodic, oppressed breathing. Respiratory disorders resulting from nerve irritation or exalted nerve force. A feeling of oppression in the chest with difficult respiration. In pains of agonizing character if otherwise indicated.

Use: Lobelia is a nerve depressant of great power, therefore should not be used when the pulse is very feeble. As a relaxant it is superior to most other remedies. In minute doses it checks vomiting. In small doses it is a stimulant; in large doses a relaxant and depressant to the nervous system, while in very large doses it is a prompt but depressing emetic. We think of it in threatened spasms with exalted nerve action, spasms of children, spasmodic asthma, spasmodic and membranous croup, pneumonia, coughs and colds. Applied locally to a felon before suppuration has set in it may abort it. In rhus tox poisoning 2 drachms to 4 ounces of water applied locally is very good treatment. A single large dose will relieve angina pectoris but should not be given where there is marked feebleness. In the obstetrical practice when os is doughy and unyielding it is of value. The average dose in coughs, colds and pneumonia is about 10 to 40 drops to 4 ounces menstruum, teaspoonful every 1 to 3 hours. In these cases it should always be combined with 10 to 20 drops of sanguinaria, which makes it more effective and less depressing. In croup and membranous croup it should be used in larger doses, especially in the latter. In these cases it is best to combine with sanguinaria to make it more effective. In spasmodic asthma, spasms, angina pectoris is should be used in much larger doses. In minute doses of 3 to 5 drops in 4 oz's of water, teaspoonful every 3 to 4 hours it is a good stimulant. In these minute doses, in proportionally less quantity according to the age of the child, it is useful in infantile colic.

Lycopus Virginicus:

Syn.—Bugleweed; Lycopus.
P. E.—Herb.
N. O.—Labiateae.
N. H.—United States and Canada.

Properties: Sedative, tonic, astringent, narcotic.

Use: Its main influence is on the thoracic viscera. Acts on the heart as a nerve sedative, also constricting the blood vessels, and to some extent the capillaries, and diminishing the flow of blood. Like digitalis it will reduce the velocity of the pulse but does not accumulate in the system nor does it impair the nutrition of the heart as digitalis will, nor is it depressing in its after effects. In functional or organic heart disease where there is a feeling of oppression in the region of the heart, irritability and dyspnea, it is a valuable remedy. It has proven a good remedy in some cases of dilatation, hypertrophy and valvular lesions of the heart. As it is not irritating to the gastro-intestinal tract it can be used a long time without any bad effect, as is the case with other heart remedies. In tumultuous action of the heart with high fever and pulmonary symptoms it has proven to be of value. In high fevers of typhoid and some other fevers it has proven a valuable assistant in the reduction of heat without any bad after effects. Acts favorably on the temperature in phthisis, pulmonalis and chronic inflammation of the lungs. We also think of it in hemorrhages due to determination of blood to the tissues of the lungs, kidneys and gastro-intestinal tract. It controls vascular excitement and passive hemorrhage. Of value in hemoptysis exopthalmic goitre, and some cases of diabetes, irritable cough in inflammation of lungs. It improves digestion, gives appetite and relieves irritation of the gastro-intestinal tract.

Mentha Piperita:

Syn.—Peppermint.
P. E.—Leaves and flowers.
N. O.—Labiateae.
N. H.—America, Europe, Asia.

Properties: Antispasmodic, stimulant, carminative.

Use: We think of it in nausea, vomiting, flatulence, colic, griping or spasmodic pain in the bowels, diarrhea; all the result of atony or irritability of the stomach or intestinal tract. Reflex pain from pressure of gas. Where there is a tendency of the food to ferment in the stomach it acts as an antiseptic and tonic and thus prevents fermentation and improves digestion in a general way. It is contraindicated in inflammatory conditions of the gastro-intestinal tract. As a menstruum for other indicated remedies in conditions where it is indicated mentha piperita is extensively used in the form of peppermint water.

Mitchella Repens:

Syn.—Mitchella; Squaw Wine; Partridge berry.
P. E.—Whole plant.
N. O.—Rubiaceae.
N. H.—United States.

Properties: Tonic, diuretic, astringent.

Use: In amenorrhea and dysmenorrhea it is of value. False labor pains are often relieved by it. Its main use however is to remove influences that increase severity of labor, and if given, starting in a few months before confinement, in 10 to 15 drop doses 2 to 3 times a day, it will smooth the way to an easy labor by its tonic influence on the nervous system and uterus.

Nux Vomica:

Syn.—Strychnos; Nux Vomica; Vomit Weed.
P. E.—Seeds.
N. O.—Loganiaceae.
N. H.—East Indies.

Properties: Tonic and stimulant.

Physiological action: Its influence is on the spinal cord and the medulla oblongata, stimulating the reflex vaso-motor functions and very slightly the sensory. The large multipolar ganglia in the anterior column, are mostly affected, being stimulated by small doses and paralyzed by toxic doses. It is only very slowly eliminated from the system. Moderate doses stimulate the motor and inhibitory centers of the heart and contract the arterioles, and raise arterial tension by stimulating the vaso-motor centers, while a full dose relaxes the arterioles. The elevation of arterial blood pressure, stronger heart's action, increased action of-sweat glands, dilation of pupils in large doses shows its powerful influence on the sympathetic nervous system. A full dose will cause twitching of the eyelids, dryness of the throat twitching of the muscles, jerking of the limbs, stiffness in the lower jaws, drawing down of the corners of the mouth. In some cases it also causes a creeping, tingling sensation in the skin. The severer symptoms from large toxic doses are constriction of the throat, headache, dizziness, neuralgic pain in spine, unsteady, tottering gait, rigidity of the muscles, especially of the extensors, intermittent tetanic convulsions, opisthotonos. There is labored breathing, pulse

becomes rapid and fluttering, pupils dilate with a staring expression of fear. The least stimulus will bring on a spasm. As the system becomes exhausted spasms become less violent; patient finally becoming asphyxiated through spasm and paralysis of the respiratory muscles.

Indications: In impairment of tone of the gastro-intestinal apparatus. Broad, pallid tongue, sallow face, yellowish ring around the mouth. Abdominal or gastric pains pointing or radiating towards the umbilicus in absence of inflammation or irritation.

Use: In minute doses it tones up the digestive organs; will relieve constipation, the result of atony by increasing peristalsis. It is a direct stimulant to the spinal cord and medulla oblongata. Where there is spinal enervation resulting in feeble respiration, which in some cases is so marked that it can only be carried on tinder the influence of the will, it is the only remedy that we can rely on at the present time. We think of it in constipation, nausea and vomiting, colic, and indigestion from overeating; if the tongue is broad and pallid, showing a condition of atony. Of value in dipsomania and impotency. There are many conditions in which nux vomica is a valuable remedy but where its sexual stimulation results in over-indulgence its otherwise beneficial effect will be lost. To avoid this stimulating effect on the reproductive organs it should be associated with avena sativa; the tonic effect of nux vomica to the system will be equally pronounced, but no undesirable stimulation exerted on the sexual organs.

Oenanthe Crocata:

Syn.—Water Dropwort.
P. E.—Root.
N. O.—Umbelliferae.
N. H.—Europe.

Properties: Stimulant, antispasmodic.

Physiological action: A burning heat in the throat and stomach, headache, nausea, vertigo, impairment of mind; delirium of a violent nature; convulsions severe and violent; pulse becomes small; sensation and motion are lost; rash appears all over the body; face becomes swollen, froth at the mouth and nose, which is of a bloody nature; coma and death end the scene. By above symptoms we can readily see that it causes powerful determination of the blood to the brain in physiological doses. The plant looks a good deal like garden parsley and fatal mistakes

have been made. It is a powerful remedy and should be used with care.

Use: It is a remedy that is highly recommended in epilepsy; but only in cases where there is more or less marked anemia of the brain and spinal cord. It appears to increase the circulation and nutrition of the brain and spinal cord in these conditions. Therefore in cases where there is fullness of capillary vessels of the brain and spinal cord it is contra-indicated. Should it produce headache dose should be reduced.

Opium:

Syn.—Papaver Somniferum; White Poppy.
N. O.—Papaveraceae.
N. H.—Asia Minor, Japan, Egypt.

Properties: Small doses stimulant, large doses sedative and narcotic.

Physiological action: Opium is obtained by incising the unripe capsule of the white poppy, the resulting concrete milky exudation being what is used. In very small doses opium or morphine at first act as stimulants, then in a very short time there is a desire to steep accompanied by a placid sensation, freedom from care; no noise or disturbance will now arrest the patient's desire to sleep. The pulse is slightly quickened, mouth gets dry and perspiration sets in. Sleep lasts from one to two hours. On awakening there may be nausea and perhaps vomiting, headache and there is always diminished secretion, except of the skin, constipation generally follows. If taken in larger doses above symptoms are more marked, head feels full, mind gets confused, a burning sensation is felt in the ears; delirium may occur followed by marked exhaustion. In this stage the pulse will become slower and more irregular, heaviness of the head, but the fullness is less severe; intoxication results. After awakening the symptoms of nausea, vomiting, diminished secretion and constipation are more marked then where smaller doses are taken. If taken in very large poisonous doses after the excitement there is great depression, confusion of mind, pulse becomes slow, face dusky, breathing stentorous, patient falls into a comatose state from which it is almost impossible to arouse him, momentarily. This followed after a few hours or more by pale face, weak and thready pulse, contracted pupils, cool and clammy skin, cold extremities, stentorous breathing, profuse perspiration; it is now impossible to rouse patient and death soon ends the scene. The slow pulse at first is caused by its stimulating effect on the vasomotor centers, and as these become paralyzed the pulse becomes rapid. The pupils are contracted at first by

its stimulating effect on the oculomotor nerves; as death approaches these become paralyzed and the pupils dilate. Death in all cases results from paralysis of respiration. Sleep is produced by lessening cerebral activity. Its action is divided into two stages. In the first stage there is hyperemia of the brain and stimulation manifesting itself by flushed face and bright eyes. In the second stage the reaction takes place the nervous system gets exhausted, coma comes on, breathing becomes stentorous and congestion of the brain results. Opium or morphine often cause an eruption. Its application to wounds has a narcotic effect. Children should never have it nor should a mother use it while nursing a child. Should never be given when contra-indicated.

Indications: Pain without cerebral engorgement. It may be used when the pulse is soft and open and the skin moist, perhaps relaxed and cool, tongue moist.

Use: Opium and morphine are so much abused, resulting, in the morphine or opium habit that a word of warning is not out of place. Use it judiciously and only when other agents fail to give desired relief. Its indication and contra-indication should always be borne in mind. Opium acts through the nervous system producing sleep by lessening cerebral action. In small quantities it is a temporary stimulant. It checks secretion of the mucous membrane, diminishes appetite, increases thirst and arrests digestion. We think of it in emergencies where other remedies less objectionable fail to relieve. In severe spasmodic troubles with intense pain, painters' colic, passage of biliary calculi, when indicated. Morphine we think of in passage of calculi, puerperal convulsions, dyspnea and pain of angina pectoris, in fact in severe uncontrollable spasms and pain where other remedies fail and morphine and opium are indicated. If labor progresses slowly on account of the rigidity of the circular fibers of the os uteri opium is one of our best remedies. If pain is intense and speedy relief is required morphine acts more quickly than opium. It is well if not contra-indicated to give before an operation to nervous patients, a little before anesthetics are administered. As its primary action is that of a brain and nerve stimulant, it is contra-indicated in any case where there is over-stimulation of the nervous system, manifesting itself by flushed face, bright eyes, contracted pupils, hot and dry skin, dry and coated tongue and deficient activity of the excretory functions.

Papaya:

Syn.—Carica Papaya; Papaw; Melon Tree.
P. E.—Active principle from juice of unripe fruit.
N. O.—Caricaceae..
N. H.—Tropical countries of America.

Properties: Antifermentive, antiseptic, solvent.

Use: Papaya is soluble in water and glycerine. It is a vegetable digestive of great value, accomplishing results not obtained by the more objectionable animal digestives. It acts on fats, starchy substances, albuminoids, emulsifying the former much more promptly than pancreatin; will readily peptonize the albuminoids, convert starch into maltose, etc., stimulates the secretion of natural digestive ferments and served as a tonic to the digestive and intestinal tract. If there is excess of hydrochloric acid in the stomach and this is carried into the duodenum, preventing the action of the trypsin, papoid will prevent duodenal indigestion, taking the place of the pancreatic ferment. We think of it where patient complains an hour or so after meals of pain in the bowels; general distress during digestion in the stomach and bowels. Useful in failing digestion in fevers, digestive disorders in pregnancy, catarrh of the stomach. In neuralgic pains, pains occurring before meals or continued pains it is of no value. The powder as a solvent of the false membrane of diphtheria is of great value. Relieves the distress and pain in cancer of the stomach. In false membranes in obstruction of the esophagus by impaction of meat, a paste made of papaya will dissolve it. Useful to destroy or rather to dissolve membranes in the intestinal tract that are the seat of tape worm and other worms; thus being of value as an anthelmintic. In infantile indigestion it will peptonize cow's milk. A 5% solution makes a good solvent for general purpose. Dry beans, peas, etc., that cannot be extracted after accidentally lodging in the ears or nose can be dissolved by a 5% solution of papaya. The writer uses a preparation of papaya called “Papain” which has given him the best of satisfaction.

Passiflora Incarnata:

Syn.—Passiflora ; Passion Flower.
P. E.—Fresh plant.
N. O.—Passifloraceae.
N. H.—Southern States, U. S. A.

Properties: Nerve sedative, hypnotic, antispasmodic.

Indications: In absence of determination of blood to the head and absence of a dirty and heavily coated tongue it is a safe and harmless soporific and will allay irritation of the brain and central nervous system.

Use: In derangements of the nervous system such as insomnia, chorea, convulsions and nervous headache it is a good remedy if indicated. It is of little value in wakefulness of pain; but a valuable remedy in wakefulness from exhaustion and excitement and wakefulness of infants and old people. In convulsions it serves a good purpose; especially in those of childhood when it should be given in large doses before the approach of the convulsion. The sleep produced by passiflora is restful and the patient awakens refreshed. This makes it a good hypnotic when indicated. In insomnia with flushed face and determination of blood to the head it should never be given. Where there is a dirty and heavily coated tongue its action is not satisfactory. Its range of usefulness is very limited and only beneficial where it is prominently indicated.

Peroxide of Hydrogen:

Syn.—Hydrogen dioxide, oxygenated water.

A colorless liquid of a specific gravity of 1.40. Will give off oxygen at 60 degrees F., and it is explosive at a higher degree of heat; setting free oxygen gas and resolving itself into water again. It has a slightly acid reaction. Should be kept cool and not too tightly corked. On account of presence of extra atom of oxygen it is a powerful oxidizer; therefore an active deodorant, antifermentive, destroying all products of fermentation. Will destroy disease germs when brought in contact with sores of any kind. It causes coagulation of albumen and evolves gas when applied locally. For this reason it should not be used in cavities with small openings, which prevent the escape of the gas; the pressure of the resulting gas in such cases would damage and destroy tissue. It is a very useful antiseptic. We think of it to clean wounds, ulcers, abscesses, etc. However these should be afterwards washed well, as it has some irritating qualities. As a gargle it is useful in sore throat; in which case it should be diluted to, say 1 part peroxide of hydrogen to 3 parts of water. In diphtheria it may be applied pure until membrane is removed. In applying it in diphtheria the physician should have a towel or handkerchief saturated with a little formaldehyde, carbolic acid or

other germicide tied over his. mouth and nose to prevent contagion. In infective diseases of the intestinal tract an enema of a 10% solution is very useful. May be taken internally in doses of from 5 to 15 drops well diluted to prevent fermentation in the stomach. We also think of it in many skin diseases as a cleansing application to be followed by proper dressing. In all these conditions hydrozone is preferable, being more powerful and at the same time less irritating. Hydrozone contains about 27 volumes of oxygen in place of 16 as peroxide of hydrogen does.

Petroselinum:

Syn.—Apium; Petroselinum; Parsley.
P. E.—Roots and seeds.
N. O.—Apiaceae.
N. H.—Europe and America. Properties: Diuretic.

Use: In irritation of the mucous membrane of the genito-urinary organs giving rise to scalding and burning. Of use in cystitis, gonorrhea, nephritis or in fact in any condition of irritation or inflammation where diuretic and soothing affects are indicated. Best given in form of an infusion. Apiol is a yellowish oily liquid prepared from parsley. It appears to be of great value in amenorrhea and some forms of dysmenorrhea. Has no abortive power. It stimulates nerve force. Dose 3 to 10 drops.

Phytolacca americana:

Syn.—Phytolacca; Poke.
P. E.—Plant and berries.
N. O.—Phytolaccaceae.
N. H.—North America.

Properties: In small doses, alterative. In large doses cathartic emetic, narcotic.

Physiological action: In large doses it acts as a gastro-intestinal irritant, producing vomiting, purging, dizziness, drowsiness, feeble pulse, general prostration, cool and sometimes clammy skin and even convulsions, coma and death. Generally a tingling or prickling sensation is felt over the whole body.

Indications: Pallid tongue and mucous membrane, tongue slightly coated, looking as though it was covered with a glutinous substance; sometimes tongue has a leaden appearance. In inflammation and

various affections of the lymphatic glands, especially if swollen and hard.

Use: Phytolacca has a specific influence on the glandular structures, increasing waste and improving nutrition. A good remedy in inflammation of the glandular system, especially of the lymphatic glands. In rheumatism in which the white fibers are involved it may be used to advantage. Irritants in the blood, the result of deficient catabolism, producing pains of rheumatic nature will be corrected by the use of phytolacca. It will relieve irritation, inflammation and ulceration -of the mucous membrane in any part of the body. Our best remedy in mastitis and to abort mammary abscesses, in these cases we combine it to advantage with echinacea. We think of it in stomatitis, tonsillitis, sore nipples, pain in the breasts with fullness, inflammation of the mammae. We also think of it with other remedies indicated, in diphtheria, sore mouth of nursing child, chancre, bubo, syphilis and skin disease, especially if of the squamous variety. We should never forget that in the affections of the lymphatic glands, especially where they are hard and swollen phytolacca is our best remedy.

Phosphorus:

Symbol P.

Extracted from ashes of bones in which it exists as tricalcium phosphate. Unstable in the air, not soluble in water; but in alcohol. Slightly soluble in turpentine, ether and essential oils. Carbon bisulphide dissolves 18 times its weight of phosphorus.

Physiological action: In very small doses it is a general stimulant and nerve tonic, larger doses it is a violent poison, death resulting from its deoxidizing effect on the blood. In large doses it will produce violent inflammation of the gastro-intestinal tract, nausea, vomiting, intense burning pain, general prostration, cold and clammy skin. Severe headache, anxiety and restlessness, wild delirium, coffee ground vomit, scanty and albuminous urine, coma and death.

Use: A powerful nutritive stimulant to the whole nervous system. Phosphorus must be used with care and in small doses as it is a deadly poison, nor should its use be continued very long. We think of it in nervous exhaustion, exhaustion from overwork or mental strain, insomnia of nervous prostration. We think of it in fatty degeneration of

any organ, neuralgia of cerebral anemia, weak heart from nervous exhaustion, nervous debility, mental derangement. In small doses it has a favorable influence on the chest, overcomes pulmonary engorgement, modifies the cough of phthisis, cures intercostal neuralgia, stitches in the chest of neuralgic nature. In pneumonia or pleurisy where there is failing strength, short, dry hacking cough it is of value. Removes irritability of the prostate if from sexual excesses as well as irritability of the urinary apparatus. The hypophosphites are restorative to the nervous and bony system. In some cases lactophosphate of calcium, in others of sodium or potassium, is indicated and it is therefore important to give it in the form the case demands. In chronic conditions the syrup of hypophosphates is the most appropriate, while in acute conditions phosphorus is best when there is exhaustion of nerve force.

Pichi:

Syn.— Imbricata.
P. E.—Leaves.
N. O.—Solanaceae.
N. H.—South America.

Properties: Diuretic, slightly tonic.

Indicated: In irritation and inflammation of the bladder, especially if due to mechanical causes, gravel, uric acid, phosphoric or calcareous deposits it is a good remedy. In vesical tenesmus, dysuria, it is almost a specific. In uric acid diathesis, lithemia it stimulates the liver to action, greatly increases the action of the kidneys, reduces excess of uric acid permanently. May be thought of in cystitis, gonorrhea, recent cases of simple renal hyperemia. It acts as a gastric tonic, increases appetite, promotes digestion. It should not be combined with salines. Dose fluid extract 10 to 30 minims taken in glycerine or mucilage as it will precipitate in water.

Pilocarpus jaborandi:

Syn.—Jaborandi.
P. E.—Small leaves.
N. O.—Rutaceae.
N. H.—Brazil.

Properties: Diaphoretic, sialagogue.

Physiological action: It is the most profound stimulant to secreting

organs of the glandular system we have and its relaxing and depressing effect should be carefully watched. In large doses it may produce nausea, vomiting, extreme relaxation, weakness, dimness of sight and general collapse. However, these symptoms hardly ever occur, as its effect can be watched and it need not be given in such large doses. Some people are very susceptible to its action, even if given in small doses, and this should be always born in mind. Its relaxing effects can be counteracted with belladonna. Stimulants may be given if the relaxing effect has not been so marked; such as nux vomica, etc.

Indications: Acute suppression of secretion in sthenic conditions. Hard and sharp pulse, dry skin, urine scanty and of high specific gravity.

Use: Powerfully stimulates the secretion of the entire glandular system. There is no remedy that will so powerfully and promptly stimulate the secretion in all parts of the body. It should never be used when contra-indicated and its depressing effects should always be watched even if prominently indicated. It should not be used in asthenic conditions or in feeble and dilated heart, nor with very young or very old people. We think of it in most fevers at the outset and in inflammatory conditions where indicated. To remove serous effusion in inflammatory conditions of the lungs and pleura, it is a valuable remedy. We also think of it in influenza, acute laryngitis, tonsillitis, diphtheria, laryngismus stridulus dropsy, acute inflammatory rheumatism, acute mastitis, exanthematous fevers and as a galactagogue. A good remedy in the active inflammatory stage of diseases of the respiratory tract. In tetanus give the alkaloid pilocarpine hypodermically; relax muscles with chloroform and then give jaborandi internally in 9 to 15 drop doses. Although the average dose, of jaborandi is about 1 drachm to 4 ounces of water, teaspoonful every 2 hours, in emergencies and severe cases where prominently indicated it may be used in larger doses, carefully watching its effect. In strychnine poisoning jaborandi is our best internal remedy and will often succeed where all other means fail. It may be given in 8 to 15 drop doses every 15 minutes, until spasms are modified and come at longer intervals; then gradually decrease dose and give at longer intervals.

Pinus Canadensis:

Syn.—Hemlock; Spruce.
P. E.—Resin.
N. O.—Coniferae.
N. H.—Northern part of the United States.

Properties: Astringent, stimulant.

Use: The oil of hemlock is very extensively used in liniments. The oleoresin commonly known as Canada pitch is used in plasters very extensively. The tincture is valuable in obstinate cases of leucorrhea; 1 part of specific pinus canadensis to 3 parts of castor oil applied locally to walls of vagina and cervix of uterus every other day is of great value. A little echinacea and tiger lily may be added. Of value locally as an astringent in sore throat.

Piper Methysticum:

Syn.—Kava Kava.
P. E.—Root.
N. O.—Piperaceae.
N. H.—South Sea Islands.

Properties: Diuretic.

Physiological action: Piper, methysticum has a pungent and burning taste, at first causing warmth and then numbness of the mouth. It will slow the heart's action but increase its strength. At first the blood pressure is increased, later it is lowered. Its action on the sweat glands is very powerful, so much so that it has caused elephantiasis in a few instances where it was used in large doses for some time. Has caused temporary impaired vision. Skin troubles of various kinds have resulted from its use. It has anesthetic effects both locally and internally. Increases secretion of saliva. It will affect peripheral ends of the afferent nerves, at first impairing and then destroying their function. It diminishes and later abolishes reflex action, therefore paralysis is caused by its direct action on the cord. The heart's force is increased by its use but beat is lessened, the result of stimulation of the cardio-inhibitory centers and to a less extent of the ganglia. It stimulates respiration at first then depresses and finally paralyzes it. Its stimulating effect is on the pulmonary peripheries of the vagi and the depressing and paralyzing effect on the respiratory center of the medulla. In small doses it will increase temperature while in large doses it depresses same.

Use: Its main influence is upon the mucous membrane of the genito-urinary apparatus, reducing the quantity of blood in the capillaries, thus reducing inflammation of the parts. One of our best remedies in gleet and gonorrhea in the sub-acute and chronic stages. Increases the

power to expel the urine, relieves painful urination and often overcomes strangury. Of value in nocturnal enuresis of the aged and of children the result of muscular weakness, and in chronic cystitis. It improves digestion, correcting torpidity of the entire digestive tract; of value in gastro-intestinal neuralgia, neuralgic dysmenorrhea or neuralgic pains in labor. Has decided local and general anesthetic effects. Of value in toothache locally and internally. A valuable remedy in some forms of neuralgia, especially in the head anywhere above the ears.

Piscidia Erythrina:

Syn.—Jamaica Dogwood.
P. E.—Bark of root.
N. O.—Leguminosae.
N. H.—West Indies.

Properties: Hypnotic, soporific, sudorific.

Physiological action: In medium doses it induces sleep, diminishes sensation, increases flow of saliva and favors perspiration. In poisonous doses the heart's action is at first increased, then lessened. Causes dyspnea, first contracts then dilates pupils. Convulsions and tetanic spasm if present, result from overstimulation of the spinal cord, paralysis and death following in severe cases.

Use: A nerve sedative which overcomes nervous excitability and reflex irritability. Produces quiet and restful sleep. Controls pain to some extent and does not suppress secretion as morphine or opium do. For persons susceptible to this drug it is a valuable remedy to alleviate pain and produce sleep.

Plantago Major:

Syn.—Plantain leaves.
P. E.—Whole plant.
N. O.—Plantaginaceae.
N. H.—America and Europe.

Properties: Alterative, diuretic, hemostatic.

Use: Very good remedy in facial neuralgia in which the submaxillary nerves are involved. In such cases it is beneficial in toothache.

Podophyllum Peltatum:

Syn.—Podophyllum, Mandrake, May Apple.
P. E.—The rhizome of the root.
N. O.—Berberidaceae.
N. H.—United States, U. S. A.

Properties: Cathartic, cholagogue.

Physiological action: In large doses it is a drastic cathartic and for that reason too large doses should be avoided.

Indication: Full, oppressed pulse, full tongue with a full and sodden appearance, yellowish coat, more heavily coated in back, vertigo, head feels heavy; there is constipation, mind may be confused; abdomen full and doughy, skin sallow. Temperature normal or in some cases below normal.

Use: Podophyllum is a stimulant to the upper intestines and liver. It influences the ductless glands and favors blood making. In biliousness, enlargement of the liver, constipation, jaundice, gall stones, scrofula or .syphilis; it is a good remedy if indicated and should be used with such other remedies as are indicated. In chronic constipation, dry stool in children, hemorrhoids, the result of deficient peristalsis; it is of great value if given in small doses. It is a valuable alterative where indicated. As it will cause griping in many cases, it is well to add hyoscyamus or leptandra to overcome this.

Polymnia Uvedalia:

Syn.—Polymnia; Bearsfoot; Yellow Leaf Cup.
P. E.—Root.
N. O.—Compositae.
N. H.—United States.

Properties: Tonic stimulant. Improves nutrition and increases waste.

Indications: In glandular enlargement with functional atony. Inactivity of glandular organs with impaired circulation. Flabby, full, sodden and sallow tissues. The remedy in enlarged spleen and liver. In chronic hepatitis, chronic splenitis. Also of value in glandular and structural hypertrophy of other organs; glandular induration and abscess in scrofulous people. Chronic rheumatism, lumbago, myalgia or other

diseases depending on removal of waste, are benefited by its use. Increases capillary circulation. It is our best remedy in chronic malaria with enlarged liver and spleen. In enlarged glands from syphilis it is of value. If combined with ceanothus americanus it is even more effective in these conditions. Of value in hypertrophy of the uterus and subinvolution, and in dyspepsia, the result of engorgement of the vessels with a burning and heavy sensation in the epigastrium. In chronic metritis it may be combined with other indicated remedies. Glycerine or syrup are the best menstruums for the administration of polymnia.

Polytrichum juniperinum:

Syn.—Hair Cap Moss.
P. E.—Whole plant.
N. O.—Polytrichaceae.
N. H.—United States.

Properties: Diuretic.

Use: In dropsy, especially cardiac dropsy, irritation of the bladder, difficult micturation during pregnancy. Excess of uric and phosphoric acid and gravel. It causes a copious flow of urine, promotes absorption, relieves pain of urinary calculi and aids in preventing the formation of same. Can be used in febrile and inflammatory diseases.

Potassium:

Physiological action: In large doses potassium is a powerful irritant to the gastro-intestinal tract and a powerful irritant poison to the nerves and heart muscles. Potassium in its various forms will suspend functional activity of the nerves and muscular structure of the body, the muscles losing their contractibility, This is especially noticed in the heart. It is very irritating to mucous surfaces and therefore should not be used in irritation of the gastro-intestinal tract even in moderate doses. Where the gastro-intestinal tract is not irritated, muscular system and heart are in good condition and where there is increased heart's action and arterial tension the potassium salts may be safely used in small medicinal doses. Potassium is not as readily absorbed on account of its irritating qualities as sodium is and is to be taken in minute doses to avoid its depressing and irritating effect. It should always be well diluted and its use not continued long. Large or long continued doses of the potassium salts will dissolve red blood corpuscles and have a

weakening effect on the motor ganglia of the heart, sometimes amounting to paralysis.

Potassium Acetate:

Syn.—Acetate of -Potash.

Properties: Diuretic.

Use: Acetate of potash is soluble in cold water 0.36, in alcohol 1.9 and is more soluble in warm than cold fluids. As it rapidly absorbs moisture from. the air it must be kept in a well stoppered bottle. It is an antacid and when taken into the system decomposes and passes off as carbonate of potassium, rendering the urine alkaline. Its main action in the system is to promote retrograde metabolism in the whole system and increase waste. It is a renal depurant, stimulating both secretion and excretion, greatly increasing the solids of the urine, having but little influence on the watery portion of the same. It is a solvent and eliminator. We think of it in rheumatism, acute articular rheumatism, lithemia. May be given in fevers if indicated, alternating with other remedies such as the case demands. In muscular rheumatism it can be used to advantage with cimicifuga. In hepatic congestion it stimulates the flow of bile. In glandular inflammation, glandular diseases in children, eczema and other skin diseases it is a valuable remedy to alternate with other indicated remedies. In gonorrhea to neutralize the acidity of the urine it is our best remedy. It should not be given where there is a red and pointed tongue; nor in too large doses. Should always be well diluted.

Prunus Serotina:

Syn.—Prunus; Prunus Virginica.
P. E.—Bark collected in autumn.
N. O.—Rosaceae.
N. H.—United States.

Properties: Tonic, sedative, astringent.

Use: Prunus is largely used in form of a syrup as a menstruum for other remedies. Useful in all atonic conditions where a sedative influence is desirable. In coughs with feeble respiratory action vascular excitement with excessive perspiration, irritable dyspepsia, chronic coughs, pthisis pulmonalis, it modifies the fever and cough and helps to sustain strength of the patient. Of value in diarrhea and dysentery. It has tonic influence over the heart, brain and general nervous system, allays

irritation of the digestive tract, respiratory organs and has a soothing influence on the nervous system. As its action is mild too much must not be expected from its administration. In the form of a syrup as a menstruum it materially assists the action of other remedies when indicated.

Pulsatilla Anemone:

Syn.—Anemone pulsatilla, Pulsatilla; Wind Flower; Pasque Flower.

P. E.—Plant.

N. O.—Ranunculaceae.

N. H.—Europe.

Properties: Alterative, sedative, antispasmodic.

Physiological action: In large doses it is an irritant to the gastro-intestinal tract, depresses the heart's action, lowers arterial tension and will reduce the temperature and pulse rate. In toxic doses it causes dullness of mind, lessens sensibility, having a mildly paralyzing effect on both sensory and motor nerves, pupils dilate; coma and convulsions have resulted from very large doses. However this drug is never given in such large doses.

Indications: Nervousness, sadness, disposition to look on the dark side of life. Despondency, mental depression, fear of impending danger. Pain in top of head.

Use: Relieves nerve irritation of reflex nature referable to the reproductive organs. It controls sexual excitement in both male and female. A remedy in amenorrhea, dysmenorrhea, spermatorrhea and in reproductive disorders which are a cause of anxiety to the patient. In nervous headache with determination of blood to the brain. In headache at menstrual period with scanty or obstructed menses, patient pale and nervous. In hysteria, nervous exhaustion with feeble pulse, deficient capillary circulation, cold extremities, nervous headache of anemic nature. In orchitis it acts well associated with other indicated remedies. A valuable remedy in threatened insanity the result of sexual wrongs, if not contra-indicated. Pain of pulsatilla is generally limited in location and of a despondent nature.

Punica Granatum:

Syn.—Granatum; Pomegranate.
P. E.—Bark of roots and shrub.
N. O.—Myrtaceae.
N. H.—Europe, Asia and in some parts of the U. S.

Properties: Astringent, anthelmintic, cathartic in large doses.

Use: This is a specific for tape worms. The patient should fast for a day or so before starting treatment, then take 2 to 3 ounces of the fresh bark of the root, if obtainable. Macerate in 2 pints of water for 12 to 24 hours, then boil down to about half. Of this the patient should take $^1/_2$ to 1 ounce every hour until it is all used. As it has a cathartic effect no physic is required; however, if it should not act, a cathartic should be given. If the treatment is not successful it should be repeated in a few days. In absence of the fresh bark of the root the fluid extract may be used in $^1/_2$ to 1 drachm doses 3 or 4 times. a day. Granatum is used by many and with good results.

Quinine:

Properties: Antiperiodic.

The salt obtained from the bark of cinchona calisaya. Sulphate of quinine is the form mostly employed.

Physiological action: Quinine in large doses has produced permanent deafness and in some cases temporary blindness. In doses of from 4 to 6 grains taken 3 or 4 times a day, it produces very often engorgement of the brain, headache, throbbing in the head, ringing in the ears, impairment of hearing, nervous excitement and even confusion of the mind. If dose is increased and continued there will follow restlessness, sleeplessness, general debility, feeble pulse, dilated pupils, coolness of extremities, partial or complete loss of voice, hearing and sight. Large doses, often repeated, cause disturbance of the gastro-intestinal tract, dizziness, headache and even delirium. Quinine in very small doses is a tonic, in medium doses a stimulant and in large doses a depressant. It acts on the cerebro-spinal nervous system and on the heart through the ganglionic nervous system.

Indications: In diseases with periodicity. When skin is soft and inclined to moisture. Tongue moist and not dirty. Full, soft and open pulse.

Use: In all conditions where there is marked periodicity and where the secretory functions are in working condition, the use of quinine is not followed by any unpleasant results. For this reason in periodical fevers it should be given during intermission if it is indicated in the case. In small doses it stimulates; while in large doses it depresses. It acts on the cerebro-spinal nervous system and the ganglionic nervous system of the heart. In congestive chills it should be given before the attack if possible, and stimulants given during the attack. Average dose is from 2 to 5 grains every 2 to 4 hours. In congestive chills 9 to 15 grains may be given before attack.

Rheum Officinale:

Syn.—Rhubarb.
P. E.—Root.
N. O.—Polygonaceae.
N. H.—Asia.

Properties: Tonic, astringent. In large doses laxative.

Use: In small doses it appears to have a mild tonic astringent effect on the gastro-intestinal tract. This action is most marked in the duodenum. In medium doses it is a laxative, while in very extremely large doses it acts as a cathartic. In small or medium doses it has a tendency to bring about normal conditions, correcting under or over-activity of the gastro-intestinal tract and especially so of the latter. As it is a tonic to the stomach and intestinal tract, we think of it in debilitated condition of these parts. For this reason it makes a good adjunct to other indicated remedies in constipation, diarrhea and dysentery. It may be used in form of syrup as a menstruum for other remedies in above conditions.

Rhus Aromatica:

Syn.—Fragrant Sumach, Sweet Sumach.
P. E.—Bark of root.
N. O.—Anacardiaceae.
N. H.—United States.

Properties: Astringent, stimulant, diuretic, tonic and astringent to non-striated muscular fibers.

Use: Our best remedy in diabetes insipidus, where it should be taken in 5 drop doses and gradually increased to 10 to 15 drops at a dose. To be taken about 4 times a day. When the largest dose admissible has been reached this should be continued until the desired result is obtained when the dose should be gradually reduced again. Rhus aromatica is also of value in diabetes mellitus. In urinary incontinence in children and the aged it often will produce satisfactory results. Of value in mild cases of hematuria. It tones up the muscular of the urinary apparatus and is indicated in over-activity of the urinary apparatus, in absence of inflammation. In conditions where most indicated we find a debilitated condition, languor, lassitude, loss of flesh, stool profuse; a weak, in fact a debilitated condition. In passive hemorrhage of the bowels it may be used, hemorrhage of bronchitis is benefited by its use. Its main use however is in diabetes and enuresis. Best to dispense in glycerine.

Rhus Toxicodendron:

Syn.—Rhus Tox; Poison Oak; Poison Ivy.
P. E.—Fresh leaves.
N. O.—Anacardiaceae.
N. H.—North America.

Properties: Stimulates cutaneous and renal secretions.

Physiological action: Rhus tox. emits its poison in the air around where it grows so that people who are susceptible to its action will become poisoned without coming in contact with it. When the plant is broken or moist it will charge the air around it even more. Handling it is dangerous to some while others can do so with impunity. Worst of all is to inhale the fumes of burning roots, shrubs or leaves. When the poisonous action results, it first causes severe itching and burning which is followed by redness and swelling of the affected parts. This inflammation of the skin may be in patches or spread to various parts of the body, effect usually lasting about two weeks. In severe cases it may spread all over the body, the affected parts swelling sometimes to such an extent as to obliterate the features. Vesicles form which break and will leave a yellow scab. In these cases there is some fever, increased pulse, severe headache, itching and burning, nervous twitching, burning in the throat and mouth, thirst, rheumatic pains, which are aggravated by heat and rest, cough, nausea, vomiting, perhaps chilliness and even delirium. If toxic doses are taken internally symptoms are similar to above; but there is according to the dose taken drowsiness, stupor, flushed face, dilated pupils. Pulse which may have

been strong will become small, feeble and rapid; respiration becomes hurried, nausea, vomiting, delirium and even convulsions result. It relieves cerebral engorgement by increasing the tone of the arteries. In small doses it tones the weakened brain, acting as a sedative. Its effect is most pronounced on the terminal nerve filaments, increasing their function. In large doses overstimulation results, followed by relaxation if carried too far.

Indications: Sharp, hard pulse; sharp burning pain, burning pain in frontal region, especially over left orbit; tongue showing small red points on upper surface of tip; cough with burning pain in chest; restlessness, starting and crying out during sleep. Extreme redness of local part with sharp, burning pain. Itching and tingling in the skin. In fact burning pain is a prominent indication .

Use: In fevers, inflammation and any condition where indicated. Its action is on the nerve centers, producing functional activity of the terminal nerve filaments. It relieves cerebral engorgement by giving tone to the arteries. In small doses it acts as a sedative to the irritable and often overworked brain, improving its function and tone. We think of it in erysipelas, eczema, typhoid fever, cerebro-spinal meningitis, cerebral irritation; in scarlet fever, measles, smallpox, gastric and intestinal irritation, especially if accompanied by restlessness; spasms in children the result of cerebral engorgement. In rheumatism of the chronic or subacute form where the white fibrous tissue is involved, therefore pain more severe when at rest, it is of value. In cholera morbus, cholera infantum in which there are pronounced head symptoms it is of value, if associated with other indicated remedies. We find it very useful in many conditions of gastric irritation. In swelling of submaxillary glands when there is induration it has been used with success. Rhus tox. is a valuable remedy when indicated.

Salix Nigra Aments:

Syn.—Black Willow; Pussywillow.
N. O.—Salicaceae.
N. H.—North America.
P. E.—Buds.

Properties: Sexual sedative, slightly laxative.

Use: Has a sedative influence over undue sexual excitement, if caused by local irritation. Will relieve spermatorrhea, nymphomania, sexual

hyperesthesia, if dependent upon above or similar causes. If more of the brain or mind it should be alternated with the proper indicated remedies. A good remedy in ovarian congestion and irritation and some forms of hysteria and its manifestations the result of irritation. Relieves cystitis, ovaritis, prostatitis and is a valuable remedy in nocturnal emissions.

Sanguinaria Canadensis:

Syn.—Sanguinaria; Blood Root.
P. E.—Rhizome.
N. O.—Papaveraceae.
N. H.—United States and Canada.

Properties: Stimulant, tonic, emmenagogue, emetic. Physiological action: In large doses it will produce irritation and inflammation of the gastro-intestinal tract, resulting in thirst, nausea, dilated pupils, coldness of extremities, diminished pulse, cold sweats and prostration. The anxious expression in the face that is present in severe affections of the gastro-intestinal tract is not lacking here. In toxic doses it will paralyze the vasomotor centers by overstimulation.

Indications: In relaxed condition of the larynx, pharynx and bronchi, with a sense of constriction, burning, uneasiness, tickling or dryness of throat. Nasal catarrh with little or no discharge. Harsh, dry cough with relaxed. tissue.

Use: In small doses it is a stimulant to the spinal and sympathetic ganglia. Has a stimulating effect on the mucous surfaces of the bronchi, and to a less degree on the stomach and intestinal tract. We think of it when there is either a deficiency or excess of secretion from atony of the mucous membranes of the parts. It stimulates the sympathetic nervous system, improving nutrition and secretion. Has also an alterative effect on the blood, stimulates the liver and portal circulation, glandular organs and intestinal tract. It increases pelvic circulation, especially in females. As an emmenagogue it is of value where there is fullness of circulation. It favors absorption of exudates and improves the functional activity of the lungs. One of our best remedies in stubborn coughs the result of bronchial or tracheal irritation, bronchial coughs, membranous and spasmodic croup, coughs and colds. In pneumonia if combined with lobelia it is a useful remedy. Sanguinaria is of value in diphtheria both locally and internally, but in this disease the nitrate of sanguinaria in the 5th or 6th trituration is one of our best remedies and should be

given internally in 1 to 3 grain doses every 1/2 to 2 hours. The 2nd trituration 5 to 10 grains in 2 ounces of syrup and vinegar, is a very good form to give sanguinaria nitrate, 1/2 to 1 teaspoonful doses every 1/2 to 3 hours. In most conditions the nitrate of sanguinaria is to be preferred.

Scutellaria Lateriflora:

Syn:—Scutellaria; Skullcap.
P. E.—Whole. plant.
N. O.—Labiateae.
N. H.—United States.

Properties: Tonic, nervine, antispasmodic.

Use: In nervousness with fear of calamity it has a direct influence upon the cerebro-spinal centers, controlling irritation. Is of use in irritable condition of the nervous system. We think of it in conditions, the result of above, such as insomnia, irregular action of the muscles, chorea and paralysis agitans. In the first it is especially valuable if combined with cimicifuga. Of use in organic heart trouble with nervousness and palpitation. It is also of value in spasmodic affections of women.

Secale Cornutum:

Syn.—Ergot; Ergot of Rye Spurred Rye.
P. E.—The sclerotium of claviceps purpurea.
N. O.—Fungi.
N. H.—On rye in all countries.

Properties: Uterine motor stimulant , hemostatic.

Physiological action: Ergot is a motor excitant and a hemostatic. Its influence is on the spinal cord circulation and unstriped muscular fibers, especially those of the uterus. It will cause tonic contraction of unstriped muscular fibers and produce artificial anemia. Ergot may cause both acute and chronic poisoning. In the acute form it produces marked gastro-intestinal irritation, causing nausea, vomiting, dizziness, drowsiness, dyspnea, purging, dryness of throat, thirst, difficult micturation. Arterial tension is raised greatly, pupils dilated, confusion of senses, pallor, headache, constriction of the sphincter vesical and tonic contraction of the, unstriped muscular fibers and especially so of the uterus result. There is pain in the chest and loins, cerebral anemia,

coldness of skin, anesthesia, tetanic spasms and convulsions. In the chronic form there are neuralgic pains, numbness and coldness of limbs, formication of the skin, there may be delirium followed by exhaustion, convulsion or coma and death. In other forms the nutrition is cut off from some parts of the body by the excessive contraction of capillaries, especially of the lower limbs, resulting in muscular weakness, gangrene of limbs or the superficial parts. This form generally results fatally.

Use: As a parturient its action is upon the unstriped muscular structure of the uterus, producing powerful and persistent contraction; contracting the arterioles and consequently causing anemia of the organ. On account of its irritating effect on the muscular fibrillae, causing immediate contraction, it is our most active remedy for overcoming uterine inertia and hemorrhage. It can safely be used when there is fullness of circulation in the head, which manifests itself by flushed face, bright eyes, great restlessness and headache. Ergot should only be used after the first stage in labor and only then; if the os uteri is fully dilated; where there is uterine inertia or muscular relaxation. It should never be used in labor where there is mal-presentation, or any obstruction to the free delivery of the child, nor where the os uteri is hard and rigid with excessive debility, or in the first stage. If the parts are very dry it should not be used, nor if the os uteri is not fully dilated. As contractions produced by ergot are not regular but tonic and profound it should not be given where it is contra-indicated; as by its powerful and continued pressure on the child laceration of the cervix-uteri generally results as well as laceration of the perineum. It will also impair the circulation of the child by the continual and profound pressure. This sometimes results in cyanosis and even death of the child. Such continuous and powerful action on the muscles of the uterus may cause paralysis of the organ and thus cause post-partum hemorrhage. Its continuous profound action will certainly cause impairment of the organ in all cases, sub-involution often being the result. For these reasons ergot should be used with care and only when indicated. In threatened post-partum hemorrhage, a full dose of ergot may be given in the latter part of the second stage and repeated later on if necessary. The dose is from $^1/_2$ to 1 teaspoonful. In post-partum hemorrhage it is one of our best remedies. To control hemorrhage in any form ergot is a valuable remedy. As it contracts the walls of the arterioles thus restraining the supply of blood to the open vessels, it is a valuable remedy in both active and passive hemorrhages. It acts, however, more powerfully upon the arterial coats than those of the veins. Ergot is a

good remedy where indicated, but is very dangerous if contraindicated, or if its profound action is carried too far, or continued too long, as then by overstimulation the circulation in the parts is almost if not entirely checked; the muscles lose their power and paralysis of the parts may result.

Senecio Aureus:

Syn.—Senecio; Life Root.
P. E.—Whole plant.
N. O.—Compositae.
N. H.—United States.

Properties: Tonic, diuretic, diaphoretic.

Use: Its special action is on the reproductive organs of both sexes, but especially of the female. A tonic to the nervous and muscular structure of the reproductive organs of the female, with a tendency to bring about normal action and therefore applicable alike in amenorrhea, metrorrhagia, menorrhagia or dysmenorrhea. We think of it in a relaxed condition of the uterus and its appendages, relaxed condition of the support of the uterus resulting in displacements. In hyperemia, atonic or irritable condition of the pelvic organs. Regulates the periodical discharge. Irregularity with pain and weakness in the pelvic region, headache in top or back of head. Pain worse at menstrual period. Of value in capillary hemorrhage, hematuria in large doses, albuminuria, especially during pregnancy, leucorrhea, chlorosis. Of value in engorged atonic condition of the sexual organs of the male, increasing functional activity of these as well as overcoming irritation of urinary apparatus. Its action is slow and it must be continued for some time for good results.

Serenoa Serrulata:

Syn.—Saw Palmetto; Sabal Serrulata.
P. E.—Fresh fruit.
N. O.—Palmacae.
N. H.—Southern United States.

Properties: Tonic, sedative, diuretic, improves digestion and nutrition.

Use: A tonic stimulating the nutrition of the nerve centers. Relieves irritability of the nervous system, mucous structures and more particularly of the nose and air passages. It stimulates digestion and assimilation. Women who have a dragging pain in the iliac region,

sensitiveness to touch over the ovaries, ovarian enlargement with tenderness and dull aching pain, small and undeveloped mammae, hypertrophy of the uterus are benefited by its use if continued for some time. We think of it in enlarged prostate, atrophy of the testes or uterus and all prostatic troubles. In impotency of young men it is a valuable adjunct to other indicated remedies. Has a direct influence upon the glands of the reproductive system, as mammae, ovaries, prostate, testes, etc., increasing their functional activity and tending to bring about normal action and size. In nervous and general debility. In chronic catarrh, laryngitis, coughs, aphonia, whooping cough, chronic catarrh, bronchitis, etc., it is a valuable adjunct to other indicated remedies.

Serpentaria Aristolochia:

Syn.—Serpentaria; Virginia Snake Root.
P. E.—Roots.
N. O.—Aristolochiaceae.
N. H.—United States.

Properties: Diaphoretic, stimulant.

Use: It acts as a stimulant to the vascular system, promoting secretion from skin and mucous membrane, increases the strength and frequency of the pulse and for that reason is a valuable adjunct to other indicated remedies in the atonic stage of scarlet fever, measles, typhoid fever, diphtheria, pneumonia and bronchitis, promoting elimination. As it is diaphoretic it will hasten the eruption in eruptive fevers or cause their reappearance if retrocession has taken place. In fevers where there is marked atony and persistent suppression of the secretions, it can be used where other depressing diaphoretics would be counter indicated.

Sodium:

The sodium salts are strong alkalies, much more alkaline than the potassium salts; are less depressing than the latter and not as poisonous to the nerves and heart muscles. They are absorbed slowly and eliminated slowly. Soda diluted renders the blood more alkaline. Taken in large doses, not well diluted, or for a long time, it will destroy the red blood corpuscles and act as an irritant to the gastro-intestinal tract. This shows that large doses, not well diluted, or its use continued a long time, will increase acid conditions by irritation; while minute doses well diluted taken for a short time may decrease acidity.

Sodium Bicarbonate:

Syn.—Bicarbonate of Soda; Baking Soda.

Properties: Anti-acid.

Sodium bicarbonate dissolves at 59˚ F., in water at 11.3 and above this point it looses CO_2 and at 212˚ F., it leaves only carbonate of sodium. In moisture it gradually decomposes, while if kept dry it will remain intact. Therefore keep well corked and dispense only in cold water.

Indications: Broad, pallid tongue, with want of color, showing an excess of acid and a lack of alkaline elements. However it must be understood that a lack of alkaline elements does not always call for bicarbonate of soda, but very often for stimulation of the alkaline secreting organs.

Use: A mild anti-acid temporarily increasing the alkalinity of the blood. Taken in large doses, not well diluted or for any length of time, and if taken when contraindicated, it often causes an incurable form of dyspepsia. Sodium bicarbonate may be used temporarily, if indicated, in hyperacidity of the stomach, due to fermentation; diarrhea with green, sour discharge or marked acid reaction. In flatulent colic, result of acid condition of the stomach, sick headache from sour stomach. In fevers where system is in acid condition it is of great value internally and locally. Applied locally it is of value in burns and rhus. tox. poisoning, either dry or in solution.

Sodium Phosphate:

Syn.—Phosphate of Sodium.

Properties: Anti-acid, laxative, hepatic.

Use: Of special value in infants and small children with the following indications, viz.: pasty white, often hard stool, which may be of a spongy nature and so light in weight that it will sometimes float in water. There is general malaise, loss of appetite, mucous membrane pale, child is dull, restless, muscles feel sore, temperature may be subnormal or slightly elevated. There may be excess of phosphates in the urine on account of the phosphates supplying nutrition to the bony system not being absorbed, they passing off as waste material. Gradual or rapid emaciation may result. In all these conditions there is a deficiency of red blood corpuscles in the system and a deficient secretion of bile. These symptoms are often the forerunners of rickets, necrosis, caries of the

bones and by the use of this remedy may be aborted. Will often cure hepatic colic. Of value in catarrh of the bile ducts. In small doses it is a good laxative if indicated. Large doses act as a cathartic and are apt to cause griping.

Sodium Sulphite:

Properties: Anti-acid, antiseptic.

Soluble in cold water 4 parts; in boiling water 1 part. Must be kept in a cool place well corked; because if exposed to the air it will absorb oxygen and gradually change to sodium sulphate.

Indications: Pallid mucous membrane and tissues, broad, dirty pasty white coated tongue.

Use: It is a mild antiseptic and deodorant. Will control fermentation in gastro-intestinal tract. In septic conditions calling for alkalies with above indications it is of value. We think of it in typhoid, smallpox , erysipelas, fermentive dyspepsia, apthous condition of the mouth due to parasites. In chronic skin diseases, herpes or any condition where indicated.

Spigelia Marilandica:

Syn.—Spigelia; Maryland Pink.
P. E.—Roots; also the rhizome.
N. O.—Loganiaceae.
N. H.—United States.

Properties: Anthelmintic.

Use: This is claimed to be a specific for the removal of worms from the intestinal tract. Diet should be light while it is used. The fluid extract is what is generally given; the dose being 20 to 30 drops in proper menstruum $^1/_2$ to 1 hour before breakfast and before retiring, to be continued for 2 to 3 days, when it is followed by a good non-irritating physic. It appears to be our best remedy for the removal of lumbricoides from the intestinal tract. They may be expelled as a slimy mass or in parts. In overdoses it has a narcotic effect which may be aborted by combining it with some cathartic.

Staphisagria:

Syn.—Stavesacre; Delphinium Staphisagria.
P. E.—Seeds.
N. O.—Ranunculaceae.
N. H.—Europe.

Properties: Cathartic, emetic, narcotic. Externally parasiticide.

Physiological action: If taken in large doses internally it causes vomiting and purging, acting as a local irritant. In poisonous doses it will first contract pupils, then dilate them, showing its stimulating effect on the centers, followed by depression and paralysis, convulsions and general loss of motion and sensation; respiration is decreased, heart's action is lessened and paralysis of the spinal cord and asphyxia finally cause death.

Use: Staphisagria has a stimulating and tonic influence on the central nervous system. Useful in sexual disorders accompanied by melancholy, hypochondria, or hysteria, especially if attended by violent outbursts of passion. Relieves nocturnal seminal emissions, irritation of the prostate gland and testicles; overcomes impotency and arrests excessive mucous or mucopurulent discharges from the urethra. In some cases of pruritis in the female it is of benefit. Of value in old standing cases of gleet and dysuria. Externally applied diluted with cologne it is our best remedy for pediculae pubis and capitis. This is much more pleasant than the old way of treatment and less dangerous.

Sticta Pulmonaria:

Syn.—Sticta; Lungwort.
P. E.—Lichen.
N. O.—Lichenes parmelaceae.
N. H.—United States.

Properties: Sedative, demulcent.

Indications: Pain in shoulders extending to back of neck and occiput. Sharp pain beneath the scapulae or in shoulders. Cough short and hacking.

Use: The influence of this remedy is on irritations of the chest, especially when complicated with irritation of the nerve centers. We think of it in chronic coughs of a short, hacking nature, rheumatism where indicated.

Hay fever and influenza in which there is an irritating hot watery mucous discharge which may become thick and even purulent. In catarrhal troubles in which there is headache, tearing pain through side of face, with pressure at root of nose, coryza, sneezing, conjunctivitis and a dull pain and soreness in the chest.

Stigmata Maydis:

Syn.—Corn Silk.
P. E.—Green pistils or stigmata.
N. O.—Graminaceae.
N. H.—Temperate zones.

Properties: Diuretic, demulcent.

Use: Useful in uric acid and phosphatic gravel. We also think of it in cystitis, retention of urine, vesical catarrh, edema due to weak heart and in cases where an excess of urates and phosphates is excreted with the urine. It has a soothing effect on the whole urinary tract. As it is only mildly demulcent and diuretic it is not active enough where powerful remedies are required, but it is a valuable adjunct in such cases.

Stillingia Sylvatica:

Syn.—Stillingia: Queens Delight.
P. E.—Fresh root.
N. O.—Euphorbiaceae.
N. H.—United States.

Properties: Alterative, stimulant, in large doses cathartic, emetic.

Indications: When throat is tumid, red, glistening membrane with scanty secretion. In skin diseases of moist nature, red and irritable.

Use: In chronic sore throat, in ozaena and laryngitis. In irritation of the mucous membrane of the larynx, pharynx, bronchi and throat with deficient secretion. Of value in bronchial cough of a croupy nature and little or no secretion. In syphilis and strumous conditions it is of great value. It must however be prepared from the fresh root as the dry root is inert.

Stramonium Datura:

Syn.—Jamestown weed.
P. E.—Seeds and leaves.
N. O.—Solanaceae.
N. H.—America, Europe, Asia.

Properties: Anodyne, antispasmodic, deliriant, narcotic; also a mydriatic.

Physiological action: Stramonium is a direct stimulant to nerve force, especially of the sympathetic nervous system. In overdoses it first stimulates the vaso-motor centers, and then paralyzes them. In large doses it increases strength and rate of pulse, causes vertigo, nausea, dry throat, followed by thirst, dilatation of pupils, voice is impaired, secretion of urine increased. In toxic doses there is hallucination which may be of a merry or violent nature. There is a flushed face, injected eyes, pupils are dilated, perversion of sight follows in which everything may appear reddish or greenish. The action of stramonium is similar to that of belladonna and here, too, we have the characteristic rash of the latter. Stupor followed by coma, and in severe cases convulsions and death follow.

Use: In hysterical or excitable mania, tendencies to violent and perhaps uncontrollable reflex muscular trembling. In headache, nausea or vertigo the result of disordered stomach; indigestion of chronic nature, or excessive acid conditions of the stomach it is of value. In patients that are full blooded and who have a tendency to determination of blood to the head it is not the remedy. A valuable remedy in opium habit if alternated with avena sativa.

Strophanthus Hispidus:

Syn.—Strophanthus.
P. E.—Mature seed.
N. O.—Apocynaceae.
N. H.—In the tropical regions.

Properties: Cardiac tonic.

Physiological action: Its action is upon the muscular tissues, it is claimed by direct contact of the drug through the blood. As more blood passes in a given time through the heart than through any other part of the body it appears reasonable that it should have a much more powerful action on the muscular structure of this organ. It acts

powerfully on all striped muscles, increasing their contractile power and in toxic doses it is the only heart poison that will paralyze the heart in systole. It paralyzes muscular tissue, striated and non-striated, and once the contractility is destroyed, no stimulus will again excite it. It does not influence the vaso-motor -constrictors. Given in small doses arterial tension is increased, the pulse becoming stronger and slower. In toxic doses systolic contractions become very brief and frequent, and death finally results. Respiration continues after heart has ceased to beat. In physiological conditions its diuretic effect is not certain; while in pathological conditions the pulse will become much stronger and more regular and less frequent. In pathological conditions it promotes diuresis and removes dropsical effusions, by stimulating the heart muscles, thus increasing the blood pressure in the kidneys.

Indications: In any irregularity of the heart's action, frequent and feeble cardiac contraction, tremulous pulse, caused by muscular weakness and lack of contractile power of the heart.

Use: In small doses it increases arterial tension. Its action is not well understood but it seems to have an irritating influence directly on the muscles of the heart, perhaps by contact through the circulation as stated before. It increases the blood pressure in the kidneys, through its action on the heart muscles. Acts on the capillary circulation and the secreting and excreting functions of the kidneys. Thus we can explain its diuretic effect. Strophanthus does not accumulate in the system as digitalis does. We think of it in disturbance of compensation, fatty degeneration of the heart, exophthalmic goitre, cholera, to stimulate the heart's action; in praecordial pain, palpitation, dyspnea, and valvular diseases with regurgitation. It is a diuretic and therefore useful in. Bright's disease, anasarca and edema. Good in gradual heart failure, especially in the aged. Acts well in pain resembling those of angina, in which dyspnea is marked. Useful in some cases of asthma and whooping cough. For weak heart in children it is a good remedy.

Sulphur:

Symbol.-S.

Preparations: Precipitated sulphur, flower of sulphur and sulphur lotum or washed sulphur.

Properties: Antiseptic, parasiticide and laxative.

Physiological action: If given in large, doses breath will have the odor of sulphur and it will also be excreted through the pores with perspiration staining the underwear yellow. If used for some time, it will produce general muscular weakness, anemia and impair the blood in general. May also produce eruptions of the skin, eczema, etc., if used too long.

Indications: A change or want of pigment of skin and hair. Dirty, sallow, brownish skin with bluish urine. Rapid loss of color in hair may indicate sulphur. Persistent cough, mucous rales, sputum tough and hard to raise if accompanied by foregoing indications or some. of them. In cramps in calf of legs, especially after going to bed, in old and middle aged women. For internal use the trituration of sulphur lotum is preferable.

Use: In dyspepsia of scrofulous persons, with bad breath and bad taste, and a feeling of fullness in the stomach after meals. As a laxative it is useful in cases where there is deficient intestinal secretion with hard and impacted feces. Of use in rectal ulcers, fissures and hemorrhoids. A good remedy in many skin diseases if indicated. In scabies it is our best remedy. In many cases of anemic condition it is indicated. Where iron has not the desired effect use sulphur or both. Sulphur, iron and lime assist to make red blood corpuscles; if sulphur is lacking, iron will not relieve anemic conditions. In falling out of hair it will often act promptly, especially if alternated with silica. In sterility with cutaneous eruptions and where there is no congenital or organic cause it acts well. In case where iron is needed but desired effects not obtained if alternated with small doses of sulphur happy results are often obtained. The average dose is about 2 to 5 grains of the 1st trituration 1 to 3 times a day.

Thuja Occidentalis:

Syn.—White Cedar; Arbor Vitae.
P. E.—Small twigs and leaves.
N. O.—Coniferae.
N. H.—United States and Canada.

Properties: Anodyne, antiseptic, alterative, astringent, tonic.

Use: Locally and internally it is of value in gangrenous ulcers, acute venous gangrene, senile gangrene, nasal polypus and scaly skin diseases, in which cases a 25 to 50% solution of the tincture may be

used locally. As a hypodermic injection in hydrocele a 25 to 50% solution may be injected after the fluid has been drawn off. Then manipulate the scrotum so as to bring all the internal surface in touch with drug. In hernia and hemorrhoids a 25 to 50% solution may be injected. Having a special influence on epithelial cells, it is of some value in warts, epithelioma, condylomata and goitre, both locally and internally. Of value in incontinence of urine in children and old people, the result of atony and relaxed condition of the bladder and urinary apparatus. In enuresis caused by enlarged prostate gland. In spermatorrhea the result of masturbation or over-indulgence, especially if there is depression of the mind in these cases. May often be combined in these conditions with staphisagria, saw palmetto or avena sativa to great advantage. Bed sore or other sores which fail to heal on account of local nerve exhaustion are much benefited by the application of thuja; in these cases use a 25 to 50% solution of the, tincture. Dose, internally from 3 to 10 drops of the tincture 2 to 4 times a day. As it has a positive tonic effect on the muscular walls and mucous membranes of the bladder and urinary apparatus it is a good remedy where women cannot hold their urine on coughing or sneezing.

Tolu Balsam:

P. E.—Balsam of myroxylon toluiferum.
N. O.—Leguminosae.
N. H.—Central America.

Properties: Stimulant, expectorant.

Use: Has a tonic influence upon the mucous membrane. A good remedy in bronchial irritation of the chronic or subacute form. It appears to stimulate to normal action and is therefore of value in dry, hacking cough, as well as where there is great excess in expectoration the result of relaxed condition of the mucous membrane. As it is not objectionable to the stomach it is a remedy that can be recommended. However as a single remedy it is hardly effective enough, but makes a valuable menstruum for other indicated remedies in conditions as stated. It is readily eliminated by the kidneys. Where sedative effects are needed syrup prunus should be used as menstruum instead of syrup tolu.

Triticum Repens:

Syn.—Couch Grass.
P. E.—The plant.
N. O.—Graminaceae.

N. H.—America, Europe.

Properties: Demulcent, mildly diuretic.

Use: A mild, nonirritating diuretic. Allays urinary irritation, increases renal secretion. We think of it in prostatitis, pyelitis, purulent or catarrhal cystitis, irritable conditions of the bladder, gonorrhea and in fevers where a mild diuretic is desirable to increase secretion of urine. Give in form of an infusion or the tincture, 5 to 60 drops in 1/2 to a tumbler of water 3 to 4 times a day, as the case may demand.

Turnera Aphrodisiaca:

Syn.—Damiana.
P. E.—Leaves and tops.
N. O.—Turneraceae.
N. H.—Southwestern States and Mexico.

Properties: Diuretic, laxative, stimulant and tonic.

Use: A mild nerve tonic and stimulating tonic to the sexual apparatus. Of value in renal and cystic catarrh, relieving irritation of the urinary passages. It is highly spoken of as a remedy in sexual impotence.

Umbellularia Californica:

Syn.—California Laurel; Spice-brush; Spice-tree; Bay-tree; Pepperwood-tree.
P. E.—Leaves.
N. O.—Lauraceae.
N. H.—California.

Properties: Stimulant, antispasmodic, anodyne.

Physiological action: This is not well proven as yet.

Inhaling of the tincture however will produce an unbearable frontal headache. Taken internally in large doses it will cause irritation of the gastro-intestinal tract.

Use: In passive congestion if indicated. In atonic diarrhea, cerebro-spinal meningitis, cholera morbus it has proven a good remedy in doses Of 3 to 10 drops in glycerine, simple, syrup or milk, 2 to 5 times a day as the case demands. The writer prefers smaller doses, but in emergency

even larger doses may be used. For muscular cramps and muscular rheumatism it may be used locally and internally. In nervous headache it may be inhaled and often will relieve promptly. It is contraindicated in active inflammation of the gastro-intestinal tract.

Vesicaria Communis:

Syn.—Lesquerella, German bladder pod.
N. O.—Cruciferae; mustard family.
N. H.—Germany; cultivated in Tennessee and Alabama, U. S. A.
P. E.— plant

Properties: Demulcent, diuretic.

Indications: A smarting, burning sensation in urethra and bladder. There may be frequent desire to urinate. Urine in some cases is only voided drop by drop. Often in these cases there is strangury associated with the condition.

Use: In irritable condition of the bladder. Useful in acute or chronic cystitis. In nephralgia it has been used with success, relieving the pain produced by the passage of calculus. The tincture or the homeopathic mother tincture should be used in 3 to 15 drop doses 3 to 4 times a day. In cases where the pain is severe it should be given every $^1/_2$ hour until easier then every 2 to 4 hours as the case demands. Where the pain is of a spasmodic nature gelsemium is a valuable adjunct to above. It is claimed to be a good remedy in gonorrhea if given in large doses, say $^1/_4$ to $^1/_2$ teaspoonful 3 to 5 times a day. Some authors recommend it highly in albuminuria. By its use the albumen in the urine will disappear. Even in actual Bright's disease it is of value. In diseases of the kidneys, bladder and prostrate we think of this remedy.

Veratrum Viride:

Syn.—Veratrum; American Hellebore.
P. E.—Root.
N. O.—Liliaceae.
N. H.—North America.

Properties: Arterial sedative.

Physiological action: In large doses it causes a marked reduction in temperature with rapid and feeble pulse, especially marked on the least

exertion; respiration becomes slower followed by nausea, vomiting and a feeling of general weakness. In toxic doses all of these symptoms become more pronounced; skin gets cold and clammy, pulse is weak, there is headache, hiccough, vertigo, nausea, severe vomiting and great prostration. There may be dilated pupils. In severe cases there may be even convulsions. Veratrum viride is a very powerful cerebro-spinal depressant. However when given in large doses it will produce vomiting and thus avoid serious or fatal results. It does not accumulate in the system.

Indications: Frequent full, large bounding pulse, flushed face, fullness of tissue. Flushed face and surface a little more of a dark dull hue than the bright red flush.

Use: In sthenic fevers, especially in the onset. It is a powerful cerebro-spinal and heart depressant; slows heart's action and circulation and in this way reduces the temperature. When indicated it assists promptly to remove venous obstruction and arterial pressure. In active cardiac hypertrophy where pulse is forcible and strong, carotids pulsate, eyes are bloodshot, with headache and cough, it is of value. In peritonitis and metritis it is of special value and should be given in large doses alternated with large doses of echinacea. Useful in convulsions with active cerebral engorgement. In puerperal convulsions it-is our best remedy; here it should be given in from 5 to 12 drop doses and repeated as often as required, the effect being carefully watched. In orchitis we find veratrum viride a good remedy. It is of value as a local application in local inflammation in the early stage where the skin is unbroken. While the average dose of veratrum viride is from 10 to 40 drops in 4 ounces of water, a teaspoonful every 1 to 3 hours; in emergencies it may be used in large doses. In metritis it may be given in 5 to 10 drop doses, starting with the small dose and gradually increasing until pulse is controlled. In puerperal convulsions it may be given hypodermically in 5 to 10 drop doses. As it will abort exudation in the early stage of inflammatory conditions, but will not favor absorption of exudates after they have taken place, it is of most benefit in the earlier stages of inflammation. While veratrum viride is a powerful depressant in regular doses; when administered -in very minute doses, 1 to 2 drops in 4 ounces of water, teaspoonful 3 to 4 times a day, it is a stimulant, heart tonic, and improves digestion and appetite.

Viburnum Opulus:

Syn.—Cramp Bark; High Cranberry.
P. E.—Bark.
N. O.—Caprifoliaceae.
N. H.—North America.

Properties: Antispasmodic.

Use: In habitual abortion it is of value, but is inferior to viburnum prunifolium. We think of it in spasmodic pains in the uterus, ovaries, or bladder, and in stricture. It has special influence on spasmodic conditions of the pelvic viscera. In spasmodic dysmenorrhea, hysterical conditions with spasmodic contraction of muscles it is of value. Viburnum opulus is mainly used for its antispasmodic influence on the pelvic viscera.

Viburnum Prunifolium:

Syn.—Black Haw; Stag Push.
P. E.—Bark of root.
N. O.—Caprifoliaceae.
N. H.—Eastern and Middle States.

Properties: Uterine tonic and sedative, mildly antispasmodic, astringent, diuretic.

Use: Stimulant tonic to the reproductive nerve centers. Its action is on the uterus, regulating its function and allaying irritation, acting through the nervous-system. It acts favorably in nervous conditions of pregnant women. We think of it in threatened abortion, uterine hemorrhage, vomiting of pregnancy where there is a tendency to abortion. If ovarian irritation is the cause of sterility this is a good remedy if used for some time. Dysmenorrhea with cramp-like pains, especially membranous dysmenorrhea, is often relieved by it; but it must be taken for at least 3 to 4 days, before and after the menstrual period. It is of value in amenorrhea and metrorrhagia. In irregular and sudden appearance of the flow; sometimes occurring in eruptive and other fevers it is of great value in preventing sepsis; if antiseptic douches are given locally to prevent local septic conditions. Of value in sympathetic disturbance of the heart, stomach and nervous system in sensitive women during or preceding the flow, which are the result of vaso-motor disturbances. May be used to great advantage. in the last months of pregnancy, when it will facilitate labor. Controls after-pains,

prevents post-partum hemorrhage and favors normal involution. In pregnant women where the circulation in the lower extremities is impaired, with capillary hemorrhage, pain, etc., the result of weakness and engorgement of the uterus, which in this way causes abnormal pressure, viburnum prunifolium is a very good remedy. In threatened abortion it is our best remedy.

Vinegar:

Syn.—Cider vinegar; Apple vinegar.

Properties: Astringent, tonic, antiseptic.

Use: Vinegar for medical purpose should be made from the juice of apples going through a process of fermentation. Alcoholic fermentation takes place first followed by acid fermentation. Vinegar contracts capillaries and improves the circulation and thus removes congestion. Pure cider vinegar is something every physician should have and even carry in his emergency grip. The writer carries a small bottle in his emergency and obstetrical case. In any form of uterine hemorrhages half vinegar and half water with a little antiseptic added is our best local remedy. If the water that is added is hot it will act more powerfully. In smallpox it is probably our best remedy if given in one tablespoonful doses in a wineglass of water every 2 to 4 hours. One half water and vinegar each is useful as a wash for hands and face. For those that have been exposed to smallpox the same treatment will generally assist in preventing contagion. In all cases disinfection and fumigation with formaldehyde should be strictly enforced. Gargling with vinegar and water is also useful. A gargle made of $^1/_2$ vinegar and $^1/_2$ water with a little antiseptic added is a fine remedy in many congestive and ulcerative throat troubles. In fact it is the best general gargle we have. However this solution should be as hot as it can be born to be most effective. In sore throat, ulcerative sore throat, tonsillitis before pus has formed it is the gargle par excellence. The vapor of vinegar inhaled is useful in spasmodic or membranous croup and severe bronchial coughs. For carbolic acid poisoning vinegar is one of our best remedies. In many skin diseases vinegar will relieve the irritation.

Viscum Album:

Syn.—Mistletoe; Viscum Flavescens.
P. E.—Leaves, twigs and bark.
N. O.—Loranthaceae.

N. H.—Asia, Europe and America.

Properties: Parturient, emmenagogue, antispasmodic. Physiological action: It stimulates the vaso-motor nerves, contracting the arterioles. Having a special action upon the uterus. Stimulates heart's action and thus proves a good remedy where. its action is weak and there is low arterial tension. In diseases of the brain or spinal cord of a congestive nature it is of great value on account of its stimulating effect, consequently in active congestion or active hyperemia it should not be used. Where there is a lack of tone or passive congestion it is a good remedy.

Indications: Where there is flow of blood to the brain, flushing of the face and frequent headache. With above conditions it is of great value in amenorrhea and dysmenorrhea and other diseases of women.

Use: It is a good cardiac tonic, especially in cases where dropsy is associated with heart trouble. In hypertrophy of the heart with valvular insufficiency with dropsy of extremities, small, weak pulse, dyspnea, it sometimes gives astonishing relief where other remedies fail. In chorea it is a good remedy, in doses of 1 to 5 drops 3 to. 5 times a day, especially where there is a condition of atony and lack of vitality. If it increases the trouble, decrease the dose. In some cases of spasms and convulsions it has relieved where other remedies failed. It may be given in v to x drop doses 2 to 3 times a day.

Xanthoxylum Americanum:

Syn.—Xanthoxylum; Prickly Ash.
P. E.—Berries and bark.
N. O.—Rutaceae.
N. H.—United States.

Properties: Stimulant, tonic, carminative.

Physiological action: Xanthoxylum stimulates the nerve centers and thus increases the functional activity of the different organs of the body. Has a tonic effect on the heart and will antagonize congestion and blood stasis. Its action on the capillaries is similar to that of belladonna but is much safer to use as there are no toxic effects from its use. When taken it causes a warmth and tingling, through the whole body.

Use: Stimulates the nerve centers and in this way increases the tone

and functional activity of different organs of the body. It stimulates the heart, and capillary circulation and thus assists in overcoming congestion and blood stasis. We think of it where the circulation is sluggish, mucous membrane relaxed and there is general lack of nerve tone. In rheumatism as a gastro tonic, in atonic diarrhea and dysentery, colic, cholera morbus, Asiatic cholera, chronic atonic dyspepsia. Combined with hydrastis, it makes a valuable restorative in conditions of weakness, malnutrition, after debilitating fevers, diarrhea, dysentery, etc. It has a superior tonic influence upon the stomach and digestion and improves nutrition. A valuable remedy in chronic atonic dyspepsia.

Zingiber Officinale:

Syn.—Ginger.
P. E.—Rhizome.
N. O.—Zingiberaceae.
N. H.—India.

Properties: Stimulant, carminative.

Use: It is an emergency remedy in flatulence, colic, colds, hysterical attacks, dysmenorrhea, uterine and ovarian pains, when not contra-indicated. The tincture should be taken well diluted. If a diaphoretic effect is wanted as in colds, congestive dysmenorrhea or amenorrhea of a congestive nature from colds, $^1/_2$ to 1 drachm of the tincture may be used to a pint or quart of hot water. Zingiber stimulates the gastro-intestinal mucous membrane, therefore is of use in relaxed and catarrhal conditions of same. In flatulence from decomposition of the ingesta it is extensively used. Our best remedy to relieve distention of the stomach which is caused by accumulation of gases.