

CACTUS (*Selenicereus* spp.).

The fresh, green stems and the flowers of *Selenicereus grandiflorus* (L.) Britt. & Rose (and other *Selenicereus* species—MM) (*Cereus grandiflorus*, Miller and DeCandolle.) Native of Mexico and the West Indies; grows also in Italy; cultivated in greenhouses in the United States.

Common Names: Night-blooming Cereus, Large-flowering Cactus, Sweet-scented Cactus.

Principal Constituents.—Cactus has not been satisfactorily analyzed.

Preparation.—*Specific Medicine Cactus. Dose*, 1 to 10 drops.

Specific Indications.—Impaired heart action, whether feeble, irregular, or tumultuous; cardiac disorders with mental depression, praecordial oppression, and apprehension of danger and death; nervous disorders with feeble heart action; tobacco-heart; hysteria with enfeebled circulation; vertex headache; vaso-motor spasms.

Action.—Cactus impresses the sympathetic nervous system, and is especially active in its power over the cardiac plexus. In sufficiently large doses it acts as an intense irritant to the cardiac ganglia, producing thereby irritability, hyperaesthesia, arrhythmia, spasm and neuralgia of the heart, and even carditis and pericarditis. According to E. M. Hale, M.D., it acts upon the circular cardiac fibers, whereas digitalis acts upon all the muscular fibers of the heart. Like the latter, as a secondary effect of over-stimulation, it may induce heart-failure. The tincture, in large doses, produces gastric irritation, and also affects the brain, causing confusion of mind, hallucination, and slight delirium. In excessive doses, a quickened pulse, constrictive headache, or constrictive sensation in the chest, cardiac pain -with palpitation, vertigo, dimness of sight, over-sensitiveness to noises, and a disposition to be sad or to imagine evil, are among its many nervous manifestations. Melancholia often follows such action. It is contended by many that the mental, cerebral, gastric, and other effects are secondary to and dependent largely upon the primary effects of the drug upon the heart; others believe its action depends chiefly upon the nervous system.

Therapy.—Cactus is the remedy for enfeeblement of the heart. An old school writer of prominence has said of it that cactus is the only

remedy that will quicken a slow heart. While there are some who declare cactus totally inert as a medicine, there are others who claim for it great value even in structural alterations of the heart. The verdict of Eclectic practitioners, who are the largest users of the drug, is that cactus is a remedy chiefly for functional disorders of the heart due to nervous origin. It is, therefore, a nerve remedy primarily and a heart remedy secondarily. Eclectics have also noted that it improves the nutrition of the heart muscle and thus is, in a measure, a structural remedy also. By improving the nutrition of the organ it is possible, in some instances, to correct structural abnormalities. Valvular troubles have been noted to gradually disappear under its prolonged administration. Unlike digitalis it does not disorder the stomach nor is it cumulative. Cactus acts upon the vessels through the vaso-motor apparatus.

The peculiar state of the nervous system in cardiac diseases, calling for cactus, is quite characteristic. There is a marked mental depression, often amounting to hypochondria and fear of impending death. Associated with these are praecordial weight and oppression and difficult breathing. The control over the nervous system is somewhat like that of pulsatilla, and the effects of cactus are usually permanent.

In medicinal doses, cactus diminishes the frequency of the pulse, and increases the renal secretions, and is, therefore, sedative and diuretic. According to Scudder (*Specific Medication*), it neither increases nor depresses innervation; that it is neither stimulant nor sedative. Locke, on the other hand, believes it sedative, but not depressant (*Syllabus of Materia Medica*). In such doses it does not appear to weaken the nervous system in the least.

The special field for cactus is diseases of the heart. Its influence upon the heart is manifested when the disorder is functional; organic conditions are only benefited in a measure. However, some who are antagonists of Eclectic medicine, who are generally skeptical regarding the virtues of plants which do not possess unusually powerful properties, consider cactus as a valuable agent in mitral regurgitation, due to valvular lesions. In our school, however, let us repeat, it is recognized chiefly as a functional remedy, and one of the best of cardiac tonics. There is no doubt but that the continued use of the drug tends to increase cardiac nutrition and waste, and in this way may benefit cases with structural lesions. The influence of cactus is

believed to be exerted almost wholly upon the sympathetic nervous system, through the superior cervical ganglia, expending its force in regulating the action of the heart and controlling the cerebral circulation, thus giving increased nutrition to the brain. It is the remedy for most functional cardiac irregularities, as palpitation, pain, cardiac dyspnea, intermission. in rhytm, etc. Even in structural heart-wrongs, the majority of unpleasant symptoms are partly due to disordered innervation, and this condition is corrected by cactus. It does not seem to make any difference whether the heart-action be feeble, violent, or irregular, provided it be due to lack of innervation, associated with mental depression, or in excitable or nervous individuals, the remedy relieves, because its tendency is to promote normal rhythmic action of the cardiac muscle. Aortic regurgitation is nearly always benefited by it and it is useful in progressive valvular weakness, but is contraindicated in stenotic conditions. In spasm of the heart-muscle, and in cardiac pain of a constrictive character, as if the organ were held with a strong band, it is often the most prompt of all cardiac remedies. It is a good remedy in the heart troubles produced by tobacco, probably benefiting oftener than any other medicine.

Cactus is a valuable remedy for the heart symptoms of neurasthenia. During the menstrual period and at the menopause, nervous women frequently experience unpleasant cardiac disturbances of a functional character. These are relieved by cactus. Few agents excel it in menstrual headache, and headache in women with pressure on top of the head. For nervous menstrual headache, Locke recommends: Rx Specific Medicine Cactus, 10-30 drops; Water, 4 fluidounces. Mix. Sig.: Dose, a teaspoonful 3 or 4 times a day. When the heart is enfeebled from long illness, as in convalescence from typhoid or other fevers, cactus is invaluable. Even in incurable conditions of the heart it seldom fails to give some relief. It rarely relieves angina pectoris, and neuralgia of the heart, and is sometimes useful in endocarditis and pericarditis following debilitating diseases. The heart-debility induced by overwork, strains, over-enthusiastic athletes, soldiers on the march and "hikers", and that accompanying or following masturbation finds relief in cactus. When associated with cardiac weakness and irregularities, and in so far as they depend upon these conditions, cactus has been found useful in cerebral congestion, mental derangements, irritable bladder, renal congestion, edematous condition of the limbs, and anasarca. When a vigorous and healthy

action of the heart obtains under its use these troubles pass away.

Cactus is recommended in visual defects of an asthenopic character, and in exophthalmic goitre, due to functional heart disease; tinnitus aurium, from the same cause, is benefited by it. These eye and ear disorders are not benefited by it when the cardiac disorder is of an organic nature.

CAFFEA.

The seeds of *Coffea arabica*, Linné (Nat. Ord. Rubiaceae). Native of Arabia-Felix and Ethiopia; and extensively cultivated in Asia and America between the north and south latitudes of 56°.

Common Name: Coffee.

Principal Constituents.—The chief constituents are *caffeine* (C₈H₁₀N₄O₂. H₂O); a volatile aromatic oil; *caffeo* is also present in minute quantity and upon it depends the aroma of coffee; and *caffeo-tannic acid*.

Preparations.—1. *Infusum Caffeæ*, Infusion of Coffee. *Dose*, 2 to 8 fluidounces.
2. *Specific Medicine Coffeæ*. *Dose*, 1 to 60 drops.

Specific Indications.—Feeble circulation, with threatened heart-failure; sense of exhaustion; headache, with cerebral hyperemia or congestion.

Action.—Coffee is a decided cerebral stimulant and energizer. It also increases reflex activity of the spinal cord. Used moderately it is a mild bitter stomachic, stimulating the appetite and facilitating digestion. There is reason to believe that it increases hepatic activity and it promotes peristalsis, thereby favoring a free action of the bowels. Coffee slightly accelerates the circulation. Under its use the intellect is quickened to an extraordinary degree, thinking is facilitated, ideas flow freely, the reasoning faculty is sharpened, and an enormous amount of mental and physical work may be accomplished. The action of hot coffee upon the cerebrospinal system is especially evident when a person is exhausted by mental strain or physical exertion. Coffee removes drowsiness after a heavy meal, and may produce wakefulness that will last for several hours. If coffee be withheld from one who is accustomed to its stimulus, physical and mental exhaustion become so severe as to interfere with intellectual pursuits or bodily endurance

under exertion, and a profound headache may be experienced. Coffee probably retards tissue waste, and is, therefore, a conservator of force.

The excessive use of coffee causes irritability, dejection of spirits, muscular weakness and trembling, watchfulness, dizziness, headache, and ringing noises in the ears; and flatulence, sour stomach with heartburn and eructations, and disordered action of the bowels. Probably the hepatogastric symptoms— “coffee biliousness” —is due largely to the empyreumatic oil present in coffee; the nervous symptoms chiefly to the caffeine it contains. Therefore preparations from which the latter has been removed are just as likely to produce stomach disorders as regular coffee.

The stimulating effects of coffee are most largely due to *caffeine*. This alkaloid is one of the most rapidly acting cerebro-spinal stimulants and probably the nearest of any drug to a physiologic energizer of the intellectual brain. It sharpens the intellect wonderfully, and increases particularly the reasoning faculties rather than the imaginative. It operates without after-fatigue and renders the person capable of great mental achievement and physical endurance. Workmen do more work under coffee, and soldiers stand long marches under the stimulus of the caffeine it contains. Large doses produce excitation of the spinal cord, and if carried to full action exaggerate the reflexes, making the person exceedingly nervous. No harm, however, is done to any organ by coffee or by caffeine, and no after-fatigue or exhaustion follows, provided neither be given to the extent of interfering with the taking of food nor of preventing rest or sleep. Caffeine excites muscular contractility, and powerfully stimulates respiration. Upon the circulation it heightens blood pressure and quickens the contraction of the heart. These are accomplished through its action upon the vaso-motor control and upon the heart muscle itself, its effects upon the latter taking origin at the veno-auricular junction, and extending from thence to the auricle and the ventricle. Caffeine increases the output of both the solids and the fluids of the urine, by dilating the renal bloodvessels and by direct action upon the renal epithelia. The tissue-waste of the body is thought to be restrained by caffeine, thus making it a conservator of force and energy. Caffeine is believed to be oxidized and destroyed in the body. The common non-alcoholic beverages of mankind (except coca)—coffee, tea, cocoa, kola, maté and guarana—owe their grateful stimulus to caffeine or related alkaloids. The theine of tea is practically caffeine. All of them relieve fatigue, increase

mental acuity, endurance and the capacity for exertion without being followed by fatigue or exhaustion.

Therapy.—Coffee in strong infusion is given both by stomach and rectum in opium poisoning. It should be made fresh and as strong as possible. The warmth adds to its efficiency. A cup of strong, hot coffee is often an effectual sobering draught in acute alcoholism. and small and repeated amounts will sometimes ward off an attack of delirium tremens. Coffee is a gratefully refreshing agent for headache due to cerebral hyperaemia or congestion, as shown by red face and injected eyes, but will be likely to aggravate a neuralgic headache when the face is pale. Strong coffee sometimes cuts short an attack of asthma, and checks hiccough. It is the most refreshing stimulant that can be used in the exhaustion of low fevers of a typhoid type and in the debility following other acute disorders, particularly if the patient was previously accustomed to its use as a beverage. In fact, coffee should never be wholly withheld in acute disorders when it has been a factor in the patient's daily dietary. For its stimulating effect in fatigue and nervous exhaustion and calming action in nervous excitation of debility, coffee should be freshly prepared and drunk hot, preferably without sugar or cream; for use in narcotic poisoning very strong, “black coffee” may be given freely, both by mouth and per rectum.

(I get the impression that the good Dr. Felter was fond of coffee—MM)

CALAMUS.

The rhizome of *Acorus Calamus*, Linné (Nat. Ord. Acoraceae). Common in wet and muddy grounds everywhere in the Northern Hemisphere. **Dose**, 5 to 40 grains.

Common Name: Sweet-flag.

Principal Constituents.—Resin, aromatic essential oil, and a bitter glucoside, acorin (C₃₆ H₆₀ O₉).

Preparations.—I. *Specific Medicine Calamus*. **Dose**, 5 to 30 drops.

2. *Syrupus Calami*, Syrup of Calamus. **Dose**, 30 to 60 drops.

Action and Therapy.—Carminative, sialagogue, excitant, and slightly tonic. Useful as ‘breath perfume,’ and in flatulent colic, atonic dyspepsia, feebleness of the digestive organs; and in the form of syrup as an agreeable vehicle for less pleasant medicines. The fresh root shaved thin, transversely, may be candied by boiling in syrup,

draining, and allowing it to dry. In this form it is a delicious confection. Calamus may also be given in the form of a syrup or by adding the specific medicine to the required amount of simple syrup.

CALENDULA.

The florets of *Calendulaofficinalis*, Linné (Nat. Ord. Compositae). Southern Europe and the Orient; largely cultivated as a garden flower. **Dose**, 1 to 60 grains.

Common Names: Marigold, Garden Marigold, Marygold.

Principal Constituent.—A tasteless yellow body, *calendulin*.

Preparations.—1. *Specific Medicine Calendula*. **Dose**, 1 to 60 drops. For local use, from full strength to 10 per cent aqueous solutions.

2. *Borated Calendula* (Boric Acid, 1 ounce; Specific Medicine Calendula, 1 drachm. Mix). Freely as a dusting powder.

Action and Therapy.—*External*. Calendula is believed to stimulate vaso-motor contraction and selectively to influence the skin and mucous tissues. After the manner of using arnica it is employed largely as a vulnerary. It is non-irritating and non-poisonous. Its advocates claim that it reduces the probability of gangrene occurring, prevents or lessens the formation of pus, and promotes the prompt healing of wounds, with the least possible cicatrization. It has been applied after the removal of epitheliomata with asserted benefit, and as an application to gangrenous and indolent ulcers, with capillary impairment, it is said to have stimulated replacement by healthy tissues. A wash (1 part of Specific Medicine Calendula to 4 parts of sterile water) has been advised as very effective to promote reconstruction or to reduce tumefaction and discharges, as indicated, in abscess cavities, burns and scalds (to lessen scarring), acne, ulcerative skin diseases, vaginitis, cervicitis, endometritis, vaginal abrasions, erosion of the os uteri, non-specific urethritis, gonorrhoea, leucorrhoea, lacerated perineum, and uterine subinvolution. As a rule, in most of these disorders, its internal use has been advised at the time of using it locally. Ecchymoses are reputed to have been quickly removed by it, and it is claimed that it opposes varicoses. Diluted with rose water to suit the purpose, it may be employed in mild conjunctivitis and in some aural inflammations. In purulent otitis media the borated calendula is preferred. The powder should be lightly insufflated but not packed into the canal, so as to insure free drainage.

Borated Calendula may be dusted upon excoriations and sore nipples; and an oil solution of calendula (Calendula, 1 or 2 drachms to Liquid Petrolatum, 1 fluidounce) may be sprayed into the nose for the relief of nasal catarrh, with raw and tender membranes, or irritable throat. Thomas cured an inveterate case of crural ulcer in an old man by the use of zinc oxide ointment into which was incorporated Specific Medicine Calendula. Zinc ointment alone failed to achieve results.

Internal. Through its supposed action as a local and general vasomotor stimulant it has been advised internally to reinforce its local action, particularly in old ulcers, varicose veins, capillary engorgement of tissues, and chronic suppurative and catarrhal conditions. Splenic and hepatic congestion are said to have been benefited by it. While of unquestioned value in all of the local conditions named it has been much overrated, and its real medicinal worth obscured by extravagant praise.

CALUMBA (*Jateorhiza palmata*).

The root of *Jateorhiza palmata* (Lamarck), Miers (Nat. Ord. Menispermaceae). A climbing perennial, the Kalumb of the Southeast coast of Africa. **Dose**, 1 to 30 grains.

Common Names: Columbo, Colombo, Columba.

Principal Constituents.—*Calumbin*(C₄₂H₄₄O₁₄), a bitter principle, *berberine* (C₂₀H₁₇NO₄) with columbic acid, and columbine, a possible white alkaloid, may be present. No tannin is present.

Preparations.—1. *Infusum Calumbae*, Infusion of Calumba. **Dose**, 1 to 2 fluidounces.

2. *Specific Medicine Calumba*. Dose, 5 to 30 minims.

Specific Indications.—Enfeebled stomach with indigestion, or feeble digestion; anorexia and debility.

Action.—This is a type of the pure, simple bitters which contain practically no oil or tannin, are not astringent and have no general effect, but act reflexly upon the stomachic and salivary functions by first irritating the mucous membrane and taste buds of the tongue. This action is quite transitory, so that in administering bitters they should be given immediately before meals. Their effect upon the

stomach is to increase local circulatory dilation, a freer flow of gastric juice, increase of mucus, and increased muscular action. On account of the action upon the flow of mucus they should not be administered for too long a period lest gastric irritability and consequent impaired digestion result.

Therapy.—The least irritating and one of the best of the simple bitters and of especial value in atony of the stomach with poor appetite and feeble digestion. It is especially valuable in convalescence from acute fevers and other disorders in which there is lack of desire for food and poor digestion, with pain or without pain, immediately upon eating. After the active stage of cholera morbus, cholera infantum, acute diarrhoea, and dysentery it may be given to promote the appetite and digestion. When desired calumba may be combined with magnesia, bicarbonate of soda, senna, ginger, and aromatics, to meet special indications, particularly when flatulence and constipation are present.

Calumba and the allied bitters should not be given in acute or subacute inflammatory conditions of the stomach, nor during acute fevers, nor when digestion is merely impaired, but the appetite remains good. It is largely ineffectual also when organic disease of the stomach prevents the normal outflow of gastric juice. When given, the small doses are preferable to large ones; and on account of the absence of tannin, iron salts may be given with calumba, if so desired. In some respects calumba resembles hydrastis in its local action, and indirectly, by favoring better digestion, the quality of the blood is improved, hence its value in anemia during convalescence.

CAMBOGIA.

A gum-resin obtained from *Garcinia Hanburii*, Hooker filius (Nat. Ord. Guttiferae). Siam, Cochin-China, and Cambodia. *Dose*, 1 to 3 grains.

Common Names: Gamboge, Camboge.

Description.—Grayish, orange-brown, cylindrical fragments, without odor and acrid to the taste. In powder it is light yellow. Soluble partially in alcohol.

Principal Constituent.—A purgative resin (*cambogetic acid*).

Action and Therapy.—Gamboge is a drastic hydragogue cathartic. It is never used alone, but in pills, with other substances, chiefly where

dropsical conditions prevail and it is desired to treat them by purgation. It is exceedingly active and has caused death by gastroenteritis. Full doses should never be given, but repeated small doses in pills or in alkaline solutions, until results are obtained. Alkalies best counteract its drastic effects.

CAMPHORA.

A stearopten (having the nature of a ketone) derived from *Cinnamomum camphora*. (Linné), Nees et Ebermeier (Nat. Ord. Lauraceae). China and Japan.

Common Names: Camphor, Laurel Camphor, Gum Camphor (it is not a gum).

Description.—Tough, translucent white lumps or granules, having the pungent taste known as camphoraceous, and an aromatic penetrating odor. It dissolves freely in alcohol, chloroform, ether, and fixed and volatile oils; very slightly in water. Camphor is readily pulverized by triturating it with a few drops of alcohol, chloroform, or ether. **Dose** (by mouth), 1 to 5 grains; (hypodermatically) 1 to 3 grains.

Preparations.—1. *Spiritus Camphorae* (10 per cent), Spirit of Camphor. **Dose**, 1 to 30 drops.

2. *Aqua Camphorae*. Camphor Water. **Dose**, 1 to 4 fluidrachms.

3. *Linimentum Camphorae*. Camphor Liniment (Camphorated Oil) (Composed Of Camphor, 200 parts; Cottonseed Oil, 800 parts). **Dose**, 10 to 30 drops. For external use chiefly.

4. *Ceratum Camphorae*. Camphor Cerate. (Composed of Camphor Liniment, White Wax, White Petrolatum, and Benzoinated Lard.) For external use.

Action.—Camphor causes a local dilation of the capillaries of the skin, producing warmth, redness, and sometimes itching. Slight anesthesia follows. It causes smarting and hyperaemia of the mucosa, and if applied strong may cause considerable irritation. In this manner it has produced gastric ulceration. In small doses camphor warms the stomach, stimulates secretion, increases peristalsis, and expels flatus. Large doses may induce vomiting. Camphor is readily absorbed, both from application and inhalation. It is largely changed in the body and is eliminated in the urine as campho-glycuronic acid. In moderate doses camphor directly stimulates the heart-muscle, causing slower and stronger contractions and increased arterial pressure, but after large doses the pressure falls. Respiration is slightly stimulated by it, large doses causing slower and deeper breathing. In general it may be said that small doses of camphor stimulate, while large quantities

depress, or even paralyze. This is true of all the functions it affects. The action of small doses upon the nervous system is to produce a feeling of slight exhilaration or contentment. Large doses excite the higher cerebral and medullary centers and then paralyze them; poisonous doses occasioning more or less of the following symptoms: esophageal and gastric pain, vomiting, headache, dizziness, mental confusion, drowsiness, delirium, and stupor; feeble, running, or intermittent pulse, cold skin, cold sweat, and muscular weakness followed by rigidity and epileptiform convulsions, collapse and death. The type of convulsions shows its effects to be chiefly upon the cerebral cortex, though it acts also progressively on the medulla, causing death by respiratory paralysis. Camphor does not affect all persons alike. Some may pass directly into drowsiness, insensibility, and stupor, followed by death. If taken for long periods, even in moderate doses, camphor gives rise to a state of mental confusion. Opium and repeated small doses of alcohol are the best antagonists of the untoward effects of camphor.

Therapy.—*External.* Camphor is stimulant, rubefacient, antipruritic, and feebly antiseptic. Owing to its agreeable odor and pleasant stimulating effects it is largely used, as a powder, in lotions, and ointments, or rubbed up with other solids to produce anodyne and antiseptic liquids. In this manner, when triturated with chloral hydrate, menthol, phenol, thymol, and similar bodies, ideal liquid antiseptics are obtained for use upon wounds, neuralgic and other painful areas.

Powdered camphor is an ingredient of tooth powders and pastes and dusting powders for skin diseases. Alone or with zinc oxide, talc, or precipitated chalk it may be used upon bed-sores with decided relief. Such combinations are valuable in intertrigo, chronic eczema, urticaria, and zoster. Many snuffs contain powdered camphor, and it is useful to stimulate sluggish ulcers. Sprinkled upon the face it is used to control itching and to prevent pitting in small-pox. The spirit is a household embrocation for the relief of pain and itching, and it is used largely, alone, or in liniments and embrocations, for the relief of pain, stiffness, soreness and swelling, as in myalgia, facial and other neuralgias, and upon rheumatic joints, deep inflammations, chronic indurated glands and other indurations, sprains, contusions, and inflammatory swellings. An ethereal tincture of camphor is said to give relief in erysipelas. Inhaling the spirit, or camphor dropped into hot

water, gives relief in nervous headache, and often aborts acute colds, coryza, and influenza, giving respite from the excessive secretion and the accompanying headache. A solution of camphor in liquid petrolatum (usually with menthol) is a popular spray for similar uses, and for laryngitis, pharyngitis, chronic nasal catarrh and hypertrophic rhinitis. The spirit, the liniment, or camphorated oil are favorite applications for tenderness and pain, chilblains, toothache, and acute mastitis: in the latter it tends to suppress the milk. The spirit is in common use as a lotion for headache in nervous individuals with feeble circulation, and tendency to fainting. The oil, by injection, is sometimes effectual in removing seatworms. So-called "camphor-ice" is a soothing, camphorated petrolatum preparation for labial herpes.

Internal. Camphor is used to allay nervous excitement, subdue pain, arrest spasm, and sometimes to induce sleep. It is an important remedy in many disorders of neurotic women and children, being frequently most effective as a nerve sedative, antispasmodic, and carminative in nervous nausea and vomiting, flatulence, hiccough, and tendency to spasms or fainting. It is especially serviceable in palpitation of the heart due to gaseous distention of the stomach, or to nervous irritability. In occipital headache, from mental strain, or overstudy, small doses of camphor, together with the consentaneous use of it locally, frequently give prompt relief.

Camphor taken and inhaled may abort "cold in the head," or alleviate it when established. It checks the sneezing, copious, watery secretions and lachrymation and relieves the nasal and frontal headache. It similarly benefits in the acute coryza of epidemic influenza, or la grippe. As an ingredient of cough mixtures, such as camphorated tincture of opium, it contributes much toward relieving irritation, pain, oversecretion, and the associated nervous unrest. In very small doses it is useful in the bronchitis of the aged, while it helps greatly when depression attends slowly resolving cases of acute capillary bronchitis.

The most important use for camphor is in adynamic depression attending or following exhausting diseases. In typhoid, typhus, and other low forms of fevers and low grades of inflammation, with a quick irritable pulse, great restlessness, tremor, morbid watchfulness, dry skin, low muttering delirium and subsultus tendinum, it is one of the most active stimulating sedatives in the materia medica. Similar conditions sometimes occur in acute infectious diseases, as the

exanthemata, in acute endocarditis and particularly in acute lobar pneumonia. For this profound depression 15 drops of a 10 per cent sterile oil or ether solution (both are sold in sealed ampoules) may be used hypodermatically and repeated as needed. The latter is similarly employed in shock and threatened collapse attending surgical operations.

In addition to the above-named preparations, solutions of camphor in alcohol, as well as a thirty per cent camphorated sesame oil, have been used in shock and collapse, and in lobar pneumonia. Indifferent results attend their use in many instances. In fatal cases, where such stimulation has been attempted, the death throes of the patient seem often to be aggravated. It is a common observation that patients to whom "camphor in oil" has been given, "die hard."

Camphor is largely used, usually with other pain-relieving agents, or with aromatic oils, as cajuput, in serous diarrhea, cholera morbus, and Asiatic cholera, in all when profoundly depressive. It is also useful (usually with opium, as in the diaphoretic powder, or with morphine, as in Tully powder) for spasmodic dysmenorrhea in nervous women, though the opiate content should not be oft repeated, nor long continued, nor given with the patient's knowledge of its use. Camphor frequently relieves menstrual headache, with great nervous depression. It is also useful to control irritation due to the passing of catheters and the strangury that sometimes results from the use of cantharidal blisters. King believed camphor an antidote to strychnine poisoning, supporting his views by the results he had observed on animals. In combination with bromides, camphor has given relief in the late stages of chordee.

Camphoric Acid, in doses of 15 to 40 grains, preferably in cachet or capsule, given a few hours before bedtime, is one of the most effective drugs for the colliquative night-sweats of phthisis.

CANNABIS.

The dried flowering tops of the female plant of *Cannabissativa*, Linné, or the variety *indica*, Lamarck (Nat. Ord. Cannabinaceae). Asia, East Indies, and cultivated in other parts of the world, notably in the United States.

Common Names: Guaza, Ganjah, Gunjah, Ganga; Indian Hemp (*Cannabis indica*)

when derived from the Indian plant.

Principal Constituents.—Not well determined. The following have been noted: Cannabin, an active brown resin, and *cannabinon*, a soft resin.

Preparation.—*Specific Medicine Cannabis*. *Dose*, 1/2 to 10 drops.

Specific Indications.—Marked nervous depression; irritation of the genito-urinary tract; burning, frequent micturition; painful micturition, with tenesmus; scalding urine; ardor urinae; wakefulness in fevers; insomnia, with brief periods of sleep, disturbed by unpleasant dreams; spasmodic and painful conditions, with depression; mental illusions; hallucinations; cerebral anemia from spasm of cerebral vessels; palpitation of the heart, with sharp, stitching pain; and menstrual headache, with great nervous depression.

Action.—The principal seat of action of cannabis is upon the intellectual part of the cerebrum. In many respects its effects parallel those of opium and its chief alkaloid. Without doubt it is the most perfect psychic stimulant known to medicine. Certain Orientals become addicts to it, consuming it in the form they call *haschisch* (whence comes the term assassin), and under its influence many crimes and offenses have been committed, as well as with it. Eastern potentates are said to have dosed their fanatic followers with it. It produces an agreeable semi-delirium taking on the character of a sense of well-being and exhilaration—a state highly coveted by its devotees, who call it loftily “the increaser of pleasure,” “the laughter mover,” “the cementer of friendship,” and “the cause of a reeling gait”—all indicative of its physiologic influence. These *haschisch* debauches are joyful affairs, and while usually devoid of injurious consequences, may be followed by catalepsy and depressive and maniacal insanity, from which, however, the victim recovers fully in time.

In some respects the effects of cannabis on the nervous system are peculiar. It causes an apparently contradictory, consentaneous stage of stimulation and depression—a state somewhat simulated by morphine. The sensations that follow the effects of cannabis vary greatly with the temperament and the peculiarities of the patient, and with his environment. Almost invariably they are pleasurable. An emotional state of happiness even to ecstasy is experienced, with an endless procession of beautiful visions coming and going, and over which the patient indulges in merriment and even hilarity. So

pleasurable becomes his sensations that he may break into boisterous laughter and antics of a ridiculous character, the nature of which he fully comprehends, but is wholly unable to prevent. Gradually passing into a dream-like stage, he talks, volubly, brilliantly, with ever-recurring changes of topic, little coherence of thought, and a perverted judgment. His imagination carries him into ludicrous ideas and strange actions, he has notions of grandeur and greatness, and moments are exaggerated into æons of time. He lives a "life-time in a minute." Endless phantasms of beauty and delight pass before his distorted mental vision. A singular peculiarity is a state of "double consciousness" or dual personality which possesses him in which he imagines he is both himself and some one else, and he behaves accordingly. He becomes affectionate to the extreme, both to himself and to others, and altogether he is a very happy individual leading a very full and infinitely extended life.

Finally drowsiness overtakes him and he drops into a heavy sleep, which may last for hours, and from which he awakens with no other discomfort than a ravenous hunger. In this last stage the pupils are dilated, muscular power in abeyance, and partial anesthesia prevails. While the ultimate effects of the drug in some result in tremor, great weakness, loss of appetite and convulsions, no deaths have been known to occur in man from this drug.

The effect upon Caucasians is less pronounced than that described, which is experienced chiefly by Orientals. In the former the stage of exhilaration and phantasmagoric inebriation may be very brief or entirely absent, the patient passing successively through heaviness and numbness of the limbs, heat in the head, giddiness, a pleasurable pricking of the whole body, drowsiness, and deep sleep. With some individuals pressure upon the skin is said to excite a sense of burning, and the subsequent anesthesia may become so profound that the patient, when standing, is not conscious of contact with the ground.

One young man to whom we administered cannabis amused himself by repeatedly jumping over the foot of his bed, laughing with great glee over his capers.

Therapy.—The therapeutic effects of cannabis vary under different conditions. It stimulates in depression and sedates when there is irritation. It lessens pain—especially spasmodic pain—allays spasm,

improves the appetite, causes a feeling of contentment and rest, and produces sleep. If pushed too rapidly or in too large doses, exhilaration of spirits, inebriation with phantasms, illusory delirium, and sometimes strong aphrodisia precede sleep. A peculiarity in many individuals taking cannabis is the voracious appetite induced. The effects of cannabis are far less powerful and less disturbing to the general system than those of opium, and it does not, like the latter, restrain the secretions nor produce itching. If anything the urine is increased by cannabis and constipation does not occur.

The keynote indication for cannabis is marked depression of the nervous system usually with insomnia. Secondly, it allays irritation of the urino-genital tract and relieves pain. For the first condition it is invaluable in more or less painful conditions in which opium seemingly would be indicated, but in which, on account of its tendency to restrain normal secretions, would be inadmissible. In fact, cannabis exerts far less restraining power over the secretions than do most similar anodynes. Besides, it favors good digestion and dispels gloom and foreboding. As a pain reliever it is more potent than as a sleep producer, as for some unknown reason even good qualities of cannabis often fail in insomnia when they succeed perfectly in blunting pain. As a remedy for pure insomnia without pain it is less valuable than many other hypnotics. It is, however, often useful in the sleeplessness of depressive insanity.

Depressive headache, particularly migraine, is one of the types of pain in which cannabis is exceedingly effective. Its use is often advantageously preceded by gelsemium. These cases are those that come on with much excitability and hyperaemia, followed by depression. It is in the depressive stage that cannabis is useful. Spasmodic neuralgic pains are helped by it. It is particularly indicated in the vague pains of indigestion, in depressive nervous headache, nervous gastralgia, gastric neuralgia, gastric ulcer and carcinoma (in the latter two, when opium disagrees), the pains of irritative diarrhea, neuralgia of the face, neuralgia of the pelvic viscera, so-called chronic rheumatism, endometritis, subinvolution, after pains, and amenorrhea, all with nervous depression and despondency. It is sometimes useful in the painful paroxysms of locomotor ataxia and sciatica, but as a rule is not powerful enough to subdue these and the severe cramp colic induced by the passage of calculi, unless given in doses large enough to produce other unpleasant effects. Morphine is by far the better agent

for the relief of pain in renal and hepatic colic. Cannabis gives relief in painful and spasmodic dysmenorrhea, marked by much nervous debility; and it is accredited with having promptly checked functional menorrhagia.

Cannabis is a remedy for convulsive and irritative forms of cough. It is especially comforting in the latter stages of phthisis and for the cough of senility, with senile catarrh. In both instances the cough is harassing, expectoration heavy and difficult, and rest and sleep are disturbed. While effective in whooping cough there are better agents for use in children than cannabis. Cannabis aids in depressive hysteria; quiets excessive movements in paralysis agitans, and in some cases of chorea; and sometimes quiets a palpitating heart. It relieves itching in many skin disorders, and especially the pruritus of the aged.

It is, perhaps, in genito-urinary disorders of a subacute and chronic inflammatory type that the usefulness of cannabis is most strongly displayed. With the properly-selected sedative it meets the wants of a pain reliever and nerve soother in urethritis, whether idiopathic or specific. Gelsemium, aconite, and cannabis are, perhaps, more frequently indicated than other internal agents in acute gonorrhoea. Locke invariably prescribed the following: Rx Specific Medicine Aconite, 10 drops; Specific Medicine Cannabis, Specific Medicine Gelsemium, 1 drachm each; Simple Syrup and Water enough to make 4 fluidounces. Mix. Sig.: One teaspoonful every three hours. This relaxes spasmodic tension, relieves ardor urinae, reduces fever and inflammation, and does much to prevent chordee, and to control it when present. In chronic nephritis cannabis is useful when there is much pain in the back and when blood is passed in the urine. Cannabis is sometimes useful in spermatorrhoea when accompanied by worry, gloomy foreboding, and general mental and physical depression. Having some aphrodisiac action it may be given with strychnine to restore sexual power lost through excesses, but not when due to organic changes. It is of supreme importance in surgical fever due to the passing of the catheter or bougie, or from operations upon the urethral tract. In chronic cystitis, chronic irritation of the bladder, dysuria, painful micturition, and strangury, it is a drug of very great value. In all instances a good preparation of cannabis must be used, for a poor quality is worse than useless.

CANTHARIS.

The dried beetles, *Cantharis vesicatoria* (Linné), De Geer. (Ord. Coleoptera.) Southern Europe. Dose, 1 grain.

Common Name: Spanish Fly; Synonym: Cantharides.

Principal Constituents.—Crystallizable *Cantharidin* (C₁₀H₁₂O₄) and a volatile oil are said to be the active or vesicating principles.

Preparations—1. *Specific Medicine Cantharis*. Dose, 1 to 10 drops.

2. *Ceratum Cantharidis*. Cantharides Cerate. (Blistering Cerate.) Epispastic.

3. *Collodium Cantharidatum*. Cantharidal Collodion, (Blistering Collodion, Vesicating Collodion). Epispastic.

Specific Indications.—Vesical irritation; paresis of the vesical sphincter; dribbling and involuntary expulsion of urine; teasing desire to urinate, accompanied with tenesmus.

Action and Toxicology.—Applied to the skin cantharis first reddens then slowly blisters. Its final action may be so intense as to cause sloughing and gangrene; or by absorption to cause strangury and acute nephritis. Small doses stimulate the excretion of urine; large doses are destructively irritant. The earliest symptom from moderate doses is irritation of the urino-genital tract, with strangury and burning pain. If continued, or the dose is large, blood and albumen appear in the urine. Large doses produce all the intense agonies of a violently destructive gastro-enteritis and acute inflammation of the kidneys and bladder; with final suppression of urine and death from uremia. Intense burning pain, soreness and tenderness of the abdomen, excessive burning thirst, profuse ptyalism, with cadaverous odor of the breath, rapid breathing, small thready pulse, griping and purging, profuse urination followed by suppression, exceedingly painful micturition drop by drop, priapism, violent sexual desire, and seminal emissions are among the awful results of a toxic dose of cantharis. Six (6) grains of powdered cantharides is the smallest amount known to have produced death. Cases of poisoning are almost always confined to those who take cantharis to produce abortion.

There is no known chemical or physiologic antidote to cantharis. Poisoning by it must be treated on general principles, with opiates to control pain. When non-toxic doses have produced strangury it may be relieved by opium and camphor, and large draughts of water.

Therapy.—External. As a vesicant cantharis acts kindly as compared with some other agents. It is sometimes used as a derivative in deep-seated inflammation, to absorb inflammatory products, and to relieve local pain, as in intractable neuralgias and persistent headache. In Eclectic therapy the use of blisters is scarcely ever deemed advisable, or even necessary. Certainly they should not be used in states of great debility following grave illness, or the exanthems, nor when renal congestion or inflammation is present. Cantharis has been used in lotions to promote the growth of hair. Howe advised it with bay rum, specific medicine uvedalia, and Fowler's solution, for this purpose. Others have used the cantharidal collodion, painted upon the scalp about every two weeks, to encourage the growth of hair in alopecia circumscripta, with asserted success.

Internal. Cantharis has a limited use in modern specific therapeutics. In very small doses it is a decided stimulating diuretic and special sedative to the bladder. One must be very careful, however, to avoid irritant doses. It is the remedy for vesical irritation, to allay teasing desire to urinate and the tenesmus accompanying it. It is one of the most certain remedies for the day-time enuresis of women, particularly the middle-aged, when due to a parietic condition of the sphincter vesicae; and in women and children with irritable bladders or weak sphincters, in whom coughing, sneezing, or exertion cause an involuntary expulsion of urine. It is equally effective in men who pass their urine with difficulty or dribbling, and intense scalding heat. In minute doses it may be cautiously used in the late stages of acute desquamative nephritis, where the kidneys are weak and functionate sluggishly, every little exertion seeming to produce an increase of albumen in the urine. It has also been advised for the torpid kidney action in the chronic parenchymatous nephritis of inebriates, in pyelitis, and in chronic cystitis. Used carefully in renal medication it may accomplish great good; but when recklessly employed it is a dangerous medicine, producing or aggravating the very conditions sought to be relieved by it.

Cantharis promotes menstruation in atonic amenorrhoea with marked depression. It also increases the sexual appetite and has been used to strengthen the procreative functions. Old gleet and prostatorrhoea are first awakened and aggravated and then relieved by it. Its internal use has been advised in some chronic skin diseases, such as psoriasis,

prurigo, lichen, and eczema; upon what grounds we are not advised.

CAPSELLA.

The freshly dried plant *Capsella Bursa-pastoris*, Moench (Nat. Ord. Cruciferae). A common weed, native of Europe, but naturalized everywhere.

Common Names: Shepherd's Purse, Shepherd's Sprout.

Principal Constituents.—Resin and a volatile oil.

Preparations.—1. *Specific Medicine Capsella.* *Dose*, 1 to 60 drops.

2. *Infusum Capsellia.* Infusion of Capsella, (Fresh herb, 1 ounce to water 16 fluidounces). *Dose*, Freely.

Specific Indications.—Passive hemorrhages; irritation of urinary organs with phosphatic deposits; prolonged and oft-recurring menorrhagia with almost colorless flow.

Action and Therapy.—Capsella acts chiefly upon the urinary tract, being a mild stimulating diuretic. The infusion, tincture and specific medicine are all efficient, but the green plant is most active. Owing to its mild astringency it has been employed in hematuria, diarrhoea, bleeding piles, and indigestion and dyspepsia of an atonic type. Slightly stimulant it sometimes aids when simple measures are desired in amenorrhœa. In chronic menorrhagia, with a too long or too frequent and almost colorless flow, it is said to have given positive benefit. Its chief value is to relieve irritative and atonic disorders of the urinary tract, with constant desire to urinate, and especially if associated with phosphatic deposits or passive hemorrhage.

CAPSICUM.

The ripe fruit, dried, of *Capsicum frutescens*, Linné (Nat. Ord. Solanaceae). Tropical America; also cultivated in most tropical countries. *Dose*, 1 to 2 grains.

Common Names: Cayenne Pepper, Guinea Pepper, Red Pepper, African Chillies, Bird Pepper.

Principal Constituents.—Fixed oil, resin, fats, and the rubefacient and acrid principle *capsaicin* (C₉H₁₄NO₂) and a volatile oil, *capsicin*.

Preparations.—1. *Specific Medicine Capsicum*. *Dose*, 1/10 to 2 drops, very largely diluted.

2. *Tinctura Capsici*, Tincture of Capsicum. *Dose*, 1/10 to 10 minims.

3. *Emplastrum Capsici*. Capsicum Plaster (Composed of Oleoresin of Capsicum and Rubber Plaster). Rubefacient.

Specific Indications.—Marked depression and debility, with feeble pulse and repressed secretions; pale membranes with scanty, viscous secretion; tongue dry, harsh, and mouth and salivary secretions suppressed or scanty; atonic dyspepsia of drunkards; alcoholic delirium of the depressive type; congestive chill; colic, with abdominal distention; debility with faulty gastro-intestinal functioning in the aged.

Action.—Locally capsicum is decidedly irritant, causing dermal heat and redness. It does not vesicate, however, unless long and closely applied to the mucosa. The oleoresin is much more active and causes sharp burning pain and may destroy the epidermis.

Capsicum is a pure, energetic and permanent stimulant. In large doses it produces vomiting, purging, pains in the stomach and bowels, gastro-enteritis, giddiness, strangury, and a species of intoxication and enfeeblement of nerve power. Smaller doses give warmth to the stomach and excite a hyperaemic state of the gastric mucosa, with increased secretion and accelerated movement of the musculature of the stomach and bowels. It slightly increases the urine, and is mostly eliminated by the kidneys.

Therapy.—*External*. Tincture of Capsicum is an important topical stimulant, rubefacient and counter-irritant. By its revulsive action it often relieves local pain. Painted upon chilblains it quickly gives relief. The pure tincture alone, or mixed with glycerin or mucilage of acacia, may be used. Applied to an aching tooth it either relieves or aggravates, according to the sensitiveness of the nerve or the degree of inflammation present. We have used it with great satisfaction for pain coursing along the spermatic cord in the lower quadrant of the abdomen. It must not, however, be allowed to come in contact with the tender skin of the scrotum. The tincture has been painted upon the scalp to excite the growth of hair in alopecia. With or without glycerin or mucilage of acacia it may be used to clear up ecchymoses. Dry capsicum in the shoes was one of Scudder's favorite means of warming

cold feet. Diluted tincture of capsicum, or capsicum with vinegar, and sometimes with salt, is a common and useful stimulating gargle for sluggish forms of sore throat, and sometimes apparently aborts tonsillitis. Capsicum may be used for many of the revulsant effects required of mustard. It does not blister nor cause strangury when so applied. Either the tincture painted upon the part or the capsicum plaster may give relief to so-called chronic rheumatic pains, and be applied in lumbago, pleurodynia and intercostal neuralgia. A stupe of hot water and capsicum applied to the nape of the neck sometimes relieves the headache of debility.

Internal. Capsicum is a pure stimulant to the heart and circulation, giving increased force and slightly augmented frequency to the pulse. One thoroughly acquainted with the action of capsicum can scarcely comprehend why physicians seek for habit-forming stimulants which do infinite harm when so simple and efficacious and pure a stimulant as capsicum may be had. Used within proper dosage it can scarcely do harm, and generally results in incalculable good. Not merely for temporary purposes is capsicum efficient, but its effects are more or less permanent. Naturally it should be selected for atonic conditions and avoided where irritation or active inflammation is present. Nevertheless, in low grades of inflammation and fever, with sluggish blood current, it is a most efficient and necessary stimulant when given in small doses.

The infusion of capsicum is a simple domestic remedy for acute colds, sore throat and hoarseness. Small doses of the tincture are of the utmost value in debility with deficient gastric action. When the membranes are pale, relaxed or flabby, and secretion is impaired or scanty and viscous, capsicum will do more than any other agent to rectify the condition and prepare the way for the action of other medicines. Even where the tongue is dry and elongated and parched from lack of secretion, and the glands of the mouth are inactive, no agent is superior nor safer than capsicum. It has, therefore, wide usefulness in disease-acute, subacute, or chronic. For chronic gastric catarrh it may be used occasionally, but should not be long continued lest it increase the malady sought to be improved. It is invaluable in some cases of atonic dyspepsia, with deficient secretion. It is often promptly effective in gastric flatulence, and is an agent of great value to prevent the accumulation of gases in both stomach and intestines. A mixture of capsicum, vinegar, and salt will sometimes prove a good

antiemetic if given in small doses diluted with cold water.

Capsicum should be largely used in low forms of fever-the more depressed the type the more it is needed. It is then of great advantage to maintain the equilibrium of the secretions and the circulation. Capsicum stimulates the appetite, aids digestion, facilitates peristalsis, and is, therefore, both stimulant and tonic to the gastro-intestinal tract. It thus maintains the integrity of those functions-an important desideratum during fevers and in convalescence therefrom. In grave cases of typhoid fever, with almost complete suppression of natural secretions, we would be at a loss without capsicum. It sometimes checks a congestive chill, and in intermittent fever it aids the action of quinine and other antiperiodics.

Capsicum is of very great value in alcoholic delirium. If secretions are suppressed and food can not be taken, or if sleep can not be induced in delirium tremens, one faces an extremely dangerous and perhaps fatal issue. But if secretions can be re-established and food be retained, sleep is very apt to follow. Then the battle against death is won. For this purpose no agent will accomplish so much as capsicum. It may be given at first in frequent small doses in hot water; then as the stomach responds, in larger doses in a good, strong beef broth. While capsicum is best in subacute forms of delirium tremens and not the violent and boisterous type it sometimes is needed after the latter to satisfy the craving for stimulants, to overcome the sinking sensations at the pit of the stomach, to prevent morning nausea and vomiting, to restore tone, and to render the stomach tolerant of food. There is scarcely any danger of giving an overdose of capsicum in dipsomania, as large quantities are swallowed with evident relish and without ill results by confirmed dipsomaniacs. Some cases must have alcohol, but most cases respond to capsicum. Then nux vomica, hydrastis, black haw, hydrochloric acid, and other peptics may follow.

Capsicum is of value in many functional nervous troubles with debility and repressed secretions, and for the aged it is one of the few medicines that should be widely heralded for its power to stimulate and preserve gastric tone and prolong life. In the debility of the young or old, but particularly in old persons, when the body-heat is low, vitality depressed, and reaction sluggish, it is an agent of power for good. Tired, painful muscles, stiffened joints, and relaxation of tissue are common conditions in the elderly that are, in a measure at least,

helped by capsicum.

Capsicum in very small doses is said to control irritation and stimulate renal capillary activity in chronic renal congestion. In similar doses it may relieve sluggish hemorrhoids, diarrhea and dysentery, with tenacious muco-bloody stools, with tenesmus and burning, associated with cramplike action of the bladder. These cases are usually encountered in individuals with a lax habit of body. For chronic, non-burning hemorrhoids with torpor and constipation, or relaxation, Locke advised Rx Capsicum, 2 grains; Aloes, 1/4 grain. Mix. Make 1 pill.

Capsicum, internally administered, will frequently check frontal neuralgia, particularly if of malarial origin. It is best to give a few preparatory doses and then follow with quinine associated with it. One of our favorite medicines for masked malarial conditions is an hydrochloric acid solution of quinine with capsicum added.

If called upon to say when capsicum is most valuable, we would limit it to: (a) An agent to re-establish repressed or suppressed secretion; (b) to a medicament for the gastric incompetence of the aged; (c) and to a saving remedy in most cases of acute alcoholism. The dose of capsicum for most purposes need not be large, from the fraction of a drop of a good tincture to ten drops; or the specific medicine not to exceed 2 drops. Only in extreme conditions, as in delirium tremens, are large doses, even in excess of ten drops, required. Fluid preparations of capsicum are to be preferred to powdered capsicum for internal use on account of the rectal discomfort occasioned by the latter. Food for the aged and debilitated may be well fortified with capsicum, and frequently sauces, catsup, and like preparations containing it will be found grateful to such patients.

CARBO LIGNI.

Charcoal prepared by burning soft wood. It must be kept in tightly-closed vessels.

Common Names: Charcoal, Wood Charcoal; **Synonym:** Carbo Vegetabilis. (Activated Charcoal—MM)

Description.—A tasteless and odorless non-gritty black powder.

Preparation.- *Trituration of Carbo Vegetabilis* (1 to 100). (Carbo Veg.) **Dose,** 1 to 30 grains.

Specific Indications.—Gaseous fermentation and fetor; pulse feeble; pallid skin with doughy and tumid abdomen; expressionless, pale tongue, with spots of denuded coating; passive hemorrhages, and profuse secretion.

Action and Therapy.—*External.* Absorbent, deodorant and disinfectant, but not antiseptic. It is used very largely to deodorize foul ulcers, carcinomata, and gangrene, possessing the advantage of being an odorless deodorant. It is frequently added to poultices and is an ingredient of some tooth powders. A rectal injection of charcoal has checked hemorrhage from the bowels.

Internal. Its absorbent and deodorant properties make charcoal a splendid agent to absorb putrid gases from the stomach and bowels. It is indicated by offensive breath and disagreeable belching. In acidity of the stomach, gastric distention, nausea and vomiting, sick headache with gaseous belching, fetid diarrhoea, and sometimes in the acid vomiting of pregnancy, charcoal is a most effective agent. It may be combined, plain or aromatized with oil of peppermint, with sodium bicarbonate in acidity of the stomach, with bismuth subnitrate in marked irritation and diarrhoea, with ginger in the flatulence of atony, and with rhubarb or magnesia when constipated. Though supposed to have no general effects on account of not being absorbed, Scudder strongly advocated it for passive hemorrhage, using the second decimal trituration of *carbo vegetabilis*. His statement is worth recording.

“The specific use of charcoal is to arrest hemorrhage from the bowels. It has been used in enema, 1/2 to 1 drachm, finely powdered, to 4 ounces of water, thrown up the rectum. Why this checks it I can not tell; that it does it I have the evidence of my own eyes. For several years I have employed the second decimal trituration as a remedy for passive hemorrhage with the most marked benefit. I employ it in threatened hemorrhage during typhoid fever; in menorrhagia, especially when chronic; in prolonged menstruation; the watery discharge that sometimes follows menstruation; hemorrhage from the kidneys; hemorrhage from the lungs; and in some cases of leucocythaemia. A good indication for this remedy is a small pallid tongue with lenticular spots, and with this it may be given in any form of disease.” (*Specific Medication.*)

Charcoal, like animal charcoal (*Carbo Animalis*), is sometimes given in alkaloidal poisoning with a view to precipitating and retarding the poison until it can be removed from the stomach. Its effectiveness is doubted. It may also be used in haematemesis, and frequent foul discharges from the intestinal tract. The pulse is feeble, the belly-wall tumid and doughy, the tongue expressionless and pale with little coating and lenticular spots, or the coating may lift in patches.

CARDAMOMI SEMEN.

The dried, recently decapsulated fruit of *Elettaria Cardamomum*, White et Maton. (Nat. Ord. Zingiberaceae.) Mountainous coasts of Malabar. *Dose*, 5 to 60 grains.

Common Names: Cardomom Seeds, Cardamom, Cardamon.

Principal Constituents.—A fragrant camphoraceous bitter volatile oil, composed chiefly of terpenes (C₁₀H₁₆)

Preparations—1. *Specific Medicine Cardamon.* *Dose*, 10 to 60 drops.

2. *Tinctura Cardamomi Composita.* Compound Tincture of Cardamom (Cardamon, Cinnamon, Caraway, Cochineal, Glycerin, and Alcohol). *Dose*, 30 to 60 drops.

Action and Therapy.—Carminative. All preparations are useful in flatulent colic, and to flavor tinctures, syrups, and other medicines, particularly alkaline mixtures, the compound tincture imparting to these an agreeable taste and color.

CARTHAMUS.

The florets of *Carthamustinctorius*, Linné (Nat. Ord. Compositae). Egypt and the Mediterranean countries, but cultivated in Europe and the United States.

Common Names: Safflower, Dyer's Saffron, Bastard Saffron, American Saffron.

Principal Constituents.—Two beautiful coloring principles, Safflor yellow, and a red, carthamin or carthamic acid (C₁₄H₁₆O₇). The latter is a valuable dye.

Action and Therapy.—Chiefly employed in domestic medicine in hot infusion as an emmenagogue for amenorrhœa due to recent colds; and to determine the eruption in scarlet fever and measles. It is somewhat diaphoretic and laxative, and is little used by physicians.

CARUM.

The fruit of *Carum Carvi*, Linné (Nat. Ord. Umbelliferae). Europe and Asia and cultivated everywhere. *Dose*, 10 to 60 grains.

Common Names: Caraway, Caraway Seed, Caraway-Fruit.

Principal Constituent. —A volatile oil (*Oleum Carvi*).

Preparations.—1. *Oleum Carvi*, Oil of Caraway. *Dose*, 1 to 5 drops.

2. *Specific Medicine Caraway*. *Dose*, 10 to 60 drops.

Action and Therapy.—An aromatic carminative and gentle stomachic; both the fruit and the oil are of value in flatulent colic and to flavor medicinal compounds.

CARYOPHYLLUS.

The unexpanded flowers (dried flower-buds) of *Eugenia aromatica* (Linné), O Kuntze. (*Jambosa Caryophyllus* (Sprengel) Niedenzu). (Nat. Ord. Myrtaceae.) Cloves Island, Moluccas, and cultivated in Africa, East and West Indies, and Brazil. *Dose*, 5 to 10 grains.

Common Names: Clove, Cloves.

Principal Constituents.—A pungent acrid and aromatic volatile oil (*Oleum Caryophylli*), composed principally of eugenol (C₁₀H₁₂O₂); eugenin, and caryophyllin, which is isomeric with camphor.

Preparations.—1. *Oleum Caryophylli*, Oil of Clove. *Dose*, 1 to 5 drops.

2. *Specific Medicine Cloves*. *Dose*, 1 to 10 drops.

Action.—Irritant to the skin and mucosa, causing redness and burning followed by partial anaesthesia. It is typical of the class of volatile oils, most of which act similarly. It excites the salivary secretions and stimulates digestion by impressing the nerves of smell and taste, dilating the gastric vessels, provoking the flow of gastric juice, and inducing increased peristalsis of both stomach and intestines, thus causing eructations of gas and flatus. The latter is no doubt aided by its decided antiseptic qualities. Like all aromatic oils large doses may provoke gastro-enteritis. Oil of clove modifies the griping effects of many medicines. Eugenol acts similarly to oil of clove.

Therapy.—External. Oil of Clove obtunds dental pain and sometimes earache. Used pure or in ointments or liniments it relieves local pain, as in neuralgia, and in chronic eczema it allays itching, and is sometimes added to embrocations to give them an agreeable odor. Diluted with alcohol, it may be used to kill pediculi.

Internal. Oil of clove is carminative and stomachic. It often relieves nausea and vomiting, gastric pain, and flatulent distention of stomach or bowels. When cardiac palpitation and pain depend upon gastric distention, oil of clove frequently relieves it.

Eugenol. Derived from oil of clove and other sources may be given in doses of 1 to 3 minims.

CASCARA SAGRADA.

The dried bark of *RhamnusPurshiana*, De Candolle (Nat. Ord. Rhamnaceae). A shrub of Northern Idaho and the Pacific coast. **Dose**, 5 to 30 grains.

Common Names: Sacred Bark, Chittem Bark.

Principal Constituents.—Several resins, a volatile oil, and *cascarin*, a glucoside thought to be identical with *frangulin* obtained from Frangula.

Preparations.—1. *Specific Medicine Cascara.* **Dose**, 15 to 60 drops.

2. *Extractum Cascarae Sagradae*, Extract of Cascara Sagrada. **Dose**, 4 to 8 grains.

3. *Fluidextractum Cascara Sagradae*, Fluidextract of Cascara Sagrada. **Dose**, 10 to 60 minims.

4. *Fluidextractum Cascarae Sagradae Aromaticum*, Aromatic Fluidextract of Cascara Sagrada. **Dose**, 10 to 60 minims.

Specific Indications.—Constipation due to neglect or to nervous and muscular atony of the bowels; minor ailments, dependent solely upon constipation, with intestinal atony.

Action and Therapy.—Cascara is a simple and practically non-gripping purgative, acting with but little or no prostration and never causing a watery stool. It has, moreover, a tonic action upon the stomach and bowels, and does not produce an after constipation. It is the most popular and most efficient agent for chronic constipation, and may be

given for a considerable time without increase of dosage. In fact, the dose may be gradually decreased from day to day often with the result of completely curing the constipation. Cascara is adapted to cases of atony of the intestines. When other simple ailments depend upon constipation they may often be remedied-by cascara. It is an efficient purgative in pregnancy, in hemorrhoids with loss of rectal tone, in atonic dyspepsia with costiveness, and in sick headache due to atonic sluggishness of the bowels. Gastric and duodenal catarrh, with jaundice, are often rectified by cascara, and it has given good results in chronic diarrhea when accompanied by hepatic torpor.

Only preparations of old cascara bark are desirable; the fresh bark is emetic and otherwise disturbing. The taste of cascara is extremely bitter. This may be modified to a large degree by the addition of fluidextract of licorice and spirits of anise and sassafras. The aromatic fluidextract is a pleasant preparation and has less of a tendency to cause griping. A good laxative is the following: Rx Specific Medicine Cascara (or the Fluidextract of Cascara), 2 fluidounces; Fluidextract of Licorice, 1/2 fluidounce; Essence of Anise, 1 drachm; Simple Syrup, to make 6 fluidounces. **Dose:** One half to one teaspoonful at bedtime. If a more profound action is desired a half drachm of Specific Medicine Podophyllum may be added.

CASSIA MARILANDICA.

The leaves of *Cassiamarilandica*, Linné (Nat. Ord. Leguminoseae). An American perennial herb of the eastern half of the United States.

Common Names: American Senna, Wild Senna.

Principal Constituent.—A body resembling *cathartin*, and thought to contain chrysophan.

Preparation.—*Infusum Cassiae Marilandica Compositum*. Compound Infusion of American Senna (Leaves, 1 ounce; Coriander Seeds, 1 drachm; Boiling Water, 16 ounces. Dose, 4 to 5 fluidounces.

Action and Therapy.—An excellent cathartic that may be used as a substitute for senna.

CASTANEA.

The leaves of *Castaneadentata* (Marshall), Sudworth, collected in September or October while still green (Nat. Ord. Fagaceae). Native of Asia Minor, naturalized in Europe and America.

Common Name: Chestnut.

Principal Constituents.—A mucilaginous principle, extracted by hot and cold water, but not by alcohol; an astringent body, a sweet substance, and potassium, calcium, magnesium and iron salts.

Preparations.-1. *Infusum Castaneae*, Infusion of Castanea. (Leaves, 1 ounce, Boiling Water, 16 ounces.) *Dose*, 1/2 - 2 fluidrachms.

2. *Fluidextractum Castaneae*, Fluid Extract of Castanea. *Dose*, 1/2 - 2 fluidrachms.

Action and Therapy.—The freshly prepared infusion of the leaves is a remedy for paroxysmal or convulsive cough. For some unexplained reason it is sometimes one of the most effective medicines for whooping cough. In many cases it acts remarkably well, while in others its effects are not so apparent. It is seldom, however, that it does not do some good. The infusion (which is by far the best preparation) may be sweetened if desired, and given freely to the patient several times a day.

CATALPA.

The bark, pod, and seeds of *Catalpabignonioides*, Walter. (Nat. Ord. Bignoniaceae). A tree of the southern United States.

Common Names: Cigar Tree, Bean Tree.

Principal Constituents.—The seeds contain tannin, resin, and fixed oil.

Preparation.—Specific Medicine Catalpa. *Dose*, 1 to 20 drops.

Action and Therapy.—Said to be useful in chronic bronchial affections with dyspnoea and asthma, and in functional heart disorders. Its exact therapy has not been determined.

CATARIA.

The leaves and flowering tops of *NepetaCataria* (Nat. Ord. Labiatae). A common perennial of Europe, and naturalized in the United States.

Common Names: Catnip, Catmint, Catnep.

Principal Constituents.—An aromatic volatile oil and a bitter body.

Preparations.—1. *InfusumCataria*, Infusion of Cataria. (Catnip, 1 ounce to Water, 16 fluidounces). *Dose, ad libitum.*

2. *Specific Medicine Nepeta.* *Dose,* 10 to 60 drops.

Specific Indications.—Abdominal colic, with constant flexing of the thighs; writhing and persistent crying; nervous agitation.

Action and Therapy.—A safe and valuable, though simple carminative, diaphoretic (in warm infusion), and tonic (cold infusion). A splendid quieting agent for fretful babies, and carminative and antispasmodic for abdominal pain with flatulence. When marked nervous agitation precedes menstruation in feeble and excitable women and the function is tardy or imperfect, this simple medicine gives great relief. It is especially valuable for the nervous irritability of dyspeptics, nervous headache, atonic amenorrhoea and dysmenorrhoea, and wards off nervous or hysterical attacks. The warm infusion is an admirable remedy to break up “common colds” by diaphoresis, and to determine eruptions to the skin in the exanthemata. If less ridiculed and more used, in place of far less safer remedies, “catnep tea” would be found a very useful medicine for women and children. It should not be sweetened. Where the added effects of alcohol are needed, or when the freshly dried herb cannot be obtained, the specific medicine may be used in place of the infusion.

CAULOPHYLLUM.

The rhizome and roots of *Caulophyllum thalictroides* (Linné, Michaux (Nat. Ord. Berberidaceae). In rich woods in the eastern half of the United States.

Common Names: Blue Cohosh, Squaw-root, Pappoose-root.

Principal Constituents.—An indifferent alkaloid *caulophylline* (not to be confused with the resinoid “caulophyllin,”) and an active glucoside of the saponin

type, *leontin*.

Preparations.—1. *Specific Medicine Caulophyllum*. *Dose*, 1 to 10 drops.

2. *Leontin* (Lloyd's) , a 1 per cent solution of leontin, the emmenagogue principle of caulophyllum. *Dose*, 5 to 15 drops in syrup or sweetened water.

3. *Syrupus Mitchellae Compositus*, Compound Syrup of Mitchella (Compound Syrup of Partridge berry). *Dose*, 1-4 fluidounces.

Specific Indications.—Uterine pain with weight and fullness and pains in the legs; sense of pelvic congestion; sluggish labor pains; as a partus praeparator.

Action and Therapy.—Caulophyllum was at one time largely used as an antispasmodic, emmenagogue, parturient, diuretic, diaphoretic and expectorant, all of which properties it possesses in greater or less degree, according to its manner of use. It unquestionably acts with some force upon the reproductive organs of women, overcoming pain and tenderness in debilitated subjects. It seems best adapted to uterine debility arising from chronic inflammatory conditions. In many respects it resembles macrotys (*cimicifuga*), both upon the reproductive organs and in controlling rheumatoid pain. For many years it was a favorite remedy for false pains and afterpains. It, like macrotys, facilitates child-birth. Both agents produce contractions most like those of the natural labor process. In this respect they were often used to replace tetanic-acting ergot when that agent was so popular and so damaging as an oxytocic. It may be used to assist labor when delay is due to weakness, fatigue, or lack of uterine power, or when the tissues feel full, as if congested. The skillful use of forceps has largely supplanted drugs of this type, yet there are many cases in which they might still be used with greater safety than forceps. As an ingredient of the Compound Syrup of Mitchella (Mother's Cordial), it is still relied upon by some physicians as a good partus praeparator.

Caulophyllum is a good emmenagogue. It may be used where there is congestion with irritation, and the natural functions are badly performed. In troubles dependent upon such irregularities, it has given fair results, though macrotys has supplanted it for most conditions. Metritis, endo-metritis, amenorrhea, dysmenorrhea, ovaralgia, ovaritis, rheumatism of the uterus, menstrual cramps, uterine subinvolution, and spasmodic retention of urine have all been favorably influenced by caulophyllum. It is of some, though minor, value in spasmodic urinary and gastro-intestinal disorders.

Leontin (1 per cent solution of the emmenagogue principle of caulophyllum) has been successfully prescribed for amenorrhea, dysmenorrhea, and chlorosis. The dose of leontin is 5 to 15 drops in syrup or sweetened water.

Compound Syrup of Mitchella may be given for weeks as a uterine tonic preceding labor. It seems to have both a real and a psychic influence that will redound to the benefit of the prospective mother. It is also a good uterine tonic for debility and uterine feebleness in the childless, and assists in the recuperation of strength and rapid involution of the womb following labor. The dose of the syrup is from 2 fluidrachms to 1/2 fluidounce, 2 or 3 times a day.

CEANOTHUS.

The root, root-bark, and leaves of *Ceanothus americanus*, Marshall (Nat. Ord. Rhamnaceae.) A small shrub indigenous to the United States, particularly in its western section, growing in barrens and dry woodlands. **Dose**, 5 to 20 grains.

Common Names: Red Root, New Jersey Tea.

Principal Constituents.—Tannin, a volatile oil, resin, ceanothus-red, and a white alkaloid *ceanothine*.

Preparation.—*Specific Medicine Ceanothus*. **Dose**, 1 to 20 drops.

Specific Indications.—Sufficiently given below.

Action and Therapy.—Astringent and sedative. This drug is reputed efficient in gastric and hepatic disorders dependent upon splenic enlargement, especially when caused by malarial influence. It has given good results in splenic hypertrophy, with expressionless countenance and sallow, doughy skin; also in splenic congestion and subacute splenitis, the pain of which is not much aggravated by pressure. Other indications for ceanothus are deep-seated splenic pain, with or without splenic enlargement, and sympathetic painful states depending upon spleen pathology; also non-inflammatory catarrhal conditions with abundant secretions. During the American Civil War the decoction was used by the soldiers for “ague cake” or malarial splenitis.

CERA ALBA.

Yellow wax bleached by exposure to air, light, and moisture. (See *Cera Flava*.)

Common Name: White Wax.

Description.—A yellowish-white solid, translucent in thin layers, having an insipid taste and a faint but not rancid odor. It dissolves readily in volatile and fixed oils and fuses with fats and resins.

Preparation.—*Ceratum*, Cerate, (Simple Cerate). (White Wax 3, Benzoinated Lard 7.)

CERA FLAVA.

A peculiar concrete substance prepared by melting and purifying the honey-comb of the *Apis mellifera*, Linné, or Common Honey Bee.

Common Names: Yellow Wax, Beeswax.

Description.—A yellowish to gray-brown solid, of a honey-like odor and faint balsamic taste. It is brittle when cold and breaks with a granular fracture. Soluble in ether, chloroform and fixed and volatile oils.

Uses.—Both white and yellow wax are principally employed in the making of ointments, cerates, and plasters, to impart to them proper consistence and tenacity.

CHELIDONIUM.

The whole plant of *Chelidoniummajus*, Linné (Nat. Ord. Papaveraceae). Europe naturalized in waste places in the United States. **Dose**, 1 to 60 grains.

Common Names: Celandine, Great Celandine, Tetterwort.

Principal Constituents.—*Chelerythrine* (identical with the alkaloid *sanguinarine*), *chelidonine* (stylophorine), and malic and chelidonic acids.

Preparation.—*Specific Medicine Chelidonium*. **Dose**, 1 to 15 drops.

Specific Indications.—Full, pale, sallow tongue and membranes; skin sallow, sometimes greenish; hepatic congestion; jaundice due to swollen bile ducts; sluggish liver action with light pasty stools; reflex

cough from hepatic pain; fullness with tensive or throbbing pain in the right hypochondrium, with dull pain radiating to the right shoulder; melancholia, headache and stomach disorders depending upon imperfect hepatic function.

Action and Therapy.—*External.* The fresh juice of chelidonium applied to the skin produces rubefaction, inflammation and vesication. It will destroy verrucous growths.

Internal. Internally, in full doses chelidonium is a drastic hydragogue purgative, operating much like gamboge. Though reputed to be of some value locally as a stimulant and vulnerary, its present use is confined almost wholly to disorders hinging on imperfect or faulty hepatic function. It also appears to act somewhat upon the spleen, probably including most of those parts of the splanchnic area supplied by the chylopoietic vessels and the branches of the solar plexus.

Chelidonium is one of the best remedies for biliary catarrh resulting from hepatic congestion and for jaundice occasioned by swelling of the bile ducts, as a result of subacute inflammation. The best guide to its use is the tenderness and tensive or throbbing pain of the hypochondrium with dull pains extending to beneath the right shoulder blade. While there is more or less localized pain, there is no general abdominal pain as a rule. The skin and membranes have the usual appearance of hepatic obstruction, the stools are clay-colored, the urine cloudy and pale with rather high specific gravity, or it may be loaded with bile. Sometimes there is edema of the extremities. Under these conditions we have seen chelidonium clear up distressing conditions and prolong the intervals between attacks of gall-stone colic. In one severe case of gall-stone colic, which was but a repetition of many preceding ones, no other attacks followed the use of chelidonium, the patient being under observation for many years, and occasionally taking a dose of the medicine. It is not a remedy for the paroxysms of hepatic colic, but to prevent or repair the condition upon which they depend.

When hemorrhoids, splenic congestion, dyspepsia, headache, migraine, supra-orbital neuralgias and cough are dependent mostly upon the liver disorders helped by chelidonium, they are proportionately relieved by the action of chelidonium upon the latter. The greatest drawback to chelidonium is its horribly nasty taste.

CHELONE.

The herb, and especially the leaves, of *Chelone glabra*, Linné (Nat. Ord. Scrophulariaceae). Damp soils in the United States. *Dose*, 5 to 60 grains.

Common Names: Balmony, Snakehead, Turtlebloom, Turtlehead.

Principal Constituents.—An unnamed glucoside and the usual constituents of plants.

Preparation.—*Specific Medicine Chelone.* *Dose*, 5 to 60 drops.

Action and Therapy.—A useful remedy for gastro-intestinal debility with hepatic torpor or jaundice. Dyspeptic conditions attending convalescence from prostrating fevers are often aided by it, and it should be studied particularly for vague and shifting pain in the region of the ascending colon, attended with persistent uneasiness and sometimes tormina. We have used it for these conditions with satisfaction. The infusion (1/2 ounce to Water, 16 fluidounces) in small doses, is effective, though disagreeably bitter.

CHENOPODIUM.

The fruit and oil of *Chenopodium ambrosioides anthelminticum*, Linné (Nat. Ord. Chenopodiaceae). Waste places throughout the United States.

Common Names: American Wormseed, Wormseed.

Principal Constituent.—A volatile oil, *Oleum Chenopodii*.

Preparation.—*Oleum Chenopodii*, Oil of American Wormseed. A colorless or pale yellowish oil with the disagreeable odor and taste of wormseed. *Dose*, 5 to 10 drops.

Specific Indications.—Lumbricoid worms; hook-worm.

Action and Therapy.—A safe and certain vermifuge for the removal of the lumbricoid or round worm (*Ascaris lumbricoides*). After proper preparation, by fasting and purging, the powdered seeds (10 to 30 grains) or the oil (10 drops) may be mixed with syrup or emulsion of acacia and syrup, administered on an empty stomach, and followed by a saline Purge or castor oil one or two hours afterward. The oil may be

given in capsule to older children and adults. It is not contraindicated by irritation of the bowels. Oil of chenopodium has recently been found to be completely effective in the removal of the hook-worm (*Ankylostoma Uncinaria*, or *Uncinaria Americana*).

CHIONANTHUS.

The bark of the root of *Chionanthusvirginicus*, Linné. (Nat. Ord. Oleaceae.) United States from Pennsylvania southward. *Dose*, 5 to 30 grains.

Common Names: Fringe Tree, Old Man's Beard, Snowdrop Tree.

Principal Constituents.—*Chionanthin* and saponin.

Preparation.—*Specific Medicine Chionanthus*. *Dose*, 5 to 30 drops.

Specific Indications.—Icteric hue of skin and conjunctiva; dull hepatic pains and tenderness or soreness upon deep-pressure; light claycolored, or frothy yeast-like stools; sallow, dirty-looking skin with hepatic tenderness and expressionless eyes; intense cutting pain from liver to navel, attended by nausea, vomiting, and great prostration; icteric coloration without pain; the urine stains the clothing yellow; colic, with green stools; jaundice, with pale watery alvine discharges and intense itching of the skin; pain simulating colic, extending from liver region over the whole abdomen; tympanites; and presence of sugar in the urine.

Action and Therapy.—Medicines that actually and positively influence the liver and its secretions are not numerous, notwithstanding that for many years much misdirected attention was bestowed upon that greatly abused and usually very innocent organ. “Liver-tapping” virtues, now quite forgotten, were ascribed to mercurials and many other powerful drugs. Those that have weathered the campaign and been found to have a lasting reputation have been vegetable drugs chiefly and of either domestic origin or of Eclectic development. None more deserves a place among these than chionanthus.

There are two prime indications for chionanthus—jaundice as shown by the icteric hue of the skin and conjunctiva, and hepatic colic with soreness in the region of the liver. The pain is dull, heavy, and in the right hypochondrium, with a sense of weight and fullness, there is

soreness even on light pressure and deep-seated tenderness on strong pressure, the feces are light in color and float upon water, the urine scanty and orange-tinted, there are occasional hectic flushes, and sometimes diarrhea, with frothy, yeast-like stools.

Chionanthus is the most positive remedy for simple jaundice not dependent upon malignant or other organic changes in the liver and its appendages. It relieves portal congestion promptly, and is therefore a logical remedy for hepatic engorgement. Whether it is a remedy for jaundice associated with gall-stones, or dependent thereon, has been a question of dispute. Practically it seems to act in any instance where the imprisoned bile can be liberated by reducing the attendant swelling and congestion. In complete obstruction it fails, as do other remedies. One effect of chionanthus is to attenuate the bile, and there can be little doubt that it prevents the formation of biliary calculi. When the concretions are small and pass with a fair degree of ease, we believe it beneficial; but when they are strongly impacted it is doubtful whether chionanthus has any influence upon them or power to dislodge them. But in jaundice depending upon functional inactivity and other forms of mechanical obstruction, it is the first-remedy to be considered. In a single case of Weil's disease that came under our care, it was a most efficient remedy, echinacea being alternated with it to control septic manifestations. For the acute catarrhal jaundice of children and the jaundice of the new born, it acts more favorably than any remedy known to us.

When gastric and duodenal troubles depend upon deficient action of the liver, chionanthus is most frequently indicated. It is useful then in chronic intestinal inflammation, in chronic duodenitis, chronic gastritis, the irritation of stomach and bowels due to high living, and is a remedy of considerable value in the gastro-intestinal and hepatic disorders of dipsomania. It has been asserted by many whose large experience entitles them to credence that chionanthus is a potent and satisfactory medicinal aid in glycosuria, when the glycogenic function of the liver is at fault. While it is believed to have some effect upon the functions of the pancreas, it is probably of little value in that worst form of diabetes mellitus in which the cells of Langerhans are destroyed. It should be given renewed study in the glycosuria of obesity and when sugar intolerance alone, and not starch disturbances, create what so often passes for diabetes. These are rather prediabetic conditions, if tending in that direction at all, but even if untreated might never reach

the true diabetic state. There is good reason to believe that the prolonged use of chionanthus will be of much benefit in such cases.

CHIMAPHILA.

The leaves or whole plant of *Chimaphilaumbellata* (Linné, Nuttall. (Nat. Ord. Ericaceae.) North temperate region of the Northern Hemispheres, and in the United States, in dry shady woods.

Common Names: Pipsissewa, Prince's Pine, Ground Holly.

Principal Constituents.- Chimaphilin (C₂₄H₂₁O₄), and arbutin (C₂₄H₃₂O₁₄. H₂O)

Preparations.—1 *Infusum Chimaphila*, Infusion of Chimaphila (1/2 ounce to Water, 16 fluidounces). *Dose*, 1 to 4 fluidounces

2. *Specific Medicine Chimaphila*. *Dose*, 5 to 60 drops.

Specific Indications.—Scanty urine, but excessive voiding of mucus, muco-pus, or bloody muco-pus; smarting or burning pain upon urination; chronic vesical catarrh, with marked debility.

Action and Therapy.—Chimaphila is both an antiseptic diuretic and a positive alterative. It does not derange but seems to favor digestion, and has a good influence upon the processes of nutrition. In chronic affections of the renal tract with large mucous, muco-purulent or purulent discharges it is of the utmost value. Thick and ropy urine, such as is voided by old people and in cases of chronic cystitis, with a pinkish or reddish sediment of mucus, pus, blood and "brick dust" is an especial indication for it. Sometimes it is of value for the urinary disorders following gonorrhoea. Purulent discharges from a pyelitis, or due to calculous irritation, also guide to the selection of this simple but effective urinary antiseptic, sedative, and diuretic. Albumin has disappeared under its use, though the cases were but incipient cases of albuminuria. Not much hope should be expected from it in confirmed nephritis. It is often useful in chronic prostatic irritation and in some cases of prostatitis, particularly those associated with chronic catarrh of the bladder. The agent should be used preferably in infusion and for a continued time. If desired, specific medicine chimaphila may be employed dispensed in water, with some glycerin. However, when used in this way it precipitates and is unsightly, and a better way is to dispense it in bulk with directions to dilute it freely when used. The dose of specific medicine chimaphila is from ten to twenty drops

diluted every two, three or four hours, according to the urgency of symptoms. As a tonic and alterative we have used it for a long time with the greatest of satisfaction. A recent writer in the old world has credited chimaphila, in doses as given above, with causing the disappearance of sugar in glycosuria. Chimaphila is a neglected remedy that may well take the place of other agents of questionable safety.

CINCHONA.

I. *Cinchona*.—The dried bark of *Cinchona Ledgeriana*, Moens; *Cinchona Calisaya*, Weddell, and hybrids of these with other species of *Cinchona* yielding not less than 5 per cent of cinchona alkaloids. (Nat. Ord. Rubiaceae.) South American Andes, wild and to some extent cultivated in South America; cultivated in Java, India, Jamaica, and other countries. *Dose*, 1 to 30 grains.

II. *Cinchona Rubra*.—The dried bark of *Cinchona succirubra*, Pavon, or of its hybrids yielding not less than 5 per cent of alkaloids of Red Cinchona (Nat. Ord. Rubiaceae), Ecuador.

Common Names: (1) Yellow Peruvian Bark; (2) Red Cinchona Bark.

Principal Constituents.—*Quinine*, quinidine, cinchonine, cinchonidine—all important crystalline alkaloids; quinamine, an important alkaloid; kinic (quinic) acid, kinovin (quinovin), cinchotannic acid (astringent); cinchona red (coloring agent); and a volatile oil (aroma).

Preparations.—1. *Specific Medicine Cinchona*. *Dose*, 1 to 30 drops. (This preparation is prepared from *Cinchona Calisaya* or Calisaya Bark.)

2. *Fluidextractum Cinchona*, Fluidextract of Cinchona. *Dose*, 5 to 30 drops.

3. *Tinctura Cinchona*, Tincture of Cinchona. *Dose*, 10 to 60 drops.

4. *Tinctura Cinchonae Composita*, Compound Tincture of Cinchona. (Red Cinchona, Bitter Orange Peel, Serpentaria.) A modern substitute for and sometimes wrongly called "Huxham's Tincture of Bark". *Dose*, 5 to 60 drops.

Specific Indications.—Periodicity and, like quinine, effective when the pulse is soft and open, the tongue moist and cleaning, the skin soft and moist, and the nervous system free from irritation. (If opposite conditions prevail, cinchona will be likely to aggravate.) Empyema; gastric debility; anemia and debility from chronic suppuration; afternoon febrile conditions, weakness, with pale surface, loss of appetite, feeble digestion, and deficient recuperative powers.

Action and Therapy.—*External*. Antiseptic and astringent. A poultice

of the bark has been successfully used upon fetid and gangrenous ulcers, and where such an application has been thought necessary upon suppurating and sloughing felons.

Internal. Cinchona is tonic, antiperiodic, slightly astringent, and mildly antiseptic. In small doses it is a good stomachic, but must not be long continued. Large doses irritate and cause an unpleasant excitement of the stomach and bowels, with retching and vomiting. It has occasioned symptoms closely resembling the paroxysms of intermittent fever, and produces a general state known as Cinchonism: Throbbing headache, tinnitus aurium and temporary deafness. Outside of a slight astringent effect, the action of Cinchona is that of its chief alkaloid, quinine, which has completely supplanted the bark in almost all conditions in which the former was once used. While cinchona will accomplish the same results as quinine, the latter is more prompt and direct and more easily administered.

Cinchona is useful in functional derangements of the stomach, improving digestion, and imparting vigor and tone to the nervous and muscular systems in diseases of general debility and in convalescence from exhausting illness. While for some unexplainable reason occasionally acting more advantageously in malarial fevers than quinine itself, in most instances the alkaloidal salts have almost entirely supplanted cinchona in these disorders. Cinchona may be used in preference to its alkaloids when a tonic effect only is required and periodicity is lacking, or after hemorrhages or exhaustive discharges, as in empyema, or when an astringent tonic is needed; in the debility following low and exhausting fevers; in anemia and debility from chronic suppuration; and to arrest profuse and debilitating night sweats in one suffering from general debility with poor recuperative powers.

CINNAMOMUM.

- I. *Cinnamomum Saigonicum*. Dried bark of an undetermined species of *Cinnamomum*. Chiefly from China.
- II. *Cinnamomum Zeylanicum*. Dried bark of cultivated *Cinnamomum zeylanicum*, Breyne. (Nat. Ord. Lauraceae.) Ceylon.

Common Names: Cinnamon; (1) Saigon Cinnamon; (2) Ceylon Cinnamon.

Principal Constituents.—A volatile oil (*Oleum Cinnamomi*), tannin, and sugars. (Oil of Cinnamon of medicine is Cassia Oil (*Oleum Cassiae*) derived from *Cinnamomum Cassia* (Nees), Blume.)

Preparations.—1. *Specific Medicine Cinnamomum*. Dose, 5 to 60 drops.

2. *Oleum Cassiae*, Oil of Cinnamon (Cassia Oil), a yellowish or brownish fluid becoming darker and denser by age and exposure, and having the odor and taste of cinnamon. *Dose*, 1 to 5 drops.

Specific Indications.—Passive hemorrhages.

Action and Therapy.—Cinnamon is an aromatic stimulant, carminative and astringent. Besides it possesses marked internal hemostatic power. That this is not wholly due to the tannin contained in the bark is shown by the prompt action of the tincture of the oil. Oil of Cinnamon has properties which make it nearly specific for certain conditions. While no tests have been made that convinces one of its power over germ-life, there seems to be no question that some such germicidal action is exerted by it in acute infections, as “common colds,” and as la grippe or epidemic influenza. Aromatic bodies, like cinnamon and camphor, have been overlooked in recent years, though the use of the latter has been revived as an antiseptic stimulant in pneumonia. That they possess antibacterial virtues we believe will be found true should investigations be made of them in that line. Cinnamon imparts a flavor to unpleasant medicines and may be used to preserve them from rapid changes. Medicines dispensed in but few drops in a half glass of water will not keep sweet long at any time and will quickly sour in summer time. A few drops of Specific Medicine Cinnamon added to such mixtures give an agreeable sweetness and aroma and will help the medicine to preserve its balance for several days. Children invariably like the flavor. Even cinnamon can be overdone, however. It should not be added day after day for a long period lest the stomach revolt and the taste recoil. Nor should much be put in mixtures for little children, for if overdone it smarts the mouth severely; nor should it be employed when the mouth is irritated or ulcerated. When too much has been added the oil of cinnamon separates and floats upon the surface, and if thus given it is decidedly irritant. If the medicine to which it has been added in over-amount is too valuable to throw away, the excess of cinnamon may be easily removed by lightly sweeping over the surface with a clean piece of bibulous paper blotting paper or filter paper—or a firm, non-crumbling piece of bread.

Cinnamon is frequently employed as an ingredient of mixtures to restrain intestinal discharges, and the powder with or without chalk or bismuth, or its equivalent in infusion has long figured in the treatment of diarrhea and acute dysentery, though it does not equal in the latter condition other agents which we now use specifically. In diarrhea it should be used in small doses if of the acute type, and in large doses in chronic noninflammatory and non-febrile forms. It warms the gastrointestinal tract and dispels flatus, being decidedly useful as a carminative. It has the advantage of preventing griping when given with purgatives, and it enters into the composition of spice poultice, a useful adjuvant in the treatment of some forms of gastro-intestinal disorders.

Cinnamon has been proved in Eclectic practice to be a very important remedy in hemorrhages. It acts best in the passive forms. The type of hemorrhage most benefited is the post-partum variety, though here it has its limitations. If the uterus is empty and the hemorrhage is due to flaccidity of that organ due to lack of contraction, then it becomes an important agent. Then it strongly aids the action of ergot and should be alternated with it. If retained secundines are the provoking cause of the bleeding, little can be expected of this or any other agent until the offenders have been removed. Cinnamon should be frequently given, preferably a tincture of the oil, though an infusion might be useful, but it cannot be prepared quickly enough or be made of the desired strength. Specific Medicine Cinnamon is a preferred preparation. Oil of erigeron acts very well with it. In menorrhagia, even when due to fibroids and polypi, it has had the effect of intermittently checking the waste: but only a surgical operation is the rational course in such cases.

Other hemorrhages of a passive type are benefited by cinnamon. Thus we have found it a very important agent in hemoptysis of limited severity. In such cases we have added it to specific medicine ergot and furnished it to the patient to keep on hand as an emergency remedy. By having the medicine promptly at hand the patient becomes less agitated or frightened, and this contributes largely to the success of the treatment. Rest and absolute mental composure on the part of the patient and the administration of cinnamon have been promptly effective. If not equal to the emergency, then a small hypodermatic injection of morphine and atropine sulphates will usually check the

bleeding. When used with ergot in pulmonary hemorrhage probably more relief comes from the cinnamon than from the ergot, for ergot alone is far less effective. We are told that ergot does not act as well in pulmonary bleeding as in other forms of hemorrhage because of the sparse musculature and poor vaso-motor control of the pulmonic vessels. But cinnamon has given results which have been entirely satisfactory. Hemorrhages from the stomach, bowels, and renal organs are often promptly checked by the timely administration of cinnamon.

COCA.

The dried leaves of *Erythroxylon Coca*, Lamarck, and its varieties. (Nat. Ord. Erythroxylaceae.) South American Andes-Peru, Bolivia, and Chili. *Dose*, 60 to 240 grains.

Common Name: Coca.

Principal Constituents—Cocaine

Preparation.—*Fluidextractum Coca*, Fluidextract of Coca. *Dose*, 5 to 30 minims.

Specific Indications.—Defective innervation, with dizziness; impaired digestion; pain in back of the head, and fatigue; gastric pain; inordinate hunger and thirst; exhaustion during convalescence from long illness.

Action and Therapy.—The action of coca depends very largely upon the cocaine it contains, therefore the physiological effects are recorded under that subject. From time immemorial the people of the Andes, particularly in Peru, Bolivia, and Chili, have used coca leaves as other nations use stimulating table beverages; and when undergoing long journeys and hard work the natives are accustomed to chew the leaves with lime or some other alkaline substance, in order to endure hunger and fatigue, which it enables them to do with remarkable certainty. These uses of the plant led to its adoption into medicine as a remedy for neurasthenia and other disorders, with nervous weakness and muscular debility.

Coca is a remedy to be used temporarily only for defective innervation. Though the appetite is apparently normal, digestion is imperfect, and there is an associated occipital and post-cervical pain, dizziness, and inability to stand for any great length of time. The mental faculties are

sluggish and tired-brain fog-and thinking is difficult and despondency a common condition. If there is gastric pain or discomfort it is relieved by coca probably through the obtunding power of cocaine upon the nerve filaments of the stomach. As compared with cocaine this power is feeble, as is coca in all its effects, still there is sufficient of the alkaloidal influence exerted to make coca a remedy to be used with great circumspection. In nervous debility it may be carefully employed for a brief period, especially in convalescence from exhausting fevers and other diseases in which a persistent nervous depression follows. While of some value in chorea and repeated attacks of hysteria, it should not be used when any other agent can be made to serve the purpose. In fact, there is no more wisdom or justification in employing coca preparations for simple functional maladies because of mere nervous discomfort than there would be in prescribing opium for similar purposes. Both lead to pernicious habits, with a train of miseries to which the victim finally succumbs.

An occasional dose of 10 to 15 drops of the fluidextract will sometimes overcome insomnia caused by gloom and worry, and very rarely it helps one over an attack of asthma. It may be used for any length of time desired in gastric carcinoma to relieve the irritability and pain. Its chief use, if employed at all, will be for very temporary exhibition in the debility following fevers, or for a more prolonged use in advanced phthisis, to give rest, quiet gastric irritability, and aid breathing. For all prolonged states of mental depression, as neurasthenia, hypochondria, melancholia, depressive insanity, etc., its administration should not be encouraged, and as a remedy for the opium and other drug habits it has no place in medicine on account of the habit-forming dangers of coca itself.

To sum up some of the beneficial results of temporary coca medication would be to include its influence as a circulatory and respiratory stimulant, a restorative of strength after exhaustive acute diseases or operations, in-sudden nervous exhaustion and insomnia, in painful indigestion, headache from exhaustion, and in migraine. In all of these it should be used for but short periods, and any symptoms of cocainism should be a warning to cease its administration. The fluid medicines may be used in moderate doses. The habit of using coca wines is but a mild form of cocaino-alcoholic tippling.

COCCULUS

The seeds of *Anamirta pinniculata*, Colebrooke (Nat. Ord. Menispermaceae.) East India.

Common Names: Fishberries, Indian Berries. Synonym: *Cocculus Indicus*.

Principal Constituent.—Picrotoxin, a neutral and extremely poisonous principle.

Preparation.—*Unguentum Cocculi*, Ointment of *Cocculus Indicus*. (*Cocculus*, crushed, 1 ounce; benzoinated lard, 8 ounces; fractionally added until well incorporated.)

Action and Therapy.—*External*. A violent, poisonous parasiticide for animal and vegetable parasites, to destroy head lice and the itch mite, and relieve scald head, sycosis barbae, trichophytosis, tinea versicolor and other parasitic skin diseases. Included in this book chiefly because of the possibility of meeting with cases of poisoning by it, as the berries, in ointment or whisky tincture, are often used by the laity for the destruction of lice. It must not be used on abraded surfaces, nor in any considerable quantity.

Internal. Homeopaths use an attenuation of the tincture of *cocculus* as a remedy to prevent nausea and sickness incident to travel by rail or upon water (meargia or sea sickness).

Cocculus is said to be used by the natives of the East Indies to stupefy fish, so as to readily catch them, and it is asserted to be in use among brewers to add bitterness to beer and other malt beverages.

COLCHICUM.

The dried (I) root and (II) seed of *Colchicum autumnale*, Linné (Nat. Ord. Liliaceae.) England and other parts of Europe. **Dose**, Corm, 1 to 5 grains; seed, 1 to 5 grains.

Common Names.—I. *Colchicum Corm* (*Colchici Cormus*); II. *Colchicum Seed* (*Colchici Semen*).

Principal Constituent.—The powerful alkaloid *Colchicine* (see below.)

Derivative.—*Colchicina*, Colchicine. A very toxic alkaloid occurring as pale yellow scales or powder, practically odorless. It should not be tasted. Soluble in water. The salicylate is sometimes employed. Dose, 1/300 to 1/100 grain.

Preparation.—*Specific Medicine Colchicum.* Dose, 1 to 10 drops.

Specific Indications.—Acute gout; rheumatism, without much fever, occurring in gouty individuals; tearing pain, aggravated by heat.

Action and Toxicology.—Upon the skin and mucosa colchicum is irritant, causing smarting and redness, sneezing and conjunctival hyperemia. Small doses increase the secretions of the skin, kidneys, liver, and bowels. Large doses are dangerous, producing gastric discomfort, nausea and vomiting and purging, and violent peristalsis with much intestinal gurgling. Poisonous doses produce a violent gastro-enteric irritation, with symptoms much like those of cholera-agonizing griping, painful muscular cramps in the legs and feet, large but not bloody evacuations of heavy mucus and serum, thready pulse, collapse, and death. Toxic doses are almost sure to kill in spite of efforts to save life, the patient dying a slow, painful, and agonizing death, the final act of which is respiratory paralysis. Consciousness remains to the end.

The reputed antidote is tannin freely administered with plenty of water and followed by the use of emetics or the stomach pump. Opium may be given to relieve pain, atropine to sustain breathing, and artificial heat to maintain bodily warmth.

Therapy.—Colchicum is an extremely dangerous medicine and should be used with the greatest of caution. It is the remedy for acute gout, temporarily giving quick relief if administered short of purgation. For some unknown reason attacks recur more frequently when colchicum has been used, though it almost magically relieves the paroxysms. It is useful for disorders depending upon a gouty diathesis, though it is less effectual in chronic gout than in the acute form. In rheumatism, pure and simple, it usually has little or no value, though we have had excellent results after failure with the usual antirheumatics, in cases where pain persisted in one part for longer periods than usual, in acute articular rheumatism with but little fever. These cases resembled gonorrhoeal arthritis and were accompanied by a leucorrhoeal discharge, but were not gonococcic. In most cases the fingers, wrists, and abdomen were the most painful locations. Some have advised it in so-called chronic rheumatism when the patient is known to have occasional gouty attacks. We have seen it do good in rheumatoid

arthritis; a condition much more prevalent in this country than genuine gout, a disease rarely encountered in America. In rheumatoid headache and in rheumatic iritis colchicum is sometimes of value when occurring in one with swollen joints, with or without effusion, and attended by tearing, muscular pain, aggravated by heat. Subacute and chronic sciatica are asserted to have been relieved by colchicum when the pain is sharp, shooting, tearing, or dull, from back to hips and down the legs, fever being absent.

In rheumatic conditions colchicine salicylate in doses of the 1/128 grain is often more serviceable than colchicum.

COLLINSONIA.

The fresh root and plant of *Collinsonia canadensis*, Linné (Nat. Ord. Labiatae.) Damp and rich soils of woods from Canada to Florida.

Common Names: Stone-root, Rich-weed, Horse-balm, etc.

Principal Constituents.—Resins and volatile oil.

Preparations.—1. *Specific Medicine Collinsonia*. Dose, 1/10 to 30 drops.
2. *Aromatic Collinsonia* (prepared from the plant). *Dose*, 1 to 30 drops.

Specific Indications.—Irritation, with a sense of constriction in the larynx, pharynx or anus; sense of constriction with tickling in the throat, with cough arising from use of the voice; a sensation as if a foreign body were lodged in the rectum, with a painful contraction of the sphincter and perineum; sense of contraction in the rectum, with constipation due to vascular engorgement of the pelvic viscera; scybalous feces; sticking pains in the heart, larynx or bladder; contracted abdomen; vesical tenesmus; hemorrhoids; varicocele; follicular tonsillitis, with chronic hypertrophy of the faucial glands; any condition with *weight and constriction*, with or without heat.

Action.—Collinsonia affects chiefly the venous system and the mucous membranes, particularly the hemorrhoidal venous circulation. It also stimulates the vagi, relieving irritation of the parts to which they are distributed, and is believed to strengthen the action of the heart. Small doses of the green root produce emesis, and sensible doses of the fluid preparations cause an increase in urine and slightly that of the skin.

Therapy.—Collinsonia is a remedy for *venous stasis* and for irritation of the mucosa. Chiefly it meets one prime condition and the many disorders dependent thereon. This is atony of the venous circulation, whether due to relaxation of the blood vessels or to lack of tone in the venous side of the heart. Therefore its best results are obtained in conditions showing feeble or sluggish venous and capillary flow. Under these conditions it specifically improves impairment of the mucous membranes, appearing to be most active in disorders of the throat and rectum, though venous stasis in any organ or part is corrected by it.

Collinsonia is the most effective medicine we have for that form of laryngitis known as “minister's sore throat”—a hyperaemic or congestive state, with tenderness, hoarseness, and cough brought on by intensive speaking or singing. It is common among public speakers, singers, auctioneers, hucksters, and others compelled to use the voice beyond the ordinary. It is also valuable in other forms of laryngitis, with congestion or hyperaemia of the vocal apparatus, in chronic bronchitis, pharyngitis, tracheitis, and aphonia, all depending upon irritation associated with venous debility. Rx. Specific Medicine Collinsonia, 2 fluidrachms to 1 fluidounce; Simple Syrup, to make 4 fluidounces. Mix. Sig.: One teaspoonful every 3 or 4 hours.

Foltz advised it in the early stage of middle ear disorders, with free nonpurulent secretions, and when complicated by follicular pharyngitis and hypertrophied Luschka's glands.

For many of the throat disorders Aromatic Collinsonia is preferred by some prescribers.

The second great use for collinsonia is in rectal venous debility. Here the smaller doses are more effectual. In hemorrhoids it usually does not cure, though it may do so early in their course. It is to be used when there is vascular engorgement of the pelvic viscera, with a sense as if a foreign body were lodged in the rectum, causing constant uneasiness and affecting the nervous system profoundly. There is weight, heat, and dull pain, with or without scybalous constipation, or sometimes with partly semifluid and partly scybalous feces. The only rational procedure is to have the disturbing hemorrhoids surgically removed, but if this cannot be done, or the patient will not consent, then recourse to collinsonia will give us much relief as can be obtained from any safe medicine. Collinsonia relieves, to a lesser

extent, subacute proctitis, the tenesmus of mild types of dysentery and diarrhoea and rectal pain following operations, as well as that of fissures, fistulae, and allied conditions, though much reliance cannot be placed upon it for any of these conditions, except in the hemorrhoids of the type described. It does, however, relieve discomfort in the rectum without apparent lesion other than that of vascular engorgement.

Many value collinsonia in gastro-intestinal irritation with torpor of the portal circulation, irritation of the mucous membranes, and loss of appetite. Indigestion, spasmodic pain, gastric catarrh, and irritative dyspepsia, all with more or less constipation, appear to be benefited by collinsonia. By increasing innervation and relieving irritability it proves useful in atonic dyspepsia, with poor abdominal circulation.

Irritation of parts supplied by the vagi is relieved by small doses of collinsonia. Thus it ameliorates some cases of asthma, chronic cough, and the cough attendant upon disorders of the heart. Some value it in mitral regurgitation and in rheumatism of the heart. In all conditions the dilated capillaries showing passive engorgement will guide to its use. It was formerly regarded a remedy for gravel, but is little valued for that purpose now further than to relieve irritation and discomfort when gravel gives rise to pelvic vascular debility. Cases of varix of the vulva have been reported as modified, but not cured by it; the same is true of varicocele and varicose veins of the legs.

In whatever disorder collinsonia is helpful, there is always a *sense of weight and constriction*, venous engorgement, dilated capillaries, and muscular atony.

COLOCYNTHIS.

The dried, peeled pulp of the fruit of *Citrullus Colocynthis* (Linné,) Schrader. (Nat. Ord. Cucurbitaceae.) Mediterranean basin of Europe, Asia, and Africa. **Dose**, 1 to 5 grains.

Common Names: Colocynth, Bitter Apple, Bitter Cucumber, Colocynth Pulp.

Principal Constituent.-The bitter active glucoside *colocynthin* (C₅₆H₃₄O₂₃)

Preparation.—*Specific Medicine Colocynth*. Dose, 1/30 to 5 drops.

Specific Indications.—Pain of a cutting, twisting, boring, or tearing character, and if of the bowels, a desire to go to stool; visceral neuralgia, with cutting pain; dysentery, with tormina, and small passages of mucus, or diarrhoea with mucoid passages . and intense cutting pain; colicky pains anywhere in the abdomen (minute doses); distressing accumulations of gas; constipation with dry scybala and griping pain in the lower bowel (larger doses).

Action.—Colocynth is a decided local irritant. In small doses it is a stomachic bitter, exciting an increased flow of gastric juice. In even moderate doses it is a violent hydragogue cathartic, producing copious watery evacuations, and sometimes violent emesis, tormina, and bloody stools. It may cause death from gastro-enteritis. The powder or the tincture applied to a raw surface or to the abdomen will purge as if given by the mouth. Colocynth, in small doses, increases the renal function.

Therapy.—Colocynth is a powerful hydragogue cathartic, but is seldom employed as such in Eclectic practice. Except in minute doses it should not be given alone, at least never to the extent of causing purging. It is commonly administered with other cathartics in pill form, the compound extract of colocynth being preferred, and its violence controlled by hyoscyamus or belladonna. When so employed it is usually in melancholia and hypochondriasis with sluggish hepatic and intestinal action, with large fecal accumulations; and sometimes to produce local pelvic effects and thereby stimulate menstruation in atonic amenorrhoea. It has been largely employed in ascites from all causes, but while actively cathartic, it is less desirable than some other hydragogue cathartics. It should never be so used in the aged and where there is great debility or gastro-intestinal inflammation. It is very rarely employed in Eclectic therapy for dropsical effusions.

Specifically, colocynth is a remedy for visceral pain of a sharp, colicky character-cutting, darting, cramping, or tearing pain. The fractional dose only should be used. In sharp “belly ache” attending stomach and bowel disorders, colocynth is splendidly effective when the patient feels cold, weak and faint, and the pain is so great as to cause him to flex his body upon his thighs. Even when neuralgic or rheumatoid, such a condition is promptly relieved by colocynth.

In atonic dyspepsia, with bitter taste, bitter yellow eructations, bloating after eating, with sharp, griping or cutting pain in the umbilical region minute doses give excellent results. When gaseous accumulations cause disturbances of breathing, or cardiac palpitation, with loud belching and expulsion of flatus, and nausea and vomiting are present, colocynth should be given with prospects of prompt relief. Rx. Specific Medicine Colocynth (I x dilution), 1-10 drops; Water, 4 fluidounces. Mix. Sig.: One teaspoonful every 3 or 4 hours. Where there is a lack of normal secretion 5 drops of tincture of capsicum may be added to the mixture.

With similar symptoms minute doses act well in cholera infantum; in chronic diarrhoea with slimy stools and tympanites; in diarrhoea from overeating or improper food; and in dysentery with great tormina, tenesmus and cutting pain, with ineffectual efforts at stool it is one of the most certain of agents to relieve. In intestinal and hepatic torpor, with bloating and dry scybalous stools it should be given in somewhat larger doses (1/4 to 1 drop of Specific Medicine Colocynth). When persistent headache depends upon the stomach and bowel perversions named above it is often corrected by colocynth. In that form of lumbago and sometimes pressure sciatica, due to gaseous accumulations in the bowels, colocynth, capsicum, and bryonia should be considered. The dose should not be large enough to purge.

Colocynth is useful in neuralgia of the viscera in the parts supplied by the splanchnic nerves, as neuralgic colic. Other nerve endings seem to respond to it, for it relieves ovarian neuralgia, orchialgia, and sometimes neuralgia of the fifth nerve, when the characteristic cutting pain prevails. It should be given also when colicky pain precedes or accompanies amenorrhoea.

CONDURANGO.

The bark of *Gonolobus Cundurango*, Triana (*Marsdenia Cundurango*, Reichenbach) (Nat. Ord. Asclepiadaceae). South America, especially Ecuador.

Common Names: Cundurango, Eagle Vine, Mata-peroo.

Principal Constituent.—A supposed glucoside *condurangin*, giving also alkaloidal reactions.

Preparation.—*Fluidextractum Cundurango*, Fluidextract of Cundurango. *Dose*, 5 to

30 drops.

Action and Therapy.—A drug of considerable power, introduced into medicine in 1871 as a cure for syphilis and cancer of the stomach, in both of which it has but an unsustained reputation. It is thought, however, by competent clinicians, to have some retarding effect upon the latter, by its favorable action upon the mucosa. Most probably it is little more than a pain reliever in mild gastralgia and a tonic in gastric debility. It is usually administered in the form of a wine (1/2 to 1 fluidounce), or the fluidextract (5 to 30 drops.); sometimes a decoction (bark, 1/2 ounce to Water, 16 ounces, boiled down to 8 ounces) is given in tablespoonful doses 3 times a day. A little hydrochloric acid is suggested by Hare to be given with it in gastric carcinoma on account of the absence of that acid in the gastric juice under such conditions.

Condurangin acts powerfully upon the nervous system, inducing in animals, impaired appetite, vomiting, ptyalism, muscular weakness, convulsions, and paralysis.

CONIUM

The full grown fruit, gathered green, of *Coniummaculatum*, Linné (Nat. Ord. Umbelliferae). Europe and Asia; naturalized in the United States.

Common Names: Hemlock, Poison Hemlock, Spotted Hemlock.

Principal Constituents.—Five alkaloids of which the intensely poisonous liquid *coniine* (C₈H₁₇N) is most important; the others are: *conhydrine* (C₈H₁₇NO), *pseudoconhydrine* (C₈H₁₇NO), *methyl-coniine* (C₉H₁₉N), and *ethyl-piperidine* (C₇H₁₅N).

Preparation.—*Specific Medicine Conium.* 1/30 to 3 drops.

Specific Indications.—Nervous excitation and excessive motility, with or without pain; neuralgic pain; pain in the aged, and when there are cacoplastic deposits; gastric pain; nervousness and restlessness; mild maniacal excitement; persistent spasmodic or hacking cough; enfeebled state of the sexual organs, with late and scanty menstruation.

Action and Toxicology.—Conium does not affect the intellectual

portion of the brain; and it acts but feebly on the spinal cord. It does, however, powerfully depress the peripheral motor endings, and in excessive amounts, the sensory terminals. Only very large doses affect the circulation and the respiration, when blood pressure falls and respiration becomes paralyzed. The latter is the cause of death by conium and is due to the combined results of depression of the respiratory center in the medulla and the nervomuscular paralysis of the muscles of respiration. Involuntary muscles are not affected by conium, nor is the heart-muscle or nerves appreciably affected.

Full doses of conium produce dryness of the throat and thirst, nausea, dizziness, sinking at the stomach, numbness, muscular relaxation, and depression of the circulation. Toxic amounts cause staggering gait, muscular heaviness and prostration, with failure of locomotion, ascending paralysis, difficult and labored articulation, dyspnea, dilated pupils, palpebral ptosis, and convulsions terminating in death. In rare instances coma ensues, but usually consciousness and the intellect remained unimpaired until death. The most marked symptoms of poisoning are the staggering gait, drooping eyelids, and ascending muscular prostration.

In poisoning by conium the emetic may be used, but it is preferable to repeatedly wash out the stomach by means of the stomach pump. Artificial respiration and heat are to be used, and strychnine, atropine and digitalis, as well as the diffusible stimulants, to sustain respiration and the circulation.

Therapy.—*External.* Locally applied extract of conium, or the powdered drug, relieves the pain of cancerous growths and ulcers. Locke advised, Rx. English Extract of Conium, 2 drachms; Petrolatum, 6 ounces. Mix. Apply locally.

Internal. Conium is a remedy for excessive motility and for pain. It also favors sleep, not because it is a hypnotic like opium, but because it relieves pain when that is the cause of the sleeplessness, or when due to an excitable action of the heart. It is also a remedy for the restlessness, with or without pain, associated with reproductive weakness, or due to sexual excesses. With this is a state of apathy, frequently frigidity in the female, and imperfect menstruation and leucorrhoeal discharges. The mentality is disturbed, often to the verge of mania. In such mild forms of nervous unrest and excitability small

doses of conium will render good service.

Chorea is one of the incoordinate disorders that is sometimes relieved by conium, but not all cases respond to it. It has been advised in tetanus, but is insufficient except in doses which would be equally as dangerous as the disorder itself. It is better adapted to control the excessive movements of hysteria and mania, but in the former having little effect upon the psychic phase of the disorder. It has been used in teething, when twitching of the muscles is present, in laryngismus stridulus, also in whoopingcough, but we have safer and more satisfactory remedies for these affections. Some cases of epilepsy due to masturbation have been relieved by conium, and it lessens the movements of paralysis agitans.

As a remedy for pain conium is fairly efficient, but it takes fair-sized doses to accomplish results. As the terminals of the sensory and motor nerves are directly affected by the drug, it is best adapted to peripheral pain with excessive mobility. Thus it relieves spasmodic neuralgia, neuralgia from carious teeth, ovarian neuralgia, and gastralgia. In gastric ulcer it is quite efficient and safe, while for relief of pain and to give rest it is a most important drug in gastric carcinoma. If there is much destruction of tissues it is less effective, but tends to keep the surrounding part obtunded and muscularly quiet, notwithstanding the statement that it has no control over involuntary musculature. In the intestines, however, it does not seem to lessen peristalsis, and is therefore not constipating, like opium and morphine. Conium has been used for so-called chronic rheumatism, especially in the aged, who complain of muscular soreness and joint pains, with loss of sleep. Given within bounds it may relieve and can do no harm. Sometimes it relieves pruritus, especially the senile form so distressing to old people and preventing rest and sleep.

Conium sometimes reduces glandular swellings. It frequently causes the disappearance of nodular masses in the axillary and mammary glands. By some it has been assumed that these are carcinomatous. There is no evidence of it having been of any service in dissipating ulcerating growths of the breast; therefore it is safe to assume that such nodules as are influenced by conium are probably not cancerous, but more than likely of a strumous character. At any rate we are not justified in delaying necessary measures by a long course of conium medication with uncertain prospects of relief in undoubted scirrhus of

the breast. It may, however, be applied and be given to relieve pain even when a cure is not possible. It relieves the pain of swollen mammae during the menstrual periods and mitigates the distress of spasmodic dysmenorrhea.

In acute mania conium sometimes acts with great promptness. While occasionally subduing violent cases it is best adapted to those with mild excitability, great restlessness, with more or less wandering of the mind—much like the low delirium attending prostrating fevers. In fact, it is often useful, but must be carefully exhibited, in true typhomania, with subsultus tendinum. The field for conium in nervous disorders is still open to exploration, with the prospect of finding it adapted to a wide variety of nervous affections with excitation and muscular impressibility.

CONVALLARIA.

The rhizome and rootlets of *Convallaria majalis*, Linné (Nat. Ord. Liliaceae.)

Common Name: Lily of the Valley.

Principal Constituents.—Two glucosides: *convallamarin* (C₂₃H₄₄O₁₂), a bitter, crystalline powder, and *convallarin* (C₃₄H₆₂O₁₁), the acrid principle.

Preparation.—*Specific Medicine Convallaria.* Dose, 1 to 10 drops.

Specific Indications.—Cardiac irregularities due to mechanical impediments; mitral insufficiency; feeble circulation and low arterial tension; dropsy of cardiac origin; palpitation and vehement heart action, with arrhythmic movements, dyspnea, and diminished arterial pressure; feeble, quickened pulse, with capillary obstruction.

Action and Therapy.—In its effects upon the human circulation convallaria closely resembles that of its more powerful congener, digitalis, without, however, causing the unpleasant disturbances occasioned by that drug. Unlike digitalis it is not cumulative, nor is it distinctly poisonous. Moreover, it has a laxative action, and like digitalis, increases diuresis secondarily, by its effects upon blood pressure.

Like digitalis, convallaria may be used where there is feeble

circulation and low blood-pressure. While digitalis is the more often indicated, sometimes convallaria is more effective on account of the disturbing extravascular effects of the former. Convallaria appears to act best in those cases of circulatory failure in which there is imperfect circulation within the heart itself and probably due to capillary resistance or peripheral circulatory enfeeblement. By relieving the latter the cardiac embarrassment is removed. Convallaria slows the pulse and gives increased force to the heart-beat. It undoubtedly tones the heart muscle and strengthens its action. By the double action of augmenting the power of the heart and the tone of the vessels, as well as by its secondary effect of increasing renal activity, it acts extremely well in dropsy of cardiac origin. Palpitation and irregular heart movements, dyspnoea, diminished urinary secretion, albumen, hepatic fullness and engorgement, and edema-symptoms of this form of cardiac insufficiency, gradually disappear under small and continued doses of this drug. Moderate doses calm cardiac excitement, such as is due to overexertion and the excessive use of tobacco. Cardiac arrhythmia and hurried action of the heart are especially benefited by it.

The heart irregularities corrected by convallaria are not those due to organic degeneration, but rather those of an obstructive character, due to mechanical causes, as when the mitral valves are involved. Thus it is especially valuable in mitral insufficiency, with its attendant dyspnea and palpitation. When acting favorably the heart action becomes slower and stronger, normal rhythm is established, arterial pressure increased, respiration deepened, and the sense of suffocation, with the distressing and painful desire for air, is dispelled. A drug that will bring about these results and do it kindly is an ideal heart stimulant, and such is convallaria. Convallaria relieves the sense of praecordial oppression and faintness that so frequently follows prostrating diseases. Not alone is it a heart tonic, but a gastric tonic as well. Therefore it is indicated by the cardiac debility that follows typhoid fever, la grippe, acute articular rheumatism, and other heartenfeebling diseases. When a heart stimulant is needed during acute rheumatism, convallaria is, as a rule, preferable to digitalis, and it is often valuable in the early stages of rheumatic carditis and endocarditis, using it in fractional doses. Convallaria is of less service in stenosis of the aorta than in mitral disorders.

CORALLORHIZA.

The rhizome of *Corallorhizaodontorhiza*, Nuttall. (Nat. Ord. Orchidaceae.) Rich woods in eastern half of the United States. **Dose**, 1 drachm.

Common Names: Coral Root, Chicken Toe, Crawley, Dragon's Claw.

Principal Constituents.—Has not been analyzed, but probably contains potassium nitrate.

Preparations.-1. *Tinctura Corallorhiza*, Tincture of Coral Root. (Coral root, 4 ounce; Dilute Alcohol [or Whisky] 16 fluidounces.) Dose, 1 to 2 fluidrachms.

2. *Infusum Corallorhiza*, Infusion of Coral Root. (Crushed rhizome, 1/2 ounce; Boiling Water, 16 ounces). Dose, 1 to 2 fluidounces.

Specific Indications.—General prostration, malaise, hacking cough, loss of appetite, reduced weight, pleuritic pain, bronchial irritation and low pyrexia.

Action and Therapy.—This is the most perfect diaphoretic we know of, duplicating the natural process of perspiration when given in small doses, and increasing the watery contents when administered in hot infusion. It even excels asclepias, is pleasant to the taste, acts kindly upon the stomach, and lacks the heart depressing qualities of jaborandi. It was once largely used in fevers. Its principal use is in subacute inflammatory disorders of the respiratory tract, being especially valuable in the declining stages of bronchopneumonia, of a low but inactive type, with much depression, prostration after cough or effort, copious, heavy expectoration, and general debility. For convalescence from such states and after bronchitis, la grippe, and pneumonia it is an ideal remedy. In those of a phthisical build—the hippocratic type, much hacking cough, loss of weight, lack of appetite, poor digestion, pleuritic pains, and general prostration yet not actually consumptive, it is one of the best tonics we have ever employed. The appetite is the first to respond, cough and pain cease, there is better action of the kidneys and skin, and general recuperation gradually takes place. For dry bronchial irritation, with wheezing, tightness of the chest, paroxysms of irritable cough, together with a dry or inactive skin, coral root is extremely effective. In respiratory debility corallorhiza acts slowly but surely. A hot infusion promotes menstruation and suppressed lochia and relieves after-pains, but as many other agents operate equally as well this agent is too expensive to use for these purposes. It is to be regretted that its extreme scarcity makes corallorhiza an almost unobtainable drug.

COPAIBA.

An oleoresin derived from species of *Copaiba* growing in South America. *Dose*, 5 to 30 drops.

Description.—A viscid, pale-yellow or brownish-yellow liquid, without or with a faint fluorescence (green), and having a bitter, acrid, and persistent taste, and a distinctive aroma. Soluble in chloroform, ether, dehydrated alcohol, and volatile or fixed oils; partly soluble in alcohol; insoluble in water.

Specific Indications.—Vesical pressure and tenesmus, frequent urging to urinate, the urine passing in drops; itching, burning or smarting in the urethra after urinating; urethral mucoid discharges; laryngeal irritation; cough, with thick tenacious sputum, accompanied by loud rales.

Action.—Copaiba is a stimulating antiseptic when applied to the skin and mucosa. Small doses taken internally act as a stimulant and antiseptic diuretic. It restrains excessive mucous discharges. When swallowed it causes gastric warmth, unpleasant eructations, and sometimes nausea and vomiting. Continued use impairs the digestive processes. It is readily absorbed, imparting its odor and bitterness to the secretions. While apparently eliminated by all the emunctories, it is chiefly passed in the urine in company with glycouronic acid. Large doses occasion gastroenteritis and haematuria. A transient measles-like eruption on the skin, with unpleasant formication and itching, or an erythematous, urticarial or bullous outbreak may occur from its use. It is not determined whether this is due to elimination-irritation, or to gastric disturbances produced by the drug.

Therapy.—*External.* Copaiba is sometimes applied to frost-bites and chilblains, sore nipples, old ulcers, and anal fissures, and to fistulous tracts to soften hardened edges and surfaces; also in sluggish chronic skin affections when a stimulating antiseptic action is desired.

Internal. Copaiba is a remedy for excessive mucous discharges after the subsidence of acute inflammation. For this purpose it is rarely used in chronic bronchitis, especially when coincident with a catarrhal condition of the bladder. It is of much value in intractable gonorrhoea in

the male to reawaken a dormant infection and recreate the active symptoms, after which the smaller doses are used to restrain the discharge and antisepticize the membranes. It should never be used in the acute inflammatory stage of gonorrhoea, with pronounced urethral irritation and profuse secretion. This stage should be treated with Rx. Specific Medicine Aconite, 10 drops; Specific Medicines Gelsemium and Cannabis, one fluidrachm each; Simple Syrup, enough to make 4 fluidounces. Mix. Sig.: One teaspoonful every 3 hours. Having used the required local application, and rendered the urine bland by the use of small doses of sodium bicarbonate well diluted, employ the following after the acute phase has subsided: Rx Copaiba, 1 fluidrachm; Alcohol, 1 fluidounce. Mix. Dose, 5 to 10 drops in sugar and water 4 times a day. If chronic or unduly prolonged use the following: Rx. Copaiba and Spirit of Nitrous Ether, 1/2 fluidounce each; Liquor Potassae and Essence of Cinnamon, 1 fluidrachm each; Mucilage of Acacia and Simple Syrup, 1 fluidounce each. Mix. Sig.: One teaspoonful after each meal. Copaiba only helps gonorrhoea when brought in direct contact with the parts affected, as it does when passed in the urine. For this reason it is more effectual in the male than the female in whom at least a part of the infection is vaginal. It is also less valuable by injection than when used internally. The foregoing treatment is Locke's method, and is adapted to otherwise unconquerable cases. Most cases of gonorrhoea are now readily cured by more modern means.

COPTIS.

The rhizome and rootlets of *Coptis trifolia*, Salisbury. (Nat. Ord. Berberidaceae.) A plant of dark, cold swamps and sphagnous woods, found in Siberia, Greenland, and Iceland, and in the United States, following the Appalachians as far south as Alabama.

Common Names: Gold Thread, Mouth Root, Canker Root.

Principal Constituents.—Two alkaloids: *berberine* (yellow) and *coptine* (white). It is devoid of starch, tannin or resin.

Preparations—1. *Decoctum Coptis*, Decoction of Coptis. (Coptis, 2 drachms, to Water, 16 ounces.) *Dose*, 2 to 6 fluidrachms. Used freely as a local wash.

2. *Tinctura Coptis*, Tincture of Coptis. (Coptis, 1 ounce; Diluted Alcohol, 16 ounces) *Dose*, 30 to 60 drops.

Specific Indications.—Apthous ulceration; atonic dyspepsia; thrush.

Action and Therapy.—*External.* The most effective application for thrush in infants. The decoction should be freely applied and at the same time given internally. The infusion or the tincture may be used, with or without hydrastis, in aphthous ulcers of the mouth.

Internal. Coptis is a pure bitter and one that ought to be more generally used. It ranks with quassia, calumba, gentian, and similar agents in efficiency and may be used for many of the purposes for which hydrastis is employed. Its use in the stomachic disorders associated with, preceding or following thrush is the most certain in therapy, and its internal employment hastens the local cure, which it quickly accomplishes. Coptis is a good stimulant for atonic indigestion and dyspepsia, with deficiency in the normal flow of the peptic juices.

CORIANDRUM.

The dried, ripe fruit of *Coriandrum sativum*, Linné. (Nat. Ord. Umbelliferae) Italy, and cultivated in other parts of the world. *Dose*, 20 to 60 grains.

Common Names: Coriander, Coriander Fruit, Coriander Seed.

Principal Constituent.—An aromatic oil (*Oleum Coriandri*).

Preparation.—*Specific Medicine Coriander.* *Dose*, 10 to 60 drops.

Action and Therapy.—Stimulant and carminative; but mostly used as an adjuvant or corrigent to other medicines.

CORNUS.

The bark and root-bark of *Cornus florida*, Linné. (Nat. Ord. Cornaceae.) A beautiful flowering tree of the United States. *Dose*, 5 to 60 grains.

Common Names: Dogwood, Flowering Dogwood, Flowering Cornel.

Principal Constituents.—A bitter principle, *cornine*, and 3 per cent of tannin.

Preparation.—*Specific Medicine Cornus.* *Dose*, 1 to 60 drops.

Action and Therapy.—Cornus is tonic and feebly antiperiodic. In times of scarcity it has been used in lieu of cinchona, or when

cinchona or quinine is not tolerated. Its tonic properties may be utilized after fevers, particularly of the periodic type; and it is said to be useful in headache from quinine, pyrosis, and general exhaustion. It is adapted to cases with feeble, relaxed tissues, with weak pulse and sub-normal temperature. It has been suggested as useful in gastric ulcer. The preferred doses are from 5 to 20 drops.

CORYDALIS.

The tubers of *Dicentra canadensis*, DeCandolle. (Nat. Ord. Fumariaceae.) Eastern half of the United States, in rich soils of woods. **Dose**, 10 to 60 grains.

Common Names: Turkey Corn, Squirrel Corn, Wild Turkey Pea.

Principal Constituents.—The alkaloid *corydaline* (not the resinoid corydalin), resin, and fumaric acid.

Preparation.—*Specific Medicine Corydalis.* **Dose**, 10 to 60 drops.

Action and Therapy.—Once a very popular Eclectic medicine, corydalis seems to have fallen into unmerited neglect. It is decidedly alterative and tonic. While not distinctly antisyphilitic, it may be used among other alteratives for the syphilitic dyscrasia and for scrofulosis, and the attendant evils that accompany such debility. In atonic leucorrhoea in strumous subjects it may be exhibited with good effect, and it may be given as a tonic in digestive atony with dysentery or diarrhea in pot-bellied children with foul breath and poor digestion. It should be revived as a remedy to promote waste and repair.

CRATAEGUS.

The ripe fruit and bark of (1) *Crataegus oxyacantha*, Linné, and (2) other species of *Crataegus*. (Nat. Ord. Rosaceae) 1. England and other parts of Europe and in Central and Northern Asia; 2. America.

Common Names: (1) English Hawthorn, May; (2) Haw, Red Haw, Hawthorn, Thorn.

Principal Constituents.—The fresh bark contains a water soluble, crystallizable, bitter body little soluble in alcohol. The flowers of the English hawthorn contain trimethylamine (N[CH₃]₃), a circulatory depressant.

Preparation.—*Specific Medicine Crataegus.* Dose, 5 to 60 drops.

Specific Indications.—Tentatively the indications for crataegus may be stated thus: Cardiac weakness, with valvular murmurs, sighing respiration, or other difficult breathing, especially when associated with nerve depression or neurasthenia; mitral regurgitation, with valvular insufficiency; cardiac pain; praecordial oppression; dyspnea; rapid and feeble heart action; marked anemia, associated with heart irregularity; cardiac hypertrophy; and heartstrain, due to over-exertion or accompanying nervous explosions.

Action and Therapy.—The bark, fruit and leaves of several species of the genus *Crataegus* have in the past been used as astringents and tonics. Though a well-known wild shrub of thickets and commonly cultivated hedge and ornamental plant, the English hawthorn seems to have largely escaped the exact investigators of medicinal plants until a quite recent date. In fact, crataegus is one of the most recently introduced medicinal agents of plant origin. Furthermore, it is distinctive in occupying almost wholly a position in cardiac therapy, though recognized to some extent as a general tonic. Investigators are divided as to its activity, some claiming it only as a functional remedy, while others go so far as to claim it curative of many heart irregularities, even in the presence of an actual organic disease of that organ. Among the conditions in which crataegus is accredited with good work are angina pectoris, endocarditis, myocarditis, and pericarditis, valvular incompetency with or without enlargement of the rings, rheumatism of the heart, dropsy depending on heart disorders, neuralgia of the heart, tachycardia, and in atheromatous conditions of the vessels. The exact indications are as yet none too well determined, enthusiastic admirers of the drug having unwittingly overestimated its power. There is no doubt, however, of its value in many of the conditions mentioned, especially the functional types; and there can be no question as to its value as a tonic to the heart-muscle. It is not poisonous, has no cumulative effect, and apparently from reports of a large number now using it, may be useful to control many of the symptomatic results depending upon a badly functioning or tired heart. Crataegus has been suggested to rest that organ and thereby guard against arteriosclerosis. It is a new remedy still on trial; and as yet with no rational explanation of its reputed powers. The smaller doses are suggested as more likely to succeed than full doses.

CROCUS.

The stigmas of *Crocus sativa*, Linné (Nat. Ord. Irideae). Asia Minor; much cultivated in Europe.

Common Name: Saffron.

Principal Constituents.—Contains the glucoside *crocin* (polychroit— $C_{44}H_{70}O_{28}$) and *picro-crocin* or *saffron bitter* ($C_{38}H_{66}O_{17}$)

Preparation.—*Tinctura Croci*. Tincture of Crocus. *Dose*, 1 to 60 drops.

Action and Therapy.—Reputed diaphoretic and emmenagogue, this agent was formerly used in amenorrhoea, dysmenorrhoea, and suppression of the lochia. Five-drop doses of the tincture of crocus is advised for menorrhagia, with dark clotted losses; and the infusion (Saffron, 1 drachm; hot water, 16 fluidounces), in doses of 1 to 3 fluidounces to hasten the appearance of the eruption in measles. It must not be confounded with “Dyer's Saffron” (*Carthamus tinctorius*), which see under *Carthamus*. It may be used to color tinctures orange yellow, but it is too expensive for that purpose.

CUBEBA.

The unripe, full-grown fruits of *Piper Cubeba*, Linné, fil. (Nat. Ord. Piperaceae.) Java, Borneo, Sumatra, Prince of Wales Island, and other isles of the Indian Ocean. *Dose*, 5 to 30 grains.

Common Names: Cubeb, Cubebs.

Principal Constituents.—A volatile oil (*Oleum Cubebae*), *cubebin* (inactive), *cubebic acid*, and *cubeb resin*, the latter two forming a soft resin with diuretic properties. The irritant, stimulant, and carminative properties are possessed by the volatile oil.

Preparations.—1. *Specific Medicine Cubeba*. *Dose*, 1 to 30 drops.
2. *Oleoresina Cubebae*, Oleoresin of Cubeb. *Dose*, 1 to 15 grains.
3. *Oleum Cubebae*, Oil of Cubeb. *Dose*, 1 to 15 minims.

Specific Indications.—Gonorrhoea after discharges have almost ceased; enfeebled conditions of the large intestine and rectum; subacute inflammation of the urinary passages; urethral burning and scalding of urine in women; debility with profuse mucous discharges.

Action and Therapy.—Cubeba is mildly stimulant, expectorant, stomachic and carminative. It arrests excessive mucous discharges, particularly those of the urethra. Large doses quicken the pulse and increase its volume, and sometimes elevate the temperature; occasionally it causes nausea, vomiting, burning pain, griping and purging. Not uncommonly it produces a rash-like cutaneous eruption. It is eliminated by the urine and by the bronchial membranes, increasing normal and restraining abnormal secretions. It imparts its peculiar aromatic odor to the urine and to the breath.

Cubeb is employed to restrain mucous discharges after the subsidence of active inflammation, and usually after active discharge has nearly ceased. In late stages of intractable gonorrhoea in which there persists a small amount of flow, and in gleet, 30 grains of the powdered berries may be administered to awaken activity—to produce a substitutive inflammation—after which the case appears to improve. The drug should be pushed until urination is painful, and then lessened from day to day until a cure is effected.

While contraindicated in acute inflammation, cubeba is often of service in so-called chronic inflammations, especially in cystitis, and in chronic inflammatory states of the urethra in women. It first aggravates and then cures. The greater the debility the more it is indicated, and urethral burning is the chief indication for it. The urethral scalding sensations frequently experienced by women upon urinating, especially at the menstrual period, is greatly relieved by it, as is irritation and burning of the vulva. In these cases there is usually constant urging to pass urine, the effort being attended with much pain. Five (5) drops of Specific Medicine Cubeba should be given every 3 or 4 hours. The same dosage will often remedy nocturnal incontinence of urine in children.

Cubeba is useful in chronic sluggish sore throat, with relaxed membranes and over-secretion. From 5 to 10 drops of the specific medicine should be given suspended in syrup, and the same dose upon sugar is useful in chronic atonic respiratory catarrhs, with profuse expectoration, and for nasal catarrh.

Smoking cubebs is a popular method of treating nasal catarrh and hay fever. Care must be had not to blister the roof of the mouth, an

untoward effect that is produced by the oil in a good quality of cubeba.

CURCUMA.

The rhizome of *Curcuma longa*, Linné (Nat. Ord. Zingiberaceae). Southern and eastern Asia, and extensively cultivated in China, Hindustan, and other countries.

Common Names: Turmeric, Curcuma.

Principal Constituent.—*Curcumin*, a yellow coloring matter.

Preparation.—*Specific Medicine Curcuma*. (A coloring agent.)

Action and Uses.—While turmeric is a mild aromatic stimulant, it is almost wholly used as a test for alkalies, and to color ointments and other pharmaceutical products.

CUSSO.

The female inflorescence of *Hagenia abyssinica* (Bruce), Gmelin (Nat. Ord. Rosaceae). Abyssinia. **Dose**, 4 to 5 drachms.

Common Names: Koussou, Kusso, Kooso, etc.

Principal Constituent.—Kousin (brayerin or taeniin).

Preparations.—1. *Infusum Koussou*, Infusion of Koussou. **Dose** (see below.)

2. *Specific Medicine Koussou*. **Dose**, 1 to 2 fluidrachms.

Action and Therapy.—Taeniicide and purgative. Koussou is among the rarely used though efficient anthelmintics for the removal of tapeworm. Being more or less irritant to the gastro-intestinal tract it is not always well retained by the stomach. About 4 to 5 drachms of the flowers are to be suspended in water, or made into an infusion, and taken in two or three doses at short intervals upon an empty stomach. Some prefer the fluidextract in doses of 2 to 4 fluidrachms. Koussou is liable to fail unless made fresh and in prime condition.

CYPRIPEDIUM.

The rhizome and rootlets of *Cypripedium pubescens*, Swartz; and of *Cypripedium*

parviflorum, Salisbury. (Nat. Ord. Orchidaceae.) Rich woods of the United States.
Dose, 5 to 60 grains.

Common Names: (1) Ladies' Slipper, Yellow Ladies' Slipper, American Valerian, Yellow Mocassin Flower, Nerve Root; (2) Small-flowered Ladies' Slipper.

Principal Constituents.—A volatile oil, tannin and gallic acids, a volatile acid, resins, and inorganic salts.

Preparation.—*Specific Medicine Cypripedium.* **Dose**, 5 to 60 drops.

Specific Indications.—Insomnia, nervous irritability, neuralgia and delirium, all from atony; restlessness and muscular twitching, typhomania and tremors in low forms of fever; wakefulness from mental unrest; menstrual irregularities, with despondency; tendency to dementia at the climacteric; mental depression from sexual abuse.

Action and Therapy.—All of the species of *Cypripedium* resemble valerian in their effects. They are excellent nerve stimulants for weak women and nervous children. They improve a feeble circulation and increase the innervating power of weakened nerve centers. Though comparatively feeble agents, they are nevertheless important medicines, being of that type of drugs which silently do great good without marked physiological disturbance.

Cypripedium is an ideal tranquilizer for states of nervous excitability or irritability depending upon atony. It dispels gloom, induces a calm and cheerful state of mind, and by thus inducing mental tranquillity favors restful sleep. When nervous irritability is caused reflexly by pelvic disorders it is especially a useful drug. If due to organic disease it is less effectual than in merely functional disorders.

We value *cypripedium* highly for the hypochondria of the menopause. We have been able to accomplish more with it than any drug except *pulsatilla* in worry, with fear of disaster or insanity, in women passing through this phase of life. It is useful in melancholia and sleeplessness due to menstrual irregularities, after prolonged and severe pain, and in those the result of nocturnal losses. It relieves the nervous unrest attending gleet, and the sexual erethism of debility. In the typhomania and tremors of low fevers it is a safe and often effectual drug, but like all others in these conditions it frequently fails to give relief. It acts well after long sieges of exhausting diseases to give nerve tone and

allay the nervous manifestations of general debility. An excellent soothing syrup for irritable children, especially during dentition, was proposed by Scudder: Rx. Specific Medicine Cypripedium and Compound Tincture of Lavender, each 3 fluidrachms; Specific Medicine Lobelia, 1 fluidrachm; Simple Syrup, enough to make 3 fluidounces. Mix. Sig.: Dose, 5 to 20 drops. If nausea occurs lessen the amount of, or omit the lobelia.

monographs extracted from
The Eclectic Materia Medica, Pharmacology and Therapeutics
by Harvey Wickes Felter, M.D. (1922)

NOTE: Throughout these monographs are references to “Specific Medicines”. In some respects Specific Medicines are the single reason that Eclecticism survived so long in the face of “Organized Medicine” and were still being manufactured for the surviving Eclectic M.D.s as late as the early 1960s. Using up to eight organic solvents and the Lloyd Extractor, Specific Medicines represented the strongest possible concentration of the bioactive aspects of botanicals that would stay in a colloidal solution.

Perfected over four decades by John Uri Lloyd, each Specific Medicine was prepared according to the nature of THAT specific plant. You cannot translate a Specific Medicine into “tincture” or “fluidextract”. The latter are GENERIC or standard strengths applied across the board to ALL botanicals. A Specific Medicine represented the greatest strength, without degradation, for a PARTICULAR plant, using anywhere from several to all of the solvents to achieve this. The Eclectic physician was trained to use botanicals in an oftentimes rural setting, and these medicines had to resist breakdown in the deepest winter and the hottest summer. Since they needed to contain even the most ephemeral constituents of a plant remedy, Lloyd approached each plant separately.

The amazing quality of these preparations assuredly maintained the Eclectic Movement long after others had faded. Lloyd’s recipes were Patent Medicines, were not “official”, and when relatives finally closed down the Lloyd Brother’s Pharmacy in Cincinnati, these formulae disappeared. One of the hottest topics for many years amongst professional herbalists in North America and Europe has been “So who has the Lloyd Formulas, already?” Since we cannot access them, the best approach is the use of well made tinctures, capsules or tea. I might suggest the preparations and doses recommended in my Herbal Materia Medica 5.0 as a starting place...in many respects I am perhaps a “Neo-Eclectic” at heart, and have tended to follow the later Eclectics in my approach to plants and dosages.

Michael Moore
Bisbee, Arizona
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