

GALIUM.

The herb *Galium aparine*, Linné, and other species of Galium (Nat. Ord. Rubiaceae). Common in moist grounds in Europe and the United States.

Common Names: Cleavers, Goose-Grass, Catch-Weed, Bedstraw.

Principal Constituents.—Rubichloric, gallitannic, and citric acids.

Preparations—1. *Infusum Galii*, Infusion of Galium (1 ounce to Water, 16 fluidounces). *Dose*, 1 to 4 fluidounces.

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

Specific Indications.—Dysuria and painful urination in febrile and inflammatory states; renal and cystic irritation with burning; “nodular growths or deposits in skin or mucous membranes” (Scudder).

Action and Therapy.—Galium is a useful refrigerant diuretic in fevers and inflammations, and to relieve dysuria with pain and scalding or burning in the urethra or neck of the bladder. It may be used as a sedative diuretic in scarlet fever. It is undoubtedly alterative and may be exhibited in scrofulous disorders, but has been unwisely claimed as a remedy for carcinomatous growths.

Galium tinctoria is aromatic and has been recommended in the spasmodic cough of asthma and chronic bronchitis. The best use for these drugs is as diuretics.

GALLA.

An excrescence on *Quercus infectoria*, Olivier, and other allied species of *Quercus* (Nat. Ord. Fagaceae), caused by the punctures and deposited ova of the *Cynips tinctoria*, Hartig.

Common Names: Nutgall, Galls.

Principal Constituents.—Tannin (24 to 80 per cent) and gallic acid (1 1/2 per cent).

Preparations.—1. *Pulvis Gallae*, Pulverized Galls. *Dose*, 5 to 20 grains.

2. *Unguentum Gallae*, Ointment of Nutgall (20 per cent nutgall).

Action and Therapy.—Galls are astringent and owe this property to the

large quantity of tannic acid they contain. As an internal medicine and largely for external purposes they have been supplanted by gallic and tannic acids, which see. Galls, however, are considered especially effective in hemorrhoids, being preferred by many as a local application, in ointment, in preference to the acids named. They are commonly associated with opium for the same purpose.

GAMBIR.

An extract prepared from the leaves and twigs of *Orouparia Gambir* (Hunter), Baillon (Nat. Ord. Rubiaceae). Sumatra, Ceylon, and countries bordering the Straits of Malacca. *Dose*, 1 to 30 grains.

Common Names: Gambir, Gambeer, Terra Japonica, Pale Catechu.

Description.—Irregular masses or cubes, reddish-brown, pale brownish-gray or light brown, friable, crystalline, and breaking with a dull earthy fracture, bitterish with sweetish after-taste, no odor and great astringency. *Dose*, 15 grains.

Principal Constituents.—*Catechutannic acid* (35 to 40 per cent) the active astringent; *catechin* (catechuic acid) probably inert; and *pyrocatechin*.

Preparations.—1. *Trochisci Gambir*, Troches of Gambir (Gambir about 1 grain, Sugar, Tragacanth, and Orange-flower Water).

2. *Tinctura Gambir Composita*, Compound Tincture of Gambir (Gambir and Cinnamon). *Dose*, 1 fluidrachm.

Action and Therapy.—*External.* Gambir is powerfully astringent. It restrains excessive discharges, overcomes relaxation and congestion, and checks local hemorrhages. Gambir is now used in place of catechu (extract of wood of *Areca Catechu*) as it carries practically the same bodies in more available form, though it contains less tannin than that extract. It may be used in relaxed sore throat, relaxed uvula, and the relaxation and congestion of the fauces common to speakers and singers. A gargle or the troches may be employed. It is rarely used, by injection, in leucorrhoea, and in powder or tincture to control epistaxis. It is a good astringent for congested and spongy gums.

Internal. The powerfully astringent properties of gambir are utilized in the control of serous diarrheas. If there is much mucus present a purge of castor oil is advised, to be followed by the gambir alone, or with camphorated tincture of opium. It is seldom used in modern Eclectic practice.

GAULTHERIA.

The leaves of *Gaultheria procumbens*, Linné (Nat. Ord. Ericaceae). Damp woods and sandy soils of eastern third of the United States.

Common Names: Wintergreen, Teaberry, Mountain Tea, Boxberry.

Principal Constituents.—An aromatic volatile oil (*Oleum Gaultheriae*); *arbutin*, *ericolin* and *urson*.

Preparations.—1. *Oleum Gaultheriae*, Oil of Wintergreen. True Oil of Wintergreen; composed of about 96 per cent of methyl salicylate. **Dose**, 5 to 15 drops.

2. *Specific Medicine Gaultheria*. **Dose**, 5 to 20 drops.

3. *Spiritus Gaultheriae*, Spirit of Gaultheria (Essence of Wintergreen—5 per cent of oil in alcohol). Chiefly a flavor essence.

Related Oil.—*Methylis Salicylas*, Methyl Salicylate or Artificial Oil of Wintergreen. This is prepared synthetically and sold under the name of Oil of Wintergreen. Its source must be stated on the label. It ranges from colorless to yellowish or reddish and has the odor and taste of wintergreen. **Dose**, 5 to 15 drops.

Specific Indications.—Irritation of the bladder and prostate gland; undue sexual excitement, and early stage of renal inflammation.

Action.—Oil of wintergreen has identically the same physiological action as salicylic acid except that in poisonous doses it is more certain to produce coma. The symptoms of toxic doses are drowsiness, cerebral congestion with throbbing of the carotids, delirium, contracted or dilated pupils, visual disturbances, tinnitus aurium, paresis, somnolence, and coma preceding death. Autopsy reveals congestion of the stomach, duodenum, and the kidneys.

Therapy.—*External*. Oil of wintergreen in full strength may be applied to carious teeth to relieve toothache. In full strength, or in suitable dilution with olive oil or cottonseed oil, it provides a good painrelieving application for acute articular and chronic rheumatism and in gonorrhoeal arthritis. If used very strong the skin may subsequently exfoliate. Applied to denuded surfaces it is readily absorbed and may produce toxic effects.

Embrocations containing oil of wintergreen are valuable for local

inflammatory swellings, neuralgic pain, pleurodynia, myalgia, itching, and swelling and stiffness of the joints. The following are a few of many such liniments: (1) Oil of Gaultheria, 3 fluidrachms; Oil of Olive, enough to make 6 fluidounces. Mix. (2) Oil of Gaultheria, 3 drachms; Salicylic Acid, 20 grains; Alcohol, 2 fluidounces; Oil of Olive, enough to make 6 fluidounces; Mix. Shake when used. Especially useful upon rheumatic joints. (3) Oil of Gaultheria, 3 fluidrachms; Chloroform Liniment and Soap Liniment, 2 fluidounces each. Mix. Shake when used. For painful surfaces. (4) Oil of Gaultheria, 2 fluidounces; Asepsin, 15 grains; Echafolta and Alcohol, 2 1/2 fluidounces each. Mix. Valuable for application to cuts, bruises, and diluted with water as a mouth wash.

Internal. Specific Medicine Gaultheria, or an infusion (Leaves, 1 ounce to Water, 16 fluidounces), has a specific action upon the urino-genital tract, relieving irritation and subacute inflammation. This action is especially exerted upon the neck of the bladder and in the prostatic urethra. It does not greatly increase the secretion of urine, but renders its voiding easier by alleviating the sphincteric irritation. It is, therefore, a remedy for dysuria. In incipient renal inflammation it sometimes does good, and in acute tubal nephritis it is asserted to have given benefit even where blood and tube casts are passed. Considerable good has been accomplished with it when spermatorrhea and sexual excitement are caused by urethral irritability and prostatic fullness. The specific medicine may be administered in 5 to 15 drops doses in water 3 or 4 times a day. Some physicians have advised both gaultheria and its oil for the relief of hepatic congestion and in sluggish vascularity and engorgement of the intestinal glands, as well as to relieve hemorrhoids by overcoming congestion of the portal vessels.

Oil of gaultheria has aromatic and antiseptic properties. It consists most largely of methyl salicylate, over 90 parts at least, and is therefore analogous to salicylic acid and the salicylates in its effects. Large doses depress the heart just as the salicylates do; large doses also cause nausea and vomiting. Used within bounds, short of sufficient to induce gastric derangement, it is very useful where an anti-rheumatic is demanded and in cystic disorders with putrescent urine. Too long continued, however, it may induce renal irritation, and this must be carefully guarded against. Urine that was ammoniacal and putrescent a few hours after passage has been followed, after the administration of

twenty drops of the oil, by an output that remained free from putrefaction for twelve days. One part of the oil in about two hundred of urine has preserved the latter from change for eighteen days. Hence the value of this oil in cystitis with putrescent urine. While few agents should be administered with digitalis, oil of wintergreen is a grateful adjuvant and does not impair the usefulness of the foxglove. If for any reason sodium salicylate disagrees with rheumatic patients, oil of wintergreen, which is less likely to contain deleterious by-products, may be given. It is useful in all types of acute rheumatism in which salicylic acid or the salicylates are effective. Those most benefited are the acute inflammatory rheumatism and so-called gonorrhoeal rheumatism, a specific gonorrhoeal arthritic infection. Small doses have relieved facial neuralgia and tic douloureux; and sometimes it exerts a soothing and antiseptic effect in acute gonorrhoea. The oil may be administered in olive oil or in the form of the spirit (essence) mixed with sweetened water.

The essence is of service in dry, persistent bronchial cough, and the specific medicine in cough with considerable bronchial secretion. It is also useful in the colic of infants.

Gaultheria is an agent of special value as a flavoring agent and preservative for water-dispensed medicines in the summer season. For this purpose it should be widely used. The spirit (50 parts of oil of gaultheria to 950 parts of alcohol) is the preferred form for this purpose.

GELATINUM.

Gelatin.

A purified glue prepared by boiling gelatinous animal tissues in water and purifying, evaporating and drying the product.

Description.—A non-crystalline solid in sheets, flakes, shreds, or powder; without color or slightly yellowish, and having a feeble characteristic taste. Unalterable in dry air, but readily decomposes when moist or in solution. Insoluble in alcohol, fixed or volatile oils, ether, chloroform or cold water, but swelling and softening in the latter, 5 to 10 per cent of which it absorbs; soluble in hot water, glycerin, and acetic acid. It is largely employed in making gelatin capsules for the tasteless administration of medicines.

Preparation.—*Gelatinum Glycerinatum*, Glycerinated Gelatin.

Action and Therapy.—Styptic and protective. Gelatin may be used in the treatment of some forms of eczema and nasal catarrh; and as a soothing protective in rectal affections. It enters into the pharmaceutical preparation of capsules, lozenges, wafers, suppositories, court plasters, and as a coating for pills. Its intravenous or hypodermoclytic use (of about 3 ounces of a 1 per cent sterile solution) to increase blood coagulation in aneurism or hemorrhage is less in favor than formerly, now that coagulin and similar ready prepared biological preparations are available.

Internal. Gelatin is demulcent and may therefore be used as a lenitive after cases of irritative poisoning. While having some antidotal power over iodine and bromine and the alums, it is undesirable on account of the length of time required to prepare it properly for use. As a proteid food it is prepared largely in various ways for feeding the sick, and owing to its freedom from the formation of indol it has been advised as a part of the diet in intestinal putrefaction showing marked indicanuria.

GELSEMIUM.

The dried rhizome and roots of *Gelsemiumsempervirens* (Linné,) Aiton (Nat. Ord. Loganiaceae). **Dose**, 1/10 to 1 grain.

Common Names: Yellow Jasmine, Yellow Jessamine, Carolina Jasmin.

Principal Constituents.—Two bitter alkaloids—crystallizable *gelsemine*, the paralyzing agent, and amorphous *gelseminine*, a very toxic and tetanizing principle, and a volatile oil. There is also present *gelseminic acid* (*beta-methyl-aesculetin*).

Preparation.—*Specific Medicine Gelsemium.* **Dose**, 1/10 to 10 drops. Usual method of administration: Rx Specific Medicine Gelsemium, 10 drops to 1 fluidrachm; Water, enough to make 4 fluidounces. Mix. Sig.: One teaspoonful every 1 to 3 hours.

Specific Indications.—*Hyperemia*; bright eyes, contracted pupils, great heat, and nervous unrest; mental irritability; insomnia, with nervous excitation; pain over the whole head; tremulousness, with great nervous excitement and high temperature; irritation of urinary tract; dysuria, with scant secretion of urine; arterial throbbing, with exalted sensibility; pinched, contracted tissues; convulsions, with hyperaemia;

thin, dry, unyielding os uteri, with dry and hot vaginal walls.

Action.—Gelsemium acts chiefly upon the spinal cord, first impressing the sensory tract, even to the extent of producing complete anesthesia; later, its dominant action occurs, that of expending its force on the motor neurons, causing paralysis of motion. Sometimes this sequence is reversed. Upon the higher brain it has but slight effect, but upon the motor filaments of the nerves of the head, particularly the third and sixth cranial pairs, its action is profound. This is well shown by the resultant palpebral ptosis and relaxation of the jaw. Respiration is first stimulated, then depressed. Moderate doses do not appreciably disturb the circulation. Toxic doses, however, depress both the pulse rate and the blood pressure. In man convulsions do not occur. Both gelsemium and gelsemine, when dropped into the eye, cause violent dilation of the pupil, with accompanying paralysis of accommodation. The mydriasis is not so lasting as that from atropine. Gelsemium is quickly absorbed and spends its force in about three hours. The alkaloid gelsemine, correspondingly more active, is eliminated unchanged by way of the kidneys. Death from gelsemium is due to asphyxia. Gelsemium does not affect all human beings alike, some being but slightly influenced by it while others are profoundly impressed. The smallest active doses (ranging from 5 to 15 minims of the specific medicine or fluidextract, according to susceptibility) occasion a languid sense of ease and slight lowering of the force and frequency of the pulse. Larger doses induce a desire to lie down, and cause vertigo, disturbed sight, and sometimes orbital pain. Continued small doses may, after several hours, provoke vomiting; otherwise it has little or no effect upon the stomach or bowels.

Toxicology.—Toxic doses produce extreme muscular relaxation and prostration, double vision (sometimes blindness), widely dilated and immovable pupils, internal squint, and the eyelids droop and are raised with difficulty, or complete paralytic palpebral ptosis occurs. Often the patient sinks in his tracks, or if he stands he staggers. Sensibility is greatly impaired, the jaws drop and speech fails. Breathing becomes slow, labored, and shallow; the pulse rapid, weak, and thready; the skin is wet with cold sweat, and the body-heat markedly depressed. Drowsiness may be felt, but consciousness is usually retained until just before death, evidence that the higher cerebral centers are but slightly involved. Death takes place from centric respiratory paralysis, and almost simultaneous arrest of the

action of the heart.

The cardinal symptoms of poisoning by Gelsemium, therefore, are *ptosis, diplopia, dropping of the lower jaw, and absolute muscular prostration.*

In poisoning by gelsemium or its alkaloids, the emetic or stomach pump should be used if the patient is not too weak. Tannic acid (or strong infusion of store tea) should be administered, external heat applied, and artificial respiration attempted as soon as breathing shows signs of failure. Stimulation of the respiratory function should be enforced by the hypodermatic use of atropine, and that of the heart by ammonia, ether, alcohol and digitalis, the first three in the order named, to sustain the organ until the digitalis, which should be given at once, can act.

It has been asserted that morphine completely antidotes the poisonous effects of gelsemium. As gelsemium poisoning is quite rare the antidotal treatment is none too well established and is, therefore, based mostly on general principles.

Therapy.—Gelsemium is primarily the remedy for *acute hyperemia of the brain and spinal centers.* All through the woof and warp of its therapy runs the thread of nervous excitation and unrest; and often fever, spasm, and pain. In proper doses it relaxes high nervous and muscular tension. By diminishing the velocity of the blood current to the head and spinal tract it prevents spasmodic action. It is, therefore, a remedy for hyperaemia; never a remedy for congestion. It is the specific agent for relief in the nervously excited and highly feverish state, for the child with hot head and tremulous and jerky muscles, for great restlessness with elevation of temperature; for the touchy and grouchy but feverish individual who magnifies his ailments; and for those who dread even the simple ordeals and trials of life. The most direct indication for its employment is *exaltation of nervous function.* It is contraindicated by a weak heart and feeble circulation. As an antispasmodic it stands unrivaled save by lobelia and bromide of potassium, with both of which it acts kindly and harmoniously. “The flushed face, bright eye, contracted pupil, increased heat of head, great restlessness and excitation” are the classic indications for it as first formulated by Scudder, and these stand among the truest of specific guides ever recorded for the use of a medicine.

Though not classed as an antipyretic, gelsemium softens blood pressure, slowly reduces the pulse, and overcomes hyperaemia associated with exalted nervous action, thus making it indispensable in some kinds of inflammation and fevers. This period of excitement usually obtains early in the febrile state. When this nervous tension has been relieved by the drug, then its usefulness is practically at an end. To continue with it would imperil the integrity of the heart, which, while apparently but little affected during health, appears to be readily endangered by it during the advanced stages of febrile process. Only in sthenic fevers is it indicated; never when the heart is weak or degenerate or the patient is prostrated by debility. A soft, open pulse, moist skin, cleaning moist tongue and nerve calm being essential to the effective use of quinine, gelsemium is administered in the febrile stage of malarial or intermittent fevers to produce these effects and prepare the way for the kindly action of that great antiperiodic. This it does with directness and dispatch. Even before this preparatory use gelsemium alone was employed in these diseases with asserted success by early Eclectic practitioners, and in doses which we of to-day would hesitate to administer. In other forms of fever, as remittent and so-called bilious types, which tip the balance one way or the other toward malarial fever or typhoid fever, the drug is efficient if the indications above noted are strictly observed. For the febricula of children, with great and tremulous agitation, high fever, headache, and near spasmodic explosiveness, it is unsurpassed both to allay the fever and to give rest and sleep. Scudder remarks that in fevers "we find many times that its influence is very decided; it causes relaxation of the system; the pulse is less frequent and softer; the respiration is slower; the skin becomes cooler, soft and moist; there is less determination of blood to the head, and if there is pain in it, it is reduced or entirely ceases, while at the same time we frequently notice an increased secretion of urine." In typhoid or enteric fever its use should be more guarded. When of the robust type with vigorous onset, it is serviceable if used early, but when the slightest evidence of enfeeblement of the heart or disintegration of the blood is apparent it should be withheld at once. Under such circumstances we have seen a rapidly dicrotic and irregular pulse and prostration ensue, even though but small doses were being administered. By no certain means can this result be wholly attributed to the drug, yet surely the stage for gelsemium medication has then passed. In puerperal fever it is useful as long as exalted nervous tension calls for it.

As stated gelsemium is a remedy of marked usefulness in the sthenic fevers of childhood. The more these tend to convulsive complications the stronger becomes the indication for this agent. Infants, however, are quite susceptible to the drug and the dose for them should be minute—even fractional. In inflammatory bowel disorders of children, particularly during dentition, it is one of our most direct medicines, and is then most potent in enteritis, gastro-enteritis, cholera infantum, and diarrhoea and dysentery, both with tenesmus—all of which derangements are so often the blight of the child's second summer. Here the direct guide will be the exalted nervous tension, the increased heat of head and body, the brilliant, shifty eyes, great restlessness, and the near explosive state. If convulsion occur, then larger doses will control the spasms.

Observing the indications undeviatingly gelsemium will be found one of the best remedies for the spasms of childhood, or infantile convulsions. Though single remedies are preferred in Eclectic practice, the following combination is the most effectual we have used for such attacks: Rx Specific Medicine Gelsemium and Specific Medicine Lobelia, 1 fluidrachm each; Potassium Bromide, 1 drachm; Water enough to make 4 fluidounces. Mix. Sig.: One teaspoonful every five minutes until the spasms cease. Then administer one teaspoonful of the solution every two hours for one or two days. The bowels should be thoroughly emptied by a copious enema of soapy water and the child immersed in a warm bath (tested by the attendant's bare elbow), with a cold pack to the head. If the convulsions are due to gastro-intestinal abuse, the spasms are soon controlled; if they are the precursors of infectious or other diseases, and centric in origin, an advantage will have been gained by the early use of the gelsemium.

Gelsemium is an important sedative in the early stage of acute bronchitis, broncho-pneumonia, lobar-pneumonia, and pleurisy. In pneumonia it is less often required than veratrum, but in all acute respiratory inflammations, of a sthenic type, it may be required to meet the nervous manifestations and to give rest. In acute febrile and inflammatory diseases it is frequently effective in quieting delirium and overcoming insomnia. This is particularly evident in la grippe. Of the few remedies that offer any therapeutic hope in acute cerebro-spinal meningitis and acute poliomyelitis gelsemium has been favorably considered. Its administration should not be continued in

the former when effusion takes place, nor in the latter when paralysis is established.

Gelsemium is a remedy for pain, provided it is dependent upon or associated with nervous tension. For pain in the weak and apathetic it has no value. It has fully justified its reputation in simple neuritis and various types of neuralgia when there is hyperaemia, nervous irritability and sharp, muscular twitching. Under these conditions it may be used in intercostal neuralgia (often the precursor of herpes zoster), ovarian neuralgia, and is sometimes effectual in sciatic neuritis or neuralgia, though too much reliance must not be placed upon it in this affection. If sciatic and other forms of neuritis are purely nervous and hyperaemic, it is most likely to be of service, but if dependent upon sugar toxemia, pressure, injury, loaded caecum, or pelvic subluxation, other measures must be resorted to. The best results from gelsemium in neuralgia are obtained in trigeminal or facial neuralgia, dependent upon cold, dental caries, or peridental inflammation. Toothache in apparently sound teeth, but with violent throbbing from active circulation, frequently yields to this drug. Liberal doses of gelsemium are required to ease neuralgic pain. It gives relief in recent tic douloureux with active circulation in the head, but when the Gasserian ganglion becomes permanently impaired it fails, as do other medicines. Surgical relief is then the only rational procedure. In acute inflammatory rheumatism gelsemium is serviceable chiefly to allay excitement and to some extent alleviate the pain. It is adapted only to the initial stage and when sthenic conditions prevail, and then only as an aid to the more direct antirheumatic remedies. It is one of the commonest and best remedies for myalgia due to the strain of muscular exertion, or to recent colds from exposure to inclement weather.

Various forms of headache yield to gelsemium. It is best adapted to nervous headache with active circulation and throbbing pain. Occasionally it serves well in migraine, but is less effectual than the synthetic analgesics. It is more efficient when headache is caused by eye-strain.

Limited to the indications of nervous excitement with increased vascularity and spasmodic or colicky pain, gelsemium is of very great utility in dysmenorrhea in robust subjects, as it is also in so-called uterine colic. Full doses are required. It acts favorably, when similarly

indicated, in ovaritis and metritis, and in salpingitis before suppuration sets in; after that it is of no other value than to quiet the nervous phenomena.

Scanty urine, with hyperaemic irritation of the renal organs and urinary passages, is a direct indication for gelsemium. It should then be given preceding or with the desired diuretics. Renal suppression is then promptly relieved by it, but not when there is congestion, for which belladonna is far more effectual. For the dysuria of spasmodic urethral stricture it is the remedy. It allays the irritation and temperature excited by the passage of catheters, bougies, and divulsors. We rely upon it in cystic irritation from cold when the urging to pass urine is frequent and the passage difficult. For this purpose, together with apis or eryngium, it gives the happiest results in this annoying complaint in women. It may also be satisfactorily employed for suppression of urine in hysterical women. In acute nephritis it is one of the surest remedies, and is just as serviceable in acute cystitis when due to colds and not dependent upon the retention of putrid urine. Its relaxant powers sometimes facilitate the passage of small renal calculi and cystic gravel.

In the inflammatory stage of gonorrhoea no agent is more salutary than gelsemium. It prevents and relieves chordee, eases urination, and gives comfort when burning and irritation are pronounced. For this purpose it may well be combined with cannabis and aconite as follows: Rx Specific Medicine Gelsemium, 1 fluidrachm; Specific Medicine Aconite, 10 drops; Specific Medicine Cannabis, 1 fluidrachm; Water, enough for 4 fluidounces. Mix. Sig.: One teaspoonful every two or three hours.

Obstetric therapy would be impoverished without gelsemium. One should not be reckless with it, however, as many believe that it favors hemorrhage. Our experience does not verify this view. It is the remedy to relax rigid os when the rim is thin and unyielding, holding the head as in a vise, and there is dryness of the parturient canal. It very promptly removes this impediment, favors normal secretion, and facilitates labor. In fact, all sphincters acutely contracted are relaxed by full doses of gelsemium. During labor it is most valuable to overcome the great restlessness, fear, and excitement experienced by nervous women, and by its calmative power rectifies jerky and ineffectual contractions. It also mitigates the severity of the pain and

relieves the sense of heat and dryness complained of by the patient. Indeed, this is one of the most praiseworthy effects of this drug. It also controls after-pains and the nervous agitation that follow a few days after parturition. For puerperal convulsions it is inferior only to veratrum and shares with this drug and morphine and chloroform in being the most generally effective remedies in this form of eclampsia. In no way does it interfere with the recently introduced Fischer's alkaline intravenous treatment.

GENTIANA.

The dried rhizome and roots of *Gentianalutea*, Linné (Nat. Ord. Gentianaceae.) Common in the mountainous regions of southern and central Europe. *Dose*, 10 to 30 grains.

Common Names: Gentian, Gentian Root.

Principal Constituents.—*Gentiopicrin*, an active, bitter glucoside, associated with gentisic acid or gentisin (C₁₄H₁₀O₅). No tannin is present but a coloring matter which is darkened by iron compounds.

Preparations.—1. *Infusum Gentianae*, Infusion of Gentian. *Dose*, 1 fluidrachm to 1 fluidounce.

2. *Specific Medicine Gentiana*. *Dose*, 5 to 30 drops.

3. *Tinctura Gentianae Composita*, Compound Tincture of Gentian. (Contains Gentian 10 percent, Bitter Orange Peel, and Cardamon.) *Dose*, 1/2 to 1 fluidrachm.

Specific Indications.—Sense of epigastric depression, with physical and mental weariness; atony of stomach and bowels, with imperfect digestion.

Action and Therapy.—Gentian is one of the best of the simple bitter tonics, for the action of which compare *Calumba*. In large doses, however, it is capable of deranging digestion, with the production of nausea, vomiting, and diarrhoea, and fullness of the pulse, with headache. It is contraindicated in gastric irritability or inflammation.

The chief use of gentian is to promote the appetite and improve digestion in states of chronic debility. This it does when given in moderate doses. For atony of the stomach and bowels, with feeble or slow digestion, it is an ideal stimulating tonic; and after prolonged

fevers and infections, when the forces of life are greatly depressed and recovery depends upon increased power to assimilate foods, gentian may be used to improve gastric digestion and thus hasten the convalescence. Gentian is especially useful in anorexia, in the dyspepsia of malarial origin, and in subacute gastritis and intestinal catarrh. The infusion and the compound tincture of gentian may be used alone or as vehicles for other medicines.

GERANIUM.

The rhizome of *Geraniummaculatum*, Linné (Nat. Ord. Geraniaceae). Common in the rich soils of woods and low grounds in the United States. *Dose*, 5 to 60 grains.

Common Names: Cranesbill, Wild Cranesbill, Crowfoot, Spotted Geranium.

Principal Constituents.—*Tannin* (10 to 28 per cent, according to season) and *gallic acid* (in dried root).

Preparations.—1. *DecoctionGeranii*, Decoction of Geranium (1/2 ounce to Water, 16 fluidounces). *Dose*, 1 to 2 fluidounces.

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

Specific Indications.—Relaxed mucous tissues with profuse debilitating discharges; chronic mucous diarrheas; chronic dysentery; diarrhoea with constant desire to defecate; passive hemorrhages; gastric ulcer.

Action and Therapy.—Geranium is one of the simple and much neglected of the early Eclectic medicines. It is an ideal astringent and for conditions requiring such an action it is preferable to many other constringing drugs. Geranium is indicated in subacute and chronic bowel disorders when the evacuations are abundant and debilitating. It is especially adapted to relaxation of the mucosa following inflammation. For the summer diarrheas of older children, and especially the cholera infantum of infants, it is splendidly effective after the bowels have been thoroughly cleansed of undigested and decomposed contents. For infantile use we prefer the decoction in milk. If that does not agree, small doses of the specific medicine in water may be employed. When dysentery tends to chronicity, the thorough use of magnesium sulphate followed by geranium will render good service.

Geranium is of some value in passive hemorrhages, as haematuria, hemoptysis, and menorrhagia. It is only useful in the first two when the blood lost is small in amount, and in the latter when bleeding is prolonged, but merely oozing. Though a useful agent in relaxed conditions with catarrhal discharges other than those of the bowels, as chronic pharyngeal catarrh, relaxed uvula, leucorrhoea, etc., it is no more valuable than other tannin-bearing drugs, and is often inferior to tannic acid itself.

Geranium is of specific value where long saturation of the mucosa with unhealthy catarrhal secretions favor a tendency to destruction of tissue. We have found it to quickly cure aphthous ulceration of the mouth attended by gastric acidity and acid diarrhea. For gastric ulcer it is one of the best therapeutic means we possess. Geranium, hydrastis, mangifera, bismuth subnitrate and magnesium oxide, singly, or in indicated association, have proven the most effective agents in our experience for the medicinal relief of curable cases. They restrain hypersecretion, correct excessive acidity, check hemorrhage, and relieve pain; sometimes healing appears to progress rapidly under their influence.

GLUCOSUM.

Glucose, Liquid Glucose, Syrupy Glucose.

A syrupy liquid, composed chiefly of dextrose (dextro-glucose) and dextrin. It is obtained by the incomplete hydrolysis of starch.

Description.—An odorless or nearly odorless, sweet, syrupy liquid, of a little or no color. It is sparingly dissolved by alcohol, but water dissolves it freely, the aqueous solution being neutral or slightly acid to litmus paper. Dose, 2 to 6 fluidounces of 6 to 30 per cent solutions of glucose.

Specific Indications.—Shock; acidosis.

Action and Therapy.—Glucose is an easily digested nutrient, fermentable, and comparing in food value closely to sugar. Diuretic properties have been ascribed to it, and it is said to protect against fatty degeneration produced by the administration of general anesthetics. Glucose, in 6 to 10 per cent solutions, has proved serviceable, given by enteroclysis, in dropsical effusions, provided the kidneys are not badly damaged, and in uremic eclampsias, and other affections with faulty

elimination of urine. Intravenously administered, in solutions of 10 to 30 per cent, it has been very successful in surgical shock. One of its most important fields of usefulness is in infant feeding (2 to 3 fluidounces of 6 per cent solution per rectum), and in the same strength solution (6 ounces) intraperitoneally to prevent acidosis in malnourished infants. Acetone quickly disappears under such use of it.

GLYCERINUM.

Glycerin, Glycerol.

A liquid composed most largely of a trihydric alcohol ($C_3H_5(OH)_3$) obtained by the processes of hydrolysis and distillation of fats, both animal and vegetable, or of fixed oils.

Description.—A thick, syrupy, colorless liquid having a sweet and warming taste and a faint but agreeable odor. It has a great avidity for moisture, becoming appreciably thinner upon long exposure to the atmosphere. It mixes with water or alcohol; and is insoluble in ether, chloroform, and fixed and essential oils. *Dose*, 1/2 to 2 fluidrachms.

Preparation.—*Suppositoria Glycerini*, Suppositories of Glycerin.

Action.—Glycerin is a powerful hygroscopic. So great is its avidity for water that it will readily abstract moisture from the tissues to which it is applied. It is also slightly irritant to the skin and mucous surfaces, and considerably so to abraded surfaces. The discomfort quickly subsides, however, and it then acts as an antiseptic and protective emollient to the skin. It is a demulcent to mucous tissues. Applied to the rectum it provokes evacuation, both by its irritating and dehydrating effects. Glycerin kills parasites, both cutaneous and intestinal, and allays itching, probably by its protective, antiseptic, and hygroscopic powers. Glycerin is rapidly absorbed by the intestines and is mostly oxidized in the body. By some it is thought to be, in some measure at least, a food, and indirectly a conservator of fats through its effects of increasing the non-nitrogenous reserve of the body. It is also believed to increase energy. Upon the glycogenic function its effects are still in doubt, many contending that it reduces the sugar when in excess in the body. Glycerin is laxative and in very large amounts acts not unlike alcohol, producing a similar intoxication and like gastric effects. It is also said to favor the elimination of uric acid.

Therapy.—External. The bland and practically unirritating character of pure glycerin, in the presence of a little water, its permanence when exposed to the air (except absorption of moisture), and the completeness with which it shields the parts make it the most largely used external application in a great variety of local disorders. Its protective unctuousness without being greasy, its splendid and extensive solvent powers, its ability to hold in close contact to the tissues powders and other medicines that would dry and fall off if applied with alcohol or water, its antiseptic and emollient properties, and its antipruritic qualities, make it an indispensable vehicle. It is freely miscible with water and most ointment bases, and dissolves or holds in suspension the most commonly used external medicines. It should never be applied full strength, however, except where its dehydrating effects chiefly are desired. Through its great greed for water it readily removes moisture from the tissues, leaving them hardened and more likely to crack. A little water should be added to it for local use, or the parts may be moistened and left wet before its application. Only pure glycerin should be used.

Equal parts of glycerin and water, or preferably rose water, form an elegant and emollient cosmetic lotion for chapped hands, lips, and face cracked or sore nipples, excoriated and chafed surfaces, and swollen hemorrhoids. A few grains of borax sometimes add to its efficiency. Compound tincture of benzoin and glycerin is also a pleasant application. For those exposed to winds and storms, and who have their hands much in water, the following is splendidly effective: Rx Glycerin, 2 fluidounces; Carbolic Acid, 10 grains; Tincture of Arnica Flowers, 1/2 fluidounce; Rose Water, enough to make 4 fluidounces. Mix. Sig.: Apply after thoroughly washing and rinsing the hands, and while they are still wet. Sometimes lobelia may be used in place of the arnica.

Glycerin, added to poultices, renders them soothing and keeps them moist. It forms a good application to boils, carbuncles, small abscesses, and to local edemas, as of the prepuce. Here it may be used pure for its antiseptic and dehydrating effects. Mixed with alcohol (1 part), glycerin (3 parts), it makes a useful and “drawing” application for boils, and an antiseptic stimulant for foul ulcerations. A mixture of glycerin and water in proportions to suit the case may be used as a toilet wash for the mouth in fevers, to keep the tongue and lips soft and pliable, and to remove sordes and other viscous secretions. It also reduces the thirst

occasioned by the dryness of the mouth.

Glycerin may be used as a vehicle for lime water for application to small burns, erythema, and slight excoriations; for menthol for the relief of itching in urticaria, chronic eczema, and other pruritic conditions; for boric acid in the mild forms of facial dermatitis; for lactic acid in freckles, sunburn, and other pigmentations; for bismuth, borax, salicylic acid, phenol, boric acid, or sodium or potassium bicarbonate when their long-continued local effects are desired, especially in ulcerations and various skin diseases. A small portion of liquor potassae (1/2 per cent) may be added to it for use upon rough skin and in chronic eczema. Among the skin disorders in which it is especially useful as a vehicle may be mentioned impetigo, lichen, porrigo, psoriasis, pityriasis, herpes, and tinea versicolor (with mercuric chloride) and other parasitic affections.

Glycerin (diluted) is one of the best agents to soften hardened and impacted cerumen prior to removing it by gently syringing with warm water. Any irritation caused by the hardened mass or the means of removal may be overcome by the following: Rx Colorless Hydrastis (Lloyd's), 1 fluidrachm; Glycerin, 20 drops; Distillate of Hamamelis, enough to make 1/2 fluidounce. Mix. Sig.: Apply warm to the parts by means of cotton. Glycerin is sometimes useful in otorrhea. A 5 per cent solution of phenol in glycerin upon cotton may be used for insertion into the aural canal after rupture of the membrana tympani when tenderness around the ear persists. It acts by dehydration, reducing the swelling and facilitating a more complete drainage from the middle ear.

Either glycerin or the glycerite of boro-glycerin are favorite agents for the depletion of the tissues in congestive and subacute inflammation of the womb.

It should be applied upon tampons so as to remain in contact for several hours, and then be followed by a hot (not warm) douche. The same treatment gives good results in uterine subinvolution. A small quantity of pure glycerin, or the glycerin suppository, is very effective in provoking a movement of the bowels when the feces are below the sigmoid flexure. For a small child it is one of the most effectual methods for overcoming constipation, with lack of rectal response to the calls of nature. Care should be had to see that the syringe tip is

perfectly smooth, and any irritation caused by the glycerin may be due to using the enema too frequently or to the use of an impure glycerin. As a rule, 1/2 drachm properly and carefully injected is followed at once by a fecal evacuation. Diluted glycerin is sometimes useful to prevent bed-sores.

Glycerite of Starch is a useful application in ichthyosis, and glycerin pastes are more cleanly and effective than those made with petrolatum or fats. Montgomery advises a paste made as follows: Starch, Zinc Oxide, of each 1 part; Glycerin, 2 parts. Prepare without boiling. This forms a white paste of paint-like consistence, adherent, non-greasy and pliable, and may be applied by spreading with the hand. It holds the parts like a splint, allowing discharges free egress, while it does not interfere with the natural secretions. It is especially designed for papular skin eruptions.

A large proportion of the good derived from the magma-poultices, such as "Antiphlogistine", etc., are due to the antiseptic and dehydrating qualities of the glycerin they contain.

Internal. Only pure glycerin should be used for internal use. Glycerin is invaluable as a flavoring and sweetening preservative for water-dispensed medicines. Especially is it demanded in the summer season. From 1 to 2 drachms are sufficient for most four-ounce mixtures, depending somewhat upon the quantity of alcohol or other preservative agents present. In special cases of diabetes it may be used as a substitute for sugars. While somewhat laxative it is seldom so used in Eclectic practice, and if selected would be indicated only where either constipation or diarrhea is dependent upon fermentative changes. There are, however, cases of hemorrhoids, both bleeding and non-bleeding, in which it may be used as a laxative; and these are accompanied by fermentative action in the stomach and bowels. Glycerin is sometimes useful in fermentative dyspepsia, with flatulence and constipation, relieving largely by its antiseptic and dehydrating effects. Glycerin, well diluted with iced water, makes a fairly good drink for low forms of fever, where putrefaction is shown by the dry tongue, foul breath and sordes. Its value as a nutritional measure, in place of cod-liver oil and other fats, is open to grave doubt, with the probabilities in favor of its uselessness. Its employment as a food for diabetics, and in phthisis and other wasting diseases, has practically lost prestige, though in the first named many believe it

useful to check, in some degree at least, the excretion of sugar. The common custom of taking glycerin, rock candy, and whisky for common coughs and colds is nothing less than a popular form of mild alcoholic tipping.

GLYCYRRHIZA.

The dried rhizome and roots of *Glycyrrhiza glabra typica*, Regel et Herder (Spanish Licorice), or of *Glycyrrhiza glabra glandulifera*, Regel et Herder (Russian Licorice), (Nat. Ord. Leguminosae). Southern Europe and western Asia; cultivated. **Dose**, 5 to 60 grains.

Common Names: Licorice, Licorice Root, (1) Spanish Licorice Root, (2) Russian Licorice Root.

Principal Constituents.—The sweet glucoside *glycyrrhizin* (C₂₄H₃₆O₉), *asparagin*, *glycyramarin* and an acid resin.

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

2. *Fluidextractum Glycyrrhizae*, Fluidextract of Glycyrrhiza. **Dose**, 30 drops.

Derivative: *Glycyrrhizinum Ammoniatum*, Ammoniated Glycyrrhizin. Very sweet, odorless, dark-brown or red-brown scales; soluble in alcohol or water. It is derived from glycyrrhiza and combined with ammonia. **Dose**, 1 to 8 grains.

Action and Therapy.—Glycyrrhiza root is demulcent, laxative, and expectorant. It acts upon mucous surfaces, lessening irritation and relieving coughs, catarrhs, and irritation of the urinary tract. The powdered extract is sometimes used to give solidity to pills, and the powdered root as a dusting powder for the same. The fluidextract is an agreeable flavoring agent for other medicines and soothing to irritated bronchial surfaces. The bitterness of cascara, quinine, aloes, quassia, the acidity of senega, guaiac, and the taste of ammonium chloride and sodium salicylate are more or less masked by the fluidextract. Licorice root is an ingredient of *Compound Licorice Powder*. (See Senna).

GOSSYPIUM.

The bark of the root and the hairs of the seed of *Gossypium herbaceum*, Linné, and of other species of *Gossypium* (Nat. Ord. Malvaceae). An Asiatic plant extensively cultivated, especially in southern United States. **Dose**, 5 to 60 grains.

Common Names: (1) Cotton-Root Bark; (2) Cotton, Cotton Wool.

Principal Constituents.—The root-bark yields a red resin called *gossypic acid* (8 per cent) and volatile oil and tannin.

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

2. *Gossypium Purificatum*, Purified Cotton (Absorbent Cotton). (Cotton freed from impurities and deprived of fatty matter.)

3. *Oleum Gossypii Seminis*, Cottonseed Oil. A pale, yellow, odorless or nearly odorless oil, having a bland taste; slightly dissolved by alcohol and miscible with ether, chloroform, petroleum, and benzin. **Dose**, 1/2 to 2 fluidounces.

Specific Indications.—(Uterine inertia; preparations of fresh root-bark - large doses.) Tardy menstruation with backache and dragging pelvic pain; fullness and weight in the bladder, with difficult micturition; sexual lassitude with anemia; hysteria, with pelvic atony and anemia.

Action and Therapy.—*External*. Absorbent cotton is of mechanical use only in practice. A cotton jacket is preferred by many to poultices and magmas for use in acute lung diseases. It maintains an even protection from changes of temperature, and slight moisture usually accumulates under it, thus making it serve the purpose, without the weight and dangers, of the poultice. Cotton is widely used in surgical practice for sponging and dressings, to take up secretions, to protect painful surfaces in burns and scalds, and to prevent the ingress of atmospheric microbic invasion. It is a comforting application to rheumatic joints, usually being applied over some oleaginous application. Upon raw surfaces oils or some lubricant should be first applied and then the parts encased in cotton. If allowed to become stiff and hard it acts as any other foreign body. Cotton is used for vaginal tampons, but they should be removed after a few hours use, as they become exceedingly foul and veritable hotbeds of infection. For packing wounds and cavities and similar surgical uses gauze is preferred to cotton. Cotton is a good medium by which to apply antiseptic and dusting powders.

Internal. Fresh cotton-root bark is emmenagogue. It is useful in tardy menstruation, with much backache and dragging pelvic pain. Owing to its undoubted power upon the uterine musculature it is of value in uterine subinvolution and is asserted to have reduced the size of fibroids. It probably acts much in the same manner as ergot, though far less powerfully. It has the advantage, however, of being practically non-poisonous. In uterine inertia during labor it is said to act well, though

it is seldom brought into requisition. The reputed use of the decoction as an abortifacient by the cotton-district negroes is common knowledge. Fortunately the fresh root is not everywhere available, if it really possesses ecbolic properties, for old bark is said to be valueless for any purpose.

Webster employs gossypium in hysteria in children and adults. He reports it efficient in screaming children, morose women, and girls with uncontrollable laughter, as well as in those assuming muscular rigidity. These adult cases undoubtedly depend upon menstrual derangements.

Cotton Seed Oil. This is a bland, nutritious, and wholesome digestible oil, used as a food and emollient; and employed in pharmacy, medicine, and surgery for many of the purposes for which olive oil is used. (See *Oleum Olivae*.)

GRANATUM.

The dried bark of the stems and roots of *PunicaGranatum*, Linné (Nat. Ord. Punicaceae). India, southwestern Asia, and the Mediterranean shores; naturalized and cultivated in warm latitudes. **Dose**, 30 grains.

Common Names: Pomegranate, Pomegranate Root Bark.

Principal Constituents.—*Pelletierine* or *punicine* (1/2 per cent), methyl-, pseudo-, and isopelletierine, all alkaloids, and punico-tannic acid (20 per cent).

Preparations.-1. *PelletierinaeTannas*, Pelletierine Tannate. (Contains in varying proportions, in admixture, the four alkaloids mentioned above.) A pale-yellow, noncrystalline powder, without odor, and an astringent taste. Soluble in alcohol and less readily in water. **Dose**, 4 grains.

2. *Decoctum Granati*, Decoction of Pomegranate Bark (see below).

Specific Indications.—Taeniicide and taeniafuge for the destruction and expulsion of tapeworm.

Action.—Pomegranate preparations, in large doses, causes nausea and vomiting, flatulence and intestinal pain. Notwithstanding the large amount of tannin it contains, such action is frequently followed by diarrhea. Other effects are tremors, muscular weakness, and cramps in the extremities, dizziness, mental confusion, drowsiness, diplopia and

mydriasis, and other ocular disturbances. The tannate kills the tapeworm easily, but has far less effect upon other intestinal parasites. The associated alkaloids, sold as pelletierine, constitute an exceedingly active combination, capable of producing paralysis of the motor nerves. The tannate, probably owing to its slow solubility, is less liable to disturb the system, but is equally effective as a taeniicide.

Therapy.—When pomegranate decoction can be retained by the stomach it is a certain specific for the destruction and expulsion of tapeworm. When this preparation cannot be used, the tannate, which is far more easily administered, may be substituted. A semi-proprietary preparation called “granatin” is a salt of pelletierine in solution, and is a very effective destroyer. It is sold ready for administration as a single dose. Locke's method of treating tapeworm is popular with Eclectic physicians. The decoction he advised is prepared as follows: Press 8 ounces of the coarse bark into a vessel and pour upon it three pints of boiling water; boil, strain, and then boil again until but one pint remains. A brisk cathartic should be given at night and a light breakfast allowed in the morning. In the middle of the forenoon four ounces of the decoction should be administered. In order that this may pass quickly into the intestines and its absorption be prevented, as far as possible, a fluidrachm of fluidextract of jalap aromatized with oil of anise or oil of cinnamon should be given with the dose. In two or three hours the dose should be repeated. When the bowels begin to move administer a copious enema, and remove the worm in a vessel filled with warm water so that it may float freely and not be broken. If nausea and vomiting occur upon first giving the decoction, lemon juice should be given and the recumbent position maintained.

When pelletierine preparations are administered a light milk diet in the evening is followed in the morning by a saline purge, and then the combined alkaloids administered. In about one hour another dose of the purgative should be given. Epsom salt, fluidextract of jalap, or castor oil may be used as the cathartic. If the tannate is employed it may be administered in capsule.

GRINDELIA.

The dried leaves and flowering tops of one or several species of *Grindelia*—as *Grindeliacamporum*, Greene; or *Grindelia squarrosa* (Pursh), Dunal. (1) Marshes of California; (2) Western plains. *Dose*, 5 to 40 grains.

Common Name: Grindelia.

Principal Constituents.—A saponin-like resin (*grindelin*), volatile oil, and an alkaloid *grindeline*.

Preparation.—*Specific Medicine Grindelia*. Dose, 5 to 40 drops.

Specific Indications.—Asthmatic breathing with sense of soreness and rawness; harsh, dry cough; dyspnea with cyanosed countenance. Locally, rhus poisoning; old indolent ulcers. *Grindelia squarrosa*: malarial cachexia with splenic congestion.

Action.—The grindelias have a bitter, acrid taste, leaving an unpleasant, persistent, acrid sensation in the mouth and cause an increased flow of saliva. The kidneys are excited by them and diuresis is increased, while upon the bronchial membranes they produce a primary increase of secretion followed by a lessened expectoration and diminution of the rate of breathing. They are eliminated by the bronchi and the kidneys. Marked relaxation of the bronchi is produced by grindelia.

Therapy.—External. *Grindelia* promotes reparation in damaged conditions of the epithelium. It is especially valuable in chronic skin diseases with feeble circulation and tendency to ulceration. For indolent ulcers a lotion of the specific medicine (2 fluidrachms to Water, 16 fluidounces) may be applied freely upon compresses. It stimulates growth and heals the ulcers. *Grindelia* similarly applied is one of the best of applications in rhus dermatitis. Applied to chronic eczema of the vesicular type it has been credited with many cures. Webster asserts it is of value in malignant ulceration, as epitheliomata of the mucosa and the skin. This is claiming much and awaits confirmation from the experience of others.

The leaves of grindelia, smoked alone or mixed with stramonium, lobelia, or potassium nitrate, have been used successfully to relieve the paroxysms of spasmodic asthma.

Internal. *Grindelia* is a remedy for asthmatic breathing, with pectoral soreness and a sense of rawness. The accompanying cough is dry and harsh and the breathing labored, causing in plethoric individuals a dusky coloration of the face. In some cases it promptly stops the

paroxysms of asthma, and in others apparently has no effect. It is useful in subacute and chronic bronchitis, especially in old persons, and in bronchorrhea and emphysema.

Grindelia squarrosa is credited with antimalarial properties and to relieve splenic congestion and hypertrophy of malarial origin. The indications are dull pain with fullness over the spleen, sallow skin, debility and indigestion, with gastric distress.

The bitter taste of *grindelia* is best disguised by chloroform.

GUAIACUM.

The resin of the wood of *Guaiacumofficinale*, Linné, or of *Guaiacum sanctum*, Linné (Nat. Ord. Zygophyllaceae). West Indian trees. *Dose*, 5 to 30 grains.

Common Names: Resin of Guaiac, Guaiac.

Description.—Greenish, gray-brown fragments, masses or tears of a balsamic odor and slightly acrid taste. Usually admixed with fragments of vegetable tissues. Easily soluble in alcohol, ether and chloroform. *Dose*, 5 to 15 grains.

Principal Constituents.—Three resins: *guaiaconic acid* (70 per cent), *guaiaic acid*, and *guaiaretic acid*.

Preparations.—1. *Specific Medicine Guaiacum*. *Dose*, 5 to 30 drops.

2. *Tinctura Guaiaci Ammoniata*, Ammoniated Tincture of Guaiac (Guaiac, 20 per cent, in Aromatic Spirit of Ammonia). *Dose*, 10 to 30 drops.

Specific Indications.—Dryness and stiffness of the throat with tumid, swollen tonsils, painful deglutition and dribbling of saliva; incipient tonsillitis (early); rheumatic pharyngitis.

Action and Therapy.—*External*. The ammoniated tincture or the dilution of the specific medicine (1 to 3 of alcohol), added to water, acts efficiently as a gargle or preferably a wash, for the forms of sore throat mentioned below.

Internal. Guaiac once had considerable vogue as a remedy for syphilis, but is practically out of use in that disease at the present day. It was also much used in rheumatism, in which it has a better claim to efficiency. Guaiac is laxative, expectorant, and diaphoretic. When it

fails to act upon the skin it usually stimulates the kidneys. Large doses may occasion gastro-intestinal inflammation. It has somewhat of an antiseptic action, which is extended to the secretions caused by it.

The chief uses for guaiac are in rheumatic pharyngitis or rheumatic sore throat and incipient tonsillitis, with angry, red, raw-looking surfaces, where the parts appear to be severely inflamed or greatly congested. The latter may be the type which is the forerunner of an attack of acute inflammatory rheumatism—the tonsils being the foci of infection. In such cases it acts better than in other forms of amygdalitis. While seemingly indicated in active conditions in sore throat and in chronic rheumatism, it is best adapted to passive conditions—cold hands and feet, feeble circulation, and vital depression. In general plethora or inflammation of the gastroenteric tract it is usually contraindicated. Guaiac has been much employed in chronic sore throat of syphilitic origin. The best form of administration is a fourfold dilution of specific medicine, mixed with syrup and water. Stronger preparations than this diluted tincture precipitate heavily.

GUARANA.

A dried paste, chiefly consisting of the crushed or pounded seeds of *Paullinia Cupana*, Kunth (Nat. Ord. Sapindaceae), yielding not less than 4 per cent of caffeine. A shrubby vine of northern and western Brazil.

Common Name; Guarana.

Description.—Cylindrical, dark reddish-brown sticks, paler internally, and admixed with fragments of seeds and integuments. Slight odor, and feeble astringent, bitter taste. Partly soluble in water and in alcohol. **Dose**, 15 to 30 grains.

Principal Constituents.—*Caffeine*, volatile oil, saponin, and tannin.

Preparation.—*Specific Medicine Guarana*. **Dose**, 10 to 30 drops.

Specific Indications.—Headache with pallor, weak circulation, the pain aggravated by exertion; sick headache (migraine), with cerebral anemia; menstrual headache, with cerebral anemia; mental exhaustion or depression; headache from dissipation.

Action and Therapy.—Guarana is a gentle excitant acting very much

like tea and coffee. It is valuable where the brain becomes exhausted or depressed through mental overwork, or when the body is fatigued or exhausted. It must be carefully used as it sometimes causes difficult urination. Neither should it be employed in neuralgias that are aggravated by stimulation of the heart. It is indicated only in atonic conditions.

Guarana is a remedy for the relief of nervous headache, or those forms following menstruation or drunkenness. The face is pale, the pulse feeble, the eyes dull and expressionless, and nausea is prominent. Every movement causes an aggravation of the pain, the patient is mind-weary, and cerebral anemia is always present. It sometimes relieves lumbago, and while contraindicated in sthenic neuralgias it sometimes relieves occipital neuralgia when the indications are as given above. Temporary paralysis of the motor oculi nerve, followed by headache, has been relieved by it. In headaches the doses of 20 to 30 drops of the specific medicine should be given.

GYNOCARDIA.

The seeds and oil of *Hydnocarpusodorata*, Lindley). (Nat. Ord. Flacourtiaceae). An East Indian tree.

Common Names: Chaulmoogra, Chaulmugra.

Principal Constituent.—A granular oil (*Oil of Chaulmugra*) containing gynocardic acid. It has an acrid taste. **Dose**, 2 to 3 drops.

Action and Therapy.—Oil of chaulmugra has given surprisingly good results in leprosy; and it has often failed. The dexterity with which it has been adulterated has probably stamped the medicine with an uncertain reputation. It is used both locally and internally. Many other uses, chiefly local, are ascribed to it, but the agent is seldom employed in this country, though it is of interest to physicians going to countries where leprosy abounds.

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.

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