VALERIANA.

The dried rhizome and roots of ***Valeriana officinalis***, Linné (Nat. Ord. Valerianaceae). A native of Europe, but cultivated in England and the United States. ***Dose***, 30 grains.

Common Names: Valerian, Great Wild Valerian.

Principal Constituents.—A volatile oil (***Oleum Valeriana***) composed chiefly of borneol and pinene, from 1 to 2 per cent, and valeric acid.

Preparations.—1. ***Specific Medicine Valerian***. ***Dose***, 1 to 30 drops.
2. ***Tinctura Valeriana***, Tincture of Valerian. ***Dose***, 1 to 2 fluidrachms.
3. ***Tinctura Valeriana Ammoniata***, Ammoniated Tincture of Valerian. ***Dose***, 1 to 60 drops.

Specific Indications.—Cerebral anemia; hysteria; chorea; hemicrania, all with mental depression and despondency; mild spasmodic movements.

Action and Therapy.—Valerian is a good cerebral and spinal stimulant. It also stimulates the gastro-intestinal secretions and favors digestion, unless given in too large doses or too long continued. It is one of the best of calmatives for that collective condition termed "nervousness". To act well it should be given when the brain circulation is feeble and there is mental depression and despondency. With such symptoms it proves useful in hysteria and hypochondria, nervous headache, and hemicrania. It is one of the best medicines we possess in the treatment of chorea. It should be given with an equal quantity of specific medicine macrotys, about ten to fifteen drops of each, three or four times a day. It controls hyperaesthesia better than actual convulsive attacks; therefore, it is of little value in epilepsy, for which it has sometimes been suggested; and in chorea it should be persisted in when the movements are mild, in order to prevent more pronounced muscular incoordination. In mental depression, due to worry or imaginary wrongs, valerian is an admirable drug. Owing to its volatile oil it is a good carminative in flatulence, with nervous unrest, and relieves the disagreeable sense of fullness felt after a meal by causing a rifting of gas. The oil and the ammoniated tincture are useful agents in fainting and nervous palpitation of the heart.

VANILLA.

The fruit of ***Vanillaplanifolia***, Andrews (Nat. Ord. Orchidaceae). A native Mexican vine, grown in many tropical countries, but on a commercial scale in Guadaloupe. ***Dose***, 1 to 10 grains.

Common Name: Vanilla.

Principal Constituents.—The fragrance of vanilla is due to ***vanillin*** ($C_8H_8O_3$) and to the presence of a small quantity of balsam.

Preparation.—***Tinctura Vanilla***, Tincture of Vanilla. ***Dose***, 1 to 10 drops.

Derivative—***Vanillinum***, Vanillin, is methylprotocatechuic aldehyde, occurring naturally in vanilla beans, or may be produced synthetically from several orthodihydroxy-benzene derivatives. It forms fine white or very pale yellowish, needle crystals having the characteristic taste and odor of vanilla; soluble in water and freely in alcohol, glycerin, ether and chloroform. It forms the whitish "frost" observed on vanilla. ***Dose***, 1/4 to 1 grain.

Action and Therapy.—Vanilla is an aromatic stimulant, but is seldom used as a medicine. It is said to promote wakefulness, increase muscular energy, and to powerfully stimulate the sexual appetite. It is used chiefly as a flavoring agent for medicinal syrups and tinctures, confections, and pastry.

VERATRINA.

Veratrine, Veratria.

A mixture of alkaloids obtained from the seeds of ***Schoenocaulonofficinale***, Asa Gray (***Sabadilla officinarum***, Brandt; ***Asagrea officinalis*** (Chamisso and Schlechtendal) Lindley; (Sabadilla seeds) (Nat. Ord. Liliaceae). Tropical regions from Mexico to Venezuela.

Description.—A white or grayish-white, non-crystalline powder, without odor, but causing violent irritation and sneezing when even a minute quantity comes in contact with the nasal mucosa. ***It should not be tasted***. Veratrine is slightly hygroscopic, though very sparingly dissolved by water (1,760 parts). It is very soluble in chloroform, alcohol and ether.

Action.—Locally, veratrine (or its salts) is a violent irritant closely resembling aconitine in action. Applied in alcoholic solution, ointment, or oleate, it excites a singular sense of heat and tingling, or

prickling pain, which, however, does not last long, but is followed by coolness and more or less numbness; there is seldom redness or vesication unless the preparation is strong and applied with brisk friction. Inhaled, even in minute quantity, it occasions severe coryza and excessive sneezing. Muscular twitching has resulted from its application in ointment to the face, and sometimes it gives rise to headache, nausea, griping, slight diarrhea, and depression of the action of the heart. When swallowed it is a violent, irritant poison, causing great acrimony in the parts over which it passes, salivation, peculiar prickling numbness of tongue and mucous membranes, violent vomiting, profuse and sometimes bloody, and bilious diarrhea (sometimes constipation); weak, irregular and quick pulse; cardiac depression; pallor of face and great faintness; cold sweats; muscular twitching and aching pain along the spine; contracted abdomen and pupils; and occasionally extreme pruritus and tingling which may persist for weeks. In so-called medicinal doses it produces a feeling of warmth in the stomach and bowels, which extends to the chest and extremities. In poisoning by it, the stomach should be thoroughly evacuated, and tannin solutions freely given and pumped out. Stimulation should be resorted to to overcome the depression; for this purpose alcoholics, aromatic spirit of ammonia, ammonium carbonate, artificial respiration, etc., may be employed.

Therapy.—***External***. Veratrine should be used only as an external application, and then rarely, in superficial functional neuralgia, myalgia, herpes zoster, chronic arthritis, acute gout, and other painful local inflammations. It is less effective than aconitine, but both are equally dangerous and great care should be exercised that it is not applied where the epiderm is denuded, nor should it be allowed to come into contact with or even be used near the eye, on account of the violent conjunctivitis caused by it. A 2 per cent solution in equal quantities of olive oil and oleic acid is usually employed.

Internal. Veratrine should not be used as an internal medicine.

VERATRUM VIRIDE.

The dried rhizome and roots of ***Veratrum viride***, Aiton (Nat. Ord. Liliaceae). An indigenous plant of swamps, low grounds, and moist meadows. ***Dose***, 1 grain.

Common Names: American Hellebore, Swamp Hellebore, Green Hellebore,

Indian Poke.

Principal Constituents.—A powerfully toxic alkaloid ***veratrine*** ($C_{32}H_{49}NO_9$), or ***cevadine***, ocurring in both crystalline and amorphous forms; ***protoveratrine*** ($C_{32}H_{51}NO_{11}$), also extremely poisonous; ***jervine***, ***vertroidine***, ***pseudojervine***, ***rubijervine*** (sternutatory) and resin.

Preparation.—Specific Medicine Veratrum. Dose, 1/20 to 5 drops.

Specific Indications.—Pulse full, frequent, and bounding; pulse full, rapid, corded or wiry; pulse full, strong, and intense, with throbbing of the carotids; pulse rapid and beating so forcibly that sleep is prevented; tissues full, not shrunken, and surface flushed with blood; increased arterial tension, with bloodshot eyes; erysipelas resembling an ordinary inflammation; cerebral hyperaemia; sthenic fevers and inflammations; irritation of nerve centers due to an excited circulation; convulsions, with great vascular excitement, full pulse, and cerebral hyperaemia; puerperal eclampsia; red stripe down center of the tongue; weight in the epigastrium, with forcible circulatory pulsations.

Action and Toxicology.—Veratrum is a powerful circulatory depressant. The exact action of the individual alkaloidal constituents is yet undetermined, as well as the effect each produces in the sum total of the effects of the root. According to Wood, the drug is a spinal and arterial depressant having no direct action upon the spinal centers; the direct action of jervine upon the heart-muscle, and the stimulation of the inhibitory nerves by veratroidine lower the pulse-rate; the force of the heart-beat is lowered by the direct action of jervine upon the heart-muscle, while the same constituent, according to dose, produces a more or less complete vaso-motor paralysis. The depression of the spinal motor centers is attributed to jervine. The emetic action of veratrum is said to be due to the combined action of veratroidine and the resin. All vaso-motor depressants and all agents which diminish the vital force, favor the action of veratrum. Nausea is always the signal for suspension of the administration of the drug. Death from veratrum is caused by asphyxia.

Veratrine and cevadine are identical. The veratrine of commerce, however, is variable in composition, but its action is probably mostly due to the amount of true cevadine present. Late investigations show

that most of the action of veratrine is that of cevadine, though veratrum does not furnish the veratrine of commerce (see ***Veratrina***). One of the peculiar effects of veratrine is that of muscular contracture produced when in contact with the heart and the voluntary muscles. It is exhibited in a prolongation of relaxation following the contraction of the muscle, appearing almost like a tetanic effect, but it is free from any rigidity or spasmodic quality—in reality a prolonged contraction in which there is a long and gradual relaxation several times longer in duration than that occurring in the unpoisoned muscle.

American hellebore exerts an influence upon the system quite similar to that of White Hellebore (Veratrum album). Veratrine does not represent the action of this plant, which contains but a small proportion of this body. Applied to the skin, veratrum is rubefacient; and to the nose, excites sneezing. Small doses of veratrum appear at first not to affect the frequency of the pulse, but to lower its force; it afterwards slows the pulse, it becoming moderately full and soft, and remaining so, unless the patient, during this stage of depression, attempts to rise or make any exertion, when the pulse becomes very rapid, small, thready, and sometimes almost imperceptible. During the stage of depression there is marked muscular weakness and relaxation, and nausea and vomiting take place, the contents of the stomach being evacuated first, and then those of the gall-bladder. Occasionally a watery diarrhea is caused by veratrum, sometimes amounting to hypercatharsis, but as a rule purging is not produced. The nausea produced by veratrum is intense, and the vomiting severe and often persistent, making it, therefore, an unsafe emetic. The most characteristic action of veratrum is its effects upon the movements of the heart and upon vascular tonus. The pulse-rate has been lowered to thirty-five beats -a minute with this agent, a corresponding depression of force accompanying this action. When such depression is reached, it is seldom that emesis can. be prevented. In large doses it is a very dangerous agent, yet, singularly, fatalities from its use are rare. Toxic doses produce an exceedingly weak heart-action, almost indistinguishable, running pulse, reduced temperature, cold, clammy sweat, extreme retching and incessant vomiting, dizziness, faintness, failure of sight, pupillary dilatation, complete muscular prostration, slow, shallow breathing, sleepiness, coma, and unconsciousness, with sometimes stertorous breathing. The prompt emesis induced by this agent undoubtedly prevents lethal effects.

In poisoning by veratrum, withdrawal of the drug and free stimulation will quickly overcome the depression. Large draughts of warm water may be given to encourage and assist emesis until the stomach has been thoroughly washed out. This should be followed by undiluted whiskey or brandy to check the vomiting. Opium or morphine may be given by mouth or otherwise, ammonia and alcoholics may be used by enema or hypodermatically, and strychnine or digitalis may be given by the latter method. External heat, sinapisms, friction, etc., must be utilized, and under no circumstances must the patient be allowed to rise from the recumbent position, not even to raise the head to vomit.

Therapy.—***External***. Painted upon boils, felons, carbuncles, abscesses, inflamed acne, cellulitis, and other local inflammations, veratrum will frequently ease pain and facilitate resolution, or hasten suppuration. For erysipelas showing much tumefaction and redness, and appearing much like an ordinary inflammation, veratrum is one of the best topical applications. It should be given internally at the same time. Similarly used, it sometimes relieves herpes labialis and herpes zoster. It is one of the local medicines that occasionally relieves the dermatitis of rhus poisoning. Used by means of a spray it may abort acute tonsillitis and modify it after it is established. But small quantities should be used.

Internal. Veratrum is a remedy of great value and power, though quite transient in its effects. Small doses do good work when indicated, but they must follow each other at short intervals, so that a continuous action may be kept up. Owing to its tendency to induce gastric irritability, with nausea, large doses are not tolerated, and small doses are contraindicated when the tongue becomes long and pointed and reddened at the tip, and nausea and other unpleasant gastric phenomena are present. Veratrum increases secretion from the lungs, kidneys, and liver, but depresses the circulatory system. It is not adapted to asthenic troubles, but proves an admirable remedy in ***sthenic conditions***, with the full, bounding pulse.

Therapeutically veratrum is one of the chief special or arterial sedatives. The so-called sedative action of this group of remedies, so important in specific medication, is in reality that of gentle stimulation of the nerves controlling the heart and circulation, and depends wholly upon the manner of using them. In the smallest medicinal doses they are arterial or special sedatives; in the large doses they are

cardiac and circulatory depressants, and are then dangerous remedies. To this group belong the trinity—veratrum, aconite, and gelsemium. Each has its own special field, and no one of them will exactly duplicate the effects of the others. Aconite and veratrum have been said to act similarly. In a measure only is this true, and there are many properties peculiar to each. To do the kindly therapeutic work that veratrum accomplishes in small and safe doses would require a dangerous dose of aconite. Full doses of aconite will bring down the full, strong pulse in sthenic disorders, but it does so only in a dose which imperils the patient. So long as aconite is reserved for use in small doses for the small frequent pulse, without capillary resistance one need have no cause to fear its action in the least. But one must hesitate at the large dose required to reduce a full, vigorous pulse, for there he is taking an unsafe risk; besides, we have in veratrum a drug that will meet the condition better and do it without the least danger to the patient's health or life. A long experience has convinced us fully of the confirmation of the truth that the great specific indication for veratrum is the ***full, bounding pulse with or without inflammation or elevation of temperature***.

Veratrum is a remedy for ***sthenic conditions***, whether it be a fever of any of the commoner types, an inflammation, iodiopathic or traumatic, or puerperal septicemia, or puerperal convulsions. The prime indication is the full, bounding, rapid pulse, hard and rope-like in character, with or without fever or inflammation. It is the remedy where there is free action of the heart, with active capillary circulation; serous inflammation with hard and full pulse, or full and bounding pulse; or even with wiry or corded pulse. It should not be administered freely when there is gastric irritability, but fortunately, as a rule, when veratrum is indicated this irritability is not often present. The effects of veratrum are of short duration; therefore, it should be frequently administered in small doses for its continuous effects.

The winter season is particularly a time when veratrum is likely to be needed most. The majority of cases of acute infectious pneumonia, which prevail most largely during the cold months, come on suddenly with the full, bounding pulse. Veratrum wonderfully controls the circulatory and febrile conditions and aids in checking the inflammatory ravages of the disease. It should be given in the early stages only and in the cases markedly sthenic. The dose should be small and frequently repeated until the temperature and circulation

respond, when the pain will be found to have been lessened, nervous excitation allayed, secretion reestablished, and cough controlled. It is probably oftener indicated in acute pneumonia than any other agent except bryonia. In pleurisy, veratrum sometimes acts like magic, and in la grippe (epidemic influenza) it is, perhaps, the safest of all the circulatory sedatives and the most frequently indicated. At the onset of tonsillitis the conditions are usually sthenic and indications prominent for veratrum.

Painting veratrum upon the tonsils, or using it diluted by means of a spray, is often a great aid in controlling the inflammation, allaying pain and aborting abscess (quinsy). In all acute sthenic sore throats it is a most valuable agent. The facility with which veratrum controls the situation in acute respiratory disorders of a sthenic type, is a striking confirmation of the truth of specific medication—the pulse slows and softens, the temperature comes down without shock, expectoration is facilitated, pain is allayed, cough is lessened, and the nervous unrest gives way to peace and comfort, and in curable cases the battle is half won at the beginning. In chronic lung disorders we occasionally find veratrum of use when acute exacerbations occur and the circulation is augumented and temperature heightened. But as a remedy for other purposes, except occasionally to control nervous unrest, we have not found it so valuable in chronic pulmonary troubles as others have reported it to be. Veratrum should not be overlooked in hemoptysis, when there is great excitement of the circulation, the pulse being full and bounding. Here it justifies the claims made for it.

Veratrum is a most important agent in acute inflammatory disorders. Acute articular rheumatism of a sthenic type is well treated when veratrum forms a part of the medication, and if endocardial or myocardial inflammation accompanies or follows, we have never known it to do harm, but rather to be of benefit. In hypertrophy of the heart, accompanied or not with fever or inflammation, it is an ideal and safe agent. Erysipelas of the violent type, with full, bounding pulse and vivid redness, will find in veratrum one of the best medicines, using it both internally and locally. In peritoneal inflammation, due to blows upon the abdomen, veratrum is the best remedy known, and in septic peritonitis it assists greatly in controlling the circulatory excitement and inflammatory process, and contributes as much as any medicine can to a favorable termination of the disease. In any visceral inflammation, particularly pelvic, it is often indicated to control the

blood current and modify the inflammatory action. Occasionally it proves valuable in gonorrhea and to prevent or alleviate mastitis, orchitis, and ovaritis.

We have used veratrum with great satisfaction in individuals whose lives have been such as to task the circulation to its utmost, and who have before them the probability of a future chronic nephritis and arteriosclerosis. In these prenephritics, we will call them, a correction of vicious habits and the judicious use of small doses of veratrum will often avert disaster. If arteriosclerosis has not already obtained it may be warded off, the integrity of the kidneys maintained, and the life current guided past the point of danger. Small doses of specific medicine veratrum should be given for a prolonged period.

A remarkable instance of the therapeutic power of veratrum in high blood pressure was in that of a man bleeding from the gums. The patient, a blacksmith of middle age, indulged in occasional sprees and drank more or less all the time. The pulse was hard and full as a rope and whipping along vigorously and fast, nervous agitation was extreme, and blood was oozing from the spongy gums around every tooth in his head. The carotids were pulsating strongly, the eyes bulging and injected, and the head felt and looked as if it would burst. Veratrum, in the ordinary dose, completely relieved this man in less than two hours, with no return of the trouble—though the patient still continued his devotions at the shrine of Bacchus. Veratrum may be employed in small doses for the relief of a certain form of nervousness. The patient has a full circulation, throbs, feels the beating of the heart, the abdominal aorta and the carotids. When retiring to rest, sleep is prevented by the throbbing pulsations in the head and ears, so distressing that sleep is prevented or delayed. Small doses of veratrum do wonders for these badly-shaken patients.

In the treatment of the common fevers, except the febricula, we have not found veratrum of much service; in fact, not often indicated. In our experience it has rarely been needed in typhoid fever, but occasionally is indicated in acute malarial intermittents. In the threatened attacks of sunstroke (not in heat exhaustion with pallor, cool skin, and weak pulse, but in the robust, full blooded, overheated individual, with bounding pulse and rope-like circulation), a few small doses of veratrum should be given at intervals of ten or fifteen minutes.

We are among those who believe that veratrum has some virtues outside of its power over the circulation, for it has alterative powers of great value. Just how it acts is not known; possibly its circulatory control aids also lymphatic elimination. While not prepared to go as far as did Howe in claiming it the only alterative in tubercular conditions, we believe it could be profitably restudied for its power of eliminating morbid products in many chronic ailments depending upon faulty elimination. Some have valued it in chronic bronchitis and so-called chronic pneumonia. As an alterative in chronic broncho-pulmonary disorders small doses of veratrum may be given for several days; and then omitted for a few days; or it may be administered every other day, syrup of lactophosphate of calcium being given on the days when the veratrum is ornitted.

When convulsive disorders depend upon an excited circulation, veratrum may prove a useful anticonvulsive. It is sometimes of value in spinal irritation, with spasms, and in acute mania and cerebro-spinal meningitis, all with violent circulatory excitement. If accompanied by fever and there is hyperaemia, it may relieve neuralgic headache; otherwise it fails. When the pulse is full and bounding, the eyes bloodshot and suffused, and with a state bordering upon inflammation, it may restore quiet and allow sleep in delirium tremens.

Veratrum is our most important agent to control puerperal convulsions. We have injected a half drachm of specific medicine veratrum every half hour for three hours in a case of post-partum eclampsia, with puerperal mania, with the result of being complete master of the situation. In this disorder the full pulse must be subdued and kept subdued until the convulsions cease. It is the one instance in which the large or extreme physiologic (near toxic) dose of veratrum is absolutely demanded.

For the purposes above named, except where otherwise directed, veratrum should be given to control indications as revealed by the pulse, and then its administration should be stopped; and the fractional dose (15 to 20 drops in four ounces of water; dose, a teaspoonful every fifteen, thirty, or sixty minutes, as required) is much more satisfactory than large doses at long intervals. Veratrum will slow the pulse down to a very few beats. Usually, however, emesis will then take place. This is why veratrum seldom or never poisons. Only in exceptional cases are the large doses permissible, as in puerperal

eclampsia, in which, singularly, it seldom occasions vomiting.

"Veratrum is less valuable than aconite in simple cardiac hypertrophy, though it quiets palpitation when blood pressure is high and the trouble is not due to valvular incompetency. It sometimes relieves the irritable heart of excessive tobacco users, especially when the heart action is strong and erratic. By retarding the velocity of the blood current and reducing vaso-motor tonus it does some good in aneurism. In all heart and circulatory disorders, especially in hypertrophy, it does good when the pulse is full, strong, and intense, the carotids beat forcibly, the eyes are bloodshot, and there is cough, headache, and weight in the upper epigastrium, while the heart may beat so violently as to shake the bed, and sleep is entirely prevented. It relieves the excitement, the heart-action approaches the normal, the cough is allayed, and the patient is in every way better." (Locke.)

VERATRUM ALBUM.

The rhizome and roots of ***Veratrumalbum***, Linné (Nat. Ord. Liliaceae). Europe, especially in the Alpine and Pyrenean districts.

Common Names: White Hellebore, White Veratrum.

Principal Constituents.—***Protoveratrine*** ($C_{32}H_{51}NO_{11}$), intensely poisonous; ***protoveratridine***, ***jervine*** (the most abundant principle), ***pseudo-jervine***, and ***rubijervine***. No cevadine (veratrine) is present.

Preparation.—***Homeopathic Mother Tincture of Veratrum Album***. Dose, fractional (see below).

Specific Indications.—Gushing, watery diarrhea, with spasmodic or cramp-like action of the intestines and belly-walls; cold face, sunken eyes, and body covered with a cold sweat.

Action and Therapy.—Though closely resembling ***Veratrum viride*** in effects, this agent is used for entirely different purposes, based upon Homeopathic usage. These are choleraic diarrhea, cholera morbus, cholera infantum, and Asiatic cholera, to control the gushing discharges and check vomiting. The Homeopathic mother tincture in 3x dilution in the proportion of thirty drops in four ounces of water is the usual form of administration, the dose being a teaspoonful of this mixture every fifteen to thirty minutes. It is not often used in this

country.

VERBASCUM.

The leaves and tops of ***VerbascumThapsus***, Linné (Nat. Ord. Scrophulariaceae). A biennial common in the United States. ***Dose***, 5 to 30 grains.

Common Name: Mullein.

Principal Constituents.—A volatile oil, a bitter principle, mucilage and resins.

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

Specific Indications.—Nervous and bronchial irritation, with cough; and urinary irritation with painful micturition.

Action and Therapy.—Mullein is demulcent, diuretic and sedative. It is also thought to have feeble anodyne properties. A syrup of mullein, prepared with the addition of lemon juice, is a fairly good sedative for irritation of the trachea and bronchi with persistent cough. It is applicable to dry, hoarse coughs which annoy the patient when lying down, as well as to cough associated with abundant catarrhal discharges. The specific medicine may be used for the same purposes. A so-called oil of mullein, or rather mulleinized oil, prepared by steeping the blossoms in oil in the sun, has a fabulous reputation of being curative in earache from otitis media. A truer preparation is prepared by exposing the blossoms alone in a bottle to the heat of the sun. Owing to the small yield and the consequent high price it is seldom used, and probably is no more efficient than mulleinized oil, a concoction of very doubtful utility.

VERBENA

The whole plant of ***Verbenahastata***, Linné (Nat. Ord. Verbenaceae). A common wayside and field weed in the United States.

Common Names: Vervain, Common Vervain, Wild Hyssop, Simpler's joy.

Principal Constituents.-No satisfactory analysis has been made.

Preparation.—***FluidextractumVerbenae***, Fluidextract of Verbena. ***Dose***, 10 to 60 drops.

Action and Therapy.—This drug is said to relieve gastro-intestinal irritation and stimulate menstruation. In recent years it has been lauded as a remedy for epilepsy characterized by cerebral anemia, instead of congestion, and therefore applicable to conditions contraindicating bromide medication. Its value remains to be established.

VIBURNUM OPULUS.

The bark of ***Viburnum Opulus***, Linné (Nat. Ord. Caprifoliaceae). A shrub of Northern United States and Canada.

Common Names: Cramp Bark, High Cranberry.

Principal Constituents.—A bitter, neutral principle, ***viburnin***, and ***valeric acid***.

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

Specific Indications.—Cramps; spasmodic uterine pain; pain in thighs and back; bearing-down, expulsive pain; neuralgic or spasmodic dysmenorrhea.

Action and Therapy.—Like black haw, this species of Viburnum is a uterine sedative and tonic and may be used where there is a predisposition to abortion, or as a partus praeparator. It is believed to have stronger antispasmodic properties than the black haw, and the special indication is cramps or cramp-like contraction of the hollow viscera, as well as of the voluntary musculature. It allays uterine irritation with a tendency to excite hysteria, and for spasmodic dysmenorrhea it is highly regarded by competent practitioners. Briefly, the therapeutic scope of the drug covers cramps, especially of the calf of the leg, spasmodic uterine pain, bearingdown or expulsive pain, difficult, spasmodic or neuralgic dysmenorrhea, spasmodic contraction of the bladder, hysteria, and some mild forms of convulsions.

VIBURNUM PRUNIFOLIUM.

The dried bark of the root of ***Viburnumprunifolium***, Linné. The U.S.P. admits the dried bark of this and also of the ***ViburnumLentago***, Linné, or Wayfarer's Tree (Nat. Ord. Caprifoliaceae). Beautiful shrubs found in thickets of the eastern half of the

United States. ***Dose***, 5 to 60 grains.

Common Names: (1) Black Haw, Sloe, Sloe-leaved Viburnum, Stag Bush; (2) Wayfarer's Tree, Nanny Berry, Sheep Berry.

Principal Constituents.—A brown, bitter resin; greenish-yellow, bitter, ***viburnin***, ***valeric acid***, tannic acid, citrates, malates, oxalates, sulphates, and chlorides of calcium, magnesium potassium, and iron.

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

2. ***Black Haw Cordial*** (Howe's). (Contains Black Haw, Wild Cherry, Aromatics, Brandy and Syrup). ***Dose***, 1/2 to 2 fluidrachms.

Specific Indications.-Uterine irritability and hyperaesthesia; uterine colic; threatened abortion; dysmenorrhea, with cramp-like pelvic pain, and scanty flow; severe lumbar and bearing-down pelvic pain; painful contraction of the pelvic tissues; false pains and after-pains; obstinate hiccough.

Action and Therapy.—Black haw is a remedy of Eclectic development and is praised by practitioners of all schools of medicine for its virtues in disorders of women. It is both tonic and antispasmodic, well-sustaining the time-honored meaning of those terms. While a tonic to the gastrointestinal tract and a good one, black haw is better adapted to atonic states of the female reproductive organs, and as a sedative for spasmodic pain and weakness in diseases of women. As a tonic it acts kindly and is pleasant to take. It causes no constitutional symptoms, such as sometimes come from the use of cinchona, nux vomica, and the more energetic tonics. It is agreeable to the stomach and tends to restrain unhealthy discharges. It allays the nervous unrest so commonly associated with pelvic weakness; and its effect upon cramp-like contraction of both the tubular organs and the voluntary musculature of the body is similar to that of cramp bark or Viburnum Opulus.

As a uterine sedative and tonic, black haw is used, perhaps, oftener than any other drug. It seems to improve the uterine and ovarian circulation, giving better innervation and more perfect functioning, and evidently promotes pelvic nutrition. In relaxation of pelvic tissues, with more or less congestion, or tendency to undue discharges and passive hemorrhage, it is one of the best of medicines. For painful menstruation, whether due to debility with relaxation, or to engorged

tissues with cramp-like pain, the physician will find almost daily use for black haw. Sometimes the menstrual flow is scanty, but more often it is profuse and accompanied by severe bearing down, intermittent and expulsive pains. Few agents give greater relief in such conditions. In cases in which the menses are imperfect in function and pale in quality, and there is an associated cardiac disturbance, usually palpitation; and in some cases of amenorrhea, in anemic girls with pallor and subject to intermittent cramping pain, the action of the drug is very positive. It is equally valuable in chronic uterine inflammation, in subinvolution, in boggy, congested uterus, and for the associated leucorrheal discharges. As a remedy for passive hemorrhage its use will be governed largely by the cause. If due to polypi, fibroid or carcinomatous tumors, but little can be expected from it or any other medicine. But even here, in combination with cinnamon, it sometimes restrains the flow. Such cases are surgical and should be surgically treated. Many a good medicine, like black haw, has been brought into discredit because of its failure to do what a careless or faulty diagnosis has led one to hope for from its exhibition or to attempting physical impossibilities with such medication. Black haw is a good tonic during pregnancy, and through such action proves a fairly good partus praeparator. It is one of the most certain remedies for nocturnal cramping of the muscles of the leg. It does not act so well when due to pregnancy, as that is a pressure condition that can only be relieved by supporting the abdomen or a change of position in reclining.

Many practitioners, whose opinions we value and whose experience has been wide, report success with black haw in restraining the expulsion of the product of conception. Our own experience leads us to doubt its reputed value in that condition, but this in no way disparages the statements of others who may have been more successful with it. Rest in bed and quieting agents, I such as Dover's powder, may enable the product to be retained; perhaps black haw may aid. But we have utterly failed in every attempt to prevent miscarriage with the agent where there was any considerable hemorrhage or where enforced and prolonged rest was not insisted upon. If any results are to be expected from it in habitual abortion it must be in cases of functional debility of the reproductive organs, and not in those due to inherited taints or syphilitic infections, or criminal operative interference. We believe, however, that much may be done with black haw to strengthen conditions in cases having had a previous miscarriage, and in uneasy, cramp-like sensations occurring during pregnancy, but with no

considerable hemorrhage. It will, however, be of service in controlling the nervous phenomena associated with such threatened accidents and aid psychologically in preventing that which undue nervous agitation might precipitate. It is a good agent for false pains and for ovarian irritation and congestion. Black haw cordial is an ideal sedative for spasmodic dysmenorrhea.

Black haw is of very great value in treating those having a craving for alcoholic drinks. The specific medicine black haw, with essence of cinnamon or of cloves, or preferably Howe's Black Haw Cordial may be given. It relieves the discomfort experienced in the throat and the gnawing distress in the stomach, from which these unfortunates suffer.

For most purposes the specific medicine black haw is given in doses ranging from five to sixty drops, two, three, or four times a day as indicated; the black haw cordial in doses of one half to two fluidrachms.

VISCUM.

The leaves and branches of ***Viscum flavescens***, Pursh (Nat. Ord. Loranthaceae). A parasitic plant found upon forest trees, especially the oaks in America.

Common Names: Mistletoe, American Mistletoe.

Principal Constituent.—***Viscin***, a viscous substance also known as bird glue or bird lime.

Preparation.—Specific Medicine Mistletoe. ***Dose***, 1 to 30 drops.

Specific Indications.—Determination of blood to the brain, flushed face and oft-recurring headache; paroxysms of tearing, rending neuralgic or rheumatic pains; weak, irregular heart-action, with cardiac hypertrophy, valvular insufficiency and shortness of breath.

Action and Therapy.—Viscum has toxic properties. Vomiting and bloody and tenesmic catharsis, prostration, contraction of the pupils, muscular spasm, convulsions and coma have been reported from eating the plant and berries. Its action would suggest its possible value in nervous disorders, and it has been used like strychnine in heart disorders with feeble pulse, dyspnea, edema, and inability to lie down. It is also asserted to possess parturient properties, but they do not

compare with those of ergot, and the drug is almost never used for these purposes. It should be reserved for the conditions mentioned under “Specific Indications”, and even in these it needs further study.

XANTHIUM.

The whole plant of ***Xanthium spinosum***, Linné (Nat. Ord. Compositae). An introduced weed common along the coasts of the United States. ***Dose***, 5 to 30 grains.

Common Name: Spiny Clot-Bur.

Principal Constituents.—Possibly an evanescent alkaloid and considerable nitrate of potassium.

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

Specific Indications.—Ague, with profuse sweating; prophylactic against malaria, and to prevent the recurrence of chills; nervous excitation, with profuse sweating; bloody urine, with urination painfully tenesmic and frequent; urine heavily loaded with mucus and gravelly deposits.

Action and Therapy.—Clotbur is used chiefly as a soothing diuretic, to allay irritable conditions of the bladder, and is especially recommended in chronic cystitis and haematuria. It is frequently used in conjunction with tincture of red onion, for irritation of the urinary tract with bloody, painfully voided urine loaded with mucus and gritty deposits. Its other uses cover the indications given above, unnatural sweating being an especial indication for the drug.

XANTHIUM STRUMARIUM.

The whole plant of ***Xanthium strumarium*** Linné (Nat. Ord. Compositae). Waysides in the United States.

Common Name: Broad Bur-Weed.

Preparation.—***Fluidextractrum Xanthii Strumarii***, Fluidextract of Xanthium Strumarium. ***Dose***, 5 to 60 drops.

Action and Therapy.—This agent acts much like clotbur, and has been

used with advantage in painful urination, with scalding, and marked sensitiveness of the urethra and bladder, with frequent micturition. It is also said to be of service in hemorrhages, as passive hemorrhage from the bowels and the epistaxis of purpura hemorrhagica. For the last-named disorders it is probably of little value, though it should be tried where other means are unavailing.

XANTHOXYLUM.

The bark and berries of (1) ***Xanthoxylum americanum***, Miller, and (2) ***Xanthoxylum Clava-Herculis***, Lamarck (Nat. Ord. Rutaceae). Shrubs of North America. ***Dose***, 5 to 60 grains.

Common Names: Prickly Ash; (1) Northern Prickly Ash; (2) Southern Prickly Ash.

Principal Constituents.—A green acrid oil, a white crystallizable resin, a soft acrid resin, tannin, and a bitter substance thought to be an alkaloid.

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

Specific Indications.—Hypersecretion from debility and relaxation of the mucosa (small doses); atony of the nervous system (larger doses); capillary engorgement in the eruptive diseases; sluggish circulation; tympanites in bowel disorders; intestinal and gastric torpor, with deficient secretion; dryness of mouth and fauces, with glazed surface; flatulent colic; Asiatic cholera; uterine cramps and neuralgia.

Action.—Prickly ash impresses the secretions and the nervous and circulatory systems. The bark, when chewed, imparts a sweetish aromatic taste, followed by bitterness and persistent acridity; the berries act similarly. The drug has remarkable sialagogue properties, inducing a copious flow of saliva and mucus. Swallowed, it warms the stomach and augments the secretion of the gastric and intestinal juices, and probably increases hepatic and pancreatic activity. The action of the heart is strengthened by xanthoxylum, the pulse slightly quickened, and the glands of the skin are stimulated to greater activity. The urine is decidedly increased by prickly ash.

Therapy.—Preparations of prickly ash bark are to be preferred when stimulant, tonic, sialagogue, and alterative properties are desired; that of the berries when a carminative stimulant and antispasmodic is needed, especially in disorders of the stomach and bowels.

Xanthoxylum is particularly grateful in stomach disorders. It is an ideal gastric stimulant, and as a remedy for simple gastric atony it ranks well with capsicum. When food ferments readily and gaseous accumulations distend the stomach, and there is much belching, from five to fifteen drops of specific medicine xanthoxylum may be given, preferably in hot water, one hour before and one hour after meals. Both hydrastis and capsicum, or each of them, may be given with it, if indications are clear for them, and together the three agents offer comfort to those who suffer the distress of so-called flatulent dyspepsia. It is a remedy of much worth in atonic dyspepsia and in gastric catarrh, when there is enfeeblement and relaxation of tissues and hypersecretion. It is also of value in constipation when due to deficient secretion (small doses). Formerly it was greatly valued in spasmodic conditions of the bowels with colic, and in cholera morbus in weak individuals, and to restore tone and normal secretion after attacks of epidemic dysentery, a disease once more prevalent than at the present time. King introduced the tincture of the berries as. a remedy for Asiatic cholera, in which it proved phenomenally successful; and for tympanitic distention of the bowels arising during peritonitis. As a rule, however, it should not be given in inflammatory conditions.

As a stimulant to sluggish membranes prickly ash may be given internally (and used locally) in dry, glazed pharyngitis with crusts of adherent, dried mucus. Of its alterative power there is no question, and prickly ash is an ingredient of a popular compound known as “Trifolium Compound”, which has been extensively used in chronic syphilitic dyscrasia. It is not to be assumed that it has antisyphilitic virtues, but it exerts a favorable alterative action which renders syphilitics more amenable to reparation of tissues. Sometimes a tincture of prickly ash berries is the best drug that can be given in so-called chronic muscular rheumatism; and it is not without value in lumbago and myalgia. Chewing prickly ash bark is a domestic custom for the relief of toothache.

Xanthoxlum should also be remembered where nerve force is low and in the recuperative stage from attacks of neuritis or other forms of nerve involvement in which function is greatly impaired but is yet capable of restoration. Xanthoxylum deserves further study, chiefly as an alterative.

ZEA.

The styles and stigmas of ***Zea Mays***, Linné (Nat. Ord. Gramineae). The common Indian corn of America.

Common Name: Corn Silk (***Stigmata Maydis***).

Principal Constituents.—Volatile oil and ***maizenic acid***.

Preparations.—1. ***Infusum Zea***, Infusion of Corn Silk. (Silk, 2 ounces; Boiling Water, 16 fluidounces). ***Dose, Ad libitum***.

2. ***Specific Medicine Stigmata Maydis***. ***Dose***, 1/2 to 2 fluidrachms.

Action and Therapy.—Zea (***Stigmata Maydis***) is diuretic, slightly anodyne, and is said to exert a stimulant effect upon the heart and blood vessels. The infusion, the best preparation, is an efficient stimulating diuretic in urinary irritation and inflammation, pyelitis, and catarrh of the bladder. It is especially valued when the urine contains phosphatic and uric acid concretions, and there is a disposition to dropsical accumulations. Its action is quite positive in pyelitis, chronic cystitis and to relieve ardor urinae in gonorrhea. For the bladder affections of children it is one of the most valued of urinary sedatives, and may be freely administered where there is a disposition to decomposition of the urine while still in the bladder. The virtues are attributed mostly to the maizenic acid present.

ZINGIBER.

The dried rhizome of ***Zingiber officinale***, Roscoe (Nat. Ord. Zingiberaceae). Southern Asia; cultivated in tropical regions of Asia, Africa and America. ***Dose***, 10 to 30 grains.

Common Names: Ginger. (There are many kinds and grades: Jamaica Ginger, African Ginger, Calcutta Ginger, Calicut Ginger, Cochin Ginger, and Japanese Ginger.

Principal Constituents.—An aromatic volatile oil (Oil of Ginger), 2 to 3 per cent giving to ginger its flavor; resin, and ***gingerol***, the pungent principle.

Preparations.—1. ***Specific Medicine Zingiber***. ***Dose***, I to 30 drops.

2. ***Oleoresina Zingiberis***, Oleoresin of Ginger. ***Dose***, 1/2 to I grain.
3. ***Tinctura Zingiberis***, Tincture of Ginger. ***Dose*** 5 to 60 minims.
4. ***Syrupus Zingiberis***, Syrup of Ginger. ***Dose***, 1 to 4 fluidrachms.

Specific Indications.—Anorexia; flatulence; borborygmus; gastric and intestinal spasms; acute colds; painful menstruation; cold extremities; cool surface in children's diseases.

Action.—Ginger is a local irritant and rubefacient. It causes an increased flow of saliva and gastric juice and increases muscular activity of the stomach and intestines. It is much used to conceal the taste of nauseous medicines and to prevent tormina. Ginger is sometimes used as an ingredient of so-called “spice poultices”.

Therapy.—Ginger is an admirable local stimulant, sialagogue, diaphoretic and carminative. Powdered ginger in a large quantity of cold water, taken upon retiring, will frequently “break up” a severe cold, and a hot infusion or ginger tea is a popular remedy for similar use and to establish sluggish menstruation or mitigate the pains of dysmenorrhea. Ginger is an excellent agent in gastric atony, and good results may be had from it in atonic states of the digestive tube, with loss of appetite, rolling of gases in the bowels, and painful spasmodic contractions of the stomach and intestines. In acute dysentery and diarrhoea, and in cholera morbus and sometimes in cholera infantum with atony and nausea, vomiting and cold extremities and surface, small doses of ginger preparations are extremely valuable. Cramps in the stomach and bowels due to undigested food or to cold are speedily relieved by small doses of ginger. Ginger combined with magnesium oxide or sodium bicarbonate is a good gastric stimulant and corrective in persistent flatulency with sour stomach, and given alone is useful for old people with feeble digestive powers and enfeebled and lax habit.

Rarely, tincture of ginger or specific medicine zingiber is serviceable in fevers, when the salivary secretions are scanty and there is pain and movement of gases in the intestines. It relieves by stimulating secretion, the ultimate effect being sedative. In such states it acts much like capsicum, but is not so efficient. Oleoresin of ginger may be added to pills to prevent griping and tormina; and the syrup is an agreeable vehicle for stomachic and sometimes for expectorant mixtures.

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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