HAEMATOXYLON.

The heart-wood of *Haematoxylocampechianum*, Linné (Nat. Ord. Leguminoseae). Jamaica and the West Indies.

Common Name: Logwood.

Principal Constituents.—Tannin and *haematoxylin*, an alkaloidal indicator.

Preparations.—1. *DecoctumHamatoxyli*, Decoction of Logwood (Logwood, 1 ounce; Water, 16 fluidounces). *Dose*, 1 to 2 fluidounces.

2. Extractum Hamatoxyli, Extract of Hxmatoxylon. Dose, 5 to 30 grains.

3. Specific Medicine Logwood. Dose, 5 to 30 drops.

Action and Therapy.-A mild, unirritating astringent and tonic formerly much used in chronic diarrhoea and summer complaint of children, and in passive hemorrhages, and colliquative sweats. It is now seldom employed.

HAMAMELIS.

The leaves, bark and twigs of *Hamamelis virginiana*, Linné (Nat. Ord. Hamamelidaceae), collected in the autumn. Common in the United States. *Dose*, 5 to 60 grains.

Common Names.—Witch-Hazel, Snapping Hazelnut, Winterbloom.

Principal Constituents.—A bitter body, tannin, and a volatile oil.

Preparations.-1. *AquaHamamelidis*, Hamamelis Water, (Distillate of Hamamelis, Distilled Witch-Hazel, Distilled Extract of Witch-Hazel). *Dose*, 5 drops to 2 fluidrachms.

2. Specific Medicine Hamamelis. Dose, 5 to 60 drops.

Specific Indications.—Venous debility, with relaxed and full tissues; pallid mucosa or occasionally deep red from venous engorgement, or deep blue from venous stasis; excessive mucous flow, with venous relaxation; passive hemorrhages; prehemorrhagic states, with venous fullness; varicoses; hemorrhoids with weight and fullness; rectal prolapse; dull aching pain in pelvis, genitalia, or rectum, with perineal relaxation and fullness; relaxed or engorged and painful sore throat; gastro-intestinal irritability, with venous weakness and mucous or muco-bloody passages. Locally to inflamed, ulcerated or wounded skin

or mucosa, especially where venous circulation is debilitated; contusions, bruises, and muscular soreness from exertion or exposure.

Action and Therapy.—*External*. Witch-hazel bark and its fluid preparations are astringent. The distillate and the specific medicine are sedative and slightly astringent. The latter two form agreeably grateful and soothing applications to the skin and mucous surface in irritated and inflamed conditions and where venous relaxation is present. The specific medicine is an elegant and heavy distillate, carrying a large proportion of the oil, as compared to the ordinary distillate, and is much to be preferred where a bland and soothing yet astringent effect is required. Where more alcoholic stimulation is permitted or desired the ordinary distillate may be used. As a rule, the specific medicine is best for use upon mucous, and the distillate upon the cutaneous surfaces.

splendid applications distillates Witch-hazel are for sprains, contusions, wounds and inflamed swellings, and for sunburn, tan, freckles, and dilatation of the capillaries of the skin. They are cooling and relieve smarting and pain. Used alone or combined with an equal quantity of bay rum they form an elegant face wash to remove excess of soap and heal abrasions after shaving. Witch-hazel is one of the most comforting applications for painful hemorrhoids. It may be used ice cold or hot, as preferred. Applied to the tender parts after the parturient toilet, it removes soreness of the tissues from childbirth. Rubbed upon the skin, or applied by means of compresses, it is an efficient lotion for muscular soreness and aching after severe exertion; from cold, exposure, or when due to bruises and strains. Its use should be accompanied with gentle massage. Compresses wetted with witchhazel give marked relief in acute cutaneous inflammations, chafing, and especially in mammitis.

Incised wounds, ragged cuts from glass or tin, barbed wire injuries, and crushed fingers are quickly relieved of pain and heal rapidly when the following is applied: Rx Echafolta, 1/2 fluidounce; Asepsin, 15 grains; Specific Medicine Hamamelis and Water, enough to make 4 fluidounces. Mix. Apply upon gauze. A similar preparation, with but two drachms of the echafolta, or the distillate with menthol, makes a good dressing for burns and scalds. Glycerin and hamamelis, equal parts, or equal parts of Specific Medicine Hamamelis and Lloyd's Colorless Hydrastis give excellent results in irritation and inflammation of the aural canal due to inspissated cerumen, or to efforts to remove the latter.

Sprayed upon the throat the specific medicine or the distillate, suitably diluted, is a useful and sedative astringent for angry and deep red sorethroats, with relaxation of membranes; or in pharyngitis, faucitis, and tonsillitis, with hyperaemia or congestion. The specific medicine is especially soothing and astringent in congestive nasal catarrh. Few local washes give greater relief in the angina of scarlet fever than those of which witchhazel forms a part. They relieve pain, cleanse the parts, and constringe the relaxed tissues and dilated vessels. It may also be added to local washes for use in diphtheria.

Together with colorless hydrastis, or other non-alcoholic hydrastis preparations, with or without a grain of alum or of zinc sulphate, it is a most effective collyrium for acute conjunctivitis, with dilated conjunctival vessels. Especially is it effective in vernal conjunctivitis. The same combinations are exceedingly useful as an injection in gonorrhea, after the acute symptoms have subsided and a catarrhal state has supervened.

Internal. Hamamelis has an important tonic effect upon venous debility, acting upon the coats of the veins throughout the body. Unlike some vascular remedies its action is not merely local, but extends throughout the whole venous system. It is therefore a remedy of much value in varicoses, hemorrhoids, and passive hemorrhages. When indicated, the tissues are pallid and relaxed, and in some instances deep red, due to venous engorgement. There is a sense of fullness or thickening and weight and congestion. These are especially prominent in the type of hemorrhoids benefited by hamamelis. It is of some value in oozing of blood from the mucosa, in passive bleeding from the nose, lungs, and stomach, but is a better remedy for the venous relaxation that precedes these hemorrhages and which renders their occurrence easy. It is of less value in hemoptysis than lycopus, and is adapted to such cases as are benefited by geranium and erigeron.

Hamamelis is a decidedly useful remedy in congestive conditions with marked tissue debility. It should be given a fair trial in congestion of the ovaries, with dull aching pain and sense of weight and fullness; in chronic congestive conditions of the uterus, with soft and flabby cervix and patulous os; in uterine subinvolution; and in leucorrhea, with sponginess of the vagina and tendency to prolapsus of the womb; and in prolapse of the rectum, with venous fullness. It frequently relieves in varicocele, with sense of weight and dragging.

Hamamelis should also be given in nasal catarrh and ozaena, with congestion and tendency to recurring epistaxis, and thickened and relaxed mucosa, with abundant mucous or muco-purulent discharge; and in chronic inflammation of the fauces, pharynx, and larynx with sluggish venous circulation, and greatly relaxed tissues. For chronic diarrheal, and sometimes acute bowel disorders, as cholera infantum and dysentery, it is promptly curative when much mucus is passed, and especially if the passages are tinged with blood. In all cases in which it is indicated there is debility of the venous circulation and relaxation of the mucosa; and where possible it should be used concurrently internally and locally.

HEDEOMA.

The leaves and tops of *Hedeomapulegioides* (Linné,) Persoon (Nat. Ord. Labiatae). Common in American woods and waste places. *Dose*, 5 to 60 grains.

Common Names: Pennyroyal, American Pennyroyal, Squawmint, Tickweed.

Principal Constituent.—A fragrant volatile oil (*Oleum Hedeomae*).

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

2. Oleum Hedeomae, Oil of Pennyroyal. Dose, 2 to 10 drops.

3. *Infusum Hedeomae*, Infusion of Pennyroyal (1 ounce to Water, 16 fluidounces), *ad libitum*.

Specific Indications.—Amenorrhea of long standing, with pallor and anemia and dark circles around the eyes; the patient complains of languor, lassitude, takes cold easily, has pain in back and limbs, and exhibits full, prominent veins (Hennell); suppressed lochia.

Action.—Oil of pennyroyal produces toxic effects when given in overdoses. A drachm caused severe headache, difficult swallowing, intense nausea, severe retching without emesis, intolerable bearing down, laborlike pains, abdominal tenderness, constipation, dyspnea, semiparalysis of the limbs, and nervous weakness and prostration.

Therapy.-External. Oil of Pennyroyal is rubefacient and relieves the

itching of insect bites. It is useful in embrocations for rheumatic pain. It is sometimes applied to the hands and face to protect against mosquitoes, fleas, and other insects. A cloth saturated with oil of pennyroyal may be hung in sleeping apartments to repel such insects.

Internal. Oil of Pennyroyal is useful in nausea, stomach cramps, flatulent colic, and amenorrhea in debilitated subjects. It is frequently used to prevent griping from other medicines. It may be given upon sugar or in emulsion. It and the dilution in alcohol are also credited with calmative properties in spasmodic cough, whooping cough, and in hysteria from menstrual debility. A drachm of the specific medicine given in hot water is the most certain agent we possess to restore suppressed lochia. The infusion is a popular and pleasant remedy for acute colds. It acts chiefly as a diaphoretic, and for this effect it is one of the most certain of medicines; and a relic of domestic methods once in favor among physicians, as well as the laity.

HELLEBORUS.

The root of *Helleborus niger*, Linné (Nat. Ord. Ranunculaceae.) Subalpine woods of central and southern Europe. *Dose*, 1 to 10 grains.

Common Names: Black Hellebore, Christmas Rose.

Principal Constituents.—Two toxic glucosides, *helleborin* (acting upon the heart and as a drastic cathartic), and *helleborein* (narcotic).

Preparation.—*Specific Medicine Helleborus*. *Dose*, 1/10 to 3 drops.

Action and Therapy.—Hellebore is a powerful gastro-intestinal and nerve poison, and produces death by convulsions and exhaustion. Small doses stimulate the heart. Large doses are drastically cathartic, and in this way it exerts also emmenagogue effects. Helleborus was once largely used as a revulsive in various types of insanity, but is no longer employed for such a purpose. In minute doses it may be employed to increase cardiac power and arterial tension and slow rapid action of the heart. It increases renal activity and has caused rapid disappearance of noncompensatory symptoms in heart disorders. It is also suggested when there are jelly-like passages in bowel affections. Scudder advised it as an emmenagogue when the patient is annoyed by flashes of heat, burning of the surface of the thighs and nates, and sensitiveness of the pelvic and perineal tissues. Properly

used it might prove of advantage in hypochondria dependent upon reproductive atony. The dose should be fractional. Rx Specific Medicine Helleborus, 5 drops; Water, 4 fluidounces. Mix. Sig.: One teaspoonful every two to four hours.

HELONIAS.

The rhizome of *Chamaeliriumluteum*, Gray (*Helonias dioica*, Pursh)-(Nat. Ord. Liliaceae). Abundant in woodlands, meadows, and wet places in some parts of the United States. *Dose*, 10 to 30 grains.

Common Names: Blazing Star, Unicorn Root, Starwort, Drooping Starwort, Devil's Bit.

Principal Constituent.—A yellowish, bitter principle, *chamaelirin*.

Preparation.—Specific Medicine Helonias. Dose, 10 to 30 drops.

Specific Indications.—Sense of weight, congestion, or expulsion of the pelvic contents, with mental torpor, despondency, or irritability; gastric and other disturbances reflexly due to pelvic relaxation; strong, sticky leucorrhea; pelvic fullness with discharge.

Action and Therapy.-Tonic, diuretic, and vermifuge. (For relation to Aletris, compare Aletris.) Helonias is a valuable uterine tonic, specifically adapted to uterine weakness in which relaxation of tissue is so great as to give the sensation of downward pressure, dragging or expulsion-or as the patient expresses it, "a sensation as if everything in the pelvis would fall out or be expelled." Marked irritability and despondency are often associated with such disorders, and when menstruation occurs there is a feeling of undue fullness, as if the womb and rectum were distended with blood, and about to be pushed out of the body. There is associated aching and propulsive pain. In anemic cases the drug is useful in amenorrhea, and in leucorrhea should be given internally, while hot antiseptic and astringent injections are used locally. Helonias is said to correct sexual lassitude in both sexes, and to have checked nocturnal losses due to excesses and associated with enfeebled body, impaired memory, and mental apathy. In chlorotic anemia dependent in a measure upon uterine and ovarian weakness, it is also asserted to be very serviceable, and reputed to improve loss of appetite, indigestion, and malassimilation when aggravated by sexual weakness. It is also said to relieve the nausea and vomiting of pregnancy, to prevent miscarriages, and to correct gastric complications of albuminuria.

HEPATICA.

The leaves of *Hepatica nobilis var. acuta* (*Anemonæcutiloba*) (Pursh) Steyermark, and of *Hepatica nobilis var. obtusa* (*A. hepatica*) (Pursh) Steyermark (Nat. Ord. Ranunculaceae). Common in rich woods in the United States. *Dose*, 5 to 60 grains.

Common Names: Liverleaf, Liverwort, American Liverleaf, Kidney Liverleaf (A. Hepatica), Heart Liverleaf (A. acutiloba).

Principal Constituents.—Tannin, mucilage, and a bland oleoresin.

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

Specific Indication.—Irritation and hypersecretion of mucous membranes.

Action and Therapy.—A mild, mucilaginous astringent, used sometimes to allay bronchial irritation, with free secretion and similar conditions of the gastro-intestinal tract. It may be exhibited when there is subacute or acute inflammation, and in cough with expectoration of bloody mucus. It is one of the negative medicines that occasionally meets special conditions when more energetic agents, seemingly indicated, would aggravate. It came into use under mistaken identity for another plant and acquired a great reputation for virtues it did not possess. The infusion may be given liberally.

HIPPOCASTANUM (Aesculus Hippocastanum).

The bark and fruit of *AesculusHippocastanum*, Linné (Nat. Ord. Sapindaceae). Asia and Europe; planted in United States. *Dose* (bark), 1 to 60 grains; (rind of nut) 1 to 10 grains.

Common Name: Horse Chestnut.

Principal Constituents.—*Aesculin*, the glucoside giving fluorescence to watery and alkaline solutions, *argynaescin*, and a sternutatory, saponin (*aphrodaescin*).

Preparation.—*Specific Medicine Horse Chestnut. Dose*, 1/10 to 10 drops.

Specific Indications.—Vascular engorgement, with dull, aching pain and fullness, throbbing of the vessels, and general malaise; visceral neuralgia; disturbances reflex from vascular congestion of the rectum.

Therapy.—The action and and therapeutic Action uses of hippocastanum are closely similar to those of Aesculus glabra, which see. By some it is believed to have a somewhat stronger action upon the venous circulation. It is often a remedy of value in neuralgia of the abdominal and pelvic viscera, when there is plethora. It is a remedy for congestion and engorgement, and not for active conditions. Uneasy and throbbing sensations, with dull, aching pain in any part of the body, but especially in the hepatic region, is an indication for it. It may be used for non-bleeding piles when full, purple and painful, with a feeling as if a foreign body is in the rectum; there may also be itching and heat, or simply a sense of uneasiness or discomfort. When proctitis and neuralgic pain come from this engorged hemorrhoidal state it is effective, as it is also in reflex disorders depending upon the rectal involvement-such as headache, spasmodic asthma, dyspnea dizziness, and disturbed digestion.

HORDEUM.

The decorticated seeds of *Hordeumdistichon*, Linné (Nat. Ord. Graminacee). Native of central Asia; cultivated in all tropical and temperate climes.

Common Name: Barley.

Principal Constituents.—Maltose, dextrin, fatty matter, starch and proteids. It contains no gliadin, as does wheat, hence no gluten can be obtained from it. After germination it yields *diastase* (maltine), a starch-digesting body.

Preparation.—*Decoctum Hordei*, Decoction of Barley (Barley Water). *Dose, ad libitum*.

Action and Therapy.—Outside of its food value in broths, barley is useful as a demulcent and drink for fever patients and those suffering from diarrheal complaints. Barley flour, made into a thin pap, is useful in infant feeding, and a decoction of barley provides a soothing injection for rectal inflammations and a medium for the conveyance of medicines into the bowels in dysentery. It is also a good gastric lenitive after acute poisoning by irritants.

HUMULUS.

The strobiles of *Humulus Lupulus*, Linné (Nat. Ord. Urticaceae). Europe and Asia; common in cultivation.

Common Names: Hops, Hop.

Principal Constituents.—*Lupulin* (see Lupulinum), hop-bitter acid, humulitannic acid, resins, volatile oil and asparagine, trimethylamine, and choline.

Preparation.—Specific Medicine Humulus. Dose, 1 to 60 drops.

Specific Indications.—(See Lupulinum.)

Action and Therapy.—*External*. A "hop-pillow" is a favorite device for procuring sleep. The odor of the hop has a decidedly sedative influence upon some individuals, relieving headache and producing sleep; in others it produces intense headache, with nausea and vomiting. Probably the psychic effect has much to do with its value in insomnia. A hot "hop bag" applied to the face is a favorite domestic cure for neuralgic face ache, and a "hop poultice" has anodyne properties.

Internal. This is a remedy to relieve nervous excitability in fevers and to induce sleep. It also checks fermentation of the stomach contents and thus proves useful in fermentative dyspepsia with acid eructations. For other uses see *Lupulinum*, which has superseded hops largely as an internal medicine.

HYDRANGEA.

The root of *Hydrangeaarborescens*, Linné (Nat. Ord. Saxifragaceae). A handsome shrub along streams and in damp, rocky situations in the southern and middle-west states of this country. *Dose*, 5 to 60 grains.

Common Names: Wild Hydrangea, Seven Barks.

Principal Consitituents.—The glucoside *hydrangin* (C₃₄H₂₅O₁₁), saponin, resins, and fixed and volatile oils.

Preparation.—Specific Medicine Hydrangea. Dose, 5 to 60 drops.

Specific Indications.—Vesical and urethral irritation, with gravel;

difficult urination; deep-seated renal pain; bloody urine; irritation of the bronchial membranes.

Action and Therapy.—Hydrangea is diuretic and sedative to cystic and urethral irritation, with passage of gravelly urine. It does not dissolve gravel, but is believed to be of value in preventing their formation, especially alkaline and phosphatic concretions. It should be administered in hot water. Hydrangea may be used in any renal disorder with dysuria, blood in the urine, or deep-seated pain in the region of the kidneys. It is not contraindicated by inflammation and may be employed with safety in acute nephritis. It is especially serviceable in alkaline urine and in bladder irritation of the aged with tendency to catarrh. Unquestionably hydrangea has a kindly action upon the mucosa of the urinary organs and it has alterative properties making it useful in strumous diseases.

HYDRASTIS.

The dried rhizome and roots of *Hydrastis canadensis*, Linné (Nat. Ord. Ranunculaceae) United States and Canada in rich, shady woods. (Chiefly Ohio, Indiana, Kentucky, and West Virginia.)

Common Names: Golden Seal, Yellow Root, Yellow Puccoon, Orange Root.

Principal Constituents.—Three alkaloids: *berberine* (yellow); and *hydrastine* and *canadine*, both white.

Preparations and Derivatives.—1. *Specific Medicine Hydrastis*. *Dose*, 1 to 30 drops.

2. Colorless Hydrastis (Lloyd's). Dose, 1 to 15 drops. Largely employed locally.

3. *HydrastineMuriate* (Hydrochlorate of Berberine). A yellow powder. *Dose*, 1 to 5 grains.

4. *Hydrastin* (Resinoid), not now used.

5. *Hydrastin* (Combined Hydrastin). Only substance now sold as hydrastin.

6. *Hydrastina*, Hydrastine. (Alkaloid, both natural and synthetic.) Permanent white or creamy crystals or powder, almost insoluble in water; soluble in chloroform; less so in alcohol. *Dose*, 1/12 to 1/3 gr.; average dose, 1/6 grain.

7. *Hydrastinae Hydrochloridum*, Hydrastine Hydrochloride (Hydrastine Chloride). White or cream-colored powder, odorless, hygroscopic, very soluble in alcohol and water. *Dose*, 1/12 to 1/3 grain; average dose, 1/6 grain.

8. *HydrastininaeHydrochloridum*, Hydrastinine Hydrochloride (Hydrastinine Chloride). Odorless, light-yellow crystals or powder, very soluble in water and alcohol. *Dose*, 1/4 to 1 grain; average dose, 1/2 grain

9. *Liquid Hydrastis* (nonalcoholic). *Dose*, 1 to 20 drops.

Specific Indications.—Catarrhal states of the mucous membranes unaccompanied by acute inflammation (except in acute purulent otitis media); relaxed tissues, with profuse secretion of thick and tenacious yellowish or greenish-yellow muco-pus; relaxation and ulceration of tissues of mouth and throat; imperfect recovery from diarrhea or discharges and relaxation: dysentery. with mucous aphthae. ulceration, or erosion of mucous surfaces; atonic gastric irritability; irritation of mucous surfaces, with feeble circulation; muscular soreness aggravated by pressure; passive hemorrhages from the pelvic organs; ice water dyspepsia; skin diseases depending upon gastric wrongs which also indicate hydrastis.

Action.—Extensive experiments by pharmacologists show that Hydrastis alkaloids, particularly hydrastine, are actively poisonous to certain animals, producing spinal convulsions followed by paralysis, lowered blood pressure succeeded by a marked rise, and death. Upon man, however, no so-called physiological effects of any moment have been observed. In the ordinary medicinal doses it certainly is not a poison to human beings. No cerebral effects have been observed in either animals or man; and judging from clinical effects it probably increases contraction of special nonstriated muscles, as it controls uterine hemorrhage in women and has an ecbolic effect upon the lower mammals. Schatz explains this by asserting its power upon the unstriped fibers of the arteries and denying its effects upon other tubular muscular structures. It has also been assumed, but not experimentally proved, that it slightly increases hepatic secretion in man.

Therapy.—*External*. Hydrastis is one of our most efficient topical medicines when applied in disorders of the mucous membranes; and is occasionally of service upon the skin. It is of most importance perhaps in ophthalmic practice, being a thoroughly effective subastringent and soothing agent in acute and subacute catarrhal and follicular conjunctivitis. For this purpose, and indeed for most topical effects, the colorless preparations are preferred. Lloyd's Colorless Hydrastis in particular is to be commended, for it is both non-staining and non-alcoholic and has almost completely replaced the formerly used hydrastin and berberine preparations. The same medicament may be used in superficial corneal ulcer, ciliary blepharitis, and in simple trachoma. While signally useful in these affections of the eye

appendages, hydrastis is of no value in intraocular disorders.

Inspissated cerumen may be readily softened by colorless hydrastis, thus facilitating its removal by water. It also controls the irritation of the aural canal when due to the presence of hardened wax. Eczema of the external auditory canal has been cured by it. In both acute and chronic otitis media it may be employed hopefully when there is a purulent or mucopurulent discharge and granulations do not exist.

Hydrastis preparations are among the most successful remedies in catarrhs of the nose and throat. It should be used both locally and internally in catarrhal and follicular pharyngitis, subacute forms of simple catarrhal sore throat following tonsillitis, subacute rhinitis, naso-pharyngeal and retro-pharyngeal catarrh, and in ulcerated nasopharyngeal passages. It sometimes aids in the cure of syphilitic ulceration of the upper breathing tract. For catarrhal hypertrophy and engorgement of the turbinates it is often effective. The abundant discharge and thickened Schniederian membranes will guide to its selection. Locke advised it for nasal catarrh with thick, tenacious mucus and almost constant frontal headache. When thick gelatinous masses from the pharyngeal vault constantly drop into the throat, causing hacking cough and nausea, hydrastis given internally and as an ingredient of a local wash gives very satisfactory results. In all catarrhal affections of the upper respiratory tract, hydrastis should be administered for a prolonged period to obtain the best results. Hydrastis is valued by some as a topical reducer for chronically enlarged tonsils, but. like most medicines recommended for that purpose it fails far oftener than it succeeds.

Hydrastis is universally admitted to be a most valuable topical agent in gonorrhea. It is best adapted after the first and acute stage has passed, though it is not contraindicated at any time during the course of the infection. The preparation preferred is the colorless, though other hydrastis preparations, particularly berberine and hydrastin salts are useful, but objectionable on account of their staining qualities. Zinc sulphate increases the usefulness of the drug and quicker results can be obtained by instituting the treatment with a single irrigation with some mild silver salt, in order to destroy the gonococci. Care should be had not to use either the silver or zinc compounds too strong or too freely lest stricture be produced. The great advantage of the hydrastis treatment alone is that, while perhaps slower, it never produces and probably prevents stricture. Hydrastis is especially valuable in the late stage of gonorrheal urethritis, popularly known as gleet.

Leucorrhea, both vaginal and uterine, is well treated with washes containing hydrastis, with or without the addition of indicated cleansing and astringent agents. It heals cervical erosion, which is frequently the source of the abnormal secretion. Jeançon valued it locally for this purpose and to remove light papillary vegetations. As there is usually relaxation and debility, some form of hydrastis should be given internally at the same time. Locke praises hydrastis as a wash for ulceration of the bladder due to chronic cystitis.

Hydrastis preparations are effective in skin disorders depending upon gastro-intestinal debility, with imperfect digestion. Here the local use should be accompanied by its internal exhibition. Such disorders as sluggish cutaneous ulcers, acne, eczema of the scrotum, and eczema of the anus and marginal area, and other orifices of the body come under its influence when used in this manner. It is commonly employed locally to give tone to the rectal tissues, being especially useful in prolapse of the rectum and sometimes relieves nonulcerating hemorrhoids. In fissures of the anus, rectal ulcers, and proctitis it is a very painful application, and unless very carefully used and in small amounts it may provoke the very conditions sought to be relieved by it. Such conditions readily rebel against continuous stimulating and tonic treatment when irritability and sensitiveness are pronounced.

In most conditions, save those of the conjunctiva, hydrastis gives the best topical results when also administered internally.

Internal. Clinically hydrastis is known to stimulate the salivary, gastric, and intestinal secretions, and, to a slight extent, that of bile. It certainly has a most decided action on mucous surfaces, and is one of the most effective of bitter tonics. It sharpens the appetite and promotes digestion. Disorders of a subacute character and atonic states with increased flow of mucus are the types benefited by hydrastis. It is preeminently a mucous membrane remedy, allaying irritation when present, toning relaxation and correcting catarrhal tendencies. It should be considered when subacute and chronic inflammation with free secretion are present. For aphthous stomatitis it is equaled only by coptis and phytolacca; and is then to be used in the less active forms

bordering on chronicity. For gastric irritability it is one of our best remedial resources, but should -not be used when the stomach is acutely inflamed. The more the tendency toward chronic debility with oversecretion the more effective is hydrastis. It first relieves the irritation, then restrains the secretions, and finally gives tone to the gastric membranes. Without question it is our best single drug for chronic gastric catarrh, or so-called chronic gastritis. In that form due to alcoholic abuse, in which occurs the morning vomiting of drunkards, with disgust for food and craving for stimulants, hydrastis, with or without capsicum and nux vomica, gives incomparable results. In this aftermath of chronic alcoholism success attends this treatment in just so far as the patient may be prepared to take and assimilate nourishment. Usually the hydrastis is more efficient with capsicum, and the latter may be given in liberal quantities of beef soup or other easily digested food regularly administered. Bartholow, one of the great therapeutic authorities of his time, and one who was largely responsible for the introduction of hydrastis and other Eclectic medicines into the materia medica of the regular school, went so far as to declare that in sufficient doses of the tincture or fluidextract hydrastis is probably the best substitute for alcoholic beverages when it is desired to abandon the use of spirituous stimulants. Small doses of specific medicine hydrastis are indicated in that form of dyspepsia accompanied by the belching of putrescent gases, and followed by weakness or sense of "goneness" at the pit of the stomach. It also relieves an unpleasant distress just below the sternum, amounting almost to an internal itching and causing one to constantly shift or contract the muscles of the epigastric region. This condition is largely due to gastric irritation with distention by gases, and is promptly relieved best by colorless hydrastis, although the specific medicine is effective. When irritability is marked in stomachal debility small doses of the fluid preparations are to be preferred, but when there is but little irritability larger doses may be used, or hydrastin or berberine salts may be given immediately after meals. Specific medicine hydrastis, or Lloyd's colorless hydrastis, both in doses of 10 drops before meals and at bedtime, are the best agents we have employed in icewater dyspepsia, a peculiarly American complaint due to the immoderate use of iced drinks and ices. For gastric ulcer no treatment should be considered without a fair and generous trial of hydrastis, geranium, and bismuth subnitrate. In the treatment of stomach disorders with hydrastis or its derivatives, the fact must be kept prominently in mind that it is only in conditions of atony, with gastric irritability or

subacute inflammatory symptoms, with increased secretion, that the drug is of any benefit. Acutely inflamed tissues, so far as the gastro-intestinal tract is concerned, absolutely prohibit its employment.

Hydrastis, though most effective in gastric disorders, is valuable in affections of the accessory digestive organs. It is certain of unquestioned worth in catarrhal states of the intestines and gall duct, in duodenal catarrh aggravated by neighboring biliary concretions, and in chronic constipation due to debility and imperfect action of the intestinal glands. Its use must be persisted in for a long period. It is a serviceable tonic for enfeeblement of the gastro-enteric tract of infants and children, as well as adults, and offers support in convalescence from severe and depleting intestinal discharges, debilitating stomach and bowel disorders, the prostration occasioned by fevers and other acute affections, and hemorrhage. It is asserted of value in hepatic congestion. It is a question, however, whether it has any marked specific action upon the liver proper, and that benefit, if any, derived from it in hepatic disorders is largely due to its salutary effect upon the duodenum and bile duct and its properties of a general tonic.

Hydrastis controls passive hemorrhage. It is not adapted to copious active hemorrhages, as gastric and post-partum hemorrhages, but in those forms only of renal, uterine, or pulmonary bleeding in which small quantities of blood are passed at a time and are recurrent in form. It is adapted to and is successful in rare cases to restrain bleeding and to reduce the size of uterine fibroids, and similarly in uterine subinvolution. In passive hemorrhages occurring in virgins and during the climacteric it is distinctly useful. Good results have followed its intercurrent use in congestive dysmenorrhea, menorrhagia, and metrorrhagia, chiefly functional in character. It is a comparatively slow-acting drug in most forms of hemorrhage, but its effects are permanent.

Hydrastis, locally to relieve pain and retard growth, has been advised in carcinomata, particularly mammary cancer. While its general alterative and tonic properties and control over circulatory engorgement may make it a desirable general or supporting agent in carcinomatous cachexia, it is folly, in the light of present-day knowledge of this malignant scourge, to hope for any appreciable results from hydrastis, certainly not for a cure.

HYOSCYAMUS.

The leaves and flowering or fruiting tops of *Hyoscyamus niger*, Linné (Nat. Ord. Solanaceae). Europe; naturalized in waste places in the United States. *Dose*, 2 to 10 grains.

Common Name: Henbane.

Principal Constituents.—Two alkaloids: *Hyoscyamine* (C17H23NO3), probably identical with duboisine (from Duboisia) and daturine (from Stramonium); and *hyoscine* (*scopolamine*) (C17H21NO4)

Preparation.—*Specific Medicine Hyoscyamus*. *Dose*, 1/10 to 20 drops.

Derivative. *Hyoscyaminae Hydrobromidum*, Hyoscyamine Hydrobromide (Hyoscyamine Bromide). *Dose*, 1/200 grain.

Specific Indications.—Nervous irritability, with unrest and insomnia; dilated pupils and flushed face, accompanied by debility; fright and restlessness in sleep; night terrors; loquaciousness; garrulousness; destructiveness; busy muttering delirium, or singing, talkativeness, amusing hallucinations and illusions, particularly in fevers; choking sensations; the insomnia of debility, exhaustion, or insanity; the excitability of the insane; urethral irritation in the feeble, with urging to urinate; rapid, palpitating heart action; muscular spasms; spasmodic pain; sharp, dry nervous cough, aggravated by the recumbent position. A remedy to relieve pain, spasm, and nervous unrest in the aged and the infant, and in the anemic and the debilitated.

Action.—The physiological actions of hyoscyamus, belladonna, stramonium, and duboisia are quite similar, differing chiefly in degree and less in quality. They produce the same dryness of the throat, flushing of the face, dilatation of the pupils, quickening of the respiratory and heart action, illusions, hallucinations and delirium. While the alkaloids of these drugs also act in the same general manner, there are shades of difference which make some variation in effects. Thus hyoscine (scopolamine) acts somewhat as a check upon its associated hyoscyamine in the parent drug, the latter alkaloid being more closely allied to atropine in action. This check upon the latter makes hyoscyamus less excitant and less furiously deliriant than its congeners and it is less likely to cause cerebral hyperaemia. Under hyoscyamus the primary stimulation observed under belladonna and stramonium and their alkaloids may be absent, or at least it is of very much shorter duration and subdued character, so that under its influence sleep is induced without much previous excitement. This is of great advantage in the treatment of the insane.

There is little observable difference between atropine and hyoscyamine upon the mechanism of ocular accommodation, but the latter sometimes fails to produce mydriasis. There is also but little variation in their effects upon the heart or breathing. Scopolamine (hyoscine), however, is said to cause stronger mydriasis and more quickly than atropine, though it is of shorter duration. Hyoscyamine is more hypnotic and less deliriant than atropine, but this is probably due to the presence of hyoscine in commercial hyoscyamine. It is wellestablished knowledge that scopolamine is more depressant to the higher cerebral centers than either hyoscyamine or atropine, and that even smaller amounts act decidedly as a hypnotic. Hyoscyamus is a better agent than belladonna to combine with cathartics to lessen griping and tormina. Moreover, it does not restrain secretion and is likely to prove more or less laxative.

Great care must be observed, however, in the use of hyoscine and hyoscyamine. The former, in particular, in large doses dangerously depresses respiration, and if in any case it must be given in full doses its effects upon breathing should be closely watched.

The symptoms of poisoning by hyoscyamus and its alkaloids are sufficiently similar to those named under belladonna for diagnosis, and the treatment is the same as there recommended.

Therapy.—According to the dose in which it is administered hyoscyamus is a cerebral stimulant or a cerebral sedative. It is largely used under conditions in which opium would be indicated, but is not acceptable on account of the constipation, nausea, and headache induced by it. Hyoscyamus does not, like opium, restrain secretion, and proves laxative rather than constipating. Hyoscyamus is a safer drug for old persons and children than belladonna or opium. As a remedy for pain it is relatively far weaker than the latter, but should be preferred in mild attacks and especially in such when associated with spasmodic tubular contractions. Hyoscyamus is the remedy for nervous irritability and irritation (small doses), and mental excitation with great motility (large doses).

Hyoscyamus allays spasm and relieves pain. It is a better agent for spasmodic disorders and peripheral pain than belladonna, but less effective than opium. Where it can be made to control the pain, however, it should always be preferred to the latter. Hyoscyamus is a better remedy for spasm, especially tubular and sphincteric spasm, than for pain, but if the latter is caused by the former it is doubly efficient. It cannot be relied upon, however, for very severe paroxysms of either pain or spasm such as attend bad cases of calculi colic-either biliary or renal. But it does very well in the milder attacks. In all painful and spasmodic conditions it takes rather full doses, except in states characterized by nervous irritation with feeble circulation-in in nervous depression rather than other words, in nervous excitability-; then small doses act specifically. Properly selected according to this depression or the contrary, and in doses to meet each condition, it is extremely useful in spasmodic dysmenorrhea, flatulent colic, gastrodynia, spasmodic bowel disorders, painful hemorrhoids, spasmodic cystic pain, spasmodic asthma, and whooping cough. As a remedy for pain it will usually be found to meet depressed conditions best. Hence its value in nervous headache, the headache of debility, the vague pains of so-called chronic rheumatism, idiopathic neuralgia, visceral pain, urethral pain, and that of herpes zoster. The more these cases show nervous irritation, weak circulation, tendency to anemia, and constant but not violent unrest, the better they are helped by small doses of the drug.

Hyoscyamus quiets that form of irritability akin to pain but not amounting to actual pain, such as irritation of the bladder and urethra with tendency to sphincteric spasm. Here nerve force is low and under similar conditions it relieves the ever-annoying urging to urinate accompanied by tenesmus that is so often associated with diurnal as well as nocturnal incontinence of urine, and in the cystic troubles of the aged and women during the menopause. In combination with camphor it has long held a reputation for the relief of nervous erethism produced by the passage of instruments into the urethra.

Cough, whether occurring in acute or chronic disorders, is controlled by hyoscyamus. The more spasmodic or convulsive the better it acts, though for some reason it is not as effective in whooping cough as stramonium, solanum, or belladonna. Probably none of these agents act any too well because there is some causative factor other than spasm, probably of a bacterial character. It relieves the short, dry, explosive cough of bronchitis. It relieves most irritable dry coughs, nervous cough, and harassing bronchial cough, caused or made worse upon lying down. It may be given for long periods, preferably in syrup of wild cherry, to relieve the cough and nervousness and thus promote rest in phthisis. In most of the forms of cough mentioned medium doses must be employed, except where nervous and physical depression is very marked. Hyoscyamus, in the small dose, is often the best agent to use in pneumonia, with dry cough and sub-delirium with widely dilated pupils.

Hyoscyamus is one of the most important agents in nervous and mental diseases. In the small doses it meets the depressive types; in full doses the excitable and furious manias. One of the chief uses of the drug (usually in this instance, hyoscyamine, or preferably hyoscine) is to produce sleep in acute mania. If of the violent, furious and destructive type, with great mental and motor excitability, full doses of hyoscine should be given. But if of the sub-delirious or mildly aberrative form, the smaller doses of hyoscyamus are to be preferred. Often both drugs fail to overcome the insomnia, in which instance wider wakefulness ensues and the patient paces the floor until the effect of the drug is spent. Full doses are usually required in delusional insanity, epileptic mania, recurrent mania, and puerperal mania-all with sleeplessness and great mental excitement. On the contrary when in such disorders as nymphomania following childbirth, and due more to delirium than to passion, and in puerperal mania, in both of which there is a feeble pulse, exhaustion, continuous but mild mental agitation, and nervous unrest, then small doses of the parent drug give the best results. Small doses of hyoscyamus are also to be preferred in the insanities, and in the delirium of acute diseases, when the patient indulges in singing, continuous talking, or low muttering delirium, or when garrulous and quarrelsome, but not violent.

When insomnia depends upon mere excitability, or when it is needed to relieve restlessness and unpleasant dreams during sleep, small doses of hyoscyamus are splendidly effective. These conditions often occur during the acute diseases of children and are promptly met by the drug. For the wandering delirium of exhaustion-the typhomania of typhoid fever, it is often the best calmative we can employ. The patient feels that he is away from home and friends and constantly asks and makes an effort "to go home". In hysteria with frequent voiding of small quantities of urine hyoscyamus should be given in fractional doses.

If it is borne in mind that all of the solanaceae in true therapeutic doses produce effects opposite from those of their gross physiologic action, it will not be difficult to apply them specifically. If strong sedation is needed, the large doses are to be given; if stimulation, the small doses. For violent maniacal excitement the alkaloids are preferable: for mild forms, hyoscyamus.

Hyoscine is sometimes used in attempts to cure the opium habit. For the violent excitement following the complete withdrawal of the drug it is useful, but it should not be given continuously. It should be regarded here as an emergency remedy and so employed. It is an easy matter to permanently damage the intellect with the powerful solanaceous alkaloids.

HYPERICUM.

The leaves and flowering tops of *Hypericum perforatum*, Linné (Nat. Ord. Hypericaceae). Europe and America.

Common Name: St. John's Wort.

Principal Constituents.—Volatile oil, a resin, tannin, and hypericum red, a resinous red coloring principle.

Preparation.- *Tinctura Hyperici*, Tincture of Hypericum (herb, 8 ounces; Alcohol, 76 per cent, 16 fluidounces). Dose, 1/4 to 30 drops.

Specific Indications.—Spinal injuries, shocks, and concussions; throbbing of the body without fever; spinal irritation, eliciting tenderness and burning pain upon slight pressure; spinal injuries and lacerated and punctured wounds of the extremities, with excruciating pain; hysteria. Locally as a vulnerary.

Action and Therapy.—*External*. St. John's Wort is valued by many practitioners as a vulnerary, much as arnica is employed. Therefore it has been used extensively as a local application to bruises, contusions, sprains, lacerations, swellings, ecchymoses, and in acute mammitis.

Internal. Hypericum is said to be diuretic and sedative, and as such has been used in chronic urinary disorders, particularly suppression of urine. It undoubtedly has a strong influence upon the nervous system. Used according to the indications named above, many physicians believe it useful to relieve the painful effects of spinal concussion, shocks, etc., and to prevent tetanic complications. It will take pretty strong proof to convince most practitioners of the present day of any such virtue as true antitetanic properties in this simple drug. The internal uses as given above are based chiefly upon homeopathic symptomatology, and the drug has gained little favor in the Eclectic school of practice. It has, without question, a value in nervous disorders and should be more fully studied and tested, but miraculous powers should not be hoped for from it.

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

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

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

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

Michael Moore Bisbee, Arizona October, 2001