

PART II — Individual Drugs.

ABIES (*Tsuga canadensis*).

The bark and prepared resinous exudate of *Tsuga canadensis*, Carrière (*Abies canadensis*, Michaux; *Pinus canadensis*, Linné). (Nat. Ord. Coniferae.) A well known and handsome evergreen, tree of the forests of Northern United States and Canada.

Common Names: Hemlock, Hemlock Spruce.

Principal Constituents.—The oleoresin Canada pitch, and a volatile oil known as Oil of Hemlock or Oil of Spruce; that from the leaves is known as Pine-needle Oil, and contains pinene, bornyl acetate, and cadinene; the bark contains a large amount of tannic acid.

Preparations.—1. *Specific Medicine Pinus*. Dose, 5 to 60 drops.
2. *Oil of Hemlock*. Dose, 1 to 5 drops.

Specific Indications.—General asthenia, with feeble digestion, vascular weakness, and pale and relaxed mucosa; broncho-pulmonic irritation, with profuse secretions; coughs and colds; pyrosis with gastric irritation, vomiting, and diarrhoea. Contraindicated in inflammations.

Therapy.—*External*. A strong decoction of the bark is a satisfactory astringent for the checking of leucorrhoea and a good local application of this type for aphthous and other oral ulcerations, gangrenous ulcers, prolapsus ani and prolapsus uteri. The specific medicine on cotton may be applied to the cervix uteri to heal abrasions and control discharge. The oil may be used as an embrocation for painful and swollen parts, and by spray in nose and throat disorders attended by mild catarrhal symptoms. It enters into many proprietary and semi-proprietary preparations for the treatment of coryza, congested turbinates, and ulcerations of the nasal fossae and throat. The oil dropped upon boiling water is a timehonored inhalation for croup. It has also been used to advantage in some forms of eczema, particularly the weeping type.

Internal. *Pinus Canadensis*, the name under which most of the alcoholic preparations pass, is mildly stimulant, antiseptic, and useful where an astringent remedy is desired in conditions of relaxation, with pallid mucosa. In small doses, the specific medicine may be employed

in gastric irritation and in that of the urinary organs, in both of which 'there is an excess of mucous secretion. As a remedy for passive hemorrhages it has little to commend it, though it is not wholly without effect, acting much like but with less power than the oil of erigeron and similar preparations. Both the specific medicine and the oil may be incorporated into cough medicines, to be used where there is excessive secretion of mucus and the cough is largely precipitated by a feeble and relaxed state of the uvula and fauces.

ABSINTHIUM (*Artemisia absinthium*).

The flowering tops and leaves of *Artemisia Absinthium*, Linné (Nat. Ord. Compositae); Europe, Siberia, Barbary, Newfoundland, and the United States; naturalized in New England; cultivated. Dose, 10 to 20 grains.

Common Name: Wormwood.

Principal Constituents.—A volatile oil (*Oleum Absinthii*), containing principally absinthol (C₁₀ H₁₆ O) and a crystalline bitter absinthin (C₁₅ H₂₀ O₄).

Preparations.—1. *Infusum Absinthii*, Infusion of Absinthium (3j to Oj). *Dose*, 1 to 2 fluidrachms.

2. *Oleum Absinthii*, Oil of Wormwood. *Dose*, 1 to 5 drops.,

Action.—Both oil of wormwood and extract of absinth act as nerve depressants upon man. Small doses at first stimulate, larger ones produce headache, and still larger doses induce cerebral disturbances and clonic hysteroidal convulsions. Victims of *absinthism*, a vicious form of drunkenness, are subject to disturbed rest, with disagreeable dreams, and morning sickness and vomiting. A chronic intoxication ensues that is more fearful in its effects than that resulting from the abuse of alcoholics. Epileptoid attacks are common, physical and mental force is seriously impaired, and virile power is lost in the male, while a premature menopause is a common result in the female. It is also said to produce a peculiar hyperesthesia, most marked in the integument of the hypogastrium. The French liquor *Absinthe*, which is a viscous alcoholic cordial, and *Wermuth*, a German beer, both depend upon wormwood for their activity.

Therapy.—*External.* Absinthium, steeped in vinegar and water, makes an admirable hot fomentation for sprains, bruises and local inflammations. It should not be applied to abraded surfaces.

Internal. Small doses of absinthium stimulate the appetite and give tone to the gastric membranes, thus favoring digestion. For this purpose it is sometimes useful in atonic dyspepsia; especially in that form due to alcoholic excesses. Large doses irritate the stomach and give rise to increased action of the heart. Though less agreeable than santonin, it may also be used for the expulsion of the intestinal parasites-*Ascaris vermicularis* and *Ascaris lumbricoides*. The oil may be given in doses of 1 to 5 d rops.

ACACIA.

The dried gummy exudate of *AcaciaSenegal*, Willdenow; and of some other African species of *Acacia*. (Nat. Ord. Leguminosae.) Eastern Africa (Kordofan, chiefly), and Western Africa north of river Senegal.

Common Names: *Acacia*; Gum Arabic.

Principal Constituents.—*Arabin* (C₁₂ H₂₂ O₁₁—Arabic acid) in combination with salts of calcium, magnesium, and potassium.

Description.—Tears or fragments of a nearly odorless, translucent white, yellowwhite, to pale amber-colored exudate, having a rather insipid and mucilaginous taste; soluble in water, but insoluble in alcohol.

Preparations.—1. *Mucilago Acaciae*, Mucilage of *Acacia*. **Dose**, 1 to 4 fluidrachms or more.

2. *Syrupus Acaciciae*, Syrup of *Acacia*. **Dose**, 1 to 4 fluidrachms or more.

Action and Therapy.—*Acacia* is largely employed in the preparation of pills and in the emulsification of oils and resins. It is demulcent and probably slightly nutritive. In the form of a solution or mucilage it is an agreeable lenitive for irritated and inflamed membranes, and for this purpose is frequently used in medicinal preparations for coughs, colds, hoarseness, pharyngitis, gastric irritation and inflammation, diarrhea, dysentery, ardor urinae, etc. It also forms a good mucilage in which to suspend heavy and insoluble powders. When the stomach is irritable in low fevers and in pulmonary tuberculosis, a half ounce of acacia may be dissolved in 5 fluidounces of water, sweetened with sugar, and given in tablespoonful doses occasionally to relieve the sense of hunger when but little food can be taken. Mucilage of acacia is soothing to burns and scalds of the mouth and alimentary canal, and may be used as a demulcent after poisoning by irritant and corrosive

poisons. Acacia may be given freely and at pleasure, in the form of powder, troches, mucilage, or syrup, as desired.

ACHILLEA MILLEFOLIUM.

The whole plant *Achillea millefolium*, Linné (Nat. Ord. Compositae); a common wayside and field herb in North America and Europe.

Common Names: Yarrow, Milfoil, Thousand Leaf.

Principal Constituents.—The bitter alkaloid achilleine (C₂₀ H₃₈ N₂ O₁₅), achilleic acid (aconitic acid); a volatile oil, tannin, and potassium and calcium salts.

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

Specific Indications. —Atony and relaxation of tissue, with free discharges; passive hemorrhage.

Action and Therapy.—Achillea is astringent and tonic. Its chief virtues are shown in its occasional control of passive menorrhagia due wholly to atony, and not to the presence of tissue change or destruction. It sometimes relieves hematuria, and is soothing to the urinary tract.

ACONITUM NEPALLUS.

The dried tuberous root of *Aconitum Napellus*, Linne (Nat. Ord. Ranunculaceae). Mountains of Europe and Asia, and northwestern North America. **Dose** (maximum), 1 grain.

Common Names: Aconite, Monkshood, Wolfsbane.

Principal Constituents.—Aconitine (C₃₄H₄₇O₁₁N) one of the most poisonous of known alkaloids, occurring as permanent colorless or white crystals, without odor. A drop of solution of one part of aconitine in 100,000 of water will produce the characteristic tingling and benumbing sensation of aconite. The alkaloid itself must never be tasted, and the solution only when extremely diluted, and then with the greatest of caution. Aconitine is soluble in alcohol, ether, and benzene; very slightly in water. Other constituents of Aconite are *aconine* and *benzaconine*, both alkaloids; the former of little activity; the latter a strong heart depressant.

Commercial Aconitine is a more or less impure mixture of aconite alkaloids.

Preparations.—1. *Specific Medicine Aconite.* An exceedingly poisonous and

representative preparation. *Dose*, 1/30 to 1/2 drop. (Usual form of administration: Rx Specific Medicine Aconite 1-10 drops: Water 4 fluidounces . Mix. Sig. One teaspoonful every one-half (1/2) to two (2) hours.)

2. *Tinctura Aconiti*, Tincture of Aconite (10 per cent aconite). *Dose*, 1 to 8 minims.

¶Fleming's Tincture of Aconite is many times stronger than the preceding, with which it should not be confounded. It should have no place in modern therapeutics.

Specific Indications.—The *small and frequent pulse*, whether corded or compressible, with either elevated or depressed temperature and not due to sepsis, is the most direct indication. Irritation of mucous membranes with vascular excitation and determination of blood; hyperemia; chilly sensations; skin hot and dry, with small, frequent pulse. Early stage of fevers with or without restlessness. When septic processes prevail it is only relatively indicated.

Action.—The effects of aconite, considered from the so-called physiological action, are expressed in local and general irritation followed by tingling, numbness, and peripheral sensory paralysis, primarily reduced force and frequency of the heart action, due to vagal stimulation, and subsequent rapid pulse, due to vagal depression. The heart muscle is also thought to be paralyzed by it. The action upon the vaso-motor system is not well understood, though the lowered arterial pressure is explained by some as due to depression of the vaso-motor center. In small doses aconite quiets hurried breathing, but large doses may cause death through respiratory paralysis. Temperature is lowered by aconite, probably by increase of heat-dissipation and possibly through the action of the thermo-genetic system. This action is most pronounced during fevers. Except of the skin and kidneys, the glands of the body seem to be but little, if at all, affected by aconite. The kidney function is slightly increased, while that of the skin is markedly influenced according to the quantity administered. The motor nervous system is not noticeably affected except when poisonous doses are given, but the sensory nerves, especially at the periphery, are notably impressed by even so-called therapeutic doses. It is quite clear that aconite does not act strongly upon the cerebrum, except that poisonous doses somewhat depress the perceptive faculty. Upon the skin and mucous surfaces it acts first as an irritant, then as an anaesthetic. The mode of elimination of aconite is not yet well determined, but it is thought that it is largely oxidized, thus accounting for the short duration of its action. Indeed, the systemic

effects of aconite seldom last over three hours, though the therapeutic result may be permanent. When aconite kills it does so usually by paralyzing the heart, arresting that organ in diastole.

Locally, aconite and its alkaloid, aconitine, act as irritants, producing a tingling, pricking sensation and numbness, followed by peripheral sensory impairment, resulting in anaesthesia of the part. The latter is due to paralysis of the sensory nerve terminals. Usually no redness nor inflammation follows, but in rarely susceptible cases vesicular or pustular eruptions take place, or intense cutaneous itching. Both are extremely irritating to the nasal and ocular membranes, and when inhaled may give rise to a peculiar local sense of icy-coldness.

Administered internally in small doses aconite occasions a tingling or prickling sensation, felt first in the mouth, tongue, and fauces, and quickly extending to the stomach. This is rapidly followed by more or less numbness. Gastric warmth and a general glow of the surface follow non-lethal doses. Slight perspiration may be induced, but sweating to any great degree does not take place except from large doses. Then it is an almost constant symptom. Temperature is reduced, but the more readily during pyrexia, when the pulse is frequent and small, if the dose administered be fractional.

In maximum doses (by some called full therapeutic doses) aconite causes gastric heat. A sense of warmth throughout the system follows, and occasionally the thrilling or tingling sensation will be more generally experienced, with perhaps some numbness. There may be dizziness most marked upon assuming the upright posture, pain in the head, acute body pain, excessive depression, with feeble circulation and diminished respiration. The pulse may fall to 30 or 40 beats per minute and muscular weakness become extreme. Eclectic teaching has long protested against giving aconite in doses sufficient to produce these effects, which some, with extreme boldness, declare to be therapeutic results.

Toxicology.—In poisonous amounts the symptoms given are exaggerated and the effects extremely rapid. Tingling and numbness increase and are felt all over the body, the thrilling and creeping coldness approaching from the extremities to the body. Excessive sweating comes on, rapidly lowering the body temperature, dimness of vision, loss of hearing and touch, and general peripheral paralysis

extending from the extremities to the trunk. The victim is conscious of danger, feels cold and is extremely anxious and prostrated. Muscular weakness is pronounced, tremors occur, and rarely convulsions. The power of standing is lost early. The face is extremely pale, the sclerotics pearly, eyes sunken, the countenance one of extreme anxiety, and there is a tendency to fainting. There may be gastric pain and vomiting. If the recumbent position is not maintained, or even if slight exertion be attempted, sudden death may occur from syncope. Unless consciousness be lost through syncope, the intellect remains unimpaired until just before death, showing that aconite probably does not greatly impress the cerebrum.

The one diagnostic symptom of aconite poisoning is the characteristic aconite tingling. If confession (in case of attempted suicide) is not forthcoming or the patient is unable to reveal the fact that poison has been taken, this of course cannot be known. In the absence of this knowledge, and when absolute muscular and other prostration, fainting and other forms of collapse, shallow dyspnoeic breathing, merely trickling or barely perceptible pulse, with no vomiting, no purging, or no alteration of pupils, nor characteristic symptoms of other poisons, poisoning by aconite should be suspected. The action of a lethal dose of aconite is rapid, symptoms coming on within a few minutes. Death may occur in from one half hour to six hours, the average time being a little over three hours.

The treatment of poisoning by aconite should be prompt and quietly administered. The victim must at all hazards be kept in the recumbent position, with the feet slightly elevated. If seen early, tannic acid or strong infusion of common store tea (to occlude the poison) should be administered. External heat should be applied and artificial respiration resorted to as soon as respiratory embarrassment takes place. In the earlier stage emetics may be tried, but will probably fail to act if the stomach has been anaesthetized by the poison. The stomach-pump, or siphon, is to be preferred. Besides, emetics may be inadvisable for fear of the muscular contraction producing heart-failure. Whatever method be followed the stomach contents should be received upon a towel, the patient under no circumstances to be raised from the prostrate position. The chief hope lies in stimulation. Ammonia or alcohol, or Hoffman's anodyne, may be given by mouth, and ether, alcohol, and digitalis hypodermatically. Digitalis is the nearest to a physiological antidote to aconite, but acts very slowly, whereas the action of aconite

is rapid. The more diffusible stimulants, therefore, are to be given first, and closely followed by the digitalis. Atropine may stimulate respiration, and caffeine (or hot coffee) sustain the heart. Nitrite of amyl may be used cautiously, allowing but a whiff or two, lest the stimulant action be passed and dangerous depression induced. A full dose of strychnine sulphate or nitrate (1/20 to 1/10 grain) should be given subcutaneously to sustain the heart-action. Of the newer biologic products, possibly adrenalin chloride (1 to 1000) or pituitrin, hypodermatically administered, might aid in preventing circulatory collapse.

Therapy.—External.—As a topical agent, aconite, in tincture or as an ingredient of anodyne liniments, may be applied to relieve pain, allay itching and reduce inflammation. Its use, however, must be guarded as it is readily absorbed. A well-diluted spray gives relief in the early stage of tonsillitis and when quinsy occurs, and it relieves the distress and shortens the duration of faucitis, pharyngitis, and some cases of laryngitis. If used in local inflammations it should be in the earlier stages. Locally applied above the orbits it may give relief in sinusitis; used over the mastoid bone it mitigates the pain of otitis media and modifies external inflammation of the ear. Its obtunding power gives temporary relief in facial and other forms of neuralgia (when hyperaemia is present), the neuralgia preceding zoster, pleurodynia, myalgia, rheumatic gout (rheumatoid arthritis), peridental inflammation, and so-called chronic rheumatism. It also allays the pain and itching of chilblains, and the discomfort of papular eczema, pruritus ani, and other forms of pruritus.

Internal.—Aconite is a most useful internal medicine. The weight of evidence from those who use aconite most frequently shows that it is a safe agent when used in the minute dose and according to specific indications, and is proportionately dangerous as the dose approaches that which produces its physiological action. It is capable of great good in the hands of the cautious and careful therapist, and is capable of great harm if carelessly or thoughtlessly employed.

Aconite is the remedy where there is a dilatation from want of tone in the capillary vessels. It moderates the force and frequency of the heart's action, increasing its power, and is, therefore, useful in functional asthenia; it also lessens pain and nervous irritation. Aconite cases are those showing a frequent but free circulation; where there is super-

active capillary movement; and in enfeeblement of the circulation, functional in character and not due to structural degeneration or sepsis, and manifested by a frequent small pulse, a hard and wiry pulse, a frequent, open and easily compressed pulse, a rebounding pulse, or an irregular pulse. It lessens determination of blood (hyperaemia), quiets irritation, checks the rapid circulation in the capillaries when it is too active, and increases the circulation when it is sluggish. We account for this by believing that it gives the right innervation to the vascular system. Scudder (*Diseases of Children*, 42) says of it: "I have been in the habit of saying that aconite is a stimulant to the heart, arteries, and capillaries, because whilst it lessens the frequency, it increases the power of the apparatus engaged in the circulation." It should be stated that our term sedative differs in fact from that accepted by other schools. An agent such as aconite, which in full doses would depress but in minute doses will stimulate the vascular system to normal activity and thereby reduce febrile states by correcting or regulating innervation, is classed in Eclectic therapy as a "special," "vascular," or "arterial sedative."

Aconite is a remedy for irritation of the mucous membranes. It matters little whether it be of the nares preceding an attack of coryza, of the larynx, of the bronchi, or of the gastro-intestinal tube, liable to lead to inflammation of those tracts, aconite may be used to control the morbid process. In simple gastric irritation with or without vomiting, in the irritative forms of diarrhoea—whether simple or of the more complicated forms of enteric inflammation, of cholera infantum, or of dysentery—it is equally important and usually specifically indicated. In the diarrhoea of dentition it often controls the nervous symptoms and the discharges. Of course one must take into consideration the role played by food toxemia. In such cases modification or complete change of food must be resorted to, and frequently a simple purge given to cleanse the gastro-intestinal tract. Then if irritation persists, or there is fever, aconite usually acts promptly. The form of cholera infantum best treated by it is that showing increased bodily heat. If dentition is accompanied by irritation and fever, it may be given alone or with *matricaria*. In many of the stomach and bowel disorders, particularly gastric irritation with diarrhoea, and gastro-enteritis, it acts well with *ippecac*, or *rhus*. For aphthous ulcerations with fever, aconite and *phytolacca* internally with infusion of *coptis* locally have not been excelled. In simple dysentery, aconite, *ippecac* and magnesium sulphate is a most effective combination, seldom failing to control the

disease in a few hours.

Aconite allays fever and inflammation, and it's the most commonly used agent for such conditions. When specifically selected it proves useful in glandular fever (with phytolacca) and in acute gastritis and gastric fever, with yellow-coated tongue and diarrhoea. In simple febricula it is diagnostic, if, as Locke has well stated, the patient is not well or markedly improved in twelve hours, he has more than a case of simple fever. In intermittent or malarial fevers it prepares the way for the successful exhibition of antiperiodics. As quinine, the best antagonist of the malarial parasite, acts most kindly when the skin is moist, the tongue soft and clean, and nervous system calm, aconite is signally useful as it establishes those very conditions. In septic fevers, or those depending upon sepsis, the presence of pus, etc., its value is limited, though it may assist other measures. It is especially of value in the fevers of irritation of childhood—such as arise from overloading the stomach, from colds, and from dentition. Most febricula subside quickly, but they do so more quickly and kindly when assisted by the small dose of aconite. So valuable has aconite become in fevers, that by some writers it has been christened the “vegetable lancet;” by Webster, the “pulsatilla of the febrile state;” and by Scudder, the “child's sedative.”

In all febrile states in which aconite is indicated there is *sudden onset and rapid evolution*; moreover, the remedy is seldom needed, nor indeed is it admissible except in the first few days of the invasion. Very rarely is it to be used in the protracted fevers, except at the very outset, and then it must be strongly indicated. It is much better to omit it than to advise its employment in continued fevers of an adynamic type, lest some carelessly or perhaps boldly push it in too large doses or for too long a period to the detriment of the patient. In typhoid or enteric fever there are usually conditions to face which make aconite an ill-advised medicine, except in rare instances in which distinct indications for it may be present. These are so rare, however, as to be pronounced exceptions. The blood disintegration, the toxic impression of the secretions and the nervous system, the defective excretion and the progressive weakening of the heart and circulation, make aconite all but contraindicated in this devitalizing disease. If used at all we question the expediency of employing aconite or any other febrifuge for a prolonged period in typhoid or other adynamic fevers.

In urethral fever, due to catheterization, and in the febrile stage of acute gonorrhoeal urethritis, its action is prompt and effective. It may be used as an auxiliary agent in visceral inflammations of the abdominal and pelvic cavities, when simple in character. In such grave disorders as puerperal fever, because of its highly septic character, it is of questionable utility. The same is true of peritonitis of septic origin.

In the acute infectious diseases (including the infectious fevers already mentioned, but respecting the limitations in typhoid states) aconite is of very great value when used at the onset of the invasion. It is among the best agents in acute tonsillitis and quinsy before pus forms, in the initial stage of la grippe, in acute colds, acute coryza, lobar, and broncho-pneumonia, pleurisy, and allied infections. Here it controls temperature, retards hyperaemia, establishes secretion, prevents effusion when threatened, and gives the nervous system rest. When it alleviates pain it does so chiefly by allaying inflammation. In pleurisy, aconite associated with bryonia is an admirable remedy until effusion takes place, then it no longer is serviceable. To reduce high temperature it is temporarily useful in phthisis when invasion of new portions of the lungs takes place. Aconite may be used in cerebro-spinal meningitis until effusion takes place; after which it should be discarded.

Other disorders of the respiratory tract are benefited by its action as far as irritation, hyperaemia, and inflammation prevail—acute nasal and faucial catarrh, acute pharyngitis, acute bronchitis, acute laryngitis and acute tracheitis. For spasmodic and mucous croup it is the best single remedy, often checking the disease in an hour's time. Aconite was at one time freely used in diphtheria, and is still valued by some, but its use should be carefully guarded for the same reasons stated under typhoid fever. The most it can do is to aid in controlling temperature; and if carelessly employed it may invite paralysis of the heart in a disease itself prone to paralysis through its own toxicity. Aconite should not be omitted in the treatment of erysipelas with high temperature.

Aconite and belladonna are indispensable in the exanthemata, and are the drugs most often indicated. It is to be used when the skin is hot, dry, and burning and the temperature high. By its timely use the eruption is facilitated, the temperature lowered, the secretory organs protected, spasms averted, and damage to the kidneys and the over-

wrought nervous system forestalled. It is, therefore, indicated in the initial stages of varicella, measles, scarlatina, and sometimes in variola.

While by no means an antirheumatic, aconite is of marked benefit in acute inflammatory rheumatism, when high fever and great restlessness prevail. Besides it protects the heart by lessening the probability of endocarditis and possible heart failure. The dose, however, must be small lest we induce the very calamity we aim to avoid. Locke regarded it almost a specific in uncomplicated rheumatism; but while it greatly aids in reducing fever, inflammation and pain, it needs the assistance of the more direct antirheumatics and their allies, as sodium salicylate, bryonia and macrotys. More slowly, but less certainly, it sometimes alleviates simple acute neuritis.

Mumps is well treated by aconite, asclepias and phytolacca, while for mastitis aconite, bryonia, and phytolacca are our most effective agents. With careful nursing, emptying of the breasts, and sometimes judicious strapping and supporting of the glands the formation of pus may be averted. Should it form, the bistoury is the only rational medium of relief.

As a remedy for the disorders of the female reproductive organs, aconite is very valuable. It is particularly valuable in recent amenorrhea, due to cold, if the circulation and temperature are increased; and in menorrhagia, with excited circulation and hot, dry skin. Dover's powder or the diaphoretic powder adds to its efficiency. Some rely on it to relieve the nausea and vomiting of pregnancy.

Neuralgic pain is somewhat relieved by aconite, used both locally and internally. The varieties best treated are facial, dental, visceral, and rectal neuralgia, and that preceding herpes zoster. Though most efficient when fever accompanies, it is held to be useful also when the temperature is not exalted. King found aconite a remedy of marked worth in that anomalous condition best described as non-febrile spinal irritation.

Purely functional palpitation of the heart, due to indigestion, has been relieved by small doses of aconite. One of the instances in which *large* or physiological doses of aconite are permissible is in simple cardiac hypertrophy, but even then veratrum is to be preferred. In very *minute*

doses aconite has been advised by Scudder in the algid stage of Asiatic cholera, and in the cold stage of fevers.

ACTÆA ALBA.

The rhizome and rootlets of *Actæa alba*, Bigelow (Nat. Ord. Ranunculaceae). A perennial of the United States east of the Mississippi, abounding in the rich mold of rocky forests and hillsides. *Dose*, 1 to 20 grains.

Common Names: White Cohosh, White Baneberry, White Beads.

Principal Constituents.—A non-acrid and non-bitter resin similar to that obtained from black cohosh (*cimicifuga*). Albumen, starch, sugar, and gum are present, but neither tannic nor gallic acids.

Preparation.—*Specific Medicine Actæa.* *Dose*, 1 to 20 drops. (Usual form of administration: Rx. Specific Medicine Actæa, 20 drops. Water, 4 fluidounces. Mix. Sig. One teaspoonful every 1 to 3 hours.)

Specific Indications.—Atony dependent upon nervous derangements from reproductive disturbances, with headache, insomnia, melancholia, and convulsive tendencies; extreme sensitiveness of the ovarian region; “pinkish hue of parts freely supplied by blood” (Scudder).

Action and Therapy.—Actæa is an active drug, acting in general somewhat like *cimicifuga*. In large doses it is emeto-cathartic, and serious gastrointestinal irritation and inflammation have resulted from overdoses of it. It deserves a more extended study than has yet been given it. Actæa acts specifically in disorders of the female reproductive organs, with atony and nervous impairment—such as the debility conducing to amenorrhea, dysmenorrhea and menorrhagia, and the irritability of weakness of the sexual system provoking choreic, hysteric, and hystero-epileptic attacks. It is only of value to correct the nervous impairment and sexual disturbances when they are underlying causes of these spasmodic disorders, and has little or no value in controlling the attacks. It has a well-sustained reputation as a remedy for after-pains; and may be used in ovarian disorders when there is pain or uneasy sensations in or around the ovaries, with extreme sensitiveness to touch or pressure. It also relieves mental aberrations arising from derangement of the reproductive organs. Like *cimicifuga* it is useful in atonic indigestion of the nervous dyspepsia

type.

ADONIS VERNALIS.

The whole plant of *Adonis vernalis*, Linne. (Nat. Ord. Ranunculaceae). Southern Europe, Siberia, and Labrador. *Dose*, 1/2 to 3 grains.

Common Name: Pheasant's Eye.

Principal Constituent.—*Adonidin*, probably a mixture of acids and glucosides.

Preparation.—*Specific Medicine Adonis*. *Dose*, 1/2 to 3 drops.

Specific Indications.—Weak cardiac action, with low blood pressure, and shortened diastole, with consequent venous stasis, with increased back-pressure, and feeble intermittent or irregular pulse; cardiac dropsy, with weak heart.

Action.—Fresh adonis is irritant and vesicant. Upon the circulation it acts much like digitalis, but is prompter in action and not cumulative. It is an energetic agent and capable of poisoning. Adonis slows, regulates, and strengthens the heart's contractions, raises blood pressure, and thereby acts as a diuretic. It also causes deeper and slower breathing, and in proper cases overcomes dyspnea. Large doses paralyze the heart and blood vessels.

Therapy.—On account of its quicker action Adonis has been preferred by some to digitalis and strophanthus in the same class of heart affections to which these are applicable, or in which for some reason it is undesirable to employ them. It is especially commended where arrhythmia with feeble cardiac force and dyspnoea and dropsy are present. It has long been a popular remedy in Russia for dropsies of both heart and kidney origin. It is probably less valuable than digitalis where the cardiac valves are greatly affected. Scudder valued adonis in heart-strain from overexertion; Hale recommended it in endocarditis and in weak and irregular heart action resulting from chronic nephritis. Wilcox used it in chronic albuminuria, with pale urine and delirium with good results and in uremic convulsions, which had been frequent, without a return of the eclampsia for two years, when the patient died. It is undoubtedly emmenagogue and has been advised in epilepsy, administering it with bromide of potassium. It should not be given when there is gastro-intestinal irritation or inflammation.

ÆSCULUS GLABRA.

The bark and fruit of *Aesculus glabra*, Willdenow (Nat. Ord. Sapindaceae). A small fetid tree common to the central portion of the United States.

Common Names: Ohio Buckeye, Smooth Buckeye, Fetid Buc eye.

Principal Constituents.—The glucoside *aesculin* (C₁₅ H₁₆ O₉) (displays a blue fluorescence in water and more strongly in the presence of alkalies); aesculetin (C₉H₆O₄); a peculiar tannin and saponin. Starch is abundant and a rich yellow oil is present.

Preparation.—*Specific Medicine Aesculus.* (Made from the ripe fruit.) *Dose,* 1 to 15 minims. The smaller doses are to be preferred.

Specific Indications.—Sense of constriction, tightness, or uneasiness in the rectum, with or without hemorrhoids; intestinal irritation with constriction and colicky pain near the umbilicus; dyspnea and constriction of the respiratory tract with spasmodic cough.

Action.—The dried, powdered fruit of the buckeye causes violent sneezing. Buckeye acts powerfully upon the nervous and circulatory systems. Its action is probably strongest on the spinal nerves, and in some respects resembles that of strychnine. The cerebrum is also impressed by it. Toxic symptoms include dizziness, fixation of the eye, impaired vision, vomiting, wry-neck, opisthotonos, stupor, and tympanites. In lethal doses these symptoms are increased, coma comes on, and the victim dies. Cattle are often killed by eating buckeyes; if not fatal, a condition known as "blind staggers" is produced.

Therapy.—*Aesculus* is sedative, somewhat narcotic, and has a special control over the portal circulation, relieving venous congestion. When the circulation is rapid and the constrictive sensation prominent and dyspnea prolonged, it relieves such conditions as continuous asthmatic breathing. There is a sense of constriction back of the upper portion of the sternum, with or without irritative cough, that is relieved by it. It is useful in intestinal irritability with the contractive colic-like pain centering in the umbilical region, probably dependent most largely upon hepatic or portal congestion and associated with chronic constipation. Its chief value, however, lies in its power to relieve

hemorrhoids due to faulty hemorrhoidal circulation. The sense of fullness and tightness rather than marked pain is the indication for it. It often succeeds admirably, and as often completely fails to relieve. Its action upon visceral disorders is practically the same as that mentioned under *Hippocastanum* (which see).

Aesculus sometimes relieves uterine congestion with full tumid and enlarged cervix and too frequent and profuse menstruation. This would suggest its possible value in uterine subinvolution. It has a domestic reputation for the cure of rheumatism, but this has not been verified to any great degree in professional practice. It has been suggested as a spinal stimulant in paralysis. If so used it should be used like strychnine after active symptoms have ceased, and to stimulate the unimpaired nervous tissue. Aesculus deserves further study to determine its status as a remedy for nervous disorders, and especially its control over visceral neuralgias.

AGAR.

A dried substance of mucilaginous character abstracted from several species of sea weeds (marine algae) growing along the coast of Asia. Most of it comes from Japan. *Dose*, 1 to 4 drachms.

Common Name: Agar-agar.

Description.—Agglutinated membranous pieces, tough or brittle accordingly as it is damp or dry. The pulverulent form is most commonly used. It is a coarse, buff-colored granular powder, having practically no odor or taste. It swells to a soft magma in the presence of water.

Action and Therapy.—Agar has no action upon the human body nor is it in turn affected by the digestive ferments or intestinal flora. It has the property of absorbing moisture and swelling to a soft mass, and for this purpose is given in constipation as a mechanical laxative; rendering the best service when intestinal secretion is scanty, and in consequence, the feces are abnormally dry. From one teaspoonful to two heaping tablespoonfuls may be given once or twice a day in dry form alone, or mixed with some cereal at meal-time. Biscuits, bread, and crackers are prepared from it and may be procured in the general trade. Agar is also used as a culture medium in making laboratory cultures.

AGARICUS (*Amanita muscaria*).

The fungus *Amanitamuscaria*, Persoon; (*Agaricus muscarius*, Linne.) (Nat. Ord. Fungi.) An extremely poisonous fungus found in the pine forests of Europe.

Common Name: Fly Agaric.

Principal Constituents.—*Muscarine*, a deadly alkaloid, and *pilzotropin*, its physiologic opposite.

Preparations.—1. *Tinctura Agarici*, Tincture of Agaricus (Fresh fungus, 1 ounce; strong alcohol, 16 fluidounces). Dose, 1/30 drop.

2. *Muscarine*. Dose, 1/30 to 1/12 grain.

Action and Toxicology.—The chief toxic action of agaricus is probably due to muscarine, which produces ptialism, weeping, vomiting, depressed circulation, difficult breathing, muscular weakness, minutely contracted pupils, tetanic contraction of the viscera with subsequent relaxation of the bowels, when violent peristalsis takes place, paralysis and death. Muscarine is the direct antagonist to atropine.

Closely allied to Agaricus is *Amanita phalloides*, Fries or *Death Cup*. Common in the United States and the cause of many fatal poisonings. Gastro-enteritis with choleraic diarrhoea occurs, with death within two to four days. It contains muscarine and a toxalbumen *phallin*, both of which are deadly agents. While salt abstracts the latter, there is no known antidote after it has been absorbed.

Therapy.—Agaricus is seldom used, but possesses undoubted power over the secretions and the nervous system. The chief uses that have been made of it, and for these even the muscarine sulphate or nitrate have been mostly employed, are in colliquative night-sweating from debilitating diseases, and profuse sweating in the daytime; and to restrain the excess of urine in polyuria, or so-called diabetes insipidus.

Scudder suggested a tincture of the fresh fungus for “involuntary twitching of the muscles of the face, forehead, and even of the eyes, so that objects are not well seen because they seem to move; drawing of the tissues of the forehead and nose; pressing pain in the occiput and an inclination to fall backward.” Webster thought it useful in typhoid

conditions and spinal irritation when there is “tremor, restlessness, and desire to get out of bed.” These indications are of homeopathic origin and have been but little followed by Eclectic practitioners.

Muscarine is used in atropine and belladonna poisoning, sometimes being employed in place of eserine (physostigmine).

AGRIMONIA EUPATORIA.

The whole plant of *AgrimoniaEupatoria*, Linne (Nat. Ord. Rosaceae). A common perennial in the United States, Canada, Europe, and Asia. *Dose*, 5 to 60 grains.

Common Names: Agrimony, Stickwort, Cockleburr.

Principal Constituents.—Tannin and a volatile oil.

Preparations.—1. *InfusumAgrimoniae*, Infusion of Agrimony (1 ounce to Water, 16 ounces. *Dose*, 2 to 3 fluidounces.

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

Specific Indications.—Deep-seated colicky pain in lumbar region with uneasy sensations reaching from kidneys and hips to the umbilicus; atony or irritation of the urinary tract, with muddy, ill-smelling urine.

Action and Therapy.—A mild tonic and astringent, indicated as abovementioned, and of considerable value in cystic catarrh and nephritic irritation from the presence of gravel. It is also sometimes used as a gargle, and internally for mucous profluvia from any of the mucous structures of the body. The infusion is especially useful. We have known it to give relief in abdominal pain due to faulty intestinal digestion. Dribbling of urine in old persons is said to be relieved by agrimony.

ALETRIS FARINOSA.

The rhizome of *Aletrisfarinosa*, Linne, gathered after the plant has flowered (Nat. Ord. Haemodoraceae). United States. *Dose*, 5 to 60 grains.

Common Names: Blazing Star, Star Grass, Starwort, False Unicorn root.

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

Action and Therapy.—Owing to the confusion that has long existed resulting from the unwitting substitution of aletris, for Helonias (Chamaelirium) the virtues of the latter, as a remedy for various disorders of the female reproductive organs, have been ascribed also to the former. It is probably nothing more than a gentle stomachic and tonic, and as such may be employed to promote the appetite and aid digestion. It is accredited with value in atonic dyspepsia, with flatulence and borborygmus. Even the carminative effects thus ascribed would seem to belong to helonias rather than to aletris, which is neither bitter nor aromatic like the former.

ALLIUM CEPA.

The fresh bulb of *Allium Cepa*, Linne (Nat. Ord. Liliaceae). Common in cultivation everywhere.

Common Name: Onion.

Principal Constituent.—A colorless oil, composed chiefly of a sulphur compound (C₆ H₁₂ S₂).

Preparations. -1. *Tincture of Red Onion.* 5 to 60 drops.
2. *Syrup of Onion.* Dose, 1 to 2 fluidrachms.

Action and Therapy.—*External.* Onion is rubefacient. A poultice of onion with vinegar gives relief to inflamed corns and bunions. Roasted onion makes an efficient poultice for acute broncho-pulmonic inflammations, especially of young children, when local applications are desired. Onion poultices are objectionable only when made too heavy, carelessly applied, or when applied to open surfaces.

Internal. Onion is stimulant, expectorant, and diuretic. A syrup of onion, prepared by drawing the juice with sugar, is a very effectual expectorant cough medicine for infants, young children, and old persons. If given in moderate quantities it is very soothing; if too freely administered it may cause nausea and disorder digestion. It, together with the onion poultice, are among the good things inherited from domestic medication, and might well be considered in preference to less safe and less depressing pulmonic medication. A tincture of red onion is useful in gravel and other urinary disorders with passages of blood, pus, and mucus. The dose is from 5 to 10 drops in water. It is

sometimes given with an equal quantity of tincture of *Xanthium Strumarium*.

ALLIUM SATIVUM.

The bulb of *Allium sativum*, Linne (Nat. Ord. Liliaceae). Sicily, Asia Minor, and Central Asia; cultivated also in the United States and Europe. *Dose*, 1 to 2 drachms.

Common Name: Garlic.

Principal Constituents.—Chiefly an acrid volatile oil, containing sulphur compounds.

Preparations.—1. *Syrupus Allii*, Syrup of Allium. *Dose*, 1 to 2 fluidrachms.
2. *Succus Allii*, Juice of Allium. *Dose*, 1 fluidrachm.

Action and Therapy.—*External.* Stimulant and rubefacient. Garlic poultice, like that of the onion, may be applied with benefit in acute respiratory and abdominal inflammations. It sometimes excites a flow of urine in atony of the bladder, and in gastro-intestinal catarrh it is as efficient as the spice poultice. Applied to the feet it has been successful as a revulsant in brain and cerebro-spinal disorders of children, associated with convulsions.

Internal. Expectorant and diuretic. The juice or the syrup (made by covering bruised garlic with sugar) is often effectual in common colds, especially when tending to become chronic or frequently repeated. It should not be used when there is marked irritation or inflammation. As a food, garlic is a stimulant to digestion if not used to excess. As such it is a common ingredient of certain meat sausages.

ALNUS SERRULATA.

The recent bark of *Alnus serrulata*, Aiton (Nat. Ord. Betulaceae). A shrub of the United States east of the Mississippi River.

Common Names: Tag Alder, Red Alder, Black Alder, Smooth Alder, Common Alder.

Principal Constituents.—Oils, tannin, and resins.

Preparations.—1. *Decoction Alni*, Decoction of Alnus (bark 1 ounce, Water, 16

fluidounces). **Dose**, 1 to 2 fluidrachms. Chiefly used as a local application.

2. **Specific Medicine Alnus.** **Dose**, 1 to 60 drops.

Action and Therapy.—**External.** The decoction is one of the best of local applications for rhus poisoning. We have observed rapid cures with it. It stains the skin. It is also a useful wash for nursing sore mouth of mothers, and should be given internally at the same time.

Internal. A good remedy to promote waste and repair and to improve nutrition. It is astringent and a bitter tonic, of use in gastric indigestion, with relaxed stomach walls and imperfect peptic function. Its alterative properties are best displayed in pustular eczema and recurrent crops of boils. Passive haematuria is sometimes controlled by its astringent action.

ALOE.

The dried juice of the leaves of several species of Aloe: (1) *Aloe Perryi*, Baker; (2) *Aloe vera*, Linne; (3) *Aloe ferox*, Miller. (Nat. Ord. Liliaceae). Barbadoes, Africa and the Orient.

Common Names: (1) Socotrine Aloes; (2) Curaçoa Aloes; (3) Cape Aloes.

Description.—(1) Yellow-brown or black-brown masses, aromatic, bitter, and nauseous, half of which is soluble in water; powder, deep brown; aqueous solution yellowish. (2) Orange to black-brown masses, waxy, not aromatic; more than half soluble in water; powder, deep red-brown; aqueous solution, purplish red. (3) Red-brown or greenish-black, smooth, glassy masses, more than half soluble in water; powder, greenish-yellow (fresh), light brown (old); aqueous solution, pale yellow. **Dose**, 1 to 8 grains.

Principal Constituents.—*Aloin* (C₁₄H₁₀). resin, and volatile oil.

Preparations.—(1) *Aloinum*, Aloin (a very bitter, yellow-to-dark-yellow, finely-crystalline powder, soluble in water, slightly in ether). **Dose**, 1/12 to 1/2 grain.

2. *Pilulae Aloes*, Pills of Aloes. (Each pill contains 2 grains of Aloes.) **Dose**, 1 to 2 pills.

3. *Tinctura Aloes*, Tincture of Aloes (10 per cent of Aloes). **Dose**, 15 to 60 minims.

Specific Indications.—Atony of the large intestine and rectum; mucoid discharges, prolapsus ani, ascaris vermicularis (Scudder). Difficult evacuation of the lower bowel when not due to fissure or inflammation.

Action.—Aloes is a slow-acting stimulating purgative, probably affecting only the lower bowel, notably the rectum. In small doses it is laxative. It strongly increases colonic peristalsis, but does not greatly increase the secretions of the intestinal glands, consequently the stools are feculent rather than watery, unless the dose be large. As it takes from 10 to 15 hours to operate, it should be administered in the early evening so that evacuation may occur in the morning. When given alone it causes considerable griping and often rectal fullness and heat. These may be modified by giving it in pill with soap or an alkaline carbonate, or with hyoscyamus, belladonna, or carminatives. Sulphate of iron slightly restrains its action and ipecac increases it. Applied to a denuded surface it operates the same as if taken internally, and administered to a nursing mother it purges the sucking child. By its stimulating action upon unstriped fibre, as of the bowel and uterus, and its tendency to excite the pelvic circulation producing pelvic congestion, it proves- emmenagogue. It is a purgative for torpor and debility, and should not be given to plethoric persons, nor when gastro-enteritis, or actively inflamed hemorrhoids are present; nor when pregnancy exists.

Therapy.—Aloes, in 1/2 to 1 grain doses, is a gastric stimulant of value in atonic indigestion, with obstinate constipation. It has had a large vogue as an after-dinner pill, but is now little used for that purpose. As a rule it is a good agent for use in atonic chronic constipation, but should never be exhibited in cathartic doses for this purpose. Aloes, or its derivative, aloin, is usually an ingredient of many favorite laxative pills, composed of varying amounts of either drug in combination with belladonna, strychnine, and ipecac, and sometimes with the addition of capsicum. One of the best of these is the "Lapactic pill." When sulphate of iron is indicated in chlorosis and anemia, aloes is generally combined with it. It has the effect of restraining the constipating action of the chalybeate. Aloes and iron are both very useful in delicate women who are subject to amenorrhoea or menorrhagia, with pelvic and intestinal torpor, poor appetite, and a weak circulation. As most of these cases are profoundly constipated, the explanation of the combination may be found in the laxative action of the aloes. When hemorrhoids are due to feeble venous return, small doses of aloes or aloin may improve conditions, but it should never be given when there is active hemorrhoidal inflammation. In very small doses aloin is useful in rectal prolapsus, due to pelvic debility and

general ill-health. It is still a debatable question whether aloes influences the flow of bile. When, however, jaundice is coexistent with torpor of the hemorrhoidal veins, it may be improved by laxative doses of aloes or aloin. Aloes is a decidedly useful but much abused medicine in chronic or habitual constipation. As stated above only slightly laxative amounts should be used. When a purgative is needed for bowel impaction in the insane—particularly in hypochondriasis and melancholia—aloes is probably the best that can be given. The improvement in the mental state often will be commensurate with the betterment of the intestinal torpor.

ALTHÆA OFFICINALIS.

The decorticated dried root of *Althæa officinalis*, Linne (Nat. Ord. Malvaceae), a plant of salt marshes, river banks, and moist, sandy soils. Europe, Asia, Australia, and Eastern United States.

Common Name: Marshmallow.

Principal Constituents.—Mucilage, starch, pectin, and *asparagin*, an odorless and colorless crystallizable body identical with *althein* and *agedolite*, found also in many other plants.

Preparations.—1. *Infusum Althææ*. Infusion of Althæa. *Dose*, Freely.

2. *Decoctum Althææ*. Decoction of Althæa. *Dose*, Freely.

3. *Syrupus Althæææ*. Syrup of Althæa. *Dose*, 1 fluidounce to 4 fluidounces.

Therapy. External. A soothing application to inflamed surfaces; and may be used as an injection for dysentery, acute vaginitis, and the acute stage of gonorrhœa. A favorite gargle for irritated throat. Applied upon a compress, it is reputed to be comforting to painful piles.

Internal. An excellent lenitive and demulcent diuretic employed to soothe irritated and inflamed mucous surfaces, in hoarseness, cough due to faucial irritation, gastro-intestinal irritation and inflammation, and as a soothing drink in vesical and renal irritation and inflammation, acute cystitis, strangury and gravel. If the mucilage chiefly is desired, an infusion should be prepared with cold water; if starch, with some mucilage is needed, a decoction. It may be given freely. A syrup of marshmallow is a good vehicle for pectoral medication.

AMYGDALUS PERSICA.

The leaves and bark of the twigs of *Amygdalus Persica*, Linne (Nat. Ord. Rosaceae). Native to Persia. Cultivated everywhere.

Common Name: Peach tree.

Principal Constituents.—The glucosid *amygdalin*, which in the presence of water and emulsin splits into hydrocyanic acid and other bodies. Hydrocyanic acid can be obtained from most parts of the tree.

Preparations.—1. *Infusum Amygdali*, Infusion of Amygdalus. Prepared by saturating the *freshly* scraped inner bark of the twigs (1 ounce) in cold water (16 ounces). It must *not* be boiled. *Dose*, 1 fluidrachm to I fluidounce.

2. *Specific Medicine Amygdalus*. (Made from the green young twigs and leaves.) *Dose*, 1 to 30 drops.

Specific Indications.—Gastric and abdominal tenderness, with irritation and congestion, and pointed tongue with reddened tip and edges and prominent papillae, nausea, and vomiting.

Therapy.—Used according to indications as given above, the infusion is a reliable sedative for gastric irritation with vomiting, particularly in children, and in the irritable stomach of phthisis. Scudder valued it in the vomiting of cholera infantum. We believe the failure of many to obtain results from amygdalus in vomiting is due to the use of alcoholic preparations instead of the infusion; and the latter is of no value unless prepared daily from the fresh green inner bark and leaves. We have both succeeded and failed with it according to the cause of the gastric disturbance. It is of less value for cough than wild cherry or hydrocyanic acid. For the latter the infusion or the specific medicine may be used.

AMYLUM.

The fecula or starch of the seed of *Zea Mays*, Linne (Nat. Ord. Gramineae). (Formula: C₆ H₁₀ O₅).

Common Name: Corn Starch.

Description.—Irregular, angular, white masses, or a fine, white powder; inodorous, with a slight but characteristic taste. Insoluble in alcohol and cold water. When boiled with 15 parts of water and cooled, it yields a whitish, translucent jelly (starch paste).

Preparation—*Glyceritum Amyli*, Glycerite of Starch.

Action.—A carbohydrate food contributing to the production of animal-heat, and when consumed in too large quantities for long periods increases fat and gives rise to flatulence and gastric acidity. Under the same conditions it may cause sugar to appear in the urine.

Therapy.—*External.* A valued dusting powder for intertrigo, erysipelas and irritated skin, and as starch-water (diluted starch paste) a useful demulcent for inflammatory disorders of the lower bowel and a medium for rectal medication. The glycerite alone (or as a vehicle for other medicaments) is a bland and non-irritating application to relieve the heat of eczema, erythema, excoriations, and other irritated or inflamed disorders of the skin.

Internal. The antidote for *iodine* poisoning. Diluted starch paste may be used as a lenitive after other forms of irritant poisoning, and as a mucilage for the administration of medicines.

ANEMOPSIS CALIFORNICA

The root of *Anemopsis californica*, Hooker (Nat. Ord. Saururaceae). A native perennial of wet places in Southern California and Northern Mexico. *Dose*, 1 to 60 grains.

Common Names: Yerba mansa; Yerba del mansa.

Principal Constituents.—A heavy aromatic oil (5 per cent) and tannic acid. No alkaloid has been found in it.

Preparation.—*Specific Medicine Anemopsis.* *Dose*, 10 to 60 drops in syrup.

Action and Therapy.—Reputed astringent, tonic, carminative, and anti-emetic. A mucous membrane stimulant for catarrhal conditions of the respiratory, gastro-intestinal, and genito-urinal tracts. It has given good results in bronchial cough and nasal catarrh. In the latter affection, Munk uses it largely as a spray to the nose and throat, employing from 10 to 30 drops of the specific medicine to slightly glycerinated water. It has a reputation for relieving the excessive

discharges of chronic gonorrhoea, acting somewhat like cubeb.

ANISUM (*Pimpinella anisum*).

The dried ripe fruit of *Pimpinella Anisum*, Linne (Nat. Ord. Umbelliferae). Egypt and Western Asia; cultivated in Southern Europe. **Dose**, 5 to 40 grains.

Common Names: Anise, Aniseed.

Principal Constituents.—A volatile oil (*Oleum Anisi*) composed chiefly (95 per cent) of the stearopten *anethol* (C₁₀ H₁₂ O), which, upon oxidation, yields anisic acid (C₈ H₈ O₃)

Preparations.—1. *Oleum Anisi*, Oil of Anise. Derived from Anise (above) or from Star Anise (*Illicium verum*, Hooker, Nat. Ord. Magnoliaceae.). The botanical origin must be stated on the label. Oil of Anise is a highly refractive, colorless or light-yellow liquid, having the taste and odor of anise. It is freely dissolved by alcohol. **Dose**, 1 to 5 drops on sugar.

2. *Infusum Anisi*, Infusion of Anise (Anise, 2 or 3 drachms;] Boiling Water, 8 ounces). **Dose**, 1 to 2 fluidrachms.

3. *Spiritus Anisi*, Spirit of Anise. Ten per cent Oil of Anise in Alcohol. **Dose**, 1/2 to 1 fluidrachm in hot water.

4. *Aqua Anisi*, Anise Water. **Dose**, a fluidrachms to a fluidounce.

5. *Specific Medicine Anise*. **Dose**, one fluidrachm in water.

Specific Indication.—Flatulence, with colicky pain.

Action and Therapy.—Anise is an agreeable stimulating carminative employed principally for the relief of nausea, flatulency, and the flatulent colic of infants. Anise imparts its odor to the milk of nursing mothers. It is an ingredient of Paregoric (Camphorated Tincture of Opium), and is largely used to impart to or correct flavor in medicinal preparations, especially cough mixtures. For infants the infusion is the best preparation and it should not be sweetened. The spirit (1/2 to 1 fluidrachm) given in hot water is more agreeable and effective for older children and adults. The oil (1 to 5 drops) on sugar may be used by the latter, if desired.

ANTHEMIS NOBILIS.

The flower-heads of *Anthemis nobilis*, Linne, (Nat. Ord. Compositae). Collected from cultivated plants.

Common Names: Roman Chamomile, Chamomile, English Chamomile.

Principal Constituents.—A stimulating oil (*Oleum Anthemidis*) and resin; and tannin.

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

2. *Oleum Anthemidis*, Oil of Anthemis. *Dose*, 5 to 15 minims (on sugar).

3. *Infusum Anthemidis*, Infusion of Anthemis; (Anthemis, 1/2 ounce; Water, 16 ounces). *Dose*, 1 to 4 fluidounces.

Therapy.—The cold infusion is reputed stomachic; the hot infusion diaphoretic (1 to 2 fluidounces), and emetic (5 to 12 fluidounces); the oil carminative. The cold infusion may be used in gastric debility, with flatus; the hot infusion to relieve colds due to sudden cutaneous chilling, and in dysmenorrhea to check pain and facilitate the flow. The oil may be employed for a like purpose, and for intestinal cramps and colic due to flatulency. Anthemis is little used.

APOCYNUM CANNABINUM.

The root of *Apocynum cannabinum*, Linne (Nat. Ord. Apocynaceae) gathered in autumn after the leaves and fruit have matured. Grows throughout the United States. *Dose*, 1 to 20 grains.

Common Names: Bitter Root, Canadian Hemp, and improperly, Indian Hemp.

Principal Constituents.—A resinous principle—*apocynin*, and a yellow glucoside, *apocynein*; and *apocynamarin*, or *cynotoxin*, or *cymarin*, all of which resemble digitalis glucosides in action.

Preparations.—1. *Specific Medicine Apocynum*. *Dose*, 1/4 to 20 drops. *Usual form of administration:* Rx Specific Medicine Apocynum, 10 drops to 1 fluidrachm; Water, four ounces; Mix. Sig. One teaspoonful every 1 to 3 hours.

2. *Decoction Apocyni*, Decoction of Apocynum (root 1 ounce to Water, 16 ounces). *Dose*, 1 to 2 fluidrachms.

Specific Indications.—Watery infiltration of cellular tissue—edema—with weak circulation and general debility; skin blanched, full, smooth, and easily indented; puffiness under the eyes; eyelids wrinkled, as if parts had been recently swollen; feet full and edematous, pitting upon pressure; constipation, with edema; urine scanty and circulation sluggish; boggy, watery uterus; full relaxed uterus with watery discharge; profuse menorrhagia, too often and too long continued; passive hemorrhages, small in amount and associated

with pedal edema; mitral and tricuspid regurgitation, with rapid and weak heart action, low arterial tension, difficult breathing, cough, and tendency to cyanosis.

Action.—Apocynum acts powerfully upon the heart, slowing its action and raising arterial tension. The cardiac muscle appears to be directly stimulated by it as are probably the arterial coats. Contraction of the renal arteries also takes place, so that while less blood passes at a time through the kidneys, the act of filtration is more perfect and marked diuresis results. Though long known that diuresis was one of its most prominent results, the knowledge that this is due to the better cardiac pressure and arterial tonus, rather than to the increased intrinsic secreting power of the renal glomeruli, is the result of pharmacologic investigation in recent years, particularly the work of Horatio C. Wood, Jr. The general effects upon man of full doses of apocynum are nausea, and sometimes vomiting and purging, succeeded by copious sweating. The pulse is then depressed, and in some a disposition to drowsiness is observed until relieved by vomiting. The powdered drug causes sneezing. The small doses employed in Eclectic therapeutics seldom occasion any of the above-named symptoms save that of severe watery purging, which may occur suddenly, when the drug has been administered persistently for several weeks.

Therapy.—No remedy in the Eclectic materia medica acts with greater certainty than does apocynum. In former times it was employed in heroic doses chiefly for its hydragogue cathartic and diuretic effects. Early in the last century it was employed by the botanic practitioners for the relief of dropsy. Later the Eclectic school developed its specific uses in dropsy and affections of the heart and circulation. Like many similar drugs, the powder was employed as a sternutatory in the days when it was believed that such effects as the increasing of the nasal discharges was the best way to relieve headaches and certain catarrhal affections. Again, it was recommended in diaphoretic doses, for the relief of intermittent and remittent fevers, and in pneumonic involvements, conditions in which it is now seldom or never thought of. It is rarely employed nowadays as a cathartic, and then only in dropsical conditions, as other hydragogues have been similarly used. Such is the use of it advocated by the authors of the regular school of medicine, by those who use it at all; and from such a use arises the criticisms frequently indulged in in condemnation of the drug. Eclectics do not use it in this manner. Specific medication has

established that this action is not necessary, for when specifically indicated it promptly removes effusions without resorting to cathartic doses. Consequently it finds little use as a cathartic, except very rarely as recommended by Goss, for the removal of ascarides.

To use apocynum intelligently and successfully, the prescriber must recognize, first, that debility is the condition in which it exerts its specific and beneficial effects—debility of the heart and circulatory apparatus, of the kidneys, of the capillaries of the skin particularly. In such a state it will prove a remedy; under opposite conditions it is likely to prove an aggravation. The patient with a strong, rope-like, hard, and quick pulse is not the patient for apocynum. On the other hand, the feeble pulse, soft and of little force, indicates its selection as the remedial agent. The atonic state which readily permits of exudation from the blood vessels is the ideal condition which we seek to remedy with apocynum. It is a vascular stimulant. Such results one would not expect to obtain if there were circulatory obstruction or active fever. The only apparent exception, in which it is adapted to active conditions, is that reported by Webster of its efficacy in active inflammation of the upper pharyngeal and post-nasal tract, where, he declares, it rivals *phytolacca* in its results. One can not expect apocynum to reconstruct wornout tissues or to restore damaged vascular valves. We must not hope to work miracles with it where there are such structural lesions as incurable or malignant organic diseases of the heart, liver, or kidneys. Yet in these conditions, when debility and subcutaneous, watery exudation are strong factors, it alone is a powerful remedy to relieve urgent symptoms and to put into action that portion of sound tissue that remains. The most we can hope for is an amelioration of the symptoms, and a notable decrease of the watery accumulation may be looked for. Under these circumstances we have removed enormous dropsical swellings with it, giving quick relief from dyspnea and thereby allowing the patient to obtain rest in the recumbent position. Still it did not cure, and in many such instances death mercifully removes the victim before extensive infiltration can again take place. *Digitalis*, *cactus*, *strophanthus*, and *convallaria* often aid its action. It is a singular circumstance, mentioned by Krausi, and which we have also observed, that apocynum seldom has any effect upon patients who have been subjected to paracentesis. In our opinion this is due to the advanced stage of the disease, usually reached by the time it is necessary to tap; for tapping is seldom regarded a curative measure, and is resorted to in the later stages of ascites to give

temporary relief. It is then too late for any drug to gain a satisfactory foothold. Moreover, apocynum is less effective in ascites than in edema or anasarca, for the latter is most likely to depend upon circulatory failure, whereas the former may depend most largely upon malignant or obstructing tumors.

The chief indication for apocynum is watery fullness of tissues as if infiltrated and accompanied by debility. This may be shown in the puffy eyelids, the swollen feet and ankles or other parts, which pit upon pressure. The skin is usually blanched, sometimes streaked with pinkish lines, full, smooth, and glistening. If the case be chronic or subacute, the more active the drug appears. With these conditions it may confidently be relied upon to cure curable cases or to give relief in incurable maladies, whether they are revealed in simple edema or anasarca, ascites, or dropsy of any of the serous cavities, or dropsy following scarlatina or malarial poisoning. In both of the latter conditions it is unusually effective. When such accumulations, functional in origin and due chiefly to vascular weakness, accompany atonic stomach and bowel disorders, as gastric and intestinal dyspepsia, and in syphilis, it is a signally useful drug. In rheumatism, arthritis, and sciatica, with edema, or even if but slight puffiness of the part be present, it renders valuable aid to antirheumatics or other appropriate remedies. Acute and chronic hydrocephalus, with spreading sutures, protruding fontanelles, and puffy eyelids, have yielded to the curative action of apocynum. It has been recommended in cerebro-spinal meningitis during the stage of effusion. In watery leucorrhoea, passive menorrhagia, irritable and congested uterus, prolapsus uteri, uterine subinvolution, and in some cases of amenorrhoea, in all of which debility is marked and the pelvic tissues are heavy, lax, and sodden, and there is slight infiltration about the ankles, apocynum has cured when remedies ordinarily directed in gynecological practice have failed to relieve. For the renal congestion of the second stage of tubular nephritis Gere found it to be the best remedy. Others assert its usefulness in the nephritis of pregnancy with albumen in the urine. Our experience with apocynum leads us to believe it less valuable in dropsies with albumen waste than in those without it but dependent most largely upon circulatory embarrassment.

Apocynum is of very great value in diseases of the heart and circulation—a fact recognized and acted upon in Eclectic therapy

years ago. Its action in giving tone to the heart muscle and vessels, and its use in cardiac disorders, was the subject of comment by Scudder, Locke, Ellingwood, Freeman, Waterhouse, Webster, and others. Angina pectoris, attended with edema, and praecordial oppression of smokers, are relieved by it. Krausi calls attention to its utility in mitral regurgitation, and speaks of it as the king of remedies in tricuspid regurgitation, with rapid and feeble cardiac action, low arterial tension, cough, dyspnea, pulsating jugulars, general cyanosis, scanty and high-colored urine, and general dropsy. He also refers to it as giving no special aid in aortic diseases.

The observation made by Krausi that apocynum increases secretion and excretion by way of the kidneys, whereas digitalis, after twenty-four hours, causes a retention of urea, is an important one, and should not be lost sight of. This ought to make it a valuable agent in uraemia and conditions depending upon faulty elimination of that body. Within a few years the internal and the hypodermatic use of apocynum directly upon the nerve is said to have promptly relieved sciatic neuritis.

The observations of a single reporter on the use of the first dilution of apocynum in not over one-drop doses every two hours as a remedy for obesity, is worthy of consideration and seems rational as the classic indications are noted. However, one must not be too optimistic concerning the power of a medicine to reduce fat, nor must anasarca be mistaken for obesity. In these cases the pulse lacks strength, though it is rapid; the temperature is inclined to subnormal in the morning and slightly above normal in the evening; the tongue has a dirty-white coating; the appetite is poor, the abdomen full and doughy to the touch; and there are gaseous eructations from the stomach and expulsion of flatus from the bowels. Occasionally there are night-sweats, and the ever-present indication for apocynum, edema of the extremities, is constant.

AQUA ROSÆ.

Rose Water.

Stronger Rose Water mixed with an equal part of distilled water, immediately before dispensing.

Description.—A clear aqueous preparation having the pleasant odor of roses.

[Stronger Rose Water is a saturated, aqueous distillate from the flowers of the hundred-leaved rose (*Rosa centifolia*, Linne, Nat. Ord. Rosaceae). It is colorless and should have only the odor and taste of fresh rose petals.]

Action and Therapy.—*External.* A cooling, non-irritating and slightly astringent collyrium. As a perfume preparation it is of much value in cosmetic lotions and washes, and the Stronger Rose Water (Aqua Rosae Fortior) is an ingredient of *Ointment of Rose Water (Unguentum, Aquae Rosæ)*, or so-called *Cold Cream*. Equal parts of Rose Water and Glycerin is a favorite perfumed lotion for chapped hands, lips, and face.

ARALIA HISPIDA.

The bark of the root of *Aralia hispida*, Linne (Nat. Ord. Araliaceae). A perennial undershrub of the eastern section of the United States. *Dose*, 1 to 30 grains.

Common Names: Dwarf Elder, Wild Elder, Bristle-stem Sarsaparilla.

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

2. *Decoction Aralia*, Decoction of Aralia (1/2 ounce to water, 16 ounces).
Dose, 2 to 4 fluidounces.

Specific Indications.—Anasarca and edema with constipation.

Action and Therapy.—Sometimes a surprisingly effective agent for the removal of anasarca dependent chiefly upon renal inactivity or renal irritation. Moreover, it often fails. It is, however, useful as a mild renal stimulant and laxative, and occasionally gives a good account of itself in the treatment of gravel.

ARALIA RACEMOSA.

The root of *Aralia racemosa*, Linne (Nat. Ord. Araliaceae). Found in rich woodlands and rocky situations in the eastern half of the United States.

Common Names: Spikenard, American Spikenard, Spignet, Pettymorrel.

Principal Constituents.—Resin and a trace of an aromatic volatile oil.

Preparation.—*Specific Medicine Spikenard.* *Dose*, 5 to 40 drops in syrup or water.

Specific Indications.—Irritative cough of debility with excessive secretion.

Action and Therapy.—A pleasant aromatic stimulating expectorant for chronic pulmonic affections, with cough from marked irritation and excessive catarrhal secretions. The syrup is a really valuable cough remedy in greatly debilitated subjects. When used in very small amounts the specific medicine is an agreeable flavor for syrupy cough mixtures. A number of apocryphal uses have been recorded for it, but outside of its good effects upon the respiratory and renal mucosa it has nothing to commend it.

ARISÆMA TRIPHYLLUM.

The fresh corm of *Arisaematriphyllum*, Torre (Nat. Ord. Araceae). Common in damp woods and wet situations in North and South America.

Common Names: Indian Turnip, Jack-in-the-Pulpit, Dragon Root.

Principal Constituents.—Starch, potassium and calcium salts, particularly raphides of calcium oxalate and possibly another acid principle.

Preparation.— *Tinctura Arisæmæ*, Tincture of Arisaema (Corm, 8 ounces; Dilute Alcohol, 16 ounces). **Dose**, 1 to 5 drops. Only the tincture of the fresh corm is of any value.

Action.—The fresh corm has no effect upon the unbroken skin. When bitten or chewed it is fiercely irritant, causing a persistent and intensely acrid impression on the tongue, lips, and fauces, something like that of a severe scald, with considerable pricking. Slight inflammation and tenderness may follow. This effect is thought to be due to the raphides of calcium oxalate present. Milk mitigates the distressing sensation.

Therapy.—Arisaema has been recommended for a variety of disorders, chiefly of the respiratory tract, and as a stimulant in low forms of fever, when delirium is marked and the membranes are inflamed and the tongue red, painful and swollen. It is seldom used for these purposes. It is, however, of real value in severe forms of sore throat, intensely painful, swollen and fetid, with deep or purplish-red membranes similar to that of the angina of scarlet fever. It is also useful in chronic laryngitis aggravated by singing or public speaking, and accompanied by hoarseness and loss of voice, burning and sense of constriction in the throat, and thin ichorous discharge from the nose. A strong

tincture of the fresh corm may be given in drop doses every half to one hour, and a throat wash of one drachm of the tincture to a half glass of water may be used freely.

ARNICA MONTANA.

The dried flower-heads of *Arnica montana*, Linne (Nat. Ord. Compositae). A perennial of Siberia and the cooler parts of Europe; also found in Northwestern United States (? —MM). *Dose*, 1 to 10 grains.

Common Names: Arnica, Leopard's Bane.

Principal Constituents.—*Arnicine* (C₁₂ H₂₂ O₂), a golden-yellow body, a volatile oil, and angelic and formic acids.

Preparations.—1. *Specific Medicine Arnica*. Dose, 1/4 to 10 drops.

2. *Tinctura Arnicae*, Tincture of Arnica. Locally.

Specific Indications.—"Muscular soreness and pain from strain or overexertion; advanced stage of disease, with marked enfeeblement, weak circulation, and impaired spinal innervation; embarrassed respiration; lack of control over urine and feces; sleeplessness from impeded respiration; and dull praecordial pain from 'heart strain'; muscular pain and soreness when the limbs are moved; tensive backache, as if bruised or strained; cystitis, with bruised feeling in bladder, as from a fall or blow; headache, with tensive, bruised feeling and pain on movement; hematuria, with dull, aching, lumbar pain; or from overexertion. Debility with enfeebled circulation." (*American Dispensatory*.)

Action.—Arnica is a decided irritant to the skin, under some circumstances producing marked dermal irritation, deepening into an erysipelatous or acute eczematous inflammation, with pustules and blisters, and often grave constitutional symptoms. In this respect the alcoholic preparations of the flowers are most active, and for this reason full strength preparations should not be used upon the skin, nor as a rule should any preparation of arnica be used upon cuts or injuries causing a breaking of the skin. Under the latter conditions dangerous inflammation, with vesication, has occurred. Persons of sensitive skin, and it is said gouty subjects, are most susceptible to this untoward action of the drug.

Medicinal doses of arnica slow the heart, slightly raise arterial pressure, and stimulate the vagi. Poisonous doses operate reversely and paralyze the vagal centers. Intermediate but large doses produce heat in the throat, nausea and vomiting, dyspnea, headache, lowering of temperature, and sometimes convulsive movements. With toxic doses these effects deepen into unconsciousness, motor, sensory and vagal paralysis, coma, and death. Death is said to have been caused by two ounces of tincture of arnica.

Therapy.—External. Arnica, in tincture or fomentation, has long been a popular but by no means safe discutient to prevent and discuss inflammatory swellings, and to relieve the soreness of myalgia and the effects of sprains, bruises, and contusions. It is often serviceable to remove ecchymoses, and it gives grateful relief to sore muscles that have undergone much strain and exertion. A glycerite has been effectually used upon bites of mosquitoes and other insects. Preparations of the root are less liable to excite dermatitis, and the infusion of the flowers is less irritant than the tincture. After applying the latter, which should always be well diluted, the surface should not be covered or bandaged, so that evaporation may take place freely.

Internal. Arnica is a greatly unappreciated medicine. It has a pronounced action upon the medulla and spinal cord which can be invoked to good advantage in states of depression. The keynote for arnica is spinal and vagal enervation. It should be brought into service when there is deficient nervous response, sluggish vascular power, and in almost all conditions in which prevails the triad-torpor, debility, and depressed function. In the advanced stages of exhausting diseases, where spinal innervation is poor, control over the sphincters lost, and there is feeble respiration due to central vagal impairment, it is a most important stimulant. It should be used when breathing can be carried on chiefly only by force of the will, and becomes weak and shallow when the patient drops into sleep; or when the sleeper awakens with a start on account of dyspnoea when automatic respiratory action alone is depended upon. Such a state occurs in the low stage of typhoid and other fevers, and in lobar pneumonia. In such conditions arnica is most useful and compares well with strychnine or atropine, or phosphorus, none of which are so safe as arnica. Arnica will prove useful in the depression occasioned by extreme forms of diarrhoea and dysentery when the discharges escape control. In so-called typhoid pneumonia—which is but pneumonia with typhoid conditions—

marked asthenia, feeble circulation, great depression, low muttering delirium, picking at the bed clothes, and dry tongue loaded with foul mucus and sordes, it is a most valuable auxiliary to other treatment. In the hectic fever of phthisis, with exhausting diarrhoea and excessive sweating, it often proves the needed stimulant and antihydrotic.

Arnica is a stimulant of great power in anemia, with weak heart and capillary feebleness, and marked depression, diarrhoea and dropsy, but no inflammation. During mild forms of so-called chronic rheumatism, with cold skin and general debility it will stimulate the nervous system, restore normal warmth, re-establish restrained secretion, and thus relieve pain. In painful, bruised or subacute inflammatory disorders arising from injury, with marked lowering of nerve tone, muscular aching and chilly sensations, arnica is a remedy of power to give comfort and hasten resolution. When myalgia is caused by exposure, or when muscular soreness and pain are due to strain, overexertion, or sudden jars or blows, the administration of arnica internally, in small doses of the specific medicine preferably, and the diluted tincture applied locally are among the most serviceable of measures.

Arnica frequently relieves "heart-strain" due to exertion, overwork, or from long marching. It also benefits in the heart debility that follows severe strain, worry, or excitement. Dull aching pain in the praecordia, due to lifting or when working against vibrating machinery, as in shoe making, is dissipated by small doses of arnica. For lame back, backache and feelings of soreness and debility of the back, when accompanied by nervous depression and poor circulation, arnica is one of the most direct of remedies. Lumbago, when due to muscular strain or falls, is relieved by arnica. Its action is increased by rhus, macrotys, or sometimes gelsemium. When dependent upon a loaded bowel, venous relaxation in the hemorrhoidal circulation, piles, fissures, sagging of the abdominal contents, pelvic weakness, or a neuritic state of the lumbar plexus, arnica is of little or no value. Indeed, in some of these conditions it may only result in an aggravation of the nervous unrest so frequently attendant upon lumbago, and allied painful disorders.

We have used arnica most successfully in paraplegia and hemiplegia after all evidence of acute inflammation or recent injury has passed. It is especially to be remembered in sphincteral paralyses, so common

after long illness in which spinal enervation has played an important role. Nervous headache of depression and debility frequently is relieved by arnica, and some believe it to be the best agent for amaurosis, a rather ill-defined ocular disturbance.

Should the patient to whom arnica is administered appear to become nervously excited and restless, or show gastric irritability, its use should be discontinued.

ASAFŒTIDA (*Ferula fetida*).

A gum-resin derived from the rhizome and rootlets of *Ferula Asafetida*, Linne; *Ferula foetida*, Regel, and other species of *Ferula* (Nat. Ord. Umbelliferae). Persia and other parts of Western Asia. **Dose**, 1 to 10 grains.

Common Names: Asafetida, Gum Asafetida.

Principal Constituents.—A volatile oil and a bitter resin to both of which its virtues are mostly due; also gum. The unpleasant odor is due to the presence in the oil of allyl sulphide chiefly.

Preparations.—1. *Emulsum Asafœtidæ*, Emulsion of Asafetida (Milk of Asafetida). **Dose**, 1 fluidrachm to 1 fluidounce.

2. *Tinctura Asafœtidæ*, Tincture of Asafetida. **Dose**, 5 to 30 drops.

Specific Indications.—“Nervous irritation, with mental depression, headache, and dizziness; hysteroidal conditions; convulsive disorders from purely functional wrongs of the stomach, gastro-intestinal irritation, with flatulence and palpitation of the heart; dry, deep, choking bronchial cough” (*American Dispensatory*).

Action.—Asafetida is a general excitant causing quickened breathing and heart-action, genito-urinary irritation, increased sexual desire, and mucous feces. It also increases the bronchial secretion. In overdoses it may cause dizziness and headache.

Therapy.—Asafetida is carminative and antispasmodic, and is a very useful nervine for functional spasmodic affections. It is especially adapted to neurotic individuals subject to hysterical or emotional attacks, usually attended by flatulent distention of the abdomen. In gastric discomfort with flatulence and nervous excitability, and in the flatulent colic of children and flatus due to intestinal indigestion of

old persons, asafetida is extremely satisfactory. Tympanites occurring during fevers is often relieved by it, for its carminative influence is especially effective upon the lower bowel. Owing to its expectorant qualities it is occasionally serviceable in the bronchitis of the aged, in which secretion is free but the power to expectorate is weak. It is also an ideal sedative for the nervous cough following the active stage of whooping cough. It relieves the nervous irritability of dentition. On the whole asafetida is a simple and efficient remedy best adapted to disorders with nervous depression, more or less feebleness, and particularly if associated with constipation, flatulence, or tardy or imperfect menstruation. Asafetida is contraindicated by inflammation. It may be given in emulsion, tincture, or pill or capsule.

ASARUM CANDENSE.

The rhizome and rootlets of *Asarum canadense*, Linne (Nat. Ord. Aristolochiaceae). A native perennial of the United States found in rich soils in woods, mountains, and along road sides. *Dose*, 5 to 30 grains.

Common Names: Wild Ginger, Indian Ginger, Canada Snakeroot.

Principal Constituents.—An acrid resin, a spicy volatile oil, and thought to contain among other fractions, *methyl-eugenol*, a principle not before found in nature.

Preparations.—1. *Tinctura Asari*, Tincture of Asarum. *Dose*, 1/2 to 2 fluidrachms.
2. *Infusum Asari*, Infusion of Asarum (1/2 ounce; Water, 16 ounces). *Dose*, ad libitum.
3. *Syrupus Asari*, Syrup of Asarum. *Dose*, 1-2 fluidrachms.

Action and Therapy.—A very pleasant stimulating carminative, diaphoretic and emmenagogue, of considerable value in amenorrhea from recent colds, in atonic dysmenorrhea, and in flatulent colic. A warm infusion is a very good diaphoretic with which to “break up a cold”. Asarum may be added to cough mixtures, and with syrup forms a very agreeable vehicle for the administration of pectoral medicines to be used in the chronic coughs of debility to aid expectoration. It is contraindicated by gastro-intestinal inflammation.

ASCLEPIAS INCARNATA.

The root of *Asclepias incarnata*, Linne (Nat. Ord. Asclepiadaceae). Common in damp

and wet grounds throughout the United States. *Dose*, 1 to 60 grains.

Common Names: Flesh-colored Asclepias, Swamp Milkweed, Swamp Silkweed, White Indian Hemp, Rose-colored Silkweed.

Principal Constituents.—A fixed and a volatile oil, two acrid resins, and an unstable amorphous alkaloid *asclepiadine*, resembling emetine in action.

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

Action and Therapy.—Diuretic and vermifuge. There is good reason to believe this agent a good diuretic to be substituted for digitalis in cases of edema dependent upon cardiac insufficiency. Its action is similar to that of foxglove, without the irritating effects upon the gastric membranes. In fact, in small doses it is a stomachic and of some value in chronic catarrh of the stomach. In powder, 10 to 20 grains, 3 times a day, it is said to expel lumbricoids.

ASCLEPIAS SYRIACA.

The root of *Asclepias syriaca* (*Asclepias Cornuti*, in the original), Decaisne (Nat. Ord. Asclepiadaceae). Common in rich soils throughout the United States. *Dose*, 1 to 60 grains.

Common Names: Milkweed, Common Milkweed, Silkweed, Wild Cotton.

Principal Constituents.—The milky juice contains a caoutchouc-like body. The root contains a glucoside, not yet fully determined and a volatile oil and a bitter principle.

Preparation.—*Tinctura Asclepiadis Cornuti*, Tincture of Asclepias Cornuti (8 ounces; Alcohol, 16 ounces). *Dose*, 5 to 60 drops.

Action and Therapy.—*External.* It is a common practice among the laity to remove warts by the application of the fresh, milky juice of the plant. Krausi believed it effective in removing small epitheliomata.

Internal. As the root possesses tonic, diuretic, and anthelmintic properties it may be used occasionally for the functions indicated. The heart-action is stimulated by it, and it has been suggested as a useful remedy in muscular rheumatoid affections, acting much like macrotys. Constipation is said to be favorably influenced by it, and in full doses it is recommended to expel intestinal worms. The drug deserves study.

The young “shoots” or turiones are a favorite pot-herb or “greens” in some sections of our country.

ASCLEPIAS TUBEROSA.

The root of *Asclepias tuberosa*, Linne (Nat. Ord. Asclepiadaceae). United States and Canada. *Dose*, 5 to 60 grains.

Common Names: Pleurisy Root, Butterfly Weed, Orange Swallow-wort.

Principal Constituents.—Resins and a glucoside.

Preparation.—*Specific Medicine Asclepias.* *Dose*, 1 to 60 drops. (*Usual form of administration:* Specific Medicine Asclepias, 20 drops to 2 fluidrachms; Water, 4 ounce. Mix. Sig. One teaspoonful every 1 or 2 hours.)

Specific Indications.— “Pulse strong, vibratile; skin moist; pain acute, and seemingly dependent on motion” (Scudder). Skin hot and dry, or inclined to moisture; urine scanty; face flushed; vascular excitement marked in the area supplied by the bronchial arteries; inflammation of serous tissues; gastro-intestinal catarrhs due to recent colds.

Action.—The physiological action of asclepias is not extensive, but important. Asclepias slows the action of the heart and lowers arterial tension. It especially relieves local hyperemia by vaso-motor control. Through some unexplained, though probably circulatory regulating action upon the sweat-glands it produces a true diaphoresis, including the elimination of both solids and liquids, the latter sparingly and almost insensibly. Its regulation of the true secretion of the skin more nearly resembles that of normal or insensible perspiration than that caused by any other diaphoretic, corallorhiza possibly excepted.

Therapy.—Asclepias is one of the most important medicines for broncho-pulmonic inflammations and catarrhs, and an agent for re-establishing suppressed secretion of the skin. It is the most perfect diaphoretic we possess, so completely does it counterfeit the normal process of insensible perspiration. When the secretion of sweat is in abeyance it restores it; when colliquative it restrains it through its effect of promoting normal functioning of the sudoriparous glands. It may be indicated even though the patient be freely perspiring, for sometimes when the liquid excretion is abundant there is a retention

of the solid detritus, the removal of which is one of the effects of asclepias. By softening and moistening the skin, temperature is safely reduced. Asclepias never causes an outpouring of drops of sweat. If such occurs, it is due to bundling with bed-clothing, or the too copious administration of either hot or cold water with it. Given in alcoholic preparations, in the usual small doses, it merely favors the reestablishment of natural secretion. While asclepias is serviceable when the temperature is high, it does its best work when heat is but moderately exalted, and when the skin is slightly moist, or inclined to moisture, and the pulse is vibratile and not too rapid. In fact, in febrile and inflammatory disorders asclepias is not a leading remedy, but is largely a necessary accessory. If the pulse be rapid and small, aconite should be given with it; if rapidly bounding, large and strong, veratrum. While useful in disorders of adults, especially old persons, asclepias will be most often indicated in diseases of infants and children. While it acts best when strictly indicated, it is almost never contraindicated in acute respiratory affections.

In acute chest diseases asclepias is useful to control cough, pain, temperature, to favor expectoration, and restore checked perspiration. When cough is dry and there is scant bronchial secretion, asclepias stimulates the latter and thus relieves the irritation upon which the cough depends. In chest disorders requiring asclepias our experience verifies the classic indications for it.

The asclepias condition in broncho-pulmonic disorders shows either a hot and dry skin, or there is pungent heat of the skin with inclination to moisture, the pulse is usually full and active and even may be bounding, much as when veratrum is indicated. The face is flushed, there is, in children particularly, marked restlessness, and more or less febrile reaction. In chest disorders there is pain upon motion—pleural pain—and the cough is short, hacking, barking, rasping, and nervous-and restrained as much as possible on account of the pain and soreness it occasions. Bronchial secretion is arrested, though that of the skin may be in evidence. The early Eclectics were neither dreaming nor romancing when they voiced their verdict concerning the great value of pleurisy root in pleuritic and other chest affections.

With the conditions named asclepias is of the very greatest value in acute coryza, la grippe, acute bronchitis, pleuro-pneumonia, and pneumonia, both catarrhal and croupous. Its use should be begun

early, usually in association with other agents sure to be indicated, and continued through the active stage; and if a dry cough persists it should still be continued and used freely. There is no kindlier cough medicine than asclepias, and when fever is present it is an ideal aid to the special sedatives. Asclepias should form an important part of the medication in acute pleurisy and pleurodynia, conditions in which it is most efficient and in which it first earned a therapeutic reputation. It may need to be fortified by the intercurrent use of aconite or bryonia, or both, and in any case it will enhance the value of these agents.

In pneumonia and in bronchitis asclepias is best adapted to the acute stage, where the lesions seem to be extensive, taking in a large area of the parenchyma of the lung or the bronchial structures and the mucosa. Webster declares it best adapted to control vascular disturbances in the area supplied by the bronchial arteries, and suggests that by reserving it for this use we shall lessen its liability to confusion with other appropriate remedies. In the convalescent stage of pneumonia and other respiratory lesions, when expectoration is scanty and dyspnea threatens, small doses of asclepias are helpful. It renders a similar service in dry, non-spasmodic asthma. The dose for these purposes should be about 5 drops of the specific medicine.

Asclepias is an admirable or adjuvant remedy for the acute catarrhal states of the broncho-pulmonary or gastro-intestinal tracts when produced by recent colds. Full doses will sometimes "break" ordinary colds. Asclepias, euphrasia, and matricaria are the best three agents for "snuffles" or acute nasal catarrh of infants. In the irritable mucosa and distressing cough of phthisis it is a suitable agent, being also useful to control the excited circulation and excessive sweating, as well as being sedative to the stomach. In the acute gastro-intestinal disorders of a catarrhal type, especially in the very young who are impressed by the variable weather of the summer season, asclepias in small doses frequently proves a helpful remedy. It is adapted to those of weak constitutions, sensitive stomach, and alternate attacks of diarrhoea or dysentery. These disorders frequently occur in wet seasons, or when a cold, wet spell quickly follows the exhaustive heat of very hot seasons. By aiding the checked perspiration less of a burden is put upon the internal organs, and this is the work which asclepias does. It sometimes relieves flatulent colic in infants and headache in children due to disordered digestion. The fractional doses are preferred.

Asclepias is of special utility in measles for at least three purposes: It alleviates the distressing cough, assists in an early determination of the eruption, and controls the present and after catarrhal phenomena. Though not often thought of in glandular and skin disorders, it is an ideal medicine in mumps and sometimes in mastitis, while for skin affections with excessive cutaneous dryness it assists other agents by its moistening diaphoresis.

Altogether asclepias is one of the most kindly acting and safest agents in the materia medica for one that accomplishes so much. One can scarcely do harm with it.

For pleural pain employ specific medicine asclepias in hot water preferably, using from ten to thirty drops in an ounce of hot water, every half hour, or hour. Carried too far it may cause nausea and vomiting, especially if the doses are large and the water merely warm. For cough and other purposes, employ the specific medicine in the usual way, in cold water, alone or in combination with other indicated agents. As a pectoral and expectorant the compound emetic tincture, which contains asclepias, administered in water, syrup or glycerin, or suitable proportions of either of the latter two with water, is very effectual in dry chronic forms of cough.

ASPIDIUM.

The rhizome of *Dryopteris Filix-mas* and of *Dryopteris marginalis*, Asa Gray (Nat. Ord. Filices). World-wide ferns of the Northern Hemispheres. **Dose**, 1 to 4 drachms.

Common Names: (1) Male Fern; (2) Marginal Shield Fern.

Principal Constituents.—Oils, resins, *filicin*, and *filicic acid*, the poisonous principle.

Preparation.—*Oleoresina Aspidii*, Oleoresin of Aspidium (Oleoresin of Male Fern). Dose, 30 grains but once a day. Do not give with oils.

Action and Toxicology.—When freely absorbed the oleoresin causes nausea, vomiting, purging, severe abdominal pain, headache, dizziness, muscular prostration, tremors, cramps, dyspnea, cold perspiration, cyanosis, collapse, and death. In some cases amblyopia results, and permanent visual and aural disturbances have resulted

from its toxic action. Unless the doses are excessive or frequently given, or given with oil, as castor oil, such accidents are less likely to occur. The treatment consists in stimulation by ammonia and purging by Epsom salt.

Therapy.—A most certain taenicide, effectually removing tapeworm, especially the *Bothriocephalus latus* and the *Taenia solium*, and said to be less effective upon the *Taenia medio-canellata*. Prepare the patient in the usual manner over night for the administration of taenicides by purging and fasting. In the morning administer 30 grains of the oleoresin in capsules or flavored emulsion, follow at midday with a full meal without fats, and in the evening give a brisk saline cathartic. Under no circumstances must oils, especially castor oil, be given with it during the treatment. They favor absorption of the filicic acid, thought to be the toxic principle. Aspidium is seldom used; the oleoresin being preferred. The latter is also effectual against the hook-worm (*Uncinaria americana*).

ASPIDOSPERMA.

The dried bark of *Aspidosperma Quebracho-blanco*, Schlechtendal (Nat. Ord. Apocynaceae). An evergreen tree of Chili and the Argentine Republic. **Dose**, 5 to 60 grains.

Common Name: Quebracho.

Principal Constituents.—Six alkaloids: *Aspidospermine* (C₂₂ H₃₀ N₂ O₂), Aspidospermatine (C₂₂ H₂₆ N₂ O₂), Aspidosamine (C₂₂ H₂₈ N₂ O₂), Quebrachine (C₂₁ H₂₆ N₂ O₂), Hypoquebrachine (C₂₁ H₂₆ N₂ O₂), and Quebrachamine, the latter sometimes absent.

The commercial amorphous Aspidospermine is a mixture probably of all the alkaloids or is chiefly Aspidosamine.

Preparations—1. *Fluidextractum Aspidospermatidis*, Fluidextract of Aspidosperma, (Fluidextract of Quebracho). **Dose**, 5 to 60 drops.

2. *Aspidospermine*. 1/4 to 1/2 grain.

Specific Indications.—Dyspnea of functional origin, with or without emphysema; face pale, anxious and livid; lips cyanotic; pulse small, soft and compressible, irregular or intermittent; cardiac palpitation with cough.

Action.—The various alkaloids of quebracho act more or less antagonistically to each other, but the chief good effect is the increase in depth and regulation of the rate of respiration. It should not be used intravenously.

Therapy.—Quebracho is a remedy for dyspnea when not due to pronounced organic changes. Being a centric stimulant to the pneumogastric it affects chiefly the cardiac and pulmonary plexuses, and is a remedy of power in imperfect oxygenation with a disturbed balance between the pulmonic circulation and the action of the heart. It is used in cardiac and renal asthma, emphysema, the dyspnoea of capillary bronchitis and of chronic pneumonia, advanced bronchitis, phthisis, bronchial asthma and uncomplicated asthma with insufficient cardiac force. It relieves the cough of la grippe, when associated with dyspnoea. From 5 to 60 drops of the fluidextract may be given in water or plain or aromatized syrup.

AURANTII AMARI CORTEX.

The dried rind of the fruit of *Citrus Aurantium amara*, Linne (Nat. Ord. Rutaceae).
Dose, 5 to 30 grains.

Common Names: Bitter Orange Peel (of Bitter Orange, Bigarade Orange, Seville Orange).

Principal Constituents.— *Hesperidin*, a crystalline, bitter glucoside; isohesperidin, water soluble; *aurantiamarin*, the bitter principle; and a volatile oil.

Preparation.—*Tinctura Aurantii Amara*. Tincture of Bitter Orange Peel. *Dose*, 1/2 to 2 fluidrachms.

Therapy.—Stimulant, carminative and tonic, but used chiefly as a flavoring agent. This preparation is contained in both Compound Tincture of Cinchona and Compound Tincture of Gentian.

AURANTII DULCIS CORTEX.

The outer rind of the ripe, fresh fruit of *Citrus Aurantium sinensis*, Gallesio (Nat. Ord. Rutaceae)

Common Names: Sweet Orange Peel (of Sweet Orange, Portugal Orange, China Orange).

Principal Constituents.—Oil of orange (*Oleum Aurantii*); other constituents same as in Bitter Orange Peel. (*Orange Juice* [from the pulp of the fruit] contains citric acid, sugar and mucilage.)

Preparation.— *Tinctura Aurantii Dulcis*, Tincture of Sweet Orange Peel. *Dose*, 1 fluidrachm. This agent is used in the preparation of Syrupus Aurantii or Syrup of Orange—a syrup containing also Citric Acid.

Specific Indications.—(For Orange juice). Deep red tongue, with brown to black coating; scurvy.

Therapy.—*Sweet Orange Peel*. Slightly stimulant, carminative, and tonic. Used almost wholly as a flavoring agent. It makes an elegant addition to acid solution of iron dispensed in syrup. It is also an agreeable addition to the bitter infusions, as of quassia or Peruvian bark.

Sweet Orange Juice. The juice of the orange is a light refrigerant article of diet, and is especially useful where the bowels are sluggish in action, and during convalescence from illness, as well as to be given during fevers and the exanthemata where acids are craved. It is par excellence the remedial agent in scurvy of infants, as well as adults, and if given early will abort this unpleasant disorder. Like all acids, orange juice is best indicated when the patient's tongue is deep-red or coated brown, black, or any intermediate color.

AVENA SATIVA.

The unripe seed of the *Avena sativa*, Linne, and the farina derived from the ripened seed (Nat. Ord. Gramineae). Probably indigenous to Sicily and to an island off the coast of Chili. Cultivated everywhere.

Common Names: Oat, Common Oat.

Principal Constituents.—Starch, oil, albumen, potassium and magnesium salts, silica, and a nitrogenous body, *avenine*.

Preparations.—1. Avenae Farina, Oatmeal. Chiefly a food and to prepare oatmeal water.

2. *Tinctura Avenae*, Tincture of Avena. (Cover best unripe oats [in “milk”] with strong alcohol.) *Dose*, 1/2 to 2 fluidrachms.

3. *Specific Medicine Avena*. *Dose*, 1/2 to 2 fluidrachms.

Specific Indications.—Nervous exhaustion; nervous debility of convalescence; cardiac weakness of nervous depression; nocturnal losses following fevers and from the nervous erethism of debility; nervous headache from overwork or depression.

Action and Therapy.—Oatmeal water is sometimes useful to dilute “baby foods” and milk when children are not well nourished and suffering from summer diarrhoeal disorders. It is also used as a demulcent drink in diarrhea and dysentery of adults. When so used, it should be about the consistence of milk.

Oatmeal gruel, when not otherwise contraindicated, as in diabetes mellitus or amylaceous indigestion, is an excellent and easily digested food in convalescence from exhaustive illness. It may be sweetened if desired.

A paste, made by moistening a small quantity of oatmeal, held in the hands, with water, will soften roughened skin of the palms and fingers; and also remove the odor of some substances, as iodoform.

Tincture of *Avena* is a mild stimulant and nerve tonic. It is regarded by many as a remedy of some importance for nervous debility, and for affections bordering closely upon nervous prostration. It seemingly acts well in the exhaustion following typhoid and other low fevers and is thought to hasten convalescence, particularly where there is much nervous involvement and enfeebled action of the heart. In the nervous erethism or the enervated conditions following fevers and giving rise to spermatic losses it is sometimes effectual, but it seldom benefits such a state when due to prostatic irritation, masturbation, or sexual excesses. It may be given to relieve spasms of the neck of the bladder; and in some cases of relapsing rheumatism. Webster asserts it is useful, not as an antirheumatic, but for the debility underlying the rheumatic diathesis, so that the patient is less affected by meteorologic influences. Probably its chief value as a medicine is to energize in nervous exhaustion with or without spasms. It is useful in headache from exhaustion or overwork, or the nervous headache of menstruation. It is not a remedy of great power and will be found effective, probably, in but few of the conditions mentioned. However, many agents of this type sometimes, in exceptional cases, accomplish that which no other remedy seems to do. To fortify some of the claims made for this remedy

is to unwisely challenge the credulity of physicians of bedside experience. The much-heralded reputation of this drug to enable the morphine habitué to throw off the habit has not been sustained. In our own experience we have utterly failed to accomplish any good with it in any form of drug habit.

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

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

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

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

Michael Moore
Bisbee, Arizona
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