VIRES VITALES SUSTINETE.

TRANSACTIONS

OF THE

National Eclectic Medical Association,

FOR THE YEARS 1882-83,

INCLUDING THE

PROCEEDINGS OF THE TWELFTH ANNUAL MEETING,
HELD AT THE CITY OF NEW HAVEN,
CONNECTICUT, JUNE, 1882.

EDITED BY ALEXANDER WILDER, SECRETARY.

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"*Literature is the Immortality of Speech.*"

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THE ANNUAL MEETING WILL BE HELD AT TOPEKA, KANSAS,
BEGINNING
WEDNESDAY, JUNE 20, 1883,
AND CONTINUING THREE DAYS.

SEE PAGE 60 FOR PARTICULARS.

GELSEMIUM IN OBSTETRIC PRACTICE.

By J. L. FURBER, M. D., Appanoose, Kan.

Whenever and wherever in the human body I need a relaxant of muscular fibre, and a relaxing antispasmodic, unless the drug is contra-indicated by some disease or idiosyncrasy of the patient, my main reliance is upon tincture of gelseminum.[1] I prefer the tincture obtained from the green root as is done by Wm. L. Merrell & Co.[2] In my thirty years' use of it I have invariably found that preparation trustworthy while other brands were sometimes worthless.

When I was a boy in New England we used to make a ball that would rebound by taking an ivory marble and winding tightly over it an inch or more of well-stretched fibres of India rubber, cut from one of my mother's old shoes, then a halfinch of woolen yarn, and the whole enveloped with firm, soft calf-skin. I sometimes see a girl that appears to be constructed in a similar manner; she has an elastic bone, thickly covered by a flexible muscle, a half inch or so of fat over that and the whole enveloped in a firm soft skin. Such a one bounds gaily along through her girlhood, and also about her household duties after she has become a wife, and when in labor with her first child bounds more than ever. Prof A. J. Howe described such a one last year, in the American Medical Journal, that came near bounding out of the room with his forceps, himself, two or three assistants who were trying to hold her, and the bed on which she was lying.

The year 1875 will long be remembered in these parts for the difficult labors in child-birth. I attributed them to electrical disturbances in the atmosphere. We had severe electric storms, beginning in January and continuing through the entire year; the electricity displaying itself close to the ground, and several persons being killed by lightning. I attended more than sixty cases of child-birth that year, some of which were the patients of other physicians who sought my assistance. There was but one case of cephalic presentation in the first position; that is to say: with the crown of' the occiput to the left acetabulum. In the majority of the

[1] *Gelsemium sempervirens* tincture

[2] Later to become Lloyd Brothers

cases the verlex presented to the right acetabulum making the second position. I attended eighteen cases of shoulder-presentation that year- more than I have ever attended aside from that year in a quarter of a century's experience. Let me. relate several incidents:

I.—In the month of March Dr. J. G. Wharton, an intelligent and experienced physician, some years my senior, sent a messenger on a fleet horse a distance of seven miles, with a request to me to come as soon as possible and bring my instruments, in order to help him in a bad case of protracted labor. On reaching the house my first question to Dr. W. was: “what presentation have you?” “Right occipital; the crown of the occiput to the right acetabulum,” was his answer. On entering the lying-in room I found two excellent midwives assisting. The Dr. was himself nearly worn out. I perceived that his patient was one of the rubber-ball kind; about twenty years old, very vigorous. This was the first child and she had been in constant labor for about twenty-four hours ; the waters having passed off early. The head had been for the last twelve hours fast locked in the upper strait. The bearing-down pains had been incessant, and were now rapidly exhausting her strength and courage. I remarked to Dr. W. that I could deliver her without instruments. I then administered one hundred drops of tincture of Gelseminum, repeating the dose within thirty minutes. She was safely delivered, without instruments, in two hours, of a bouncing girl-baby weighing eleven pounds, that could out-yell her mother. The patient was up within a week.

II.—In the month of March my wife, after a protracted pregnancy of ten months and four days' duration, was suddenly taken in labor with twin boys. When I came to her bedside she was flooding terribly, with the right hand of a child presenting at the vulva. The case was one of a right-shoulder presentation. Immediately I gave her a teaspoonful of tincture of Gelseminum to relax the muscular fibres of the womb, I next pushed up the intruding arm, turned the infant and brought down the feet and delivered it. As I was disengaging the umbilical cord from his neck to prevent suffocation, the second child was by the contractions of the womb forced in a doubled position, back first, through the upper strait into the cavity of the pelvis, and had to be delivered in that position. Both children were attached to one placenta. A tablespoonful of the fluid extract of ergot was now administered to the patient; the uterus contracted firmly and the danger was over. The mother and children did well.

III.—In that same month of March a gentleman rode on the cars six miles to my house, and desired my professional service. His brother's wife, then at the sixth month of her second pregnancy, was flooding to death with a premature labor. Riding my horse at full speed for four miles I met the husband. It was two miles from his house and he had brought a fresh horse for me. I was soon at the bedside of the patient. A hasty examination showed the case to be one of placenta previa. The os uteri opened not larger than a quarter of a dollar. The dilatation was slowly detaching the placenta, causing a hemorrhage that was certain to result fatally unless arrested. The patient was a Christian lady of sublime courage. Though greatly weakened by loss of blood she promised to try to live. I began by soaking a little cloth in one once of tincture of Gelseminum and inserting it in the vagina against the womb; and also administering a large tablespoonful by the mouth. The os uteri was sufficiently dilated in five minutes for me to introduce my fingers far enough to push aside one edge of the placenta. The right shoulder was presenting. I pushed the arm back and delivered by the feet. It was a six months' child, barely alive, and died nine hours afterward. After the placenta had been removed I administered fluid extract of ergot, as in the preceding case, in order to promote uterine contractions. The mother recovered promptly.

IV.—This patient was a strong, vigorous Irish woman, whose husband had been killed by lightning. She was taken in labor in the month of April, and continued for a whole week. Three good midwives and a host of other women rendered her their services but were unable to relieve her. In her five previous labors she had succeeded nicely with the help of a midwife, and she positively refused a physician. At the end of a week of constant labor, one of the midwives came to me. The pains she declared all seemed to be pains of contraction of the further extremity of the womb, and that the mouth had not dilated at all during the labor. At her request I went with her to her own residence, one mile distant from the home of the patient, so as to be within reach if needed. The course pursued was the same as already described. I told her to give the patient a tablespoonful of tincture of Gelseminum at one dose, and to repeat it within one hour, unless the mouth of the womb opened. Within thirty minutes after the first dose was swallowed, the feet of the child presented at the vulva to the great surprise of the individuals present. One of the ladies rode a horse rapidly over to the house where I was to ask what to do.

“Catch hold of the feet and pull the child out,” was my reply.

They did so and the labor was over. No other medicine was given the mother and the mother made a good recovery.

V.—In the month of August a young farmer living four miles from my residence called me to attend his wife. She was one of the rubber-ball kind, reared on a farm. She in her girlhood had often driven a four-horse reaper in the harvest-field. She was now in labor with her first child. just as we were setting out a messenger came to me from Dr. Wharton, requesting my services to help him in a bad case ten miles distant in another direction. It was now three o'clock in the afternoon. I promised to go to him by midnight if possible. I found the patient at the farmer's house in labor that had begun with rupture of the waters twenty-four hours before, and had continued wrong-end first ever since. I mean that there were repeated contractions of the fundus of the womb, but no dilating pains whatever. Finding the os uteri as tightly closed as though by a gutta percha string, I at once made the patient swallow a teaspoonful of tincture of Gelseminum to quiet the spasmodic pains of contraction. An ounce of the tincture was applied by a soft linen cloth to the mouth of the uterus. The sphincter muscles of the womb were soon relaxed, enabling an exploration by the hand. The right shoulder was presenting. The head of the infant was pressed up, the feet brought down, and the patient delivered of a bouncing boy within two hours from the time of my arrival.

Unfortunately, this patient took cold in a storm a few days afterwards, and had a violent attack of puerperal fever. It was subdued, however, within five days, by *Norwood's tincture of Veratrum viride.* I always employ this preparation in inflammations of serious membranes and erysipelas. A week after I had dismissed the case the patient, thinking that her bowels were not loose enough, swallowed six of Ayer's cathartic pills. I had expressly forbidden any such thing. The pills had probably been made for several years and were as hard as gravelstones. She repeated the dose ever six hours till twenty-four pills had been taken. No catharsis ensued, however, but a violent inflammation was induced.

I was again summoned. The abdomen was enormously distended, and the bowels angulated, as I thought, in three places. The lower stoppage was relieved by injections of tincture of Gelseminum and chloroform combined, so that some of the contents of the small bowels from near the ileococcal region passed away by the rectum. The upper angulation, was relieved by spirits of camphor, chloroform, and tincture of Gelseminum,

given in chicken oil, by the stomach. The fecal matter passed up through the stomach and out the mouth. The mass in the middle could not be reached in time to prevent mortification, and the patient died.

VI. This seventh patient, a tough old maid, hard as a burr-oak fence-rail, aged forty-four, had married a preacher. I was called to attend her in her first confinement. She lived ten miles from my house, and the day was just breaking when I arrived on the ground. I was told by the women in attendance that she had been in labor two nights and a day, without any progress that they could discover. She was not one of the rubber-ball kind. Single life unnaturally prolonged had made her muscles rigid and her disposition frigid. Examination showed the os uteri not dilated at all, and as hard as sole-leather. I applied a cloth, as before, wet with tincture of Gelseminum and made the patient swallow a tablespoonful. Thirty minutes afterward I introduced my hand and found the left shoulder presenting. I managed, however, to press up, the body and bring down the head into the second position. Two hours of hard work were successful to deliver her of a girl baby without instruments.

VII.—One terrible cold night in December of that year, a farmer routed me up at one o'clock, to attend his wife. She had been taken in labor at noon the day before, and was supposed to be getting along well, though slowly for her. At nine o'clock, P. M., however, the left hand of the child protruded from the vulva greatly swollen. A rapid horseback ride of ten miles across a bleak prairie, facing a gale from the northeast, brought us to the place. I found the patient to be a vigorous woman, of the rubber-ball kind, in labor with her ninth child. The first labor she had been delivered by forceps by a surgeon in Chicago. At her seven subsequent labors here in Kansas, however, she got along without any trouble, under the charge of a midwife, who was now attending her. It was now two o'clock in the morning. The bearing-down pains were incessant, and the patient was nearly worn out. I saw at once that the child was dead, but I did not tell any one. The womb was contracted down upon it like a rubber-bag. I immediately gave the patient as I had the others a tablespoonful of tincture of Gelseminum, repeating the dose in thirty minutes. An hour later I succeeded in pushing up the arm, turning the infant, bringing down the feet and delivering without instruments. It was a very large female child, dead and enormously swollen. The mother recovered promptly.

DYSMENORRHEA.

In that form of painful dysmenorrhea caused by contraction of the muscular fibres of the womb, I have made application of a teaspoonful of tincture of Gelseminum on a little roll of soft linen, *per vaginam* to relax the sphincter muscles of the mouth and neck of the womb; and prescribed a teaspoonful of the same at bedtime. If the pain is very severe, it may be profitably combined with a teaspoonful of fluid extract of *Jamaica dogwood*. This treatment has given more relief to my suffering patients than anything else that I have ever tried.

ASCLEPIADACEAE (*Milkweed Family*).

By RICHARD E. KUNZE, M. D., of No. 606 Third Avenue, New York.

The *Asclepiadaceae* comprise the eightieth Order of the Natural System of Plants. The name, which was bestowed upon a genus of this Order, was given in honor of Æsculapius, or Asklepios whose priests or fabled descendants were known as the Asklepiads or priest-physicians and who served the god of medicine in the ancient sanctuaries at Epidauros, Sikyon, Cos, Achaia and elsewhere.

This family consists of shrubs or occasionally herbs, usually with a milky juice, and often twining in habit. They have opposite or whorled entire leaves ; the follicular pods, seeds, anthers (connected with the stigma), sensible properties, etc., just as in the family of *Apocynaceae*, from which they differ in the commonly valvate corolla and in the singular connection of the anthers with the stigma, the cohesion of the pollen into wax-like or granular masses, etc.

The plants of this order have acrid, emetic, purgative and diaphoretic properties. The milky juice is usually acrid and bitter, but occasionally it is bland and used as milk, as in the case of *Gymnema lactiferum*, the cow-plant of Ceylon.

This order of plants contains about 141 genera, including over 900 species. Here in North America we have the following tribes and genera, classified according to Prof Gray:

TRIBE I. *Asclepiadeae* containing the genera *Asclepias, Ascerates, Enslenia,* and *Vincetoxicum*.
TRIBE II. *Gonolabeae*, containing the single genus, *Gonolobus*.
TRIBE III. *Periploceae,* which also has but the genus *Periploca*..

It is not the object of this paper to treat of all these tribes, as that would make it unnecessarily long, but rather to take up the genus *Asclepias,* L., known as Swallow-wort, Milkweed, Silkweed, containing as it does many species, which are well known and others, that have not yet been investigated by the Medical Profession. The genus of Asclepiads like their namesakes of classic Greece, comprises many species which are not only prominent and- beautiful in form, but eminently useful as well in the healing art. Really, the cause they serve is as godly as was the mission of the Greek demigods centuries ago. The fragrant and beautiful flowers which many of them bear serve a three-fold purpose in life.

First. Some of the Asclepiads furnish to myriads of the handsomest of insects the staple of life, which flows from their honey- dis tilling nectaries. The brightest-colored of butterflies, humble and honey bees, wasps and other insects, not to mention humming-birds., visit these plants when in flower for one purpose or another. And it has been shown that many of the flowers could not be fertilised without this insect-agency, wherein we observe that life is based everywhere upon reciprocity. Hence it is that one of the North American species, *A. tuberosa*, had the well-deserved name of Butterfly-weed bestowed upon it. Handsome insects, birds and children of every age and sex, all take alike to handsome flowers. Here then we find among the Asclepiads many forms which are truly aesthetic, not to say Eclectic.

Second. Many Ascleplads produce flowers of exquisite fragrance. One in particular, *Stephanotis floribunda*, Broug. (*Asclepias adoratissima*, Hort. Cerol.), which is a climbing, shrubby species of Madagascar, has large umbels of pure white flowers, which it bears in the greatest profusion, and so overpowering in perfume that it is productive of headache in persons of a susceptible constitution. *Hoya* or waxplant, is another example. *A. Cornuti,* and *A. quadrifolia* of this country may be quoted. Many of the more fragrant species are found in low, malarial districts or where there is a rank vegetation constantly giving off poisonous effluvia of decomposed vegetable matter. Who will deny that the delicious odors of such plants help to ozonize the atmosphere of such plague-stricken localities?

Third. Most all of the superodorants and subodorants of the sweet-smelling classes of plants, are highly refreshing and reviving in cases of syncope, inasmuch as they promote stimulation of the olfactory nerves. Can there be anything more grateful to the shocked sense of a person emerging from a foul atmosphere than the fragrant odors of Eau de Cologne ? Or, if we prepare a tincture from the most fragrant flowers, we will find that if inwardly administered they will go far toward relieving nervous headache, hysterical disorders and faintness from exaltation of the nervous system depending upon other causes. Examples are: *Lavandula vera*, *Malva moschata*,or Musk Mallow, *Mimulus moschatus*, or muskplant, *Convallaria majalis*, or Lily of the valley, *Ferula Sumbul*, or musk-root, and others. In Russia, the peasants even employ a tincture of the flowers of *C. majalis* for epilepsy, and in Saxony and Thuringia, they are used in the form of a powder as a cephalicum for catarrh.

Of this genus, the following species may be mentioned: *Asclepias Cornuti*, common milkweed or silkweed, which is sometimes described as *A. syriaca*, in medical *A. asthmatica*, *A. crispa*, *A. curassavica*, the bastard or wild ipecac of the West Indies, Kurki of India, bloodweed and blood flower[3] so-called *A. decumbens*, described by Linnaeus as a species, was determined by Rafinesque to be only a variety of *A. tuberosa* or pleurisyroot. *A. gigantea*, or madar bark of India. *A. incarnata*, or swamp milkweed, rose-colored silkweed, white Indian Hemp, etc. *A. leucophylla*, or whiteleaved Asclepias, is the variety *obtusa*, *A. nivea*, or snow-white Asclepias and almond-leaved Asclepias, is said to be a plant of North America and St. Thomas (?). *A . procera*, the root of which is used in the East like ipecac, is a shrub of Persia and Egypt. *A. rosea*, or rose-colored Asclepias of India, is a shrub now known as *Oxystelma esculentum*, *A. tuberosa*, or butterfly-weed, white root, pleurisy-root, tuberous-rooted Asclepias, etc., belongs to North America. *A. undulata*, which Rafinesque claims to be a variety of *A. tuberosa*. *A. Vincetoxicum*, or swallow-wort of Asia and Europe has been used the longest time of any known species. The writer is in the possession of an English translation of the ancient Dutch Herbal by Rembert Dodoens (Dodonaens), "imprinted at London, in 1619," which spoke highly of it. *A. volubilis*, one of the wax-plants, is better known by the name of Hoya viridiflora.

[3] Strictly speaking, the name of Blood-flower, according to Don, belongs only to the African genus *Haemanthus*, of the order Amaryllideae.

If any of the younger enthusiasts of our profession should wish for a more extensive field of observation they will find enough of material among the following North American species, to wit: *A. arenaria, A. brachystephana, A. brevicornu, A. consanguinea, A. Douglasii, A. erosa, A. involucrata, A. jamesii, A. Linaria, A. longicornu, A. longipetala, A. macrotis, A. Meadii, A. nummularia, A. obtusifolia, A. ovalifolia, A. pampercula, A. perennis, A. phytolaccoides, A. princeps, A. purpurescens, A. quadrifolia, A. rubra, A. Sullivantii, A. variegata, A. verticillata, A. vestita,* and others.

We will now pass on to the consideration of a few of the species which have been and are still used on account of their economic and medicinal value to mankind.

Asclepias asthmatica, now recognised under the name of *Tylophora asthmatica,* and inhabits the Indian Peninsula, Ceylon and the Moluccas. It is a twining, shrubby species, which yields a strong white, silky fiber, and has yellowish or orange-colored flowers. The roots are acrid and in large doses act as an emetic, in consequence of which they are substituted in India for Ipecacuanha, and in smaller doses often repeated act as a cathartic. It has been successfully used in Madras for epidemic dysentery in the British camp, as stated by Dr. James Anderson, the Physician-General. Burnett says that it is also valuable as a sudorific, and peculiarly beneficial in humoral asthma. The Sinhalese call this plant Binooga, and the natives of Madras, Koorinja. It is the *Cynanchum Ipecacuanha* of Willdenow, and *C. vomitorium*, of Lamarck.

Asclepias crispa, of the Dutch apothecaries, which is now classified as *Gomphocarpus crispus*, inhabits the Cape of Good Hope. It is an evergreen under-shrub, having yellow flowers, which grow in axillary or terminal umbels. The Dutch farmers of the Colony call it bitterwortel, and it is found on hilly places on the western coast of the Cape. Dr. L. Pappe, of Cape Town, says that the root is extremely bitter and acrid, and, on account of its diuretic properties, a decoction or infusion has been recommended in various kinds of dropsy, and a tincture made of the same is said to be a valuable remedy in colic.

Asclepias curassavica, is indigenous to South America and the West Indies, where it is called bastard ipecac, bloodweed, etc. In Trinidad, where it is the gayest and commonest weed, it bears the name of Negro

Ipecacuanha. It is an upright plant of three feet or more in height. The flower has a scarlet corolla and yellow appendages. The fibrous root, which when fresh exudes a milky juice, is used by the negroes in doses of twenty or forty grains as an emetic. The roots appear to be also purgative. A decoction is said to be efficacious in gleets and fluor albus. Barham asserted that it would stop bleeding when other remedies had failed. The expressed juice of the leaves is said to act as an efficient anthelmintic. Rafinesque states that it is also used in clysters for dysentery and piles. A. P. De Candolle mentioned its remedial properties as early as 1804. Dr. Guimaraes of Rio Janeiro, who experimented with this plant on the lower animals, has determined its physiological action. He says that it is a cardiac poison, resembling Digitalis in its action. It is an excitant of the vaso-motor centres. A preparation made from the stems of the plants exercises a more rapid and marked effect on the heart than one prepared of the roots. Now if the plants which grow in Brazil are so much stronger than the ones found in the West Indies it should be ascertained. According to a statement made by Dr. C. W. Hansen (now deceased), in the *Therapeutic Gazette* of Vol. I., page 64, it is given in Jamaica to persons troubled with worms, in doses of one drachm to one ounce, on an empty stomach. Rather a heroic dose for a cardiac poison ! What is wrong ?

Asclepias gigantea, at present better known as *Calotropis gigantea*, is the mudar bark of India, where it is also called madar, akum, yercund, and vasuka. It grows abundantly in Hindostan and the Punjaub. It is also naturalised in the West Indies, and in Jamaica it is called French Jasmin. It is a large shrub, sometimes with a stem as large as a man's leg, and it has large flowers of rose-color and purple, with a corolla two inches in diameter. The ashcolored bark abounds in an acrid, milky juice, and the root, which is the part mostly used, is a medicine of much importance in India. Dr. Honigberger says that the native doctors, use the leaves, buds, bark of the root, and juice. Sushruta recommended it for “deranged bile.” It is employed in epilepsy, hysteria, lockjaw, convulsions of children, paralytical disorders, cold sweats, venereal complaints, poisonous bites, etc. Its properties are emetic, purgative, diaphoretic and alterative, according to the dose and form of the drug used. The fresh juice is applied for specks of the cornea. Mudar bark is employed also in cases of elephantiasis, lepra, rheumatism and hectic fever. The root, according to Dr. Honigberger, is used in cancer, and the seed in diarrhoea. The dose of the powder is from three to thirty grains. An infusion is made with three drachms of the root to eight ounces of boiling water. The inspissated juice is much employed. Mudarine, an

extractive substance, was found in it by Cassanova, and the activity of the plant seems to be owing to that principle. Ainslie, Roxburgh, Cassanova, Duncan and others speak highly of this drug. It appears that several other species of Asclepias are sold in the bazaars of India, under the name of madar, nearly all possessing analogous properties.

Asclepias nivea, or snow-white and almond-leaved Asclepias, is, according to Bosse, indigenous in St. Thomas. But Loudan gives North America as its habitat, and Prof. Gray designates it under the name of *A. variegata,* or variegated Asclepias. It is a plant growing three feet high, having white flowers. The juice of its jointed fleshy roots is very effective in bringing away worms. The root dried and powdered is frequently used by the negroes as an emetic, and therefore known also as wild ipecacuanha.

Asclepias procera, now described under the name of *Calotropis procera*, inhabits Persia, Arabia and North Africa. It is a shrub or small tree, ten to twenty feet high. The stem is covered with a hoary pubescense. Flowers in a terminal panicle, of a dull purple bordered with white on the upper side, silvery on the under. juice extremely acrid. Prosper Alpinus says that it was successfully administered as a remedy for ringworm and other cutaneous affections, and that it is also a powerful depilatory. A. P. De Candolle states that it is used in the place of ipecac. Prof. Royle says that this or an allied species produces a kind of manna called *Shukkr oal askur*. Prof. Perleb states that the leaves of this shrub, as well as the larvae of a cynip, which feed thereon, are covered by a white saccharine substance, which is gathered for domestic as well as medicinal uses. Serapion has already mentioned this sugar under the name of *Zucharo hahoscer*. It is furthermore said that this manna is obtained only from the shrubs found in Persia, but not from those of Egypt.

Asclepias rosea, or rose-colored Asclepias, is to-day recognised by the name of *Oxystelma esculentum,* and is indigenous in the contingent of India. This shrub is found among bushes along the banks of water-courses and pools. The large flowers appear in axillary racemes externally of a pale rose-hue and internally purplish. Leaves linear-lanceolate. Roots fibrous. De Candolle claimed that it is eatable, but later botanists have contradicted that assertion. Dr. Wise says that its Sanskrit name in India is Payasya, and Prof. Lindley states that it is known to the Malabar people as *Ourril Palay*. Sushruta, that ancient Indian authority, recommended it for “deranged bile.” It is now

principally used as a gargle for aphthous affections of the mouth and fauces.

Asclepias Syriaca, or Syrian silkweed and milkweed, was supposed to be a native of Asia and Northern Africa, as the name would indicate. Yet nearly every English botanist declares it to be a North-American species, and a native of Canada and Virginia. Prof Gray says that its first Linnaean name does not belong to this country, although frequently referred to by medical writers. American botanists recognise the plant of this country which answers a description of the former, under the name of *A. Cornuti*, and even many Europeans follow suit. In fact, whatever is said of the one, refers to the other as well. English authors inform us that the young shoots of *A. Syriaca* are eaten by the French Canadians as we consume asparagus, and the botanists of the Greater Britain tell us the same about our *A. Cornuti*. Canadians also are accredited with making a sugar of the flowers, which secrete a very sweet nectar, and of collecting the cotton from the pods to fill their beds. Ornithologists know that some of our feathered tribe resort to the latter mode of housekeeping in a very neat and artistic way. Parkinson calls this plant Virginian silk. A string of what Schleiden calls the bass-cells of the *A. Syriaca*, was found tied around a wine-case in Pompeii. How then could a Syrian silkweed be a native of the New World? The medicinal properties will be considered in common with *A. Cornuti*.

Asclepias undulata, according to Rafinesque, is but a variety of the butterfly-weed. In Osiander's *Volksmedizin*, however, and Most's *Encyklopaedie*, it is stated that according to Thunberg, the roots of *A. undulata* are used at the Cape of Good Hope for their diuretic properties. If this be so, then it cannot be our *A. tuberosa*.

Asclepias vincetoxicum, or common white-flowering swallow-wort, so named from the fancied resemblance of the follicles or seeds to a swallow flying, is indigenous to Northern Asia and Europe, excepting England. This plant is now known by the name of *Cynanchum vincetoxicum*, and the specific name has reference to its supposed alexipharmic virtues, which the ancient herbalists were so fond of ascribing to this herb. The plant is from one to three feet high, and has a creeping root, which is the part used. The flowers are whitish and secrete much honey, on account of which the plant is much visited by bees. The stem yields a. strong fibre, and the silk of the follicles can be made into fabrics. The root at first has a sweetish followed by an acrid taste. The properties of the plant are emetic, purgative, diuretic and diaphoretic, according to

the dose exhibited. It was formerly much used in dropsies, suppressed menstruation, scrofula, abscesses, dermoid affections, etc., in doses varying from twenty to thirty grains of the powder. The Finns employed it in cases of snake-bite. In the older pharmacopeias this drug was described under the name of Rad. Hirundinariae (from *hirundo*—a swallow). Turner, the oldest English herbalist does not describe its virtues, and says that he has not seen it growing in England.

In Robert Lovell's PAMBOTANOATIA, printed at Oxford, in 1665, a copy of which is in the writer's library, occurs the following references in regard to this species of Asclepias, to wit: "Temperature, the *roots* are hot and dry and alexipharmick, CAESALPINUS. The *roots* boiled in wine and drank help the tormina, the stinging of serpents and deadly poyson. The leaves boiled and applied as a *pultis* help the sores of the paps and matrix. Indian swallow-wort, *Vincetoxicum Indicum*. Temperature, (ALPINUS,) the milkie juice is very hot and purging, Virtues—The leaves applied heal tetters, and take haires from the skin. (JOHNSON.) The leaves boiled and applied as a *pultis* help hard swellings and paines caused by cold. The silke serveth for many known uses. (TURNER.) It bringeth down the flowers, and helpeth the bitings of a mad dogge, wound and ruptures: and the root drank in wine helpeth the dropsie. (PARKINSON.) Drank in wine daily it helpeth the plague." It must have enjoyed a high reputation in those days.

Asclepias volubilis, at present better known by the name of *Hoya viridiflorae*, or wax-plant, is one of handsomest of the climbing Asclepiadaceae. It inhabits tropical Asia, but can be found as a cultivated plant in our conservatories. The air of a hot-house during the time of inflorescense is fairly loaded with its delightful perfume, Its waxen, greenish flowers are very rich in honey, and it is said that one or two flowering plants placed in a vinery of ripe grapes will entice the wasps from eating the fruit. According to Wight, the root and tender stalks nauseate and promote expectoration. The leaves, which are very thick and shining, when peeled and dipped in oil, are much esteemed by the natives of India, as a discutient in the stages of boils; when the disease is more advanced they are employed in the same way to promote suppuration. It is an officinal drug of India, and according to Dr. Honigberger, the leaves are useful in sore fauces and throat. Perhaps *Asclepias carnosa* (*Bot. Mag.*), the Hoya carnosa, of R. Brown, or flesh-colored waxflower, which is the most frequently met-with species of our green-houses, possesses similar properties.

We will now pass on to the consideration of a few of our North-American species, which have certainly been long enough known, but in the aggregate are too little used by the American practitioner. While Old-School physicians, such as Schoepf, Barton, Bigelow, Tully and Rafinesque, originally introduced them to the notice of the profession, it remained for the Thomsonians and Eclectics to bring them into more general use, and help to place them on a footing with our best American remedies.

Asclepias Cornuti, or common milkweed, cottonweed and silkweed, is certainly not an uncommon weed of this country. It is found in sandy waste fields, on the roadside, and embankments of railroads, and on account of its broadlyovate leaves at once a common landmark and conspicuous plant. The dull-pinkish or greenish-purple flowers, which grow in large axillary, drooping umbels, are noted less for their beauty than fragrance, which is very sweet. No one species seems to be richer in honey than this kind, and it is recommended to be cultivated because it furnishes such excellent bee-food. Its nectar contains so large a percentage of honey that the flowers are constantly visited by bees, butterflies and other insects. The packets of pollen of the silkweed adhere by a glutinous substance to wasps and bees, so as to make them prisoners for life sometimes. The whole plant when wounded pours forth a milk of rather an acrid and nauseous taste. Very few larvae of insects feed on the leaves, and no animals will touch it. Sulz says that eighty parts of the milk contain five of caoutchouc, one-half part of gum, two of sugar and salts, three and one-half of a wax-like fatty matter, and sixty-nine of water. *Asclepione*, a crystalline, resinous substance, has been obtained from the milk of this plant. The seed-pods are filled with a fine, long, silky fiber, which the Indians make into a hemp for strings to their cows. The tribe of Indians formerly inhabiting the valley of the Arkansas knew this plant by the name of *Ne-pe-sha*, and used the roots in decoction for the cure of dysentery, dropsy and asthma.

In medicinal properties it is claimed to be emetic, purgative and anthelmintic in large doses, diuretic, diaphoretic, anodyne, emmenogague, and alterative according to the dose administered. Dr. Richardson gave it in asthma, catarrhal and rheumatic affections, and in typhoid pneumonia with excellent results; and says that it not only relieves pain, dyspnea, cough, and promotes expectoration, but likewise induces sleep. In fact, he states that it may be employed in the place of *A. tuberosa*, if the latter cannot be obtained. To the majority of physicians it is best known as a diuretic, and a good one it is. As long

ago as 1825 Ives published that many cures had been made with it in dropsy. Samuel Thomson does not mention this plant, but Wooster Beach, who like many other half-breeds obtained nearly all of his thunder from Barton, Rafinesque and Bigelow, describes this plant under the name of *A. syriaca*, in his *Reformed Practice*, edition of 1833. Prof. John King says that it may be used in suppression of urine, and Dr. Elisha Smith recommends a tincture of the root made with gin in dropsy and gravelly disorders. Dr. J. P. Thomas, of Pembroke, Ky., whose brother is quoted as an authority in the 14th edition of the *U. S. Dispensatory*, says that he has used this remedy with success in all kinds of dropsy; and that it always acts as a diaphoretic when enough is given, falling short of emesis. He prefers a decoction, when used for dropsy. He has used a weak tincture in strumous conditions with good results.

The dose of the powder is from one to three scruples, and of the decoction from one to four fluid-ounces. The dose of the tincture, whether made from the green or dried root, will always be according to strength. The Indians, who generally used their medicines in the green state, attributed emetic properties to this plant. Certain it is that the acridity found in the fresh juice, and which nauseates when taken inwardly, is absent in the dried root. The latter at first has a sweetish and is then followed by a pleasant bitter taste. Therefore it is also a tonic.

Asclepias decumbens, which was referred to by the older writers as a distinct species, turned out to be a mere variety of the butterfly-weed, and will be included when we come to consider the latter and more proper name.

Asclepias incarnata, or swamp milk-weed, white Indian hemp, and flesh-colored Asclepias, is found in wet meadows, along the banks of streams and in damp places all over the country east of the Mississippi river. This plant has delicate pink or flesh-colored flowers, abounding in honey and attracting beautiful insects, like many other Asclepiads. But its flower is not quite so fragrant, neither is the plant as tall as *A. Cornuti*. The stem is covered by a fiber as strong as that of flax. Several varieties of this worthy species are known to exist, including *A. pulchra*, *A. glabra*, and the albino variety, *A. alba*. The glabrous variety is more often met with the further south we go. The leaves of this species are opposite and pointed at both ends, rather lanceolate in shape. This plant when wounded exudes less milk and it is not so creamy and viscous as

that from *A. Cornuti*. It is also less potent therefore in medicinal properties. The whitish fibrous roots are the part used in medicine, but have not the acridity of the last mentioned species. *A. incarnata* contains, according to Jos. Y. Taylor, (1875) a trace of volatile oil, two acrid resins, an alkaloid which was not obtained in the pure state, fixed oil, albumen, pectin, starch, glucose, and yields 8.25 per cent. of ashes.

Prof. Kost considered it a milder diuretic than the foregoing species; also aperient and alterative. He believed it to be good in visceral obstructions, in particular those of the urinary organs. Water extracts its properties. The earliest writers on the American Materia Medica, out of pardonable ignorance or possibly some imposition practiced on them by individuals of questionable character, made the assertion that in medicinal properties the species *A. cornuti*, *A. incarnata*, and *A. tuberosa* resembled one another *very much*[4] and could be promiscuously and safely substituted in the place of the other, when either one was not to be had. Now, in conformity with the descended habits of our Darwinian ancestors, the whole batch of early and late Eclectics, as well as Old-School brethren, who have been found guilty of writing books previously compiled by more comprehensive brains, have each and all helped to disseminate *false theories* founded only on *gainsay*. Yet we find individuals enough who are too lazy to work themselves, who are always ready to help themselves to other men's labors without even offering the slightest acknowledgment for the favors so obtained. And so greedy and selfish are some of these plagiarists, that in their haste facts and *errors* alike are seized upon and republished over their signatures! Literary as well as other pirates always leave a clue which establishes their identity.

Inasmuch as these three species differ so widely in their essential and sensible properties, how then is it possible that they should be so much alike in their therapeutical effects? If the average physician would only study nature a little more and certain gilt-edged volumes a little less, then the world would be the wiser for the change. A Dr. Sabin, of New York, as stated in JONES and SCUDDER'S *Materia Medica*, "esteemed it highly as a poultice for tumors and inflammatory affections. The dose of the powdered root is from one to three scruples; of the decoction from one to two fluid-ounces, and of the tincture or fluid-extract, according to strength and quality."

Asclepias leucophylla, or white-leaved Asclepias of our Western

[4] The same is even now asserted in Hille and Maisch's *National Dispensatory.*

States. It is an erect plant from three to five feet high; leaves broadly cordate at base and tapering to a sharp, bristly point, rather white tomentose, from three and a half to four inches long, and one and a quarter to one and a half wide; flower in lateral and terminal umbels, with a yellowish-green corolla and yellow crown. The leaves as well as the flowers are quite tomentose, and this species is therefore nearly related to two other white-woolly species of our southwestern Asclepiads, namely, *A. vestita,* and *A. eriocarpa*

It is found in dry, sandy places of California, Utah, and elsewhere. Dr. C. C. Parry says that it is found an the "washes" of the Vergen river, Southern Utah. It flowers in June. Near Fort Tejon, California, this plant has the reputation of "locoing" the sheep. The principal "loco" plants, which have the reputation of locoing horses and sheep, are *Oxytropis Lambertii,* of Colorado; *Astragalus Hornii, Astragalus mollissimus*, and *Astragalus lentiginosus*, of California, and *Sophora sericea,* as well as *Hosackia Purshiana*, of Arizona. When an animal is "loco'd " from eating such plants, it becomes crazed or foolish (*loco*), appearing intoxicated, losing vision so as to cause it to leap over very small objects; finally refusing all food until death comes to its relief. At first it appears to become exhausted from nervous and muscular exertion, and then passes into a stupid or even vicious stage. A peculiar alkaloid, to which these plants owe this property, has been isolated from several of the last-mentioned leguminous plants which belong to an order that heretofore had been considered quite innocuous. The Department of Agriculture is now investigating this rather serious behavior of those plants, which has given our western herders so much trouble in the past. The name *loco* is of local, Spanish origin.

Asclepias tuberosa, or pleurisy-root, orange swallow-root, white root, wind-root, flux-root, and butterfly-weed, is the last but by no means the least of all the Asclepiadeous plants to be described by the writer. It is indigenous in the United States, is cultivated in Europe for the beauty of its flowers, and is a plant of great resort for multitudes of butterflies, wherefor it obtained one of the names above. It is in open situations, in poor sandy, or loamy gravelly, soil. This showy plant attains a height of only one or two feet, yet its gaudy, bright-colored flowers maybe discerned a long ways off. It affects high ground and is never found in low situations. The whole herb is roughish-hairy, and the leaves vary from linear to oblong- lanceolate. Hardly any milk exudes from plants of this species when wounded, and it is therefore one of the most pleasant-tasted of all our Asclepiads. The flowers, which appear in umbels in a

terminal corymb, are of a brilliant light-orange hue, and if they are not quite so fragrant as some of the other species, they contain at least as much honey, and serve to feed great numbers of bright-winged butterflies and other insects. The dazzling color of its flowers appears to attract butterflies from as great a distance as the greater fragrance of other less conspicuous species seems to draw a host of other winged insects in quest of nectar. It blossoms in July and August. The follicles or seed-pods are small. The root, which is large and tuberous, is the part used in medicine. Externally it is the color of manilla paper and internally white; when dried it is quite brittle, and has a sweetish-bitter taste. The green root, however, is a trifle nauseating, hardly sub-acrid. The root contains, according to Elam Rhoads, (1861,) tannin, gum, pectin, albumen, two resins—one soluble and the other insoluble in ether-fixed oil, an odorous, volatile fatty matter, and a peculiar principle possessing the taste of the root, which is precipitated by tannin from the concentrated infusion. This precipitate if decomposed by oxide of lead and exhausted by alcohol, yields it as a yellowish-white powder, which is soluble in alcohol, ether and much water.

Medicinal properties may be summed up to be diaphoretic, febrifuge, expectorant, diuretic, carminative, laxative and mildly tonic. A resinoid and neutral principle, called *Asclepin*, which is a yellowish-white powder, is supposed by some to, represent its full therapeutic action, of which more hereafter.

This is the plant first described by Linnaeus, as *A. decumbens*, because some plants are found with prostrate stems and which the elder De Condolle so much praised by the same name for its reputed virtues in the cure of pleurisy and other pneumonic affections. Schoepf was the first writer who brought it to the notice of the profession. Barton, Bigelow, Rafinesque, Ives, Eberle, Beach, Kost, King, Jones, and hundreds of the early Botanic physicians, have sung the praises of this plant, and yet the half of it has not been told. And to show how much even men of the same school of medicine may differ in their opinion of any one drug, it is only necessary to refer to a very useful little book intended for young farmers and entitled *American Weeds and Useful Plants*, by William Darlington, M. D., and revised by Dr. George Thurber, formerly Professor of Materia Medica and Botany, in the New York College of Pharmacy. The following passage regarding *A. tuberosa* occurs therein: “The root once had a reputation for being medicinal, but it is now generally neglected.” Perhaps neither of the gentlemen mentioned, to say the least, had ever met a practitioner who understood

the drug in question. And this brings us nearer home. Quite recently, a very popular lecturer in an Eclectic Medical College was taken ill with pneumonia, while suffering from cardiac complications. He had been a strong advocate of the use of *A. tuberosa* and *Veratrum Viride* in pneumonitic affections, and claimed during a long practice of medicine never to have lost a case of this disease. Strange as it may seem, the first-named remedy was not even given him in his last illness, although two Eclectics and a mongrel attended him, and consultations had been held both homogeneously and heterogeneously by the two different sets of practitioners before dissolution took place. "*Nemo bene judicat quod ignorat*." In conclusion the writer hopes and ever prays that such will not be his lot in this uncertain life.

It is deemed necessary and pardonable to refer to the above circumstance with a view of cautioning the few pioneer Eclectics still remaining with us, to be careful in the selection of the counsellors whom they may call upon to prescribe for them in case of a serious, if not their last, illness.

But why do we have such faith in this remedy, it will be asked. Because we have not only prescribed but taken it and administered it to our family and hosts of others with unbounded success during a period of over twenty-five years. It would be uncomplimentary, however, not to refer first of all to the reports of others who preceded us in the practice of the healing art. Both Schoepf and Barton, in the latter part of the eighteenth century, said that a decoction of this root was used in Virginia with good results in the treatment of pleurisy. The elder De Condolle in his *Experiments on the Medicinal Properties of Plants*, published in 1815, drew attention to the fact that this drug had the peculiar and laudable property of producing diaphoresis without augmenting the heat of the body. It is more to the point as quoted by the late Professor L. E. Jones, of Cincinnati, who said that "it increases the insensible and not the sensible transpiration; or in other words, it stimulates the glandular apparatus of the skin to increased elimination, without producing an excessive discharge of water." It is therefore an invaluable remedy in all pulmonary diseases. The late Dr. A. W. Russell, of Albany, N. Y., used to remark that in all congestions of the thoracic viscera it was curative, because it invited the bloodcurrent to the peripheral vessels, thereby equalising the circulation. That fact was so well understood by our oldest Botanic physicians, that they never attempted to treat lung, or any other, fever without resorting to this remedy. Sometimes they would add a little *Asarum Canadense,*

Capsicum, *Lobelia*, *Zingiber*, *Sanguinaria* or *Corallorhiza* (crawley-root), with a view of adding a stimulating or sudorific action to the principal drug employed. Now we think that even an honest Homeopathist could be induced to employ a diaphoretic which would not sweat his patient to death.

It has been asserted that this remedy is emetic. We have seldom found it to be so unless a small quantity of *Lobelia* had been added, as we frequently do in an attack of pleurisy or pneumonia, and then it would not come unexpected or unwelcome either. However, if *Asclepin*, or a solution of the same, known as "Concentrated Tincture," be administered to a very sensitive stomach, emesis is very likely to follow, on account of the nauseous taste of the resinoid principle, and the effort of the physician may thereby be entirely defeated. And this refers to any and all educts in a highly-concentrated form, which require an "aboriginal" stomach to receive and digest it without producing nausea, all the fancy elixirs and alkaline adjuncts notwithstanding. So, also, if a lukewarm infusion or decoction of the root be given in large doses often repeated, would it nauseate a patient as effectually as though tepid water alone had been used? Therefore it is best always to administer it quite *hot*, and if it be given to a very sensitive patient the addition of a little *Zingiber* would overcome a tendency to nausea.

Prof Rafinesque quotes Mease as saying that it is a safe and powerful diuretic. Regarding its diuretic effect, it is more noticeable whenever a decoction has been employed, and for the reason that ALL diluents given in large doses must stimulate and increase the functions of the kidneys. And this is another reason why *A. tuberosa*, when given in the form of a tea, will more quickly break up a feverish condition than when used in any other way, because when the functions of the skin and kidneys are simultaneously acted upon by so positive a drug as this seems to be, no fever can long maintain its supremacy. Then and then only would we consent to the use of quinia in small or tonic doses.

Purgative properties have been attributed to this remedy, but the writer has failed to observe it. Perhaps we never gave it to a patient otherwise afflicted with weak bowels. A change of water alone sometimes produces alvine evacuations. Yet we have to respect the reports of other careful practitioners who have noticed the aperient properties of this medicine. It has been used in bowel complaints and even dysentery with good results. Why? Because any remedy which will divert the excitement, depending on inflammatory action which may be going on in the

intestines, to the skin or periphery of the animal economy, simply removes the disease by transplantation of the cause.

In all exanthemata, alone or judiciously combined, it is. a grand remedy and will outstrip Aconite of its wonted repute in that direction too. The The *U. S. Dispensatory*, 11th edition of 1858, even sung its praises as a valuable medicine in exanthematous fevers. And the new *U. S. Pharmacopoeia* just out, has retained the *A. tuberosa*, which formerly only belonged to the secondary list of medicines, whereas the species *A. incarnata* and *A. Syriaca*, have been entirely dropped from the list. There being some Eclectics even who seem not to dare use a remedy unless it has been first sanctioned by some Old-School fogy, the above must be gratifying information.

In flatulent colic the wind-root has earned for itself a reputation second only to *Mentha* and *Dioscorea*, whence one of its popular names: colic-root. When the decoction is used cold or a tincture be taken in small doses, the effect is then rather that of a tonic. Many more pages might be written in proof of the good services this drug has rendered to the writer which many Eclectics know full well. Others who consider themselves so full of knowledge that nothing less than an absurdity would attract their attention, could not be won over to our way of thinking though we were to write even a whole volume in favor of this one remedy.

In phthisis it has been used to a limited extent. In the first stage of tuberculosis, as well as in that of consolidation, when the air-cells are filling up with tubercle so as to cause great distress from dyspnea, this drug is of real benefit for a while, by lessening the flow of blood to the point of irritation. At least the writer has had occasion to verify its palliative effects in consumption.

But it is in pleuritis, both the acute and chronic form, that we have made a crucial test with this remedy. Having broken or rather “torn up” some very ancient adhesions of the pleura with *Asclepias*, we think that nothing short of a petrified individual could withstand the onslaughts of this herculean agent. In acute pleuritis, the stomach being able to tolerate it, we give with it a little of *Lobelia*, barely enough to nauseate, so as to increase its diaphoretic action, and add sufficient of *Zingiber* to lessen the nausea, which may likely be produced by the Lobelia. It is most effectual when an infusion is made of the powdered root.

Rx.—A. tuberosa 6 drachms;
Zingiberis, 2 drachms;
boiling water 32 ounces.

This when sweetened and strained is given in doses of half to one wine-glassful *hot*, every half-hour till copious diaphoresis is produced. Never is relief to be had until diaphoresis has been fully established, all of Homeopathy notwithstanding. Repeat this treatment once a day until a cure is the result. In chronic pleuritis omit Lobelia. One of the latter just treated by the writer will be briefly mentioned in the post-note following. In pneumonia we prepare this medicine in a like manner, being always guided by the symptoms, whether it be of a congestive, sthenic or asthenic type,—giving a *hot* infusion every half, full or two hours in similar doses, until diaphoresis is established and the patient breathes more freely. In the typhoid condition increase the quantity of *Zingiber*, and in the sthenic form use more of *Lobelia* to lessen arterial tension. And when a man has once aborted a genuine attack of pneumonia with a pulse of 150 per minute, on himself, as the writer has had the occasion to experience, and has saved the same member of his family twice in three years, suffering once from acute and the next time from a typhoid form of the same disease, he would feel himself justified in saying that he could go triumphantly through a whole ward of pneumonitic hospital-cases with this simple remedy and not lose a patient whom he had treated from the incubatory period.

The remedy is also of great service in inflammatory rheumatism and pericarditis, when of rheumatic origin. In such cases we use it in combination with *Cimicifuga*, and give in preference a saturated tincture or fluid-extract, equal parts, of the two combined, administering each dose in hot water sweetened until carried to excessive diaphoresis. The dose would vary from half to one drachm of the two combined as often as once in an hour or even less. We will not prolong the indications of this drug in any other line of diseases than already mentioned.

The question will no doubt be raised why the infusion prepared from the crude drug acts so much quicker, not to say much more agreeable, than any other preparation made of the same. It should be borne in mind that much starch is found in the root, and which being considered inert is discarded in the manufacturing of “concentrated preparations.” Yet it must also be known that amylaceous substances are not only nutritive but very easily borne on an irritable stomach, such as we find in a high fever. Starch is also of a bland nature and admirable in

disguising the taste of some otherwise nauseous medicines. Let it be remembered that the use of *A. tuberosa* was originally learned from the American Indian, and the latter's method of taking this drug was in the form of a decoction, assisted by the application of bags of hot ashes to the parts affected. There is many an article of diet consumed by our western Indians for the amount of starch it contains, which the white settler makes use of on account of its valuable properties considered from a medical point of view.

The dose of the powdered root is from one-half to one drachm; of the infusion from one to three or more fluidounces, of the tincture or fluid-extract from ten to sixty minims, according to strength and quality; of Asclepin from one to ten grains, according to Dr. Grover Coe, and of the *Concentrated Tincture of Asclepin*, from eight to twenty drops. As to the frequency of administration, that is left entirely to the discretion of a careful and honest practitioner.

Always believing in giving credit to whom due, the writer acknowledges reference to the following authorities: B. BARTON'S *Collection toward a Materia Medica*; W. BARTON'S *Medical Flora*, and *Flora of North America*; BIGELOW'S *American Medical Botany*; RAFINESQU'S *Medical Flora of the United States*; LOUDON'S *Encyclopaedia of Plants*; LINDLEY'S *Flora Medica*; GRIFFITH'S *Medical Botany*; WISE'S *Hindu System of Medicine*; HONIGBERGER'S *Medium System of Medicine*, and *Materia Medica*; KOST'S *Materia Medica*; BEACH'S *American Practice*; HOWARD'S *Botanic Medicine*; *United States Dispensatory*; *American Dispensatory*; JONES and SCUDDER'S *Materia Medica*, which is a capital work; GRAYS *Manual of Botany*; *Botany of the the United States and Mexican Boundary Survey*; *Botany of Exploring Expedition* and *Survey for Pacific Railroad*; *Agricultural Reports*, Washington; *American Naturalist*; *Treasury of Botany*; BALFOUR'S *Botany*; *New Remedies*; *Therapeutic Gazette*; HUNTER'S *Captivity*; *Traits of the Aborigines*, and several others not already referred to.

Post-note

A few cases well known to the Secretary of the National Association will be, hastily referred to. Several years ago Dr. M. N——n, of this city had pneumonia, for which he was treated by two physicians, one of his own school and the last a Homeopathist. He seemed to have got over the worst of it, but failed to get well. He had been out already,

but complained of a sense of constriction in the lung affected, an inability to inflate the organ without suffering pain, and a worn-out, tiresome feeling in general, so that he dared not go out to attend all of his own sick-calls. It was late in the winter. We suggested the use of *A. tuberosa*, of which he took an infusion for a few days and was then entirely relieved of pain and uneasiness in the parts affected. The strength also returned under the use of small doses of *Strychnia* and *Phosphoric Acid* (dilute).

The next case is that of another Eclectic, Dr. J. E. B——s, of this city, who contracted pleuritis in the early summer of 1882. He had dosed himself for a couple of days with various remedies and finally sent for the writer. On seeing him we discovered a sthenic fever, much depression and the symptoms usual in a person of full habits. Not having any *Asclepias* in our pocket-case, resort was had to some of Keith's *Asclepin*, which the Doctor had in the house, and it was given every hour for the rest of the day and night, in fair-sized doses. On the following morning he was put on an infusion of our powdered root containing also a little of *Lobelia*, and in less than twenty-four hours after using the hot infusion he had the first and only relief experienced since he was taken ill. A few days more brought him on his feet so that he was able to go to the "National" at New Haven, Conn.

The next case occurred in our private practice and was one of chronic pleuritis. Mr. Ed. B. of this city, an actor accustomed to travel with a rural company where he was exposed to the changes of the weather as well as feather-beds, had contracted the complaint and doctored more or less without receiving any benefit therefrom. We first saw him on the 11th of January, 1883. He had adhesions of the pleura of the lower lobe of the right lung and was only comfortable when remaining motionless. To move, stir, cough or walk would instantly produce those characteristic pains. He was put on an infusion of the powdered root of *A. tuberosa* and *Zingiber*, and told to remain indoors for a few days. On the 16th following we called again and found that he was out again attending to business and free from his former trouble. Just seventeen months ago he had been treated by the writer for a similar chronic affection with like success.

While footing up a number of such cases treated, we must not forget. one which is now convalescing before this paper goes to press. It is that of the mother of another of our Eclectics, Dr. J. B ——n, of this city, a lady 63 years old. She was taken down with a chill followed by slight pleuritic symptoms about the 10th of January. Her son prescribed the customary treatment, including *Asclepin*. The latter was dissolved, and given in simple elixir along with a little *Gelsemium* and *Hyoscyamus*. It soon nauseated the patient, and in order to avoid taking the medicine, she feigned recovery, and even left the bed a number of times whenever the doctor called. He also prescribed the *Concentrated Tinct. of Xanthoxylum Bark*, with simple elixir, which likewise nauseated the patient. She gradually grew worse, so that her pulse would rise as high as 110 to per minute and over, while the temperature varied from $101\frac{1}{2}^{\circ}$ to 104° according to the exacerbations of the fever. Poultices had been and were still used. We were consulted on the 17th and found her in a high fever just setting in again with a very sthenic pulse of 106 per minute, temperature 102° and respiration 46 per minute, which was altogether diaphragmatic. The pleura over the region of the liver was involved and occasioned much pain. So far all the remedies used failed to produce

diaphoresis, and the skin was dry and constricted. We put her at once on an infusion of *A. tuberosa* with *Zingiber*, which she took in doses of 2 ounces every hour for four doses, and thereafter every half-hour during the rest of the night, using 1 ounce for a dose. Four hours after taking the *Asclepias* infusion she was bathed in a perspiration and slept three hours that same night, which she had not done in a week before. She even liked the taste of the medicine, which was preferred without sugar or even milk, and would frequently call for its administration. How different it acted from the nauseating Asclepin. In twenty-four hours after taking the hot infusion of the root she was relieved of all pleuritic pains ; the respirations were only 36 per minute, and the temperature had not again risen above 101 degrees. The patient, as soon as the skin became moist, was also put on the use of a green tincture of *Monarda punctata*, in doses of fifteen drops every hour and a half or two, which she took clear on her tongue, and still it occasioned no nausea. Another return or exacerbation of the fever occurred on the following day, and it was again routed with the hot infusion of *Asclepias*. After this no more exacerbations set in, the patient slept frequently and seemed to improve rapidly. It should also be stated that this lady had five or six years ago an attack of pneumonia, when we were consulted and suggested the use of *A. tuberosa*, which quickly relieved all the urgent symptoms of the case.

SANGUINARIA CANADENSIS.

By GEORGE WILLIAM WINTERBURN, PH. D., M. D.

Of Sanguinaria, to which I invite your attention to-day, it may well be said that it is one of the most important remedies in our Materia Medica. Its common name is blood-root.

The poppy-worts (*Papaveraceae*), to which blood-root belongs, are a singular, as well as a notable family. The fifteen genera composing it are characterised by active narcotic properties, principally resident in a turbid juice; but this juice varies in appearance in the different members of the family. In *Sanguinaria* it is red; in *Chelidonium*, yellow; in poppy, white; and, in *Eschscholtzia*, transparent. The same thread of analogy runs through their therapeutic natures, alike yet different.

Sanguinaria, from the Latin *sanguis*, signifying blood, is a curious little plant, springing stemless from a tuberous root, in a series of large sea-green, smooth-surfaced leaves, and bearing in early Spring a handsome, white, eight-petalled but odorless flower. This rhizoma is especially rich in the acrid, blood-like juice which pervades the entire plant; and is the part used in medicine. When, fresh it is exceedingly acrid to touch, taste and smell, but rapidly loses this quality by exposure to the air. The official preparations are an infusion, a fluid-extract, a

tincture, and a vinegar; and to be reliable should be made from the green root.

Sanguinaria grows in all parts of the United States, rejoicing in rich soils, and in umbrageous retreats, and presenting a very elegant appearance from March to June. Its chemical constituents are sanguinarina, an active alkaline principle, with the formula $C_{37}H_{64}N_4O_8$; porphyroxin; puccine; chelidonic acid; an orange-colored resin; and a yellowish fixed oil. Sanguinarina exists in the root in the form of a salt, the chelidonate of sanguinarina. It is in minute garnet-colored crystals, with shining facets, like a precious stone. Parphyroxin is found in tabular crystals, resembling that discovered in opium. The resin is analogous to amber in appearance. Chelidonic acid is found also in guaiacum and chelidonium.

PHYSIOLOGICAL EFFECTS.

The action of Sanguinaria depends largely on the size of the dose. Unlike many other drugs, *Chamomilla* for instance, whose influence lies always along the same plane and is only intensified by increasing the dose, Sanguinaria alters its mode of action, in quality as well as degree, when given in varying doses. In small physiological doses it stimulates the action of the heart; in large doses it is a potent cardiac sedative; in small doses it is a gastric tonic, in large, it causes distressing gastralgia and severe emesis; in small doses it energises the respiratory centre and causes an increase in the number of respiratory movements, in large it paralyses the same, prolongs the pause after respiration, and consequently slows the movement; in small doses it induces a hopeful, sanguine state of mind, and in large, lethargy and narcosis.

When the dose is very large death follows quickly, from paralysis of respiration, preceded by intense gastric symptoms.[5]

Such large doses do not cause vomiting. In doses of fifteen or twenty grains of the powdered root very free emesis takes place, followed by alarming prostration.

It has a marked influence upon the respiratory mucous membrane. In

[5] "Four men who had been employed to clean out and whitewash the apothecary shop of Bellevue Hospital found a demijohn containing what they thought to be brandy or some other spirit, and they each took a good drink of it. They were all soon seized with severe racking and burning pains in the stomach and bowels, with intense thirst. They all died."—MITCHELL

doses of less than a grain it is simply a mild expectorant; increasing the dose causes bronchial irritation, with loose, rattling cough and rather profuse expectoration. A still larger dose causes bronchial congestion with harsh, spasmodic cough, and scanty, tenacious sputa. Pushed still further we have stridulous breathing and sighing respiration.

The sensation excited is one of heat, followed at last by intense burning If the doses be moderate and repeated at intervals the person suffers from paroyxsmal cramps in the abdomen, wandering from place to place, increased by pressure or outward applications, and relieved by walking about. These severe pains are accompanied with vertigo, and followed by diarrhea. The stools are watery, undigested, and are evacuated with a great quantity of offensive flatus.

Sanguinaria has considerable effect on the female generative organs, causing abortion in the pregnant, and congestion in the unimpregnated uterus. The menses are too early, too profuse, and consist of very dark blood. The breasts also are swollen and sore to the touch. Pain, stiffness, and soreness is felt in various parts of the body, probably caused by the hepatic disturbance induced by the drug.

Dr. Rutherford has shown that Sanguinaria is a powerful biliary stimulant, increasing both the solid and watery constituents of the bile.

Its action upon the salivary glands is analogous, causing copious salivation. In continuous doses it causes great irregularity of the heart's action, with stitching pains in the cardiac region. It eventually paralyses the heart if artificial respiration be maintained; in this resembling *Veratrum*. Pulse and blood-pressure fall together, although just at first there may be a rise of the latter. In physiological doses Sanguinaria always lowers the temperature.

THERAPEUTICS.

Sanguinaria is one of the most powerful drugs in our pharmacopoeia, and deserves the most minute study. It has a therapeutic relation to the skin and mucous membrane; to the digestive, generative, and respiratory organs; to glandular structures; to the cerebro-spinal system; and to muscular tissue.

I. The action of blood-root upon the skin is limited but peculiar. Applied in the form of the powdered root or acetum to fungous growths, fleshy

excresences, or warts, it is escharotic. An ounce of the tincture in a pint of hot water makes a stimulating wash for old, indolent ulcers, with hard unhealthy-looking edges, and exuding dirty, sanious, or watery pus. Given internally Sanguinaria is useful in eruptions caused by amenorrhea; and in psoriasis and pityriasis, and other scaly eruptions ; and in carbuncles. In the diseases of internal organs in which Sanguinaria is most useful the skin is apt to be dry and feverish, and the gastric disorders are often associated with pruritus and nettle-rash. Sanguinaria antidotes the eruption caused by *Rhus venenata* and *toxicodendron*. It is an excellent diaphoretic administered in small doses well diffused in a cup of hot water. In scarlatina it has been used advantageously by Dr. Coe and others, but I give you no special indications for it. It is said to have cured cases after belladonna had failed. In none of these conditions have I had any personal experience with it.

II. In catarrhal affections of the eye, Sanguinaria is a remedy of moderate importance. It has proved useful as a collyrium in ophthalmia tarsi, in conjunctivitis, in catarrhal inflammation associated with coryza, and in ulceration of the cornea.

The case which I now show you of inflammation of the eyelid is illustrative of its use in the first of these conditions. This little girl, eighteen months old, has suffered from inflamed lids for several months. The origin of the condition was probably a cold, and its present severity is undoubtedly the result of lack of cleanliness. The whole margin of the upper lid is hardened and the lashes have to a large extent fallen out. There is enough exudation to gum the lids together in the morning, but hardly sufficient inflammation to cause any serious damage to the eyes. As to treatment the eyes must be washed carefully with warm milk twice a day, after which they will be wet with this lotion of Sanguinaria, containing ten drops of the tincture to half an ounce of rosewater. The child will also be given internally the one-hundredth of a grain every six hours. (This case was cured in two weeks.) I have treated similar cases at the hospital by spraying the lotion over the eyes two or three times a day.

The following case of croupous conjunctivitis is interesting: A. S. B., a little boy aged six years, was seized with inflammation of the eyes in March, 1879. The lids became very edematous, and on the palpebral conjunctiva were found small patches of membrane, loosely attached, but tenacious if effort was made to loosen them. There was severe

supraorbital pain, considerable fever, and great irritability. The same treatment was given as in the previous case, but great care was taken in using a syringe to bring the lotion in direct contact with all portions of the inner palpebral surface. If the lotion is too strong the inflammation will be greatly increased. This case was cured in six days.

In cases where coryzal colds extend to the eye, and cause profuse lachrymation, I have in three instances seen Sanguinaria remove the whole trouble.

It has likewise proved beneficial in the catarrhal disorders of the ears, especially when affecting the Eustachian tube.

Sanguinaria has an important influence on the nasal mucous membrane. I have seen it cure a number of fluent coryzas. It seems to act best in cases which affect particularly the right nostril and are accompanied by much sneezing. Such cases often yield quickly to inhalation through the nose of the dust arising from shaking a small quantity of sanguinarin in a bottle; the inhalation to be repeated at intervals of three or four hours.

Periodic coryzas of all sorts, from nose-cold to autumnal catarrh, if possessing the characteristic conditions for Sanguinaria, will be cured by it. These are copious, acrid, burning, watery discharge from the nose, causing an indescribable rawness of the schneiderian membrane, with loss of sense of smell, frequent sneezing, all the symptoms worse on the right side. If the conjunctiva be similarly affected, or if intestinal disorders alternate with the nasal symptoms, Sanguinaria is specifically denoted.

Non-syphilitic ozoena will often yield readily to Sanguinaria. In these cases it is always necessary to cleanse the nose thoroughly at least once a day, in order that the medicine may come in direct contact with the ulcerated tissue. When possible to command the regular attendance of the patient, I prefer to apply the medicine personally, by means of a spray-producer.

Nasal polypi are either hyperplasiae of the mucous lining (mucous polypi), or a proliferation of connective tissue (fibrous polypi), or a growth of a jelly-like substance (gelatinous polypi); and they occur in frequency in the order named. In the first and last varieties Sanguinaria is an excellent remedy, especially in the former. The

freshly powdered root, or saguinarin, may be used as a snuff, several times a day; but I much prefer the nitrate of sanguinaria. This substance is too pungent if used in full strength; and it should be thoroughly triturated with nine parts of granulated sugar. Even then it is apt to cause unpleasant burning in the nostrils. The following case nicely shows its usefulness :

Miss M. R. B., aged nineteen, a healthy, apple-cheeked, English girl, had been troubled with an uncomfortable feeling in her nose for more than a year. There was at all times a sense of fullness in the right nostril, but in damp weather it seemed completely occluded. An examination showed a mucous polypus adherent to the septal membrane, nearly filling the arch of the passage, and hanging downward into the posterior nares. The internal administration of *Teucrium* and the iodide of lime produced no apparent effect. She was then given an ounce of the nitrate of sanguinaria, first decimal trituration, in a two-ounce bottle, with orders to shake the bottle and snuff the dust thoroughly up the right nostril, every three hours. The effect was slow, but in the end most gratifying. In two months the polypus had entirely disappeared, and the nasal membrane was healthy and has remained so.

I have never had a case of polypus in the ear to treat but in the mucous variety I should certainly begin with the nitrate of sanguinaria. There is no question that this remedy not only removes the growth but cures the tendency (dyscrasia) that produced it. How much better this is than rudely tearing the tumor off, by means of forceps, leaving a lacerated and diseased membrane as the basis for a new growth. Better certainly for the patient; although the physician will not receive so much praise from the patient's friends for skillful therapeutics as the surgeon would for dextrous manipulation. There may be even doubts whether there was any polypus, unless it can be shown in a little bottle.

It may be merely a curious coincidence, but I have never been able to cure polypi in the left nostril with Sanguinaria. There is a peculiar right-sidedness running through the pathogenesis of this remedy and its analogue, *Chelidonium*. Both affect the right side of the head, the right nostril, the right lung, the liver, the muscles on the right side of the back, and the right heart.

In diseases of the buccal cavity you will occasionally have use for Sanguinaria. Epulis, from its analogy to polypus, will be easily

remembered in this connection. That simple but annoying trouble, gum-boil, when not caused by caries is controlled by this remedy; as is also general inflammation of the gums (gingivitis), when they become swollen and spongy, bleed easily. Toothache, when the pain is aggravated by cold drinks and mitigated by warm, may be relieved by this remedy. In all these conditions I use the first decimal trituration of the nitrate of sanguinaria, varying the dose from a grain in an ounce of rose-water, used as a gargle or taken internally, up to insufflations of the dry powder directly on the diseased surface, *pro re nata*.

Passing back to the softer tissues of the pharyngeal cavity we meet a similar ulcerative condition, which yields to the same treatment. I shall reserve what I have to say in regard to the tonsils until I come to speak of the action of Sanguinaria on glandular structures, confining my present remarks to its influence on mucous congestion and diphtheria.

The ordinary idiopathic catarrhal sore-throat, involving frequently the entire mucous membrane of the pharyngeal cavity, is without doubt often mistakenly diagnosticated as diphtheria, on account of the tough whiteish exudation that sometimes appears on various parts of the fauces, especially about the tonsils. Even epidemics of simple sore-throat occur, and these are still more likely to confound the inexperienced or careless physician; but the fact that these cases are not followed by paresis and albuminuria is a sufficient index of their true character. There are many remedies for this condition, and among them Sanguinaria. This remedy is specifically indicated when the throat feels as if it had been scalded by drinking something hot. The throat is dry and tense; the dryness is unrelieved by drinking, and the tension causes a sensation as if the throat was about to split. Drawing cool air over the heated membrane (breathing with the mouth open) gives the patient great satisfaction. These disagreeable feelings are all worse on the right side. In cases of this sort I have seen a mild gargle of sanguinarin, one grain to the ounce, rapidly disperse all the uncomfortable sensations.

Follicular sore-throat, the form so common among clergymen and others who use the voice unduly, is more frequently a pharyngeal than a laryngeal complaint, although old cases are apt to involve both organs in a common misery, no matter which was the seat of the original lesion. Although by no means so frequently called for as some other remedies, Sanguinaria will cure this condition when the membrane is red and shining, and the burning pain seems to extend backward and downward from the pharynx into the stomach. The presence of the

symptoms indicated just now when speaking of ordinary sore throat will also confirm the propriety of using it in this instance. If possible I like to apply it by means of a spray-producer, and I have a particular preference for the nitrate of sanguinaria, rather than sanguinarin; although either will answer.

Chronic catarrh of the throat is apt to run on to ulceration if neglected; but all ulcerations of the throat are by no means catarrhal. Speaking generally, we meet three forms of chronic ulceration of the throat: the superficial catarrhal ulcer, the deep, flabby, scrofulous ulcer, and the well-defined syphilitic ulcer with elevated, serpiginous edges. *Baptisia*, *Hydrastis*, *Stillingia*, and *Sanguinaria* cover, I think, all the variety of condition likely to occur. The general symptoms of the patient will determine the adaptability of either in any given case. The following case of the catarrhal form shows the action of Sanguinaria and the symptoms indicating it:

Miss S. M. A., aged twenty-seven, a school-teacher, had been troubled with catarrhal pharyngitis for some years. Her throat, when she applied for treatment, contained six or seven superficial ulcers, the largest about the size of a silver five-cent piece. She complained of great dryness in the throat, which was actual and not merely sensational, as the tissues were brighter in color than natural and glistening. Although she was not thirsty, nevertheless the burning feeling made her desire to drink frequently; hot drinks relieved the sensation for a few minutes, but cold water intensified it. The tongue also felt as if burnt, and was covered with a whitish slime. She remembered that at first the throat had been sore only on the right side; and now the majority of the ulcers were on that side of the median line. She was subject to periodic sick-headaches, which always began in the nape of the neck, extended over the head, and finally settled in the frontal sinuses. I gave her a mild lotion of nitrate of sanguinaria with which to gargle her throat; and some powders containing the one-hundredth of a grain of sanguinarin, of which she took two each day. The medicine not only cured her sore-throat but her headaches also.

I do not think that Sanguinaria is ever indicated in malignant diphtheria; but in some of the milder forms it will, like *Phytolacca*, prove to be the true remedy. The subjective symptoms have been already stated; the diphtheritic membrane is semi-translucent and grayish.

III. In acute gastritis Sanguinaria is likely to do harm if given in appreciable doses. Dr. Coe says:

“The sanguinarin possesses a considerable degree of escharotic power, hence its use is contra-indicated in gastritis and enteritis, and whenever we have occasion to suspect abrasion or ulceration of the mucous surfaces of the stomach or bowels.”

The “use” here meant is the eighth to a half-grain every three or four hours; but thoroughly triturated, and given in minute doses, (that is, in the third decimal trituration), I have learned to depend upon it in certain acute stomach-troubles. The burning epigastric pain, aggravated by taking food, unrelieved by vomiting, and increased by pressure; the unquenchable thirst, with longing for piquant articles of food; and the great prostration of acute gastritis, call unmistakably for Sanguinaria. The following case presents the condition for which I prescribe this remedy:

Mr. R. H., aged forty-seven, a prosperous provision dealer, was taken ill in June, 1878, after drinking a large quantity of iced milk. The symptoms were first slight rigors, followed by a feeling of heat and depression. He lost his appetite, became apathetic, neglected his business, but not being used to being sick hardly realised that he was so, and did not send for a physician. Matters had gone on in this way for nine or ten days when I first saw him. He then complained of an acute burning pain in his stomach, as if that organ was on fire. Vomiting was frequent; preceded by intense nausea and followed by great exhaustion. After vomiting he craved food, but eating the slightest quantity increased the burning distress in the epigastrium. His thirst was prodigious, and it was only by the most constant watchfulness that he was prevented from drinking enormous quantities of water. He had considerable vertigo, worse when stooping or lying down. He was very irritable and objected to the slightest noise; even his children talking in the next room made him very angry. His face was pale; lips dry; tongue very red, especially at the tip, and felt as if burned by drinking some hot liquor; breath foul; bowels constipated; urine normal; pulse eighty-five; temperature 100° F. He was given Sanguinaria, third decimal trituration, two grains every three hours, and in four days he was quite well; appetite, digestion and bowels all normal.

In that common form of indigestion which proceeds from a deficient secretion of gastric juice, (gasterasthenia) and consists of loss of appetite,

heartburn, and periodic vomiting, Sanguinaria is a most efficient remedy.

“When the food undergoes chemical decomposition, and gas is evolved in large quantities, Sanguinaria will generally change the action of the stomach, and digestion becomes more complete. When the mucous membrane is congested, the flatus formed by fermentation is retained by a spasmodic constriction of the cardia. Its irritation is reflected upon the lungs, through the pneumogastric nerve, exciting a feeling of tickling in the entrance of the trachea, with sympathetic cough. This peculiar, dry cough does not yield to expectorants, but often persists for hours, and is only relieved by eructations. Aromatics and stimulants fail to expel the gas; they only increase the erethism of the coats of the stomach. The Sanguinaria affords a better resource. It not only relaxes the constricted cardia, permitting the flatus to escape, but excites a healthy reaction on the whole surface of the fauces, esophagus and stomach, superseding the morbid state of a healthy one.”—HUNT.

In this condition, where so many physicians resort to pepsin preparations, I find Sanguinaria almost specific, and use it with increasing confidence and pleasure year by year.

Chronic catarrh of the stomach, otherwise known as chronic gastritis,and cramps of the stomach (gastrodynia), especially when these occur at stated intervals, and other gastroses, are often cured by Sanguinaria, when the subjective symptoms resemble those already denoted; but I have never had any success with it in simple vomiting, the wine of ipecac, or the tincture of nux vomica, or the fluid extract of *Cocculus palmatus* generally succeeding when it fails.

The following case was diagnosed by several physicians as *ulcus ventriculi perforans rotundum chronicum*, (round perforating ulcer of the stomach) before it came under my observation. I believed it to be the same, but as he is now cured, only a necropsy will ever reveal what was the matter. M. J. T., aged thirty-four, a paper-hanger by trade, applied at Manhattan Hospital for treatment, in January, 1882, for relief from the following condition: He had suffered for more than a year from burning pains in the epigastrium. These were worse when lying on the right side, or even if when sitting he leaned toward that side. In fact they had become unendurable. Pressure on the stomach always mitigated them, although it never entirely relieved him. Although these pains were always spoken of as being in the pyloric region, yet they

were also apparently in some way connected with the spine. Eating partially relieved the distress, although it was frequently followed by vomiting. The vomited matters consisted of soured ingesta, slimy mucus, and at intervals of dark, decomposed blood, and were generally ejected without much muscular effort. His appetite was good ; in fact he ate too much, and many things that did not agree with him. He had a great relish for milk, but could not digest it. His bowels were usually constipated, although occasionally he would have a diarrhetic stool, the nature of which I did not learn. He had lost much flesh; his spirits were depressed; his face was sallow and sunken; his tongue was clean, but of too bright a color; respiration was rather rapid; pulse eighty; and temperature (evening) 99 $^{7}/_{10}^{\circ}$F.; his general appearance resembled marasmus. As though to make the diagnosis of ulcer of the stomach more probable, the history of the case showed that previous to the appearance of these symptoms he had been badly burned, on the arms, face and chest, by the firing of some alcohol which he was using, Sanguinaria, third decimal trituration, slightly aggravated some of the symptoms and partially relieved others from the first. Its steady use proved the prescription a good one, and he was discharged cured in about two months.

Pyrosis, when occurring as a solitary symptom, will generally yield to small doses of sanguinarin, although it in some cases merely proves palliative, arresting a paroxysm, but not preventing a recurrence of the trouble.

I have never used it in constipation, although Coe recommends it. It would seem to be indicated in that form of rectal inertia, for which nux vomica is so valuable a remedy: where there is a feeling of pressure upon the sphincters, with continual urging, but inability to evacuate anything except offensive flatus.

In cases where constipation alternates with diarrhea, and is associated with bronchial difficulties, Sanguinaria is useful, and will generally remove the whole train of symptoms. The following peculiar case is so suggestive of Sanguinaria, and was so admirably covered by it, that I give it here. J. Q. S., aged twenty-three years, had suffered all the spring months with a peculiar catarrhal attack. The coryzal flow was very acrid and excoriating ; causing violent sneezing. At that time the bowels were constipated, with noisy rumbling of incarcerated flatus. After about two weeks diarrhea suddenly set in, the coryzal symptoms

disappearing as suddenly. The stools were thin, hot, foetid, and accompanied by much wind. There was considerable pain before stool, and a sense of weakness after stool. This lasted three or four days, when the bowels became constipated (possibly through some cholera drops that he had taken), and in a few days the coryza was again in full blast. These alternations occurred several times during the months of April and May, and when I saw him in June (1881). he was greatly prostrated. I gave at first nitrate of silver. The diarrhoea stopped, as it had before, and in a few days the coryza again set in. The peculiar discharge suggested sanguinarin to my mind, and I prescribed it in the one-hundredth grain-doses, every six hours. In a few days the coryza disappeared and was not followed by diarrhea. The patient was well and remained so.

IV. Sanguinaria is said to have been used in seminal emissions caused by indigestion, and accompanied by much irritability, and in old chronic gleets associated with great prostration and despondency. I hardly think it has any direct action here, and if useful at all, it must be in those cases that depend for their continuance upon gastro-hepatic disorders. In secondary syphilis it probably has a wider application, but I know of no special indication for it, and am inclined to believe that it is far inferior to *Podophyllum* and *Stillingia*.

Amenorrhea, either partial or complete, occurring in women suffering from pulmonary disease, may be treated successfully with this remedy. It should be given for some days previous to the expected period, and may be used continuously if the pulmonary symptoms are active. I have seen it act promptly in one-tenth grain-doses, three or four times a day ; and this dose is too large if it cause nausea or burning in the stomach.

In that distressing condition of the uterus when gas is generated within it (physometra) and discharged through the vagina, Sanguinaria can be used successfully. A case of this kind where the woman through timidity had failed to secure treatment, and the trouble had lasted for more than a year, was cured permanently, in a few days, by Sanguinaria in one-hundredth grain-doses.

It is useful in dysmenorrhea, with congestion to the head and lungs, especially at the climacteric, or when the menstrual flow beginning natural in appearance becomes later dark, clotted and very offensive.

What I have said in regard to polypi in the nose is applicable to these

growths in the uterus or vagina. The remedy must be brought directly in contact with the polypus, and this is best done with the dry powder if possible. It reaches ulceration here, also, as in the pharynx, and may be applied in the same manner. A mild wash is useful in corrosive and fetid leucorrhoea.

Dr. Coe says that few remedies exercise a more decided influence upon the urinary apparatus, upon which it displays its peculiar power as an alterative. In obstinate gravelly affections, and in functional inactivity of the kidneys it is very serviceable. I have never used Sanguinaria in any form of urinary disorder.

V. We come now to the most important sphere of Sanguinaria. In the second and third stages of pneumonia Sanguinaria is our best remedy. You will remember what I said in regard to the use of Veratrum viride in the first or inflammatory period of this disease. When *Veratrum* has for any reason failed to abort the disease during the first stage, or if you have been called to the case too late to make its use desirable, and the dullness or percussion, bronchial respiration, extreme dyspnea, rust-colored, tenacious sputa, indicate the presence of hepatisation, then Sanguinaria may be used to great advantage. Even when the symptoms point to purulent infiltration of the pulmonary parenchyma Sanguinaria will do good, although here *Eucalyputus* is usually a far better remedy.

Sanguinaria has helped me so many times in this serious sickness that I hardly know which case to select as illustrative. Perhaps this one will do as well as another: J. McC., aged forty-five years, a laboring man, had taken a severe cold which settled on his lungs. He had neglected treatment, and had been ill an entire week when I first saw him. He was lying propped up in bed, being unable to breathe in a recumbent position. The cough was not very severe, nor very painful, but he had an agonising feeling of lightness and immobility over the the entire right side of the thorax. The sputa had been rust-colored and thick, but were now becoming thinner, more easily expectorated, and of the well-known prune-juice tint. The features were sunken and pallid, and and the forehead covered with a cold, dewy perspiration. The stomach was much disturbed, with frequent nausea, but no vomiting; bowels constipated. The temperature was not high, 103 $^{2}/_{10}$°F. I gave him sanguinarin in the one-hundredth grain-doses every two hours. The only change the first day was a slight decrease in the dyspnea and relief

from nausea; but on the second day the signs of improvement were various and satisfactory. The sputa became thicker, and of a yellowish tinge; he could lie down without much discomfort, and the bowels moved naturally. The improvement continued steadily, and in ten days he was completely convalescent.

Dr. Morrow and others speak of it very highly in hemoptysis, and it will often cure cases that have resisted other means. It is not, however, an important antihemorrhagic remedy.

That it will cure incipient phthisis pulmonalis there is a very general consensus of practical testimony. In persons of languid circulation, troubled with cold extremities, who are sensitive to atmospheric changes, whose skin is pallid, and who have a tickling cough, Sanguinaria in one-tenth grain-doses will often work wonders. The cough is more in the evening and on lying down ; it sounds loose, but the secretion of mucus is expectorated with great difficulty. The sputum is offensive to the taste, and seems to come from the right side of the chest. If there is any pain it is in the right side, or in the right shoulder. There is considerable gastric disturbance, with belching of acrid flatus. He feels great lassitude, especially toward evening, and there is a hectic condition, with flashes of heat, and circumscribed redness of the cheeks.

In those chronic coughs in which it is well-nigh impossible to determine whether we are dealing with a chronic bronchitis or an incipient tuberculosis, Sanguinaria, in one-twentieth grain-doses, three times a day, will often prove curative.

Dr. Tom Nichol, of Montreal, writing of the beneficial action of Sanguinaria, reports the following case of acute edematous laryngitis:

“At six o'clock of Sunday morning, April 19, I received an urgent call to the patient, who, I was told, had hardly been able to breathe all night. I found her sitting up in bed, with a characteristic sawing and rasping sound issuing from the larynx—a sound somewhat difficult of description, but which once recognised can never be forgotten. The tonsils and pharynx were swollen, but auscultation showed that the sawing and rasping sound issued from the larynx. The cough was dry and hard, relieved by sitting up in bed, aggravated by eating and lying down, and it was accompanied by difficult expectoration of tough and glairy mucus. The voice was low and suppressed, and it was with difficulty that I could make out the hurried, whispered sentences. The

pulse was feeble and fluttering, and the lips were pale; but on both sides of the cheeks there was a circumscribed redness. The pathognomonic symptom which made the pathological state quite clear to me was the fact that expiration was performed more readily than inspiration. M. Thuillier's test was decisive as to the diagnosis, for when the forefinger was passed into the larynx there is a perception of a cushion formed by the tumefaction of the sides of the glottis, a soft, pulpy body, quite distinct from the ordinary hard feel of the parts. The diagnosis was acute edematous laryngitis of the supra-glottis variety, and the peculiar respiration arose from the fact that the edematous membrane which fills the glottis closes like a valve against the entrance of air, but readily permits it to pass out. I prescribed Sanguinaria, first decimal trituration, a dose every half-hour.

"At 1 P. M. I found that improvement had commenced almost as soon as the medicine was given. The sawing and rasping sound was now much diminished, the respiration was comparatively easy, inspiration and expiration were performed with the same facility, the cough was less frequent and less severe, the voice was quite audible, and the patient had slept much of the time since morning. The tonsils and pharynx were still red and swollen, but the glottis was clear of the tense and rounded swelling present in the morning. The Sanguinaria was continued in the same dose.

"At 7 P. M. I again saw the patient, and found that the very serious pathological state had almost wholly disappeared. The Sanguinaria was continued all night, and in the morning the condition was entirely gone."

In June, 1881, I was called to a very similar case in a man about forty-six years of age, an iron worker, and remembering the above case of Dr. Nichol's, I gave Sanguinaria and quickly cured the case.

Croup is another disease in which Sanguinaria is very efficient. I think it is never indicated in the spasmodic variety, where *Gelsemium*, Aconite, *Lobelia*, ipecac, or iodine, cover the varied condition; but in membranous croup it is our chief remedy.

"The sanguinarin is one of the most valuable remedies known in the treatment of pseudo-membranous croup. It has proved as much of a specific for that disease as quinine has for ague. I have seen it used in a great number of cases, and have never known a single failure. It should

be made into an acetic syrup, by adding twenty grains of sanguinarin to four ounces of vinegar; steep and add one ounce of sugar to form a syrup. Dose, one teaspoonful as often as indicated."—PAINE.

I have used the acetous syrup, sanguinarin, and the powdered root in cases of membranous croup, and I do not know that there is any particular choice between them; if so it is in favor of the preparation in vinegar. But Prof Paine's dose is too large, and causes vomiting, which is unnecessary. A grain to an ounce answers very well, and produces no physiological symptoms. The following case is a fair sample of what it will do:

V. H., a little boy aged six years, had a croupous cough which continued to get worse each night for three successive days, although receiving the careful attention of the family physician. All the well-known expedients had been tried, including emetics, alum and inhalations of steam from hot water poured upon unslaked lime. At eleven o'clock on the fourth night, several other physicians being in attendance, I was sent for to perform tracheotomy. On arriving at the house I found that the parents had been assured that if the operation was performed the child would get well. The mother at once demanded of me a promise that the operation would save the child's life. As tracheotomy is a very uncertain remedy for croup, three out of every five operated upon dying, I was unable to give such an assurance, and thereupon the consent of the parents to the operation was withdrawn. I now had time to give some attention to the little patient. He was lying in his crib panting for breath. In a few minutes one of the paroxysms recurred. The struggle for breath was terrible. He rose up on his knees, his head went backward as far as possible, and the *alae nasi* moving up and down like the flapping of sails. His face was turgid with blood, and exhalation and inhalation seemed equally difficult. I sent at once for tincture of iodine and for sanguinarin. The iodine arriving first I used it as an inhalation, but without any effect. I then dropped a few grains of sanguinarin in a cruet of vinegar, and placed a few drops on his tongue, repeating the dose every three to five minutes ; giving him a tablespoonful in the course of an hour. The use of Sanguinaria was begun about midnight, and at two o'clock a slight improvement was manifest, the paroxysms being shorter and less severe. I ordered that he have ten drops of the vinegar every fifteen minutes. In the morning I found the paroxysms had entirely ceased, the metallic whistling cough had given place to a catarrhal one, and although the voice was hoarse, and the child dull and stupid, all danger was past.

In these cases if the face is livid and swollen, the lips blue and the dyspnea extreme, Sanguinaria will cure; but if the face is pale, the lips and extremities cold, the pulse feeble, and the dyspnea although considerable, yet not intense, it will fail.[6]

Tracheitis and bronchitis, when associated with gastro-hepatic or gastro-intestinal complaints, will nearly always yield to the administration of Sanguinaria; ten drops of the tincture in half a goblet of water, teaspoonful doses every three or four hours.

VI. Drs. Rutherford and Vignal have shown the specific action of Sanguinaria upon the liver ; but long before they began their valuable experiments upon curavised animals with Keith's educts, it was a familiar remedy in liver complaints. Unfortunately most of the experience which has been had with it was in combination with leptandrin, podophyllin, myricin, or cimicifugin, and so it is impossible to make nice discriminations as to the peculiar conditions under which the remedy is most useful. That it is valuable in atony of the liver, in hepatic torpor, in jaundice caused by malaria, and that it will remove biliary concretions we know; but we do not know just when to give it the preference over all other remedies in these conditions.

Next to the liver, of all the glandular structures, the tonsils are the most under the control of this remedy; and in tonsillitis, both recent and chronic, it is frequently a useful therapeutic agent. Used early it will abort the inflammation and prevent suppuration; used later it conducts the suppurative process to a healthy close; and in those who are subject to attacks of quinsy its continued use so alters the local dyscrasia as to prevent a return of the trouble. In several cases of enlarged tonsils I have seen the persistent use of a mild gargle of the tincture of Sanguinaria entirely remove the trouble in a month or two. One of these cases was a girl twelve years of age, whose tonsils had been indurated for six or seven years. Each Winter they would become greatly swollen and deglutition painful, this condition lasting until warm weather. Now the tonsils are of normal size, and she has had no trouble with them for three years.

Sanguinaria also affects the salivary glands, the spleen, the mammae,

[6] The Sanguinaria case begins with a loose, rattling cough, which becomes dry, spasmodic, and then croupous ; and if Sanguinaria be used the order is reversed and from croupous it becomes first merely spasmodic and then catarrhal.

the testes and ovaries, and probably other glandular structures.

VII. Sanguinaria is a notable remedy in headache. The cephalaegia in which Sanguinaria is curative is peculiar and easily remembered. The pain commences in the back part of the head, and rising upwards spreads over the head and finally settles in the brow above the right eye. There is great intolerance to light and noise. The patient is obliged to remain in a dark room and to lie perfectly still. There is nausea and vomiting, accompanied sometimes with chilliness. If there are flashes of heat through the body, or if the palms of the hands and soles of the feet burn, or if the urine is scanty and dark at first, becomes later profuse and clear, Sanguinaria is the more specifically indicated.

This headache differs from that calling for *Rhus radicans*, that while both begin in the occiput and spread over the head, the Rhus headache stiffens the muscles of the nape of the neck, is better while moving about, and is caused by exposure to damp and cold; this does not affect the neck, is better when the patient keeps quiet, and is brought on by gastric disturbance. The *Iris* hemicrania, which is also mainly on the right side and of gastric origin, is accompanied with blurring of the eyes, is worse when at rest, and recurs periodically, often on the same day of the week. In Sanguinaria the vomited matters are bitter, but in iris they are intensely sour. The *Cereus* hemicrania is also right-sided, compels the patient to avoid all noise, light, or exertion, but it is rarely connected with any gastric disturbance, it is usually caused by mental excitement or worry, and is often associated with cardiac complications. Right-sidedness also characterises the *Pulsatilla* cephalaegia, but this usually begins in the afternoon and is always worse during the night, whereas the Sanguinaria headache begins in the morning, increases through the day and is better at night. The pulsatilla pain is relieved in the open air, and generally arises from uterine disturbance.[7]

Sanguinaria is of value in the neuralgia of the trigemini, when the pain is shooting and burning in character, and pressure over the pain gives relief It is of value in various myalgic pains when accompanied by distension of the temporal veins, and Dr. Hale suggests it as a remedy in sanguineous apoplexia.

[7] The *Chelidonium* and *Sanguinaria* hemicraniae are very similar. Both extend from the occiput to the forehead over the right eye; both are aggravated by moving about; both are periodical; and both cause great irritability. In Chelidonium the patient is better from eating, in Sanguinaria worse; in Chelidonium the patient is low-spirited, in Sanguinaria cross; in Chelidonium the food tastes natural, in Sanguinaria bitter; in both there is a disrelish for nitrogenous food, but the Chelidonium patient longs for acids.

VIII. When in acute rheumatism the poison attacks both the muscular and serous tissues at the same time Sanguinaria is an excellent remedy. These pains are apt to be felt in the right arm and shoulder, and in the right hip, extending down to the knee. The pain is worse where the bone is least covered by flesh, and is of a burning, bruised nature. Rubbing the affected part temporarily eases the patient's suffering, but the pain is apt to appear elsewhere. When metastasis to the heart is caused by the use of topical applications, and rheumatic pericarditis sets in, Sanguinaria acts promptly.

CHELIDONIUM MAJUS.

By GEORGE WILLIAM WINTERBURN, Ph. D., M. D., New York.

We will occupy the hour to-day considering the estimable virtues of a remedy for which I must confess an especial *penchant*, because it has so often in my hands proved its quality; and which, I doubt not, you will share with me on a more intimate acquaintance. It is, to be sure, not strictly speaking an American shrub, but it grows so freely here, now it has lodgment, that the story of its healing virtue should be heralded wherever it shows its dainty head. I mean the greater celandine.

Chelidonium, so-called because it was supposed to flower with the arrival of the swallow, and to perish with its departure, is a pale-green herb, imported from Europe, but now naturalised in this country, and growing in waste places and on waysides. It belongs to the natural order Papaveraceae, the same as the poppy and the blood-root. The WHOLE PLANT contains an abundant bright-yellow juice, which exudes when any part is broken. The tincture should always be prepared from the green plant, including the root.

CHEMICAL CONSTITUENTS.

It contains chelidonic acid $C_{14}H_5O_3$; a narcotic alkaline principle chelerythrin $C_{37}H_{16}NO_8$; a bitter alkaline principle chelidonin $C_{40}H_{20}N_3O_6$; a neutral crystallisable principle chelidoxanthin $C_{20}H_9NO_4$; beside resin, malic acid, silica, and various salts. Chelerythrin also occurs in *Sanguinaria Canadensis* and *Glaucium luteum*.

PHYSIOLOGICAL EFFECTS.

Four dogs poisoned with moderate doses, upon necropsy the mucous membranes were found of a lively red; and the lungs brownish blue, congested with blood, and slightly crepitant. The same phenomena were noticed in a horse. Two goats fed with the herb were soon seized with severe diarrhea, which continued until their death on the third day.

The fresh juice of the plant applied to the skin produces inflammation and redness. Of the effects of its internal use, Schallern says in Latin, thus translated:

"Taken internally, it penetrates the inmost vessels, resolves and attenuates (the fluids). It drives out the perspirable moisture, the sweat, and urine; also, as I have experienced more than once after taking the extract at different times of the day or year, it relieves the bowels without inconvenience. It strengthens not only the *primeae viae*, but also the *secundae,* and extends its tonic influence throughout the whole frame."

According to Voigt:

"The fresh juice in strong doses affects powerfully the abdominal organs, causing vomiting and purging, followed by diminution and strength of the pulse, great depression of muscular power, laborious and difficult breathing, beclouding of the senses, stupefaction of the head, severe perspiration and salivation, sparkling and darkness before the eyes." —*Lehrbuch der Pharmarodynamik*, II., 243.

Rademacher, a close observer and scientific prescriber, says that it acts on the internal structure of the liver, and he believes that all its general effects are due to this specific action. Dr. Buchmann, of Germany, has made a splendid proving of this drug on eighteen persons, extending over a period of nine months, with doses of the tincture varying from five drops to three drachms. In his summing up of its physiological effects he says:

"The power of exciting the whole arterial and capillary system is possessed by Chelidonium, in common with aconite, as appears from the great similarity of the febrile symptoms, but it does not agree with the transient character of the action of aconite on the vascular system. This

is especially evident from its effects on the vena porta and its functions, inasmuch as it calls forth all the phenomena of fully developed abdominal plethora. This effect is always, for the most part, produced by defective circulation in the liver, and continual catarrhal excitement of the mucous membrane of the abdominal viscera. There is no room to doubt that the attacks of palpitation, slowness of the pulse (50), the distension of the veins of the hands, the paralysis, weight and stiffness of the limbs, the coldness of the extremities, the edematous swelling of the legs, dull pains in head, vertigo, pressure in the occiput, pains in the back and sacrum, weakness, indolence, irritability, ill-humor, alternation of diarrhea with costiveness, fits of colic, yellow-gray color of the skin, renewal of the symptoms on change of weather, etc., are to be referred to a congested retention of blood in the portal system, and the hyperemia thereby determined in the abdominal organs."

Chelidonium primarily acts upon the mucous membrane, exciting catarrhal inflammation in the esophagus, stomach and intestines, in the nostrils and respiratory tract, in the mucous lining of the gall-ducts, as well as in that of the urethra and ureters, and the female sexual apparatus. The skin was covered, more or less, with elevated exanthematous eruptions, which appeared more commonly on the face and genitals.

Pain of a severe neuralgic nature was experienced in various parts of the body, with restlessness, anxiety, and desire for fresh air (see Baptisia). Also myalgic pain, as if the muscles were strained, bruised, torn, or as if the bones were mashed or dislocated. From no other medicine does the feeling of constriction occur in so many parts of the body; we find it in the forehead, temples, muscles of the nape of the neck, larynx, esophagus, thorax, navel and anus.

There was one notable cardiac symptom. The heart-beat was steady and less frequent than normal, but so strong that the clothes were lifted by the movement, communicated to the thoracic parietes, and sounded so plainly to the prover that she fancied others must hear it also.

The fever-symptoms were well marked in all the trials; cold rigors, with chattering teeth and goose-skin, glowing heat, full, bounding pulse (90), followed by warm perspiration and pale countenance.

Forgetfulness, quarrelsomeness, extreme lowness of spirits, and horrible dreams characterise the mental state.

Pain in the kidneys occurred in most of the cases with great sensitiveness to pressure, frequent urging to urinate, urine intensely acid (uric and hippuric), deficient in chlorides, and in one case containing mucous epithelium and compact urinary cylinders. The impression of the drug in this case was so considerable that edematous swelling of the extremities occurred.

Small, thin, bright-yellow stools characterise its primary action, followed after from four to eight days with white, clay-colored stools, destitute of bile, very hard and difficult, causing a painful nodule on the margin of the anus.

Three different conditions of the secretion of the bile were caused by Chelidonium.

I.—Diminished secretion, with light-gray or yellowish-white stools, without deposit of biliary coloring matter in the skin, and without separation by the urine.

II.—Suppressed secretion, with lemon-colored skin all over, as in jaundice.

III.—Absorption, without stopping its escape into the intestinal canal.

The Chelidonium catarrh in the air-passages manifested itself by dry cough, with expectoration as if from the depths of the lungs; with dyspnea, sudden lancinating pains on the right side, aggravated by movement. Extravasations apparently took place in the lung tissue (as proved by necropsy in animals), as soreness occurred at various points as from a wound, increased by breathing deeply, which always seems to cause coughing and choking. It appears to exert a special influence upon the diaphragm.

All the provers had great desire for acids (vinegar, sour wine), and disrelish for cheese, etc. (alkaline food).

Chelidonium is analogous to *Arnica*, *Bryonia*, *Podophyllum*, *Leptandra*, *Baptisia*, *Sanguinaria* and *Chionanthus*.

THERAPEUTICS.

The great celandine has been used, both externally and internally, from the remotest antiquity. The fresh juice was used by the ancient Greeks as an external application in affections of the eye. Fabricius, of Hilden, attributes to it the power of removing incipient cataract. Schallern mentions the cure of several cases of amaurosis. Biett says it has arrested the progress of a pterygium. Blankard has dissipated with it specks on the cornea. Galen and Dioscorides used a vinous decoction in jaundice. Creuzbauer used it to dissolve biliary calculi. Gilibert and Recamier have seen good effects from it in indolent engorgement of the liver and spleen, with or without intermittent fever. Lange has seen it successful in pulmonary catarrh and chlorosis, Lisdenfort in caries, Hufeland in glandular affections, Boniface in pulmonary phthisis, and Riviere in biliary complaints.

I need hardly mention the well-known power of the fresh juice to remove warts, fungous growths and cancerous excresences.

How is it possible that in spite of such precious traditions, celandine should have fallen into such complete disuse, that it is no longer even mentioned in but few works on materia medica? Is it not strange that facts can be thus blotted out? It is not because other and better remedies have been found to take its place; because, as I shall show you, celandine is unequalled in the treatment of various important affections.

I.—In the first place, celandine is superior to arnica as a vulnerary. In all painful conditions of the cutis vera, and subcutaneous cellular tissue, of traumatic origin, characterised by inflammation, and extreme painfulness on pressure, you will find celandine of the utmost value. In all lesions caused by bruises, falls. or sprains; in the myalgia and exhaustion of over-exercise; in traumatic pleuro-pneumonia; and even in tetanus caused by traumatic lesions, the local and internal use of celandine will prove its splendid curative power. From indications in the provings, but of this I know of no clinical confirmation, I believe it will go beyond this, and follow up the remoter consequences of mechanical injuries and the results of over-exertion, even after all local evidence of the mischief has subsided.

II.—Then you will find it valuable in many forms of cutaneous disorder; in simple erythema, in herpetic or eczematous eruptions, in falling out of the hair or beard, in warts, and in ulcers, even when inveterate, foul

and phagedenic. Diseases occurring from suppressed eruptions are frequently benefitted by a course of celandine in moderate dosage.

In diseases of the eye celandine has always had a reputation. Dioscorides gives the swallows the credit of curing blindness in their young by feeding them with bits of the leaf. You will probably find it of value in some cases of catarrhal ophthalmia; in amblyopia or amaurosis, especially when traumatic; in traumatic iritis ; in muscae volitantes, when they are flickering, sparkling or black; and in absence of better treatment, you might try it in cataract and pterygium, as an alleviative measure.

“I have often proved its efficacy in acute inflammation of the eyes, where they are swollen, injected, with a sensation of burning, as if from the presence of a foreign body. When there is excessive photophobia, lachrymation, abundant sebaceous secretion, agglutination of the eyelids in the morning; shiverings from time to time; pain which generally extends not only to the forehead, but sometimes all over the head; this pain, beginning to be felt towards 2 or 3 P. M., is at its height about 8 or 9, and prevents sleep, or even lying down, till nearly daybreak."—*Ferrivat.*

III.—In the digestive tract, omitting, for the present, consideration of the liver, you will find it of service in esophagitis, indicated by heat and burning from the pharynx to the stomach, and constriction of contractive spasm low down behind the larynx: in dyspepsia, evinced by disrelish for cheese, meat and other nitrogenous foods, and cold drinks, with keen desire for hot drinks and sour things, such as lemons, pickles, wine; in intestinal catarrh, painless, nocturnal, yellowish and slimy; and bilious diarrhea, with rumbling in the abdomen, before, during and after stool, not much pain, but great feeling of debility and weakness.

In the summer diarrhea of children, especially when associated with laryngeal, bronchial, or lung troubles, it often acts better than any other remedy.

Every case of gastro-intestinal catarrh in children, occurring at any season of the year, and showing itself by bright colored diarrhea, loss of appetite, feverish symptoms, and causing great emaciation and feebleness, will yield quickly to the exhibition of Chelidonium.

Chelidonium will often be of service to children afflicted with worms,

when they complain of crawling, pricking and itching within the rectum, or on the perineum, associated with costiveness. Schallern testifies to its good effects against round worms.

Constipation, with white, clay-like stools, or resembling sheep-dung, is often removed by gentle purgation with this drug.

IV.—But, it is in diseases of the liver that we find the real value of celandine. You will find no better remedy, and none so often indicated in general practice, in the disorders of the liver. Valuable as *Podophyllum*, *Leptandra* and *Iris* are, yet, I believe, Chelidonium is oftener indicated than either of them. Pain under the right scapula, with constipation of whitish stool, or bright, yellow diarrhoetic stool, with acid urine, is diagnostic for it. You will find it of value in the treatment of acute inflammation of the liver, induration of the liver, catarrh of the gall-ducts, cholesteraemia, jaundice of every grade, biliary calculi.

Dr. Hale details a case of biliary obstruction in which the prompt curative action of the medicine was unmistakable:

“The patient was a gentleman, an old resident of Chicago. He had been jaundiced nearly two years, and during that time had suffered intolerably with congestive chills, terrible cardialgia, periodic; intense hepatic pains, and his appearance when I first saw him was frightful. He was bronze-yellow; emaciated in the extreme; urine scanty and nearly black; stools hard and white; total inability to retain food; pulse intermittent and almost imperceptible. Like the case above alluded to, he had been drugged constantly for the two years, without the slightest benefit. I began with two drops *tinct. Chelid*. every three hours, increasing it a drop each dose every day, until he took ten drops, when he was seized with intense pains in the gall-bladder, followed by the expulsion from the bowels of a stone, dumb-bell shaped, nearly an inch long, and half an inch in diameter. He rapidly recovered—*New Remedies,* p. 138.

Many other cases of similar import come to us from Germany and England, showing its wide acceptance. In two cases of gall-stones and black jaundice fifteen drops of the juice of celandine four times a day removed fifty-three stones in one case and three hundred in the other. In all or nearly all diseases in which you will get rapid curative effects from celandine there will be some connection between the disorder and

the state of the hepatic system.

V.—It is probable that celandine may yet prove of value in renal troubles, especially those that date back to pre-existing hepatic derangements. It has the power of setting up a condition analogous to Bright's disease, and although clinical experience has not yet confirmed the hypothesis, I would suggest that you give it a trial, and watch carefully the results. If, as I hope, it can make a place for itself here, it will be a treasure of priceless value.

VI.—In the treatment of diseases of the respiratory organs, it is a remedy of considerable importance. Influenza, with frequent sneezing, soreness in the nostrils, and associated with more or less irritation of the vagi, comes within its influence. Whooping-cough is sometimes relieved by it, especially the epidemic form, with hepatic torpor. Laryngitis, bronchitis, pneumonitis and pleuritis, when the liver is implicated, and particularly if there be a yellow, slimy diarrhea, with the peculiar dietetic desires and dislikes that I have mentioned, will yield to its influence. Even nervous affections, such as asthma, hay-asthma, spasm of the glottis, prosopalgia and chorea, with the above concomitants, are benefitted by it.

Kissel gives the following sample cases of cough, with emaciation and fever in the evening, that come within the province of celandine.

1. A boy, æt. 4, had had a cough for a week, and in the evening a hot fit, with perfect intermission, when I undertook his case, March 19, 1849. The boy, who was previously stout, had become strikingly thin, with a dirty-gray complexion. He complained of nothing, but coughed up a little phlegm. Auscultation showed nothing abnormal; stool bright-yellow and consistent; urine bright-yellow, clear and acid. The pulse in the morning soft, not frequent; skin of normal temperature.

Gave twelve drops of *tinct. Chelid*. per day.

On the second day the fever was gone, and in a few days the child was quite well.

2. A girl, æt. 4, had suffered for ten days with cough and loss of appetite, and had several times had transient pain in the bowels when I saw her March 29, 1849. She had fallen away rapidly, had a dingy-gray complexion, and coughed hard without much expectoration.

Auscultation discovered mucous rale on both sides. Her tongue was clean; urine bright-yellow, clear and natural; pulse 110 and small; skin of normal temperature and rather moist; stool quite white, like thick pap; conjuctiva clear white, without any trace of bilious tinge.

Rx. *Tinct. Chelid*., 3 drams
Four drops five times a day.

By March 31 the cough was more moderate; stool once brownish, but then white again. April 2 it was brown, and continued so; the mucous rale could scarcely be heard; pulse 80. The child was playing again. Quite well by April 5.

Chelidonium will materially alleviate whooping-cough, when the catarrhal symptoms are prominent (or catarrhal diarrhea); the cough, which is violent and straining, with lachrymation, alternates with burning, shooting and constrictive pains in the larynx, and expectoration.

The following case is mentioned as typical of its use in spasm of the glottis :

A child one year old, grown rather thin, was ill for ten weeks. Always on waking it had a fit of laryngeal spasm, which had become gradually more severe till at last the respiration ceased for sometime at each fit. The tongue was thickly coated yellow, stool greenish-yellow, urine bright-yellow, clear and strongly acid.

Rx. Sodae bicarb., 2 drachms.
Chelid. tinct., 5 drops.
Aq. dest., 2 ounces.
Gummi Arab., 2 drachms.
A teaspoonful every hour.

Well in four days.

VII.—Sometimes, hepatic derangements involve the cardiac structure and set up an inflammatory action resulting in pericarditis, or endocarditis and here also Chelidonium will come to our assistance; just as we saw Digitalis, when we studied that drug, wiping out hepatic disorders arising from cardiac affections. Analogous to aconite and Bryonia, it will sometimes. replace both of these in the treatment of

measles—the gastro-hepatic symptoms will be diagnostic. It will replace Arnica in treatment of erysipelas of the face, traumatic or otherwise; the and Baptisia and Rhus, in typhoid fever. Dommes relates a severe case of vesicular erysipelas of the face cured by the tincture of Chelidonium in six days. Rademacher, Lofller, Bernhardi, Kissel and Thienemann all found it efficacious in epidemics of typhus, characterised by rapid general emaciation, sense of being bruised all over, dizziness and confusion of head, and incoherent speech. The loose stools numbered six or twelve per day, and were bright-yellow or green, watery, slimy, and parted into two portions, one of which was thinner and stood uppermost, whilst the other covered the bottom of the vessel. In children they were often quite white, as in the last stage of jaundice. The urine was at first jumentous and very acid, then turned deep-yellow and turbid afterwards bright-yellow and clear. The normal duration of the disease was eight weeks, and death was preceded by hemorrhage from the bowels. The tincture of chelidonium was found to be the remedy. Twenty drops per day were given in divided doses, and complete recovery took place in from two to three weeks. Death occurred in no instance where it was employed.

It has already been stated that obstinate intermittents were formerly cured by Chelidonium. It will be found useful in those cases where the fever sets in daily, in the afternoon or evening. The chill lasts fifteen or twenty minutes, followed by fever for two hours, with thirst.

When you meet with a case of rheumatism or rheumatic gout, characterized by intense pain on the part being touched ever so gently, particularly if the functions of the pneumo-gastric nerve are more or less perverted, give a trial to Chelidonium.

VIII.—In certain forms of headache it is indispensable. These are mainly bilious or sick headaches, but it will also be useful occasionally in neuralgic headache. The Chelidonium headache is periodic; the pain is acute, and presses in the direction of the forehead (*Bry.*); it seems as if the head was compressed with a bandage, close over the eyebrows (*Cactus*); when she wants to sit up in bed, she has to raise her head with her hand, for fear the occiput will break off from the rest of the skull (*Eupat. perf.*); violent throbbing pains from nape, coming over the occiput to the temple (*Sanguin.*); pains in the root of the hair when combed (*nux vom.*); vertigo when sitting up in bed (*Arnica*), when closing the eyes (*contra acon. Puls. Sang.*), with tendency to fall forwards (*Rhus tox*). The pain is relieved by eating (*contra nux*),

agravated by fresh air (*contra Puls.*), by lying down (*contra nux*) by cough (*nux vom.*), by blowing the nose (*Rhus tox.*), by stooping (*Bry.*)

IX.—And lastly, in some cases of mental alienation, or suicidal mania, when the person is restless, forgetful, quarrelsome, and imagines she has committed some great or unpardonable crime; you will relieve this condition, arising reflexly from long-continued hepatic and gastric disorder, and cure its hepatic causator, by administering a course of celandine.

In diseases calling for Chelidonium, the following symptoms are diagnostic:

Forgets easily. Sleepy, but cannot sleep. Dread of motion. Tongue narrow, pointed, white. Redness of the left cheek. Longing for milk, wine, acids. Urine intensely sour. Stools bright-yellow. Skin lemon color.

Chelidonium is best suited to blonde persons, Bryonia to those with dark hair and eyes.

Now, as to dose. We may take a leaf out of Rademacher's experience, who first used it in massive doses, but, finding many disappointments, reduced his doses to a few drops, or fractions of a drop, with manifest good results. The best results follow the smallest doses. Give five drops of the fluid-extract in an ounce of water, a teaspoonful every hour or two; increase if effects are not observed, decrease when it causes aggravation of the complaint. The maximum dose is a halfdrachm.

GELSEMIUM SEMPERVIRENS.

By GEORGE WILLIAM WINTERBURN, PH. D., M. D., New York.

The yellow jessamine, or woodbine, is one of the most interesting climbing plants of our Southern States, and is cultivated in gardens both North and South for its beauty and fragrance. It belongs to the natural order *Loganiaceae*, the same as Spigelia, nux vomica, Ignatia, woorari and upas. It is a slender vine, growing luxuriously in native groves and forests. The root is, in the largest specimens, two inches in diameter and several feet in length. The bark of the root is the part used in medicine, and should be tinctured while fresh; it is of a light snuff-

color, about the fifth of an inch in thickness ; and contains an alkaloid, a resinoid, and a neutral principle.

PHYSIOLOGICAL EFFECTS.

The earliest effect of full doses of Gelsemium is aching across the brows, pain in the eyeball, dimness of vision, and ptosis, or paralysis of the upper eyelid, so that the eyes can hardly be kept open; with this is giddiness on standing, passing off on lying down. Then follows diplopia, or double vision. At first the sight is merely hazy, then as if the atmosphere was densely smoky, and at last vision fails completely, failing first for distant objects. In gelsemized animals the sight became totally extinct, so that they ran straight against objects without trying to avoid them, evidently not seeing them. Another marked eye symptom of gelsemism is the approach and retrocession of objects of vision. The person under the influence of this drug will look at an object, and suddenly it will begin to recede until it vanishes to a point, and then apparently returns, until, becoming larger and larger, it almost seems to strike the eye itself. A patient of mine who had taken large doses of Gelsemium described the effect as if the pavement rose up and almost touched her face, and then fell, as into an abyss. The double vision varies in different individuals. In one it is a mere transient phenomenon, appearing and disappearing at short intervals, distant objects being the first to be affected.

“One gas-jet appears about six inches above the other, and there are six inches between them horizontally; the upper one is to the left; now the right is uppermost; now the left slightly again; going over to the right now again; exactly over one another now, and quite close together; now again separated, left the highest, now over one another.”—Fox.

Usually, however, in my cases the two images seem on a level, from four to nine inches apart, gradually coalescing, and then again separating.

In the other form of diplopia there is impaired movement of the eyeball, the external rectus muscle being generally first affected, and often one external rectus markedly more than the other. In this form usually the entire upper portion of the object of vision is cut off, and the eye oscillates from right to left. The pupil is always contracted, and in some cases to a mere pin's point. Nor does this disappearance of the pupil depend upon the dimness nor diplopia, as it often happens as these pass off the contraction of the pupil is increased.

“Dilatation of the pupils in poisoned animals occurs only when asphyxia from paralysis of respiration has set in, and artificial respiration at once causes the pupils to contract.”—BERGER.

The topical application of the drug to the eye produces, however, a very different series of manifestations. Nineteen experiments made by Ringer with a one-twenty solution of alkaloid show that invariably the pupil dilates, the dilatation lasting sometimes a week or longer. Accompanying this, but lasting only a few hours, is dimness of vision and paralysis of accommodation.

Shortly after the diplopia, sets in from internal administration, if the dosage be sufficient, there ensues paralysis more or less general; more markedly of the arms, legs and jaws, and the patient becomes unable to stand, move or speak, This was discovered in the following accidental manner :

“A planter of Mississippi, whose name we have forgotten, while laboring under a severe attack of bilious fever, which resisted all the usual remedies, sent a servant into his garden to procure a certain medicinal root, and prepare an infusion of it for him to drink. The servant, by mistake, collected another root, and gave an infusion of it to his master, who, shortly after swallowing some of it, was seized with a complete loss of muscular power, unable to move a limb, or even to raise his eyelids, although he could hear, and was cognisant of circumstances transpiring around him. His friends, greatly alarmed, collected around him, watching the result with much anxiety, and expecting every minute to see him breathe his last. After some hours he gradually recovered himself, and was astonished to find that his fever had left him. Ascertaining from his servant what plant it was the root of which acted in this manner, he collected some of it, and employed it successfully on his own plantation, as well as among his neighbors. The success of this article finally reached the ear of some physician, who prepared from it a nostrum called the “Electrical Febrifuge,” which was disguised with the essence of wintergreen. The plant was the yellow jessamine, and a knowledge of its remarkable effects was not communnicated to the profession until many years after.”—KING.

Another illustration of this is taken from the London Hospital reports:

“To see what effects the drug would have when pushed, I gave to a

patient, a sailor, convalescent from periostitis, three doses of 20 minims each-two hours intervening between the first and second doses, and one hour between the second and third. The first dose (probably from being given soon after a meal) produced but little if any effect. About half an hour after the second dose the usual complaint was made of difficulty of keeping the eyes open, from the heaviness of the lids. He saw things double, one image appearing beside the other. During this time the pulse did not appear to be much affected, remaining at 77; but after the third dose it became quickened, from 80 at 8:15 to 96 at 9 P.M. At 7 P.M. (about two hours after taking the third dose) he got out of bed to go the lavatory, being perfectly conscious. He reached the lavatory, but found himself then quite powerless, and quietly sunk first upon his knees, and then at full length. He was quite unable to raise his lids. His lower jaw dropped, and he did not articulate. The pulse fifteen minutes previously (viz., 6:45) is marked at being 80 and the same at 8:15—no registration being given of its actual value at the time of the failure of power. The patient was put into bed and some warm stimulating drink given to him, when he soon became better. He told me when I saw him, with the most open-eyed simplicity, that the medicine had done him a deal of good, that he could make water very much better since he had had it. I should observe that he previously had suffered from the effects of a troublesome stricture; that he knew everything that was going on around him when he sank to the ground, but that he was unable to move, and that his feelings were like those which he had experienced after commencement of intoxication."

The question now arises, is this paralysis due to the influence on the brain, the spinal cord, the motor nerves, or the muscles? Dr. Ringer answers this affirmatively as to the spinal cord, and says the muscles and motor nerves are unaffected. Horatio Wood, summing up what Ott, Bartholow, Ringer and Murrell have written, says the paralysis is evidently spinal in its origin, as its development is not affected by tying an artery before poisoning so as to protect a limb, and as the afferent and motor nerves and muscles preserve their functional activity until death. Bartholow says the disorders of voluntary movements, and the more or less complete paralysis of the motor and of the sensory functions, are due to the effects of Gelsemium on the motor and sensory portions of the spinal cord, the functions of the sensory columns resisting longer the action of the drug. It must also be remembered that consciousness is unaffected both in animals and man, at least until the period when the whole organism sinks under the attack, proving that it has little influence over the sentient portions of the brain.

Besides this paralysis we have a convulsive stage of gelsemism, and Murrell argues that this proceeds from another active principle in the drug, the first of which is more immediate and positive in its action; although it yet remains a question whether this is not a mere sequence of the earlier paralysis, and, like jaborandi, Gelsemium first weakens and then tetanises the spinal fibres. Certainly, as a rule, the tetanoid movements are observed only after very large doses.

Death is produced by asphyxia, there having been no previous stimulation or quickening of respiration, nor paralysis of the intercostals; according to Sanderson, it ensues from paralysis of the automatic respiratory centre.

As to the dose necessary to produce gelsemism, there is wide differences in individuals; some persons coming under its influences with comparatively a small quantity—that is, having the characteristic eye-symptoms from ten minims; others may take five or six drachms in the course of twenty-four hours with but slight effect. Ringer speaks of giving twenty minims to a delicate young lady every three hours for several days, finally causing only slight heaviness in the eyelids.

Gelsemism quickly appears and soon subsides. That is, given in ten-minim doses every quarter-hour the effects will begin to appear after the third or fourth dose, and may persist for eight or ten hours after the final dose, but greatly modified and alleviated within two hours after the last of the drug is taken. When completely gelsemized, the prover is pale, and has a sleepy look he yawns audibly, and if left alone will sink into slumber lie complains of dryness of the mouth, although it is actually moist, and wishes continually little sips of water; this latter symptom sometimes continuing for many hours.

Gelsemism produces no change on blood-pressure, according to Sanderson's experiments with rabbits; and Dr. Ringer's cases show the pulse only a little smaller and softer. Dr. Douglas states, however, that he has seen it produce in sensitive persons a decided febrile chill, with a subsequent reaction; the pulse, not very rapid, inclines to be full and soft, tongue moist and white; dull pains in head, back and extremities. Temperature seems little, if any, affected by the drug given to healthy subjects, though Bartholow has observed reduction of temperature in animals when physiological doses have been given.

Gelsemism abolishes sexual power without affecting desire, and we have in consequence sexual emissions without erection; and on the female organs, spasmodic neuralgic pains, cramps of the uterus, uterine ligaments, and thighs. It paralyses all the sphincters, causing enuresis and involuntary stools. Electricity (faradaic) is the best antidote of the toxic effects.

THERAPEUTICS.

Gelsemium has been found of use in acne upon the forehead and neck, and in papulous eruptions on various parts of the body—used topically as a vaserole, one part of green tincture to nine of vaseline. It will not be found of value in phlegmonous nor vesicular erysipelas, but in a mild type, with the characteristic soft compressible pulse, and muscular pains, I have found it curative in drop doses hourly, keeping the affected parts covered with cloths wet in a very dilute tincture.

In measles, when uncomplicated, and especially when the catarrhal symptoms are prominent, it is my only remedy. In one hundred and fifteen successive cases I found no other remedy needed. The fever of measles is rarely high enough to require aconite. The tincture, diluted with ten parts of water, is an excellent antidote when applied to the eruption caused by poison ivy.

In neuralgic otalgia, particularly when remittent or periodical, and in earache from cold, a few drops of the tincture on cotton, put in the ear, will relieve.

It is one of the most important of our optic remedies. In acute ophthalmia it is rarely of service, save in that form which occurs as as a symptom of masked intermittent, and in which the congestion, more or less intense, returns at stated intervals. In asthenopia, with oscillation of the eyeball on the slightest fatigue, I have seen in one case an almost miraculous cure. In hemiopia and diplopia it is frequently of service, not only in simple paralysis of the ocular muscles (characteristically acting on the recti through the sixth nerve), but where the affection is of deeper origin. It has removed the amaurosis caused by tobacco or by masturbation, or succeeding to diphtheria; ptosis where it was symptomatic of grave cerebral disorder; photophobia from long-continued exposure to sun or electric light; retinitis from albuminuria; detachment of the retina, when recent; strabismus, when recent; and choroiditis with hyperaemia of the optic nerve and retina.

It is of value in gingival neuralgia, if the pain is of a shooting character, and there is difficulty of separating the jaws. In diseases of the mouth and pharynx you will find it of practical benefit in cases where loss of motion through nerve-failure is a prominent feature of the disease; therefore, in paralytic dysphagia and dysphonia from paralysis of the tongue, buccal cavity, pharnyx, or glottis, unattended with numbness or prickling, you will find Gelsemium curative. I have seen beautiful results follow its administration in laryngismus stridulus, spasmodic croup, and spasms of the pharynx and glottis. It is the best remedy we have for post-diphtheritic paralysis.

In tonsillitis, with yellowish coating of the tongue, absence of thirst, compressible pulse, although the temperature may run high, it surpasses aconite in the celerity with which it controls and modifies all the symptoms

In esophagitis, either catarrhal or spasmodic, with that peculiar vomiting characteristic of disorders of this tube, as well as in similar conditions of the stomach, Gelsemium is often the only remedy.

Its action upon the bowels is marked and positive, not only in neuralgize of the intestines from malarial or other causes, but in diarrhea (acute catarrhal enteritis), caused by exposure to wet, either in cold or warm weather; as well as in diarrhea from emotional excitement, such as disappointments, bad news, or, in soldiers, from the excitement of battle. Sometimes nervous excitement causes paralysis of the sphincter ani and involuntary diarrhea; Gelsemium will cure this tendency. Again, in mucous dysenteries, spasmodic colic and tenesmus are sometimes associated with stools of green biliary matter, or with jaundice and light-colored stools; in either case Gelsemium will cure.

Gelsemium has no specific influence on the kidneys; but patients who, whenever mentally disturbed, are troubled by a profuse watery urine, will be helped by this drug. It has cured nocturnal enuresis of children; paralysis of the bladder in old men; and spasms of the bladder, with alternate dysuria and enuresis.

It is of frequent service during pregnancy, and as a parturifacient. Before labor, its use will relieve false pains when spasmodic, cramps in abdomen and legs, nervous irritability, and insomnia. During labor it will be found serviceable in controlling apoplectiform convulsions, rigid

os uteri, inefficient pains from uterine debility, and menorrhagia from lack of contractility. After labor it will ameliorate the severity of the pains which follow delivery.

In neuralgic or spasmodic dysmenorrhea, when the pains centre in the uterus and shoot upward along the back and down the thighs, Gelsemium will cure. It will cure vaginismus.

The opinion has been advanced that Gelsemium given during pregnancy will produce abortion. This I do not believe, unless given in large doses as actually to endanger life. In small doses it does produce moderate uterine contractions; if, however, the dose is decidedly increased, it will arrest the progress of labor. In proper doses it may be given safely at all stages of utero-gestation.

In the acute stage of gonorrhea, when there is much inflammation, scanty discharge, and tendency to chordee, it is one of our best remedies. After the fever is reduced it may be followed well by *Cannabis sativa*.

In spermatorrhea it is of great utility, when the emission of semen occurs, either during the waking or sleeping hours, Without an erection, or from irritability of the seminal vesicles.

In spasmodic stricture the introduction of a greased bougie, which has been dipped in tincture of Gelsemium, and permitting it to remain in the urethra a few minutes, will, after several repetitions of the operation, prove successful.

The catarrhal condition in which Gelsemium has proved almost specific, affects the nose, eyes and ears; and in those severe coryzal attacks in which the whole head seems involved Gelsemium owns hardly a rival. Acute catarrhal bronchitis, accompanied by tickling in the pharynx, severe cough with vomiting, tenderness in the epigastrium, and pain in the chest, Gelsemium will cure; but it is to be doubted if it can arrest inflammatory action, such as is present in pneumonia, pleuritis, or pericarditis, being here superseded by aconite and *Veratrum viride*. The value of Gelsemium in diseases of the respiratory organs is probably limited to such disorders of the mucous membrane as are occasioned by exposure to cold and damp.

Gelsemium, in diseases of the heart, reaches cases the reverse of those for which Digitalis is usually administered, and the most characteristic

symptom is a feeling that it is necessary to keep moving about the room or else the heart's action will be stopped. This reminds us of *Conium maculatum*, where life is actually prolonged by movement in persons suffering from its toxic influence. When from plethora, neuralgia, rheumatism or hysteria, the action of the heart is abnormally increased, and the pulse is full and soft, with stitches in the cardiac region, worse when lying down, Gelsemium is indicated and will probably do good.

In intermitting fever it will be found useful if the chilliness is especially along the back, with cold extremities, and very marked decrease in the frequency of the pulse ; there is, however, little shaking, and the chill does not last long. This is followed by fever, with rapid pulse, but without thirst; flushed face, stupor, and severe pain in the back and extremities. The fever usually lasts for hours, sometimes as long as twelve or fourteen, and is accompanied or followed by profuse perspiration. The quotidian type is the one most frequently calling for this remedy. In the condition known as “dumb ague,” where there is much soreness in the muscles, great prostration, and violent headache, Gelsemium and canchalagua in equal proportions, thoroughly triturated together, I have found a most valuable remedy. In the early stages of typhoid; in intermittents following typhoid; in irritative fever from abscesses; in acute muscular rheumatism; in scarlet fever and other eruptive fevers of children, when there is a tendency to to convulsions or retrocession of the rash, Gelsemium will be found useful. But especially in what is known as “infantile remittent,” which although it may be denied as a pathological entity, is certainly a clinical reality, I have seen the most gratifying results from the use of this medicine.

In cerebro-spinal meningitis it should be studied and will often prove a valuable intercurrent remedy.

In all fevers, the pyrexia, advancing as night approaches, is a further indication of Gelsemium as a remedy. So, also, is a tendency to stupor or to hemicrania.

On muscular tissue we have already noted its peculiar effects in producing intense functional prostration of muscular fibre, so that a person under its influence, on attempting to walk, sinks down all in a heap, like a drunken man. In the treatment of myalgia it vies with *Arnica* and *Cimicifuga*. When the muscle-pain arises, from over-exertion or other causes, and is accompanied with decided rise of temperature, Gelsemium is a neverfailing remedy; but when the fault is

in the trophic ganglia, and the pain is caused not by overwork, but by local starvation, it will be necessary to give *Cimicifuga*.

Gelsemium is also a useful remedy in muscular rheumatism, when there is a feeling of numbness and heaviness, the muscles fail to obey the will, the extremities feel heavy and bruised, the feet seem as if in cold water, the pains grow worse toward night and by the warmth in bed, but are relieved by motion, and the whole trouble was occasioned by exposure to cold and damp.

Gelsemium is of value in certain purely nervous affections. In sudden darting neuralgic pains, especially if recurrent or remittent; in tetanus and trismus; in hysterical convulsions from suppressed menses; in nervous chills unconnected with variations of temperature; in epilepsy; in hydrophobia; and in locomotor ataxy, it will be useful in proportion as the general condition approaches that of gelsemism.

In headache it is often quickly curative. The pain for which it is indicated is a dull, heavy feeling, extending to the occiput and down the neck, throbbing and fullness in the temples, vertigo on rapid movement stupid expression, and the whole condition is aggravated by lying with the head low, but relieved by the use of a high pillow.

MANGIFERA INDICA.

By M. F. LINQUIST, M. D., New Haven, Conn.

My own experience with Mango, the Mangifera Indica as a therapeutic agent has been of so satisfactory a character that I have ventured to introduce it to the notice of medical men. There have been so many new remedies offered within a few years past, with all manner of virtues real and imaginary imputed to them, that it is a delicate matter to take such a step. I have no other interest in the sale of this article, however, than what is incident to the good it will do to patients and the benefit which the physician who prescribes it will derive. I insist upon my proper amount of credit, however, as the first to introduce the drug through Thorp & Lloyd Brothers, of Cincinnati, Ohio. it is also manufactured by Parke, Davis & Co., of Detroit, Michigan.

A very full description is given of *Mangifera* in the *Supplement to the*

American Dispensatory, by Professors King and Lloyd.

I have used this drug in practice for more than ten years with entire satisfaction. It is an astringent of peculiar energy. The bark contains tannin, but it differs from tannic acid in not producing constipation. It can be administered during active inflammation without danger; and may be employed therefore with advantage in cholera, typhoid fever, cholera infantum, diarrhea and all disorders characterised by evacuations from the bowels.

My first experiment with mango was in a case of uterine inflammation and ulceration of the cervix. I employed the fluid extract at full strength to paint the ulcerated surface, and made a weak solution for injection. I have been able since that time to treat successfully the most obstinate affections of this character. I am certain that in gynecological practice the Mangifera is a valuable agent, lessening catamanial pain, curing leucorrhea, diminishing profuse menstrual discharge and correcting the various disorders involved.

For nasal catarrh I have found a weak solution applied with the spray-atomiser, to be the best remedy that I have used. It is a superior internal remedy for hemorrhages of the uterus, bowels or lungs, and in mucopurulent discharges.

It is perhaps the most serviceable in diphtheria. I do not assert that it will, unaided, cure all cases of this disease; but that I know of no remedial agent in the whole Materia Medica that will as fully meet the requirements.

I apply the fluid-extract in full strength to the fauces with a camel's hair pencil, and use a weak solution as a gargle.

Prof. Howe says : “I have found the Mangifera of marked service in the treatment of profuse and exhaustive menstrual fluxes. In uterine hemorrhages following miscarriages, the agent exerts a powerfully restraining influence upon the hemorrhagic waste. In the sanguineous loss which often occurs about the change of life, and when uterine tumors are developing, the Mangifera is a most potent and reliable medicine ever introduced to the notice of the medical profession. I prescribe the fluid-extract in four or five-drop doses every three or four hours. In a short time the influence of the medicine is observed, and in a few days the desired effect is reached. No remedial agent of so great

value has been introduced to the profession, for the purposes named. It is as near a specific for profuse menstruation and uterine hemorrhage as may be desired. I might report ten or twelve cases in which the medicine exerted just such an action as was wished."

Prof Goss says of it: "I have tried the fluid-extract of Mangifera Indica and find it to be an astringent of superior power. There is a property in it not found in ordinary astringents. I had a case of chronic diarrhea of long standing attended with indigestion, debility and much pain in the umbilicus. I suspected ulceration and gave the patient *Hydrastis* and bismuth, but with only partial relief. About this time I secured the *Mangifera Indica*, and put the patient upon it and cured the diarrhea. I have now waited for several weeks and find the effect so far permanent. I am much pleased with it, and predict that it will prove a valuable acquisition to our list of astringents."

Mangifera is also of great value in antiseptic treatment. Whether it is employed internally or externally it exerts a therapeutic influence decidedly antagonistic to putrefaction. It is likewise rapid in its operation and more certain in its effects than very many other medicines.

It has the following advantages in the prescribing: The dose is small and easily swallowed. The drug has no disagreeable taste, and does not disturb the stomach. It is therefore well suited for infants and persons fastidious in such matters. Hoping that my professional brethren will give the remedy a trial and ascertain its value from their own standing-point I have presented it to their notice.

NEW REMEDIES.

By J. W. PRUITT, M. D., Russellville, Ark.

So much has been written upon this subject in the last fifteen years that we fear what we shall have to offer will seem to be little better than mere repetition. Doubt is the foundation of all improvement, and may be taken as *prima facie* evidence of error, imperfection, or that something better may yet be discovered than what is already known. Medicine is far from being and perhaps never will be a perfect science, but this does not prevent investigation and the exercise of those analytical powers of mind that peculiarly belong to the Caucasian race.[8] The why and

[8] Aaargh—MM

wherefore in every problem of science, government, theology, etc., has always engaged the attention of the most profound savants of every age. Without innovation mankind would not progress-everything would remain crystallised.

The introduction of the numerous new remedies in the last twenty years marks an era in medicine of no little importance. The workers in this field have presented us with a mass of material that requires careful sifting in order to ascertain what it contains of utility. Much time and patient thought and careful observation are necessary before we can learn the real value of each agent. This will appear when we reflect that physicians are not yet agreed about the properties of some of the old remedies. Many to whom the credit of introducing new agents belongs, speak of their curative powers with great enthusiasm, which the observation of others does not warrant. This may be owing to the employment of a spurious or inert article or giving it under wrong conditions by the latter, or a run of favorable cases with the former. At any rate we think prudence, caution, close observation, coupled with a wise conservatism, are the safest guides in arriving at the real truth.

We will now proceed to notice some of the new agents of most repute that have sustained in whole or part the reports first made of them.

AILANTHUS GLANDULOSA, OR TREE OF HEAVEN.

This tree is a rapid grower and extensively cultivated as an ornamental tree and has a very fetid and sickening odor. It is said to be of value in asthma, dysentery, epilepsy, diarrhoea, etc. A tincture of the bark of the fresh root—eight ounces to the pint of dilute alcohol—is the best preparation for dispensing.

Dose, twenty to thirty drops every two to three hours.

In overdoses it produces vomiting and relaxation with deathlike sickness. It deserves further investigation.

ALSTONIA CONSTRICTA.

This is a tree growing in Australia, and I am convinced it is a valuable antiperiodic. I have treated chronic intermittents successfully with it that would not yield to anything else tried. If given with quinina or cinchonidia in equal proportions, the antiperiodic effect is enhanced,

while the secretions appear generally to be stimulated to normal activity, and the nervous system made quieter. In combination with *Macrotys*, *Gelsemium*, *Phytolacca*, etc., it is of value in rheumatism. It should be thoroughly tested.

Dose, of the powdered bark: two to ten grains every three or four hours.

BERBERIS AQUIFOLIUM.

This is one of the new Californian agents introduced by Dr. J. H. Bundy. It is a good tonic and alterative and has been used with success in syphilis, diseases of the skin, amenorrhea, etc. It may be employed whenever a tonic and alterative is indicated in doses of ten to thirty drops of the saturated tincture or fluid-extract. In one case of tertiary syphilis, in which the lower extremities were covered with copper-colored spots from the knee down, I employed this agent with satisfactory results.

RHAMNUS PURSHIANA, OR CASCARA SAGRADA.

This is also from California and introduced by Dr. Bundy. It has been the occasion of no little controversy among druggists and pharmacists, but fully sustains its reputation. It was long known to the Spanish residents of the Pacific coast and used by them as a remedy in constipation and dyspepsia.

I obtained a quantity of the bark of Mr. James G. Steele, of San Francisco, which I made into a tincture—eight ounces to the pint Of 76 per cent. alcohol. I used it as a laxative in doses of 1/2 to 1 drachm with great satisfaction. One patient, a lady with bilious headache accompanied with violent constipation, which had resisted the treatment of the best physicians in Little Rock, was promptly relieved by the remedy in combination with *Berberis aquifolium*. It should be given in small doses frequently repeated in constipation, as the large dose is too active and leaves the bowels, like other cathartics, in a more inactive condition than before.

RHAMNUS ALNIFOLIA, OR SOUTHERN BUCKTHORN.

This is a plant of the same genus as the Cascara. I have had it under observation three or four years, but have never given it a trial. A Methodist divine informs me that a medical friend of his used it

successfully as a cathartic in bilious derangements. Dr. Davis, of Kentucky, calls attention to it in the *Eclectic Medical Journal*, 1881, as a valuable remedy in dropsy, but does not give its mode of action. In sensible properties it very much resembles the cascara. I called the attention of the Arkansas Medical Association to it, at their meeting in 1879.

TURNERA APHRODISIACA, OR DAMIANA.

This agent when first introduced was claimed to be a safe and reliable aphrodisiac, but does not seem to have sustained any very pronounced reputation in that direction. This is owing, it is asserted, to the employment of the wrong or a spurious article. Indeed, Dr. King, in the *Supplement* to the *American Dispensatory,* says there are three different kinds of Damiana on the market, which shows the above assertion to be not altogether unfounded. I have employed the California variety obtained from Mr. James G. Steele and am very sure it has no aphrodisiac properties, but it is valuable as a kidneytonic, if I may be allowed to coin such a term. A boy highly anemic and dropsical from chronic intermittent, was not benefitted in the least from the employment of bitter tonics and iron, nux, etc. I tested his urine and found that the red particles of the blood were insensibly escaping by the kidneys. I added Damiana to the prescription, and he made a satisfactory recovery. I believe that the credit of discovering this medicine belongs to Dr. Hammond, of the Georgia Eclectic Medical College. I do not know which variety he used.

Further investigation is necessary not only to determine the relations, but therapeutic value of the different varieties.

GENTIANA QUINQUEFLORA, OR FIVE-FLOWERED GENTIAN.

This agent was brought to notice about the year 1866 by Dr. Yelvington, of Susquehanna, Pennsylvania, who describes it as tonic, cholagogue, and antiperiodic. In this last report he considered it equal to quinia if not superior in chronic intermittents. It is mostly found on the Susquehanna river, Pennsylvania.

My friend, Prof. A. B. Woodward, of Tunkhannock, Pa., sent me two pounds of the herb two or three years ago, which I made into a tincture, eight ounces to one pint Of 76 per cent. alcohol. It is intensely bitter. Prof. W. gives the following specific indications for its use: “A dirty,

yellow tongue, inclined to be chilly ; pain in the head, especially frontal; with any feverish condition." I used the tincture as prepared in doses of five to twenty drops once in two hours, and found it would clean the tongue in twelve to twenty-four hours. When given in the larger dose, however, it would often leave the tongue fiery red, and I believe if continued in this way would cause inflammation of the stomach. Small doses of five to ten drops have given me the most satisfaction. If it is associated with other remedies, as for example, sedatives, cathartics, tonics, alteratives, etc., it is said to increase their action.

Prof W. claims to have had excellent results from it in bilious and other headaches, congestive chills, etc. My experience with it has been limited, but I regard it as an agent of great value.

NYSSA MULTIFLORA, OR BLACK GUM.

I called the attention of the profession to this tree in the *Eclectic Medical Journal*, 1880, page 447, directing attention to its anti-abortive and parturient properties. Since that time I have had little experience with it. In one case of uterine inertia, it excited the contractions, but they soon subsided. I gave 1 to 2 drachms every fifteen minutes. Perhaps a larger dose would have been more effective. Its action very much resembles that of *Cimicifuga*. The pains produced by it resemble the natural efforts. The preparation I used was a tincture of the bark 8 ounces to dilute alcohol 1 pint. The midwives, so far as I know, throughout this country, have a knowledge of it.

POLYMNIA UVEDALIA, OR BEAR'S FOOT.

I called attention to this agent also about 1869-70. I had spent a great deal of time in its study and investigation, history, etc., and wrote several articles in the *Eclectic Medical Journal* in regard to it, which brought me a voluminous correspondence. Such a demand was created that I was compelled to gather it in quantities to supply the demand, till druggists could get it into the market. It was manufactured into a saturated tincture from the recently-dried root, with 90 per cent. alcohol, and an ointment with hog's lard.

The tincture was given in doses of five to thirty drops three to four times per day, and the ointment applied externally with brisk friction two or three times per day, bathing it in with a hot smoothing iron in bad cases. In cases of enlarged spleen—"ague cake"—its action is the most

prominently displayed, and in this disease it surpasses, in my hands, every other agent I ever used. I never prescribe anything else. I succeeded with it in one case of twenty-eight years' standing. I have used it in almost every variety and form of chronic disease incident to this country, and it has given me more satisfaction than any single remedy I ever used.

It is alterative, stimulant and subtonic, par excellence. It is not adapted to acute cases. The specific indications are as follows: A bloated, sodden appearance of the body, yellowish, dirty-looking skin-what we call in Arkansas “tallow face,”—a languid, sluggish circulation, enlarged glands, etc.

The best time for collecting it is after the seed ripens, till frost appears. After the top has been killed by the frost it is not so good. The root should be cut in small pieces and dried quickly in the sun.

I will briefly relate two cases treated with it, not before reported.

While I was visiting my brother, in the summer of 1876, in Yell county, a lady of the neighborhood consulted me in regard to her husband. She explained that “he was confined to his bed with a severe pain in his hip.” Perceiving that it was sciatica of a rheumatic character, I told her I had no medicines with me and declined to visit him. She then asked me whether I Could not tell her of something that would help him. I recommended the Polymnia in whiskey in the same way that poke-root is used by the country-people for rheumatism; also an ointment of the same. I saw the patient the next fall. “I was up and plowing in a week,” he declared to me “the ointment relieved the pain right off.”

As I returned home from my brother's, a near neighbor of his, requested me to stop and see his children. He showed me a girl between twelve and fourteen years old, whose head was nearly covered with tinea capitis. There was also considerable enlargement of the cervical lymphatic glands. The family had been using red mercurial ointment freely, but without benefit. I said to him: “Squire G. I think I could cure your girl if I had her where I could see her once or twice a week.” He enquired whether I “could not recommend something that would help the child.” With a laugh I told him of the Polymnia. He said that he would try it. I enquired of the gentleman above referred to about the girl. “Well, sir,” said he, “that girl is well and has as fine a head of hair as you ever saw.”

RHUS AROMATICA.

This agent was introduced to the profession by Dr. J. T. McClanahan, of Boonville, Missouri, who insists that it is a specific in enuresis, or "bed-wetting" of children, kidneytroubles, diseases of the bladder, hemorrhages, either active or passive. The doctor sent me about eight ounces of the bark of the root which I made into a one-pound tincture. This I used in two cases of "bed-wetting" in children, with good effect. It only lasted, however, while the remedy was continued. Perhaps if given longer the effect would be permanent. I also used it in one case of passive menorrhagia with benefit.

GRINDELIA ROBUSTA.

This is another of the new Californian plants, introduced to the profession and pharmacists by Mr. James G. Steele, though it had been noticed before by others. I obtained a quantity of the herb from him which I made into a saturated tincture with strong alcohol. This I have been using in asthmatic and bronchial affections with good results.

GRINDELIA SQUARROSA.

I also obtained a quantity of this herb from Mr. Steele. My experience with it has been too limited to justify an opinion. The few cases, however, of intermittent and enlarged spleen in which I used it were not benefitted.

PISCIDIA ERYTHRINA, OR JAMAICA DOGWOOD.

This is offered as a substitute for opium and its preparations, as an anodyne and hypnotic. From the trials I have made with it, I am inclined to think favorably of it. Dose of the fluid extract: $^1/_2$ to 2 drachms; repeated if necessary.

YERBA MANSA.

Dr. George, of California, two or three years ago sent me two pounds of the root of this plant, saying it was "stimulant, astringent, tonic, and anti-emetic" and of value in fevers. I used it in several cases of diarrhoea both acute and chronic with happy effect; also in a few cases

of nausea and vomiting. I prepared the tincture, 8 ounces to dilute alcohol 16 ounces, giving it in doses of 1/2 to 2 drachms. every two or three hours. The tincture deposits a heavy precipitate upon standing.

YERBA SANTA.

This is also from California. The first trial I made with it was with a fluid extract obtained from Mr. A. A. Miller, St. Louis, upon myself After recovering from a protracted attack of typho-malarial fever in the summer of 1877, with several bronchial complications, it developed into a well-defined chronic bronchitis. I took the medicine in doses of 1/2 to 1 drachm. four times a day, mixed with glycerine and water, and am happy to report a perfect and permanent cure. Since that I have used it in bronchial, laryngeal, and pulmonary complaints with excellent effect, I have also used it in combination with the *Grindelia Robusta* in asthma, chronic pneumonia, etc., with good effect.

I would recommend further investigation and experimentation with these articles. Not only should the present discoveries be more permanently established, but other qualities brought to light that we have not ascertained.

Every region of our country contains more or less medicinal plants. It is a pleasant and profitable pastime in which one can spend his leisure time, in the study and investigation of the medical flora of his neighborhood, in connection with the practice of office-pharmacy. To ascertain the effect of any given article we should experiment upon ourselves with small doses, or on some domestic animal, noting its physiological effect. We will then see and feel how and when it acts. Any disease presenting similar symptoms maybe benefitted by it.

THE MEDICAL FLORA OF KANSAS;

OR, THE MEDICINAL PLANTS INDIGENOUS IN THAT STATE.

By J. MILTON WELCH, M. D., La Cygne, Kansas.

Having for several years, from necessity, for recreation or to aid some medical friend, given what attention I could to the study of the indigenous medical agents of Kansas, I have for some time entertained a design, though indefinite, of preparing at least a preliminary list or

catalogue of the Medical Flora of this State. It seems reasonable that a territory so pregnant of resources as Kansas, for the maintenance and welfare of the race, might be expected to contribute some thing of a remedial character. It will be discovered, in looking over the field, that quite a number, if not a sufficient number, of agents, to answer almost all purposes in the practice of medicine are to be found here. This action will be found to cover the entire ground of therapeutics, as ordinarily classified. While, of course, there are many agents of universal use, whose medical properties, from long investigation and employment, are fully known, that we should not like to do without,—as *Veratrum*, *aconite*, *Belladonna*, *Gelsemium* and *Digitalis*, in the class of sedatives, or stimulants to the nerves of the circulation,—still there are enough of a similar character and properties growing in Kansas to supply their place sufficiently to enable intelligent practitioners to do a successful and satisfactory practice. In every other department of therapeutics we are abundantly supplied. We have all but the agents to take the place of Veratrum and aconite.

Quite a number might have been added from the animated or animal kingdom,—as the *Apis mellifica*, the blistering beetle, quite as good as the Spanish fly; and others could have been denominated indigenous quite as appropriately as plants.

In order to avoid unnecessary repetition, the following order will be observed in the arrangement of subjects,—technical name, common name, part of the plant used, and, lastly, properties and uses.

Actinomeris helianthoides (***Verbesina helianthoides***[9]). Gravel-weed. Root. It is said by Dr I. J. M. Goss, of Georgia, to be one of the most powerful diuretics in the vegetable kingdom; also tonic to the bladder. Useful in gravel.

Aesculus glabra. Buckeye. Ripe nut; some use the bark. This is a remedy for the veins. It seems to exert a tonic influence upon the muscular fibres of the veins, and hence its successful use in hemorrhoids and congested conditions of the uterus. Like nux vomica it relieves pain in the bowels attended with flatulence, simulating colic. It also exerts a marked influence upon the nervous system, relieving vertigo, dizziness and inability to co-ordinate muscular movement.

Agrimonia eupatoria (***A. gryposepala ?***). Agrimony. Fresh herb. This

[9] Current latin names are in bold italics—MM

remedy exerts a tonic influence upon relaxed and feeble mucous membranes, accompanied with profuse secretion, as in chronic bronchitis, and catarrhal conditions of the bladder and kidneys, accompanied with lumbar pain or uneasiness.

Agrimonia parviflora. Large agrimony. That part of the root from which the leaves grow each succeeding year. In its general influence it resembles the *A. eupatoria,* but is much its superior in atonic conditions of the bowels. It is one of the finest remedies in cholera morbus, cholera infantum, diarrhea, and is reported to have been used without failure in Asiatic cholera. I have used it in relaxed conditions of the bowels and in cholera morbus, with satisfaction both to myself and patients.

Alnus serrulata. Alder. Recent bark. This remedy produces retrograde metamorphosis, while at the same time it stimulates nutrition. One of the best alteratives, exerting its influence upon the skin and mucous membranes.

Alisma plantago. Water plantain. Fresh root. This agent relieves irritation of the urinary apparatus, manifested by pain in the loins and desire to micturate frequently.

*Ampelopsis quinquefolia (**Parthenocissus quinquefolia**)*. Virginia creeper. Bark and twigs. Considered to be a feeble alterative.

Apocynum cannabinum. Indian hemp. Root.

Apocynum andrasaemifolium. “Bitter Root.” Properties identical with *A. cannabinum*.

Arum or ***Arisaema triphyllum***. Indian turnip. Root. This is generally in medicine known by the first generic term, but botanists give the latter. This is a remedy for sore throat. It is a stimulant to the mucous membranes of the mouth and respiratory apparatus. It relieves cough and croup.

Aristolochia sipho (***Aristolochia tomentosa*** ?). Dutchman's pipe. Tonic and stimulant.

Anagallis arvensis. Red chickweed. This agent, as it exhibits active properties, has been praised for its influence in delirium, epilepsy and mania. It is said never to have failed to cure hydrophobia !

Artemisia frigida. Mountain sage. Herb. Said to be diuretic and diaphoretic. It seems to act directly upon the sympathetic nervous system, thus stimulating the secretions and lowering the temperature.

Artemisia vulgaris (***Artemisia ludoviciana***). Mugwort, wormwood. Herb. Tonic; employed in hysteria, epilepsy, amenorrhea, intermittent fevers and as an emmenagogue.

Asclepias incarnata. Flesh-colored Asclepias. ***A. syriaca***. ***A. tuberosa***; pleurisy root, butterfly weed. Root. The therapeutic properties of these three species of the Asclepias are familiar to all.

Asimina triloba. Pawpaw. Seed. Said to be one of the most prompt and pleasant emetics in the Materia Medica.

Baptisia alba. White indigo. ***B. australis***. Blue indigo. ***B. leucophaea***. Cream-colored indigo. These plants like the *B. tinctoria* are all medicinal and may be used for the same purposes.

Bidens bipinnata; B. connata; B. frondosa. Spanish needles. These plants are described and their medical properties given in our works on Materia Medica.

*Brunella (**Prunella**) **vulgaris***. Self-heal. Plant. This is a new remedy, and said to be remedial in all cases of hemorrhoids.

Cassia chamaecrista (***Chamaecrista fasciculata***). Prairie senna. ***C. marilandica***. American senna. Leaves. May be substituted for the Alexandrian senna. They are mild, but as efficient in their action as cathartics. The *C. chamaecrista* is said to be in every way a better remedy than the *C. marilandica*, and is very common.

Ceanothus Americanus. Jersey tea. The bark of the root. Alterative and anti-periodic. It has a special influence upon the spleen, to which it is a stimulant, and relieves chronic enlargement of that organ.

Celastrus scandens. False bittersweet. Bark of the root and berries. A feeble alterative. The berries make with lard one of the finest golden salves I have ever used,—mild, unirritating and soothing.

Chenopodium anthelminticum (***Chenopodium ambrosioides*** var.

ambrosioides). Wormseed. Seeds, herb or oil. This agent is used principally as a vermifuge, but may be used in catarrh, dyspnea or difficult respiration.

Clematis Virginiana. Virgin's bower. There are several varieties. It influences the ganglionic system and secretions.

Convallaria multiflora (***Polygonatum biflorum***). Solomon's seal. Root. I give this name as the one which seems to be most generally accepted. But there is, to me, much confusion; for there seem to be no less than from four to six synonyms. It is medicinal, exerting a special action upon the venous circulation, and the fact that we have but few remedies whose influence is exerted specially upon the veins, is my excuse for calling attention to it.

Cornus circinata. Green osier. ***C. Florida***. Dogwood. Bark of the root. These are agents considered to be tonic, antiseptic and stimulant. The latter also possesses some antiperiodic properties that might be made available.

Cypripedium pubescens. Lady's slipper. Root. This is rare, but it is one of the native medical plants.

Dioscorea villosa. Wild yam. Root. It grows abundantly in Linn and Anderson counties. It is a direct remedy for pain in the bowels, colic, bilious colic, etc.

Diospyros Virginiana. Persimmon. Bark and unripe fruit. A mild astringent.

Equisetum hyemale. Scouring rush. Plant. A “renal regulator unsurpassed.” As a regulator of abnormal conditions of the functions of the kidneys, it has no superior. In inflammation of the kidneys, either acute or chronic, it is considered specific. In fevers it is said to be indispensable, as also in inflammation of the lungs. A fine remedy in diabetes mellitus.

Erechthites hieracifolius. Fireweed. See text-books.

Erigeron (***Conyza***) ***Canadense***. Canada fleabane. The oil of this agent is generally used for passive hemorrhages. It is said to be valuable in gonorrhea.

Eryngium aquaticum (***Eryngium yuccifolium***). Eryngo. Root. This agent has a direct influence upon mucous surfaces. For urethral irritation, I know of no remedy its superior. I have in many cases promptly relieved and cured gonorrhea with this agent, and for spermatorrhea I know of no better remedy. Its energy is directed also to irritated conditions of the respiratory organs.

Euonymus atropurpureus. Wahoo. Bark of the root. Tonic and antiperiodic.

Eupatorium aromaticum (***Ageratina aromaticum***). ***E. purpureum***; queen of the meadow root. ***E. perfoliatum***; boneset; plant. *E. ageratoides* (?); white snake-root; root.

Fraxinus Americana or *acuminata*. White ash.

Galium aparine. Cleavers. Plant. Well known.

Gentiana alba[10] . White gentian. This is one of our best tonics, and as it grows in low, damp places, seems to be what some have called *G. ocholeuca*, which grows in dry grounds.

Gentiana saponaria[11] . Soapwort gentian. This is the *G. catesboei* of Jones and Scudder's Materia Medica, which see for properties. All the gentians are medicinal, and valuable tonics.

Geranium maculatum. Crane's-bill. Well known.

Geum Virginianum (***Geum canadense***), White avens. Root. This is an energetic tonic and astringent in passive hemorrhages and profuse mucous secretion, resulting from relaxed, atonic mucous surfaces. It is a superior restorative tonic.

Gerardia (***Agalinis***). Foxglove, feverweed. There are several species, all of which are considered medicinal. They are thought to be sedative and diaphoretic.

Gillenia stipulata (***Porteranthus stipulatus***). Bowman's root. Bark of the root. This is emetic, cathartic, diaphoretic, expectorant and tonic. It

[10] No longer found in Kansas - MM
[11] No longer found in Kansas - MM

is thought to be a substitute for ipecac, especially in its influence upon mucous membranes.

Grindelia squarrosa. Every one knows its uses and properties.

Gymnocladus canadensis. The Kentucky coffee-tree. The bean, or pulp of pod. It is said to direct its energies to the sympathetic nervous system, and is useful in some skin-diseases. The leaves are said to be cathartic, while some use the seeds for coffee.

Helenium autumnale. Sneezewort. Herb and flower. This plant is tonic, expectorant and errhine.

Heuchera hispida (***Heuchera richardsonii***). Alum-root. This is the species of Kansas, and all species have decided astringent properties, and may be used indiscriminately one for the other. The properties are astringent, styptic and antiseptic. Its astringency is said to equal that of geranium. It has been used in sore throat, dysentery and leucorrhea.

Hieracium Gronovii. Hawkweed. Several of the species are used in scrofula and chronic catarrh. Its reputation was gained by its power to antidote the poison of snakes.

Hypericum perforatum. St. John's wort. Fresh herb. It is reported valuable in diseases of the urinary organs, in nervous depression or prostration, and as a local application.

Ipomea pandurata—*Convolvulus pandurata* the old name. Wild potato. Root. Diuretic and pectoral. It is useful in dropsy, calculous affections and irritation of the urinary organs.

Impatiens pallida. Touch-me-not. Herb and juice. Esteemed by old authors as a remedy in jaundice, dropsy and as an alterative. It is directed to the skin, and used both locally and internally for the removal of warts, ringworm and salt rheum.

Juglans nigra. Black walnut. Bark and hull of nut. Useful for ringworm and other skin-diseases ; applied locally.

Juniperus Virginiana. Red cedar. Properties similar to the savin.

Leptandra Virginica (***Veronicastrum virginicum***). Black root,

Culver's physic. Root. Well known.

Liatris scariosa[12] . Backache root, gay feather. Root. This I have used in cases where women have complained of pain in the back, weak back, uterine engorgement, with favorable results. It seems to act directly upon the sexual organs of the female.

Liatris spicata[13] . Colic-root, button snake-root. Root. Diaphoretic and diuretic.

Liatris squarrosa. Blazing star. Root. Properties similar to *L. spicata*.

Lobelia inflata. Indian tobacco. Herb and seed. This grows in Linn county. Its properties are well known.

L. cardinalis and ***L. siphilitica***. Cardinal flower and blue cardinal. Have similar properties.

Lycopus Virginicus. Bugleweed. Plant. Sedative.

L. Europeus[14] . Properties similar to the preceding.

Leonurus cardiaca. Motherwort. Plant. It is nervine, antispasmodic and uterine tonic.

Linaria vulgaris. Toad-flax, butt er-and -eggs. Fresh plant. It may be used in skin-diseases, jaundice, hypertrophy of the liver and spleen, in scrofula and as an ointment for hemorrhoids.

*Lithospermum hirtum (**Lithospermum caroliniense***, and *arvense (**Buglossoides arvensis**)*. Gromwell. Seed and root. These are the Kansas species, [?] and may be substituted for the ***L. officinale*** in chronic cystitis, as also in calculous affections.

Melilotus alba. Melilot, sweet clover. Flowering plant. Its influence is similar to the ***M. officinalis***. Useful in “neuralgia with debility.” Also in painful diarrhea, colic, dysmenorrhea, and sciatic neuralgia.

Menispermum Canadensis. Yellow parilla. Root. Alterative and tonic.

[12] No longer found in Kansas - MM
[13] No longer found in Kansas - MM
[14] No longer found in Kansas - MM

Mentha Canadensis (***Mentha arvensis***). Wild mint. Herb. I like it even better than I do the *M. viridis* (***M. spicata***). It is unsurpassed as an unirritating diuretic, and the most prompt of any I have ever used. In suppression of urine in children, it stands without a rival, in my estimation. My knowledge of it came through mistaking it for another species.

Mertensia virginica. Virginia lungwort. This is the *Pulmonaria Virginica* of some authors.

Mimulus. Monkey-flower. Several species of this plant are supposed to be medicinal. It seems to be directed to the nervous system in neuralgic affections.

Monarda fistulosa. Wild bergamot. Herb. This species is considered to be a reliable and efficient antiperiodic. One of the few remedies thought to be equal or superior to quinia in the cure of chronic chills, or relapsing intermittent fever. It has cured such cases when quinia has failed.

Monarda punctata and other species. Mountain-mint. Herb. Tonic, stimulant and anti-periodic.

Monotropa uniflora. Ice-plant. Plant. It is thought to be sedative, and to exert a special influence upon the nervous system. Claimed to be remedial in “convulsions, epilepsy, chorea,” etc.—(SCUDDER.)

Nabalus (***Prenanthes***). Lion's foot. Fresh plant. The different species of the *Nabalus* are said to have a direct influence upon the nervous system that may be found useful.

Nepeta cataria. Catnip. Well known. An antidote for poisoning with *Gelsemium*.

Nicotiana tabacum. Tobacco. Green leaves. Sedative and narcotic, and useful in bronchial and pulmonary irritations, croup, asthma, etc.

Nuphar advena (***Nuphar lutea*** ssp. ***advena***). Yellow pond-lily.

Nymphaea odorata. White pond-lily. Root. Astringent and tonic, exerting a restraining influence upon excessive mucous discharges.

Oenothera biennis. Evening primrose. Plant. It has a direct influence upon mucous membranes, stimulating them. It also stimulates the nervous system, enabling one to endure fatigue. Tonic and astringent.

Onosmodium Virginicum[15] . False gromwell. Roots and seeds. Diuretic and lithotriptic. It is considered to be a renal hydragogue of great utility.

Parthenium integrifolium. Flowering fops. "A powerful antiperiodic." It relieves burning, scalding and painful urination: also suppression of urine.

Pastinaca sativa. Parsnip. Fresh roots. A nervous sedative, in large doses, but stimulant in small doses.

Passiflora lutea Yellow passion-flower; the Kansas species. juice of leaves. "It relieves irritation of the nerve centres, and stimulates sympathetic innervation".

Penthorum sedoides. Virginia stone-crop. Herb. It seems to have a special stimulating influence upon chronic, irritated and inflamed mucous membranes.

Phoradendron flavescens (***Phoradendron leucarpum***), called also *Viscum flavescens*, *V. album*, and *V. verticillatum*. Mistletoe. An oxytocic of no mean character. It is said to act more promptly than ergot.

Phytolacca decandra (***Phytolacca americana***). Poke, skoke, kokum, garget. Every one knows its virtues.

Plantago major. Plantain. Used for poisonous bites, stings, toothache, etc. (Exotic).

Plantago cordata[16] . Water plantain. Root. Upon the nervous system this agent exerts a direct influence in controlling irritation and restoring innervation. It was crowned with marked success in Asiatic cholera in 1832.

Podophyllum peltatum. May-apple, mandrake. Root. All know its virtues.

[15] No longer found in Kansas - MM
[16] No longer found in Kansas - MM

Polemonium reptans. Greek valerian. Root. A stimulant to the respiratory organs.

Polygonum punctatum; smartweed. P. acre (***Polygonum punctatum*** var. ***punctatum***); wild smartweed. ***P. hydropiper***; water-pepper. All these are stimulant to the reproductive apparatus, but the ***P. hydropiper*** is considered the best.

Polygala senega. Seneka snake-root. Root. It is stimulant to the mucous membranes of the throat and bronchiae.

Polygala sanguinea. Milkwort. This species, as almost all the species, are medicinal, and have properties similar to the ***P. senega***. We have several species here besides those given, the ***P. incarnata***, ***P. verticillata*** and ***P. alba***.

Polymnia uvedalia (***Smallanthus uvedalius***[17]). Bear's foot. Root. Its energies are said to be directed specially to the spleen; and for conditions of the system stimulating that bloated, waxy appearance of the skin resulting from or following hypertrophy of the spleen, and the resulting depressed innervation, it is worthy the attention of physicians.

Potentilla canadensis. Cinquefoil. Entire plant. For puerperal fever and inflammation, it has been recommended as a specific, given in infusion.

Prinos glaber (***Ilex glabra***[18]). Ink-berry. It is said to have similar properties to the *P. verticillatus* (***Ilex verticillata***), the black alder or Winter Berry, which is tonic and alterative, stimulating the digestive and blood-making organs.

Prunus or *Cerasus* ***Virginiana***. Wild cherry. Choke-cherry. Well known.

Ptelea trifoliata. Wafer-ash. Bark of the root. Tonic, antiperiodic, and by some said to be alterative. It also has a very decided influence upon the respiratory apparatus. Its power as an antispasmodic is indicated by the relief it gives in asthma, colic, etc.

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[17] (...when did they change this name?)

[18] No longer found in Kansas - MM

Pteris atropurpurea (***Pellaea atropurpurea***). Rock-brake, a fern. Fresh plant. Its direct action is upon "the excretory apparatus, controlling diarrhoea, dysentery, hemorrhages," etc.

Pynanthemum pilosum (***Pycnanthemum verticillatum*** var. ***pilosum***). Prairie-hyssop. Entire plant. This is a mild, stimulating diaphoretic, similar to the pennyroyal.

Rhus glabra. Sumach. Bark of root and berries. A valuable astringent and antiseptic.

*Rhus toxicodendron (***Toxicodendron pubescens***)*. Poison oak or ivy. *R. radicans (***Toxicodendron rydbergii***)*. dog-wood, poison sumach. Leaves. The properties of these plants are identical and well known.

Rhus aromatica. Sweet sumach. Bark of root. Recent publications set forth its properties and uses.

Rubus villosus (either ***Rubus allegheniensis*** [current Kansas native or ***R. argutus*** [formerly found in Kansas]). High blackberry. ***R. trivilalis*** or ***R. canadensis***, dewberry. *R. strigosus (**R. idaeus*** var. ***strigosus)***[19]. Wild red raspberry. Root and leaves. All these are mildly astringent.

Rudbeckia laciniata. Thimble-weed. Herb and flowers. Diuretic and tonic, and said to be useful in diseases of the urinary organs, Bright's disease, atrophy of the kidneys, etc.

Rumex acetosella. Sheep-sorrel. Plant. Alterative. A great cancer-remedy.

Rumex crispus. Yellow dock. Root. Alterative, with a direct effect upon the mucous membranes of the larynx, and bronchial tubes.

Sabatia campestris. American centaury. Herb. It is tonic, and said to be an antiperiodic of merit. In debility and convalesence from fevers, it is a highly useful tonic.

Salix nigra. Black willow; and other species. Bark. Tonic, and when there is periodicity accompanied with rheumatic pain it is said to be antiperiodic. Antiseptic properties are also claimed for it.

[19] No longer found in Kansas - MM

Salvia Pitcheri (***Salvia azurea*** var. ***grandiflora***). Kansas or wild sage. Plant. In domestic practice it has the reputation of being an excellent remedy in the cure of fever and ague. It is tonic and as bitter as quinine.

Sambucus Canadensis (***Sambucus nigra*** ssp. ***canadensis***). Elder. Bark and flowers. It is said to be alterative, stimulating the excretory organs to increased. action, and hence recommended in scrofula, syphilis, dropsy, etc.

Sanguinaria Canadensis . Blood-root, red puccoon. Root. Well known. A stimulant to mucous membranes, and tonic to the heart.

Sanicula marilandica Sanicle. Root. Its influence seems to be directed to the nervous system, allaying irritation and giving tone in enfeebled conditions.

Sassafras officinale (***Sassafras albidum***) or *Laurus sassafras.* Sassafras. Bark of root.

Scrophularia Marilandica. Carpenter's square, figwort. Root and leaves. This is the ideal alterative; and it evidently has tonic properties.

My first acquaintance with this remedy was made when I was quite young. In the form of a poultice, it is one of the finest applications for all kinds of bruises, cuts, chronic sores, felons, white swellings, etc., that I have ever seen used; and this opinion is formed upon an experience of forty years. Internally, though a little slow, it is unsurpassed in its influence upon chronic skin troubles. In diseases of the reproductive organs of the female, chronic uterine congestion, ulcerated os uteri, leucorrhea, with the concomitant relaxation, uneasiness and debility or weariness, in such cases, it has, in my experience, been very satisfactory. Under its administration I have seen the cheeks grow rosy, the skin assume a clear and healthy hue, the eyes brighten, and a lively sprightliness take the place of sluggishness and despondency, as if the blood and nervous system had been touched by some stimulating nectar, This, from its use alone, without combination.

Scutellaria lateriflora. Skullcap. Herb in flower. Nervine, anti-spasmodic, and tonic to the nervous system. Its use in epilepsy, chorea, hysteria, and nervousness, having been followed by relief and lessened irritation, it is supposed to exert its special influence upon the cerebro-

spinal centers. Other species possess similar properties.

Sedum pulchellum or *ternatum*. Stone-crop. Flowering plant. It is thought to have properties similar to the ***S. acre***, whose influence is directed to the nerve centres, relieving irritation.

Senecio aureus. Golden senecio, life-root. Fresh herb. This agent directs its energies upon the reproductive organs of the female, in the form of a tonic. It has, it is said, but slight influence upon the male.

Sida spinosa. Plant. In domestic practice, a remedy in chronic diarrhea, summer complaints of children, etc.

Silphium lancinatum. Rosin-weed. Flowering tops. Its action is directly upon the nerve centres, controlling the respiratory organs. In asthma, in dry spasmodic cough, it has been used with benefit.

Silphium perfoliatum. Indian cup-plant. Fresh root. It is recommended as a remedy for ague-cake, congestions of the liver and spleen in chronic chills.

Sium latifolium or *linoere* (***Sium suave***). Water or cow parsnip. This is very similar, in its medicinal properties, to the Cicuta.

Smilax herbacea. Jacob's ladder. Possesses strong diuretic and lithotripic properties.

Solanum dulcamara. Bittersweet. Twigs. It seems to have an influence upon the circulation, and is alterative and narcotic.

Solanum nigrum. Black nightshade. Blossoming herb. This agent is a direct stimulant to the capillaries, improving their circulation. It relieves congestion of the nerve-centres, controlling the kidneys.

Solidago rigida. Hard-leaved. Goldenrod. Plant. It is said that none but the ***S. odora*** is medicinal; but this is a mistake. This is said to be a more useful remedy than the ***S. odora***, and may be used for the same purposes as a diaphoretic and stimulant; also to promote the menstrual flow, and to relieve colic and gastric irritation.

Solidago virgaurea[20] . Plant. This is another species of marked

[20] No longer found in Kansas - if ever, being a European plant - MM

stimulant, anodyne, irritant and carminative properties, similar to the preceding, and may be substituted for it.

Spirea tomentosa. Hardhack, or steeple-bush. Root. This agent is astringent and tonic. It has been used in passive hemorrhages, gleet, leucorrhea, diarrhea, etc.

Staphylea trifolia. Bladder-nut. Root. A tonic similar in its action to the Ptelea trifoliata.

Stillingia sylvatica. Queen's root. Root. This agent seems to have a direct action upon the lymphatic system, giving good blood. It is an alterative, with an influence directed to mucous membranes and the skin.

Stylosanthes elatior or *Trifolium biflorum* (***Stylosanthes biflora***). Pencil-flower. It is said to relieve false pains and abdominal uneasiness during the last months of pregnancy. A preparative for the parturient state.

Taraxacum dens-leonis (***Taraxacum officinale***). Dandelion. Root. It is a stimulant to the entire intestinal tract.

Teucrium Canadense. Wood-sage, wild germander. Fresh plant. Stimulant and tonic. It also relieves hysteria, restlessness, and promotes sleep.

Trillium erectum[21]***; T. sessile***. Beth-flower. Root. All the Trilliums are medicinal and have similar properties. Their influence seems to be directed to the mucous membranes, checking profuse secretion. They are employed with benefit in chronic coughs, chronic catarrh, and chronic bronchitis, and as styptics.

Triosteum perfoliatum. Fever-wort. Bark of root. The books say it is cathartic, emetic, tonic, diuretic, anti-rheumatic, and alterative. In addition to these properties, I think it is slightly sedative. It controls frequency of pulse, while at the same time it reduces the temperature in fevers and inflammations, and is a desirable adjunct to other treatment in intermittent and remittent fevers; just what is needed in Kansas.

Ustilago maidis. Corn-ergot. It is used for the same purposes as ergot.

[21] No longer found in Kansas - MM

It relieves capillary congestion, dizziness, dull headache, etc.

Verbascum thapsus. Mullein. Fresh top, leaves and flowers. It allays bronchial irritation; also exerts a mild influence upon the nervous system.

Verbena bracteosa (***Verbena bracteata***). Prostrate vervain. Root. Used in scrofulous affections, especially in scrofulous sore eyes. Some think it more potent as an alterative than iodide of potassium.

Verbena hastata; ***V. urficifolia***; nettle-leaved Vervain; root. These remedies are considered as prophylactic against autumnal fevers and ague. In large doses they are emetic ; also tonic and antiperiodic.

Vernonia faciculata. Iron-weed. Root. It promotes waste and secretion, and hence is alterative. It is also mildly tonic.

Veronica Americana or ***V. buccabunga***[22] . Brooklime. Fresh leaves and tops. It is directed to the skin and mucous membranes, and relieves irritation of them.

Viburnum prunifolium. Black haw. Bark of root. Antiabortive; controls uterine pains, after-pains and dysmenorrhea. Is specific against abortion.

Viola pedata. Blue violet. Entire plant. All the species are mucilaginous, emollient and laxative; also alterative, and relieves nervous irritability.

Xanthoxylum fraxineum (***Zanthoxylum americanum***). Prickly ash. Berries. A diffusable stimulant. Its direct action seems to be upon mucous membranes generally, as of the throat and bronchial tubes, stomach and intestines, and of the urinary apparatus.

[22] No longer found in Kansas - MM