A TREATISE

ON

GELSEMIUM.

(Second Edition. Enlarged.)

The Therapeutic Uses are written for this Treatise by Professor Finley Ellingwood, M.D., Professor Materia Medica, Bennett Medical College, Chicago; Author of "A Systematic Treatise on Materia Medica and Therapeutics;" Editor Ellingwood's Therapeutist, etc.

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GELSEMIUM.

Common Names. — Yellow Jessamine, Jessamine, Carolina Jessamine, Wild Woodbine, White Poison Vine, White Jessamine.

History.—Gelsemium sempervirens is a native of the Southern United States, being abundant in the swamps, woods and thickets, from Virginia to Florida. It is a handsome climber, twenty to fifty feet in length, blooming in early spring, its flowers being overpoweringly fragrant. The name, given by Jussieu, was made from the Italian word Gelsomino, meaning jasmine. But it is not a jessamine, and inasmuch as there is a true jessamine with yellow flowers, E. M. Holmes, of London, considers it unfortunate that the term yellow jessamine has been applied to it. This common name, however, is now firmly established. Its Italian name, Gelsomino, possibly led Eclectic authors to use the name Gelseminum instead of Gelseminum, a term found in early Eclectic literature and but recently displaced, a term perhaps, so far as derivation is concerned, more appropriate than the name commonly employed. In this connection it may be said that Professor Scudder invariably used the word Gelseminum.*

Medical History.—Barton and his co-laborers did not mention Gelsemium, but Rafinesque (1830) gave it a place, stating that "Root and flowers* are narcotic, their effluvia may cause stupor, tincture of the root is used for rheumatism in frictions," a statement taken almost literally from Elliott's Botany of South Carolina and Georgia, 1821.* The medical record (King) had its origin through

c1—In an English botanical work in the Lloyd Library, which I can not now locate, a long discussion appeared concerning the two words. If memory serves me correctly, the decision was in favor of Gelseminum.

^{*2—}The statement has been made and possibly established that honey from the flowers of this plant is narcotic.

^{*3-}Stephen Elliott was born in Beaufort, S. C., November 11, 1771, and died in Charleston, March 28, 1830. He was studiously inclined, graduating from Yale in 1791. Returning to his Southern home he thereafter continued his studies, which inclined toward science, especially botany, his researches in that direction being specialized in the flora of South Carolina and Georgia, through which States he traveled and lectured on the subject. He became editor of the Southern Review, and took a conspicuous part in founding the Literary and Philosophical Society, and the Medical Society of South Carolina, being elected President of the first named body. He was elected a Fellow of the American Academy of Science, received the degree of LL. D. from Yale 1819, from Harvard 1822, and from Columbia in 1825. Between 1825 and 1830 he was Professor of Natural History and Botany in the Charleston Medical College. In civil affairs he was no less interested than in science, being a member of the lower house of the South Carolina Legislature. 1793-1812, and was elected President of the State Bank, organized in 1812, which position he held during the remainder of his life. His natural history collection was very large. In 1821 he published the first volume of his "Botany of South Carolina and Georgia," and in 1824 the second volume appeared. This work is often referred to by Porcher, and has been freely culled by subsequent authors, serving as a foundation for the medical uses of many Southern drugs. Too often little or no credit was given the author. Witness the remarks of Rafinesque concerning Gelsemium, which serves as a text for this biographical note, and which has served a chain of writers whose references scarcely alter the words of Elliott.

the mistake of a servant of a Southern planter who was afflicted with fever. This servant by error gave his master a decoction of Gelsemium root, instead of the garden plant intended. Immediate loss of muscular power and great depression followed, all control of the limbs was lost, the eyelids drooped and could not be voluntarily opened. Death seemed imminent. But the effects finally wore away and the man recovered, free from fever, which did not recur. An observing physician took this experience as a text and prepared from Gelsemium a remedy which he called the "Electrical Febrifuge," which attained some popularity. Finally, the name of the drug concerned was given to the profession. This statement is found in the first edition of King's American Eclectic Dispensatory, 1852, which work actually presented Gelsemium to the world of medicine, although, as will be shown later, the plant had a recorded position much earlier. King's article on Gelsemium was copied in substance by the United States Dispensatory, 1854, none of the preceding nine editions of that work having mentioned the drug. But the fact is that Porcher* commended Gelsemium in his report to the American Medical Association, 1849, and, concerning its restricted local use in gonorrhœa and rheumatism, referred to Frost's Elements of Materia Medica (South Carolina) as well as to several local journal articles.

For a long time following 1852 (at which date King's American Dispensatory appeared), Gelsemium remained an almost exclusive remedy of the Eclectic school, but in 1860 it attained a position in the U. S. Pharmacopæia, although not until 1880 did that work give place to any preparation of Gelsemium. At present the drug is in much favor with many physicians of the Regular school, and should in justice to themselves be used by most of them, but it is generally classed as one of the Eclectic remedies, being actually one of the most important in Eclectic therapy.†

^{*}Francis Cyre Porcher was born December 14, 1824, St. John's, Berkeley Co., S. C., being the descendant of a French Huguenot family. In 1847 he graduated from the South Carolina State Medical College, Charleston, where he afterward became a professor of Clinical Medicine and Materia Medica. For many years he was editor of the Charleston Medical Journal and Review, was corresponding member of the Academy of Natural Sciences, and Fellow of the College of Physicians, Philadelphia. He was President of the S. C. Medical Association, and during the Civil War was Surgeon in Charge of the Confederate Hospitals, Norfork and Petersburg, Va. In 1849 he contributed a "Report on the Indigenous Medicinal Plants of South Carolina," Am. Med. Assoc., 176 pp., and in 1854 wrote for the Am. Med. Assoc. a paper on "The Medicinal and Toxicological Properties of the Cryptogamic Plants of the U. S.," 126 pp. In 1863 he wrote his (now rare) monumental production in behalf of the Confederacy, "Resources of the Southern Fields and Forests," by direction of the Surgeon General of the C. S. A. Dr. Porcher died in Charleston S. C., November 19, 1895.

[†]In this connection it may be stated that Gelsemium has been often presented in Regular print by such journal contributors as Drs. John Scott, Isaac Ott, E. A. Anderson, G. S. Courtright, W. C. Hull, and many others. Professor Roberts Bartholow gave it great attention in his Materia Medica, and also in journal contributions in both Europe and America. Professor T. J. Wormley gave its alkaloid chemical consideration, while Drs. Ringer and Murrell in the London Lancet, 1875-76-78, made admirable researches. The American interest in Gelsemium, outside the Relective school, notwithstanding the clinical evidence of the authorities we have mentioned, and others who might be named, is in fact founded on the work of Bartholow, Wormley, Ringer and Murrell.

Notwithstanding its energetic effects, questions have arisen concerning the lethal powers of Gelsemium, and because in one instance a lad of twenty years swallowed six fluid drachms of the tincture without serious results, the argument has been advanced that Gelsemium is not a poison. But probably the tincture taken was at fault; we have seen specimens that need not have been feared if swallowed in any amount, short of alcoholic effect. The fact is,

many authentic cases of death from Gelsemium are on record, although none have come under our immediate observation.

Description.-The rhizome and root of Gelsemium are very tough, woody and brittle when dry. The rhizome attains the length of many feet and may be one to two inches in diameter, the knot at the stem base even reaching the size of a man's fist and weighing half a pound. The rhizome is brown externally and nearly white within. When chewed the bark imparts a bitter taste, not otherwise disagreeable, but as the virtues reside almost wholly in the bark, the wood is nearly tasteless. The rhizomebark is thin, clings close to the wood, and carries numerous tough, silky, bast fibers, which, however, in our experience, are not as abundant as some authors have described. When green, the bruised rhizome exhales a peculiar, honey-like odor, to the writer very pleasing and characteristic. This disappears on drying the drug. For thirty years or more, Eclectic physicians have insisted that the green drug possesses qualities altogether absent in the dry. This we accept without reserve, and for decades have worked only the green drug, believing that the point as concerns its superiority is not debatable, and that, too, notwithstanding that the described alkaloids and other products broken out of the drug are fixed, and the official pharmacopæial preparations are made from the dry root.

DRIED FRAGMENT OF GELSEMIUM RHIZOME. (Natural Size.)

Constituents.—In 1855 Mr. Henry Kollock identified an alkaloid which he named *gelsemina*, a resin, and a volatile oil. In 1869 both Prof. Maisch and C. L. Eberle again obtained the alkaloid, stating, however, that it was absent from the wood of the root, a

point Gerrard afterward supported. In 1870 Prof. Wormley identified Gelsemic Acid in a fluid extract, which substance Chas. A. Robbins, 1876, pronounced identical with Æsculin. Prof. Fluckiger, soon afterward, from specimens of pure Gelsemic Acid made for him by the writer, denied their identity,* and this view was supported by Wormley (1882) and Coblentz* (1897). Since (1898) Prof. E. Schmidt gave the formula C₁₀ H₈ O₄ to Gelsemic Acid, which is the same as the formula of beta-methyl-æsculetin.

The qualities and constitution of the alkaloid, or rather we should say of the alkaloids, for the subject of their number is yet one of discussion, are yet under dispute. Sonnenscheim and Robbins (1876) gave C₁₁ H₁₉ NO₃, while Gerrard (1893) gave C₁₂ H₁₄ NO₃, with which Spiegel (1893) agreed. Thompson (1887) identified two alkaloids, one of which he called gelsemine, the other gelseminine, and this (1893) was supported by Cushny. Prof. L. E. Sayre showed (1897) that the vine contained neither alkaloid nor acid, identifying 0.2% of alkaloid in the rhizome and 0.37% Gelsemic Acid. The root contained less alkaloid (0.17%). The difference, however, in proportion of alkaloid is only one of bark relationship. Since all the alkaloid is found in the bark, which in the rhizome bears a less proportion to the wood than in the small roots, the root yields more alkaloid than the rhizome.

Gelsemine (either or both the alkaloids) is colorless, odorless, very bitter, slightly soluble in water, soluble in dilute acids, chloroform and ether. It produces the poisonous effects of Gelsemium. This should not be confused with the so-called concentration Gelsemin (see p. 7).

Gelsemic Acid is in brilliant, colorless crystals, nearly insoluble in water, soluble in hot alcohol, from which it mostly crystallizes on cooling. It exists either free in the drug, or combined so loosely (perhaps both free and combined), as to be easily liberated from solution without the use of chemicals. Gelsemic Acid is tasteless, but traces even produce an intense blue fluorescence in alkaline water. It is the substance that gives the blue color to liquids of Gelsemium, but when isolated it has no value whatever in therapy, so far as any of the known Gelsemium qualities are concerned. If a fluorescent aqueous solution of Gelsemic Acid be exposed to the sunlight, it quickly (Miss Margaret Stewart) loses its blueness, and the fluorescence is not restored by ammonia.

^{*1-}Private correspondence. So far as I know Professor Fluckiger did not publish his results.

^{•2.—}The Gelsemic Acid used by Coblentz was also made by me, and was identical with that used by Fluckiger. It was pure white, and crystalline.

All this problematic chemistry of Gelsemium products is however a matter of indifference to the physician desiring a balanced representative preparation of Gelsemium, partly because the questionable basic products on record, as well as the resin and extractives, are obtained from the dry root and not from the green. None of them carry the qualities of the preparations of Gelsemium that have made the therapeutical reputation of the drug. If the drying process did not break the natural interstructural combination, the heroic chemistry used in splitting it into fragments would accomplish that result. These alkaloids and other products are obtained from Gelsemium, but we neither comprehend how they have been created, nor what their natural relationships may be, nor yet the part they bear to the host that gives them birth, and which, as a whole, is so sensitive as to forbid even the process of drying, if one wishes the fullest and finest qualities of Gelsemium.

PHARMACEUTICAL PREPARATIONS.

Distillate.—The fact that bruised, green Gelsemium root exhales a pleasant odor, which disappears on drying, indicates that this substance should impart its qualities to water distilled from the crushed green rhizome. This, however, is not the case, the distillate being of a very different odor. The fact that certain of the qualities of the green root are not possessed by the dry, indicates also that an active, volatile substance should be obtained by distillation. However, the distillate is devoid of any Gelsemium quality. It is limpid, clear, possesses no volatile oil, differs in odor from green Gelsemium, and can be swallowed with impunity. Either the heat of distillation destroys the natural volatile compounds; or they are so evanescent as to vaporize by the touch of hot water, not to condense; or oxydation produces new substances which have the fragrance of the green drug, but are permanent as gases.* This distillate possesses none of the remedial characters of Gelsemium and is devoid of therapeutic interest.

Fluid Extract.—This is the usual shop preparation, and became official in 1880. It has a dark red color, and is made from dry Gelsemium. The presence of Gelsemic Acid gives it a blue fluorescence, and, if it be a representative preparation, the presence of the poisonous alkaloid gives it a decided lethal action. The Fluid Extract is not used to any great extent by Eclectic physicians, and is too familiar to others to require special attention.

^{*}It does not necessarily follow that an odoriferous substance is a condensible gas. While it is true that such bodies as oil of gaultheria are volatile and susceptible to recovery by distillation and condensation, it is also true that other odoriferous substances, e. g. musk and certain penetrating perfumes, do not parallel such bodies.

Gelsemin.—This substance is one of the intruded* members of the old Eclectic resins (resinoids) and concentrations. It was introduced from the outside and became attached to Eclecticism, but was discarded under protest, decades ago, by Eclectic physicians. It has since been used mainly by physicians who are not conversant with modern improved Eclectic pharmacy. Gelsemin is an extractive mixture of such products of the drug as can be retained in a dry form, and is composed mostly of inert material. It should carry the alkaloids of the drug, for they are fixed, and there is no reason why a dried extract should be devoid of them. Death has resulted from the error of giving the very poisonous alkaloid Gelsemine for the less active "concentration" Gelsemin, and the principle reason for our giving space to this paragraph is to call attention to the fact that the "resinoid" Gelsemin is not the alkaloid Gelsemine. Since Gelsemin is an inferior product, neither certain in construction nor commendable in quality as regards even dried Gelsemium, it would be better if physicians seeking a Gelsemium product would take the experience of physicians who, half a century ago, came near having their opportunities wrecked on the uncertainties of the resinoid, alkaloid, concentrations, of which Gelsemin is a member, and which, but for the influence of Professor John King and others, might have been disastrous to the Eclectic school. In this connection, be it said, at no time did Gelsemin ever gain recognition, even in name, in any edition of the American Dispensatory.

Specific Medicine Gelsemium.—This preparation is, in our opinion, the preferable form of Gelsemium. It has a golden, amber color, and when shaken does not stain the glass. It is possessed of a delicate fragrance, reminding one of honey. When dropped into water, alcohol, syrup, or glycerin, no precipitation occurs, the liquid remaining transparent. (See footnote page 8.)

The color imparted to water by small amounts of Specific Gelsemium is slight, excepting the blue fluorescence, which can be observed on the side next the light. In looking through an aqueous mixture towards the light, no blue color is seen.† A few drops of ammonia increases the yellow color of the liquid and also enhances the fluorescence.

The taste of the Specific Gelsemium is bitter, at the same time the flavor, due to the odor, becomes apparent. When a few drops

^{*}By "intruded" we mean the "resinoids" that were not introduced by Eclectics. If the interested reader will take the pains to look up the Eclectic Dispensatory record, it will be seen that dried solid extracts were never sanctioned by Eclecticism. They were introduced from outside.

[†]The best way to catch this blue fluorescence is, while near a window, to look down into a dilution. The side of the container next the window will be vividly marked. The substance (Gelsemic Acid) that gives this reaction is not, however, in itself (see p. 5) of any material value in therapy.

of Specific Gelsemium is mixed with water in a test tube, the usual reactions for alkaloids are to be obtained, although, as has been repeatedly stated, we consider the alkaloidal feature but one of the fortifying qualities of this preparation. In our opinion, the care exerted in selecting material, the study made of methods and processes, the advantages possessed in apparatus devoted to this class of preparations, makes of Specific Gelsemium a thing in itself, as contrasted with other Gelsemium products. Specific Medicine Gelsemium is a perfect pharmaceutical preparation, of exact and uniform quality, standing the effects of any climate, and retaining its energies indefinitely.*

THERAPEUTICS OF GELSEMIUM.

By Professor Finley Ellingwood, M. D., Chicago, Illinois

The primary influence of Gelsemium—that which probably always underlies its remedial influence upon any condition—should be borne steadily in mind in its administration. Its direct action is upon the central nervous system. It diminishes the blood supply of the brain and spinal cord by lessening nerve power, inhibiting the nerve control, slowing, retarding or staying the functional action of the nerve centers over the nerves themselves, influencing them steadily in the line of their physiological activities. It thus subdues all forms of nerve excitation of whatever character, or wherever located. It inhibits excessive nerve action. Nerve irritation, whether direct or reflex, comes uniformly under its influence.

There must be, then, increased nerve tension, with its consequent irritation, and usually, local hyperæmia or increased and undue blood supply in sthenic conditions. It is not the remedy when asthenia prevails.

The specific symptoms which call for its administration directly are those of acute determination of blood to the brain—acute cerebral hyperæmia—manifested by a bright flush upon the face, bright eyes with contracted pupils, with a busy restlessness and excitability. With these there is a high degree of nerve tension and consequent irritation, with increased heat of the head and face. There is present in acute cases, elevated temperature, hot skin, usually dry, a sharp and quick pulse, but not always hard.

In the acute fevers of childhood the evidences of nerve irritation are seldom absent. Here the agent exercises its happiest influ-

^{*}Since this was written (1904) the improved pharmaceutical form of Gelsemium, "Gelsemium Red," has been evolved. This (page 17) is given a special description, accompanied by clinical therapeutic reports of physicians using it.—L.

ence. Muscular twitchings with the above specific symptoms demand this remedy, and no agent is more immediately positive and reliable, or invariable in its action. If spasms supervene, the dose is increased in size and frequency until they are controlled. Often no other agent need be given.

In acute inflammation of whatever organ or part, there is likely to be a time during its early course when Gelsemium is the positively indicated remedy. Its administration should cease when its indications are no longer apparent.

In acute inflammations, especially those of childhood, or in persistent fevers, where reflex irritation threatens to induce convulsions, other fever remedies should usually be suspended for this until all irritation has abated, or until its beneficial action is no longer conspicuously apparent. If its physiological effects appear at any time during prolonged or protracted fever or inflammation, it should be suspended temporarily, or permanently, within the judgment of the prescriber, as its full physiological influence persisted in, may impair nerve tonicity, and general tonicity of the muscular system, or of the heart, to such a degree as to retard recovery, or at least to prolong convalescence.

The direct contra-indication is congestion, either of the nerve centers alone, or of any organ. The phenomena of dullness, hebetude, obstructed circulation, whether local or general, with normal or lowering temperature, with increasing weakness—asthenia—must be treated with the antitheses of Gelsemium.

Fevers of nearly all kinds in adults, in the early and sthenic stage, are influenced by Gelsemium, because the above conditions to some degree are a part of the pathology of increased temperature.

In acute cerebral, spinal, cerebro-spinal, or meningeal inflammations, its symptomatology is usually strongly marked at first, and the agent is of signal benefit. If in adults, it may be given at first in pronounced doses, lessened as the symptoms abate or as its physiological action appears. In later stages of these disorders the dosage should be much smaller, or some remedy more directly indicated should be substituted. It should never be continued beyond the sthenic stage.

There are some forms of nervous wakefulness in which no better soporific can be given than this agent. Begun early in the evening, a few full doses will produce tranquillity and restful repose. If there be busy excitability and extreme restlessness, its influence will be greatly enhanced by combination with hyoscyamus. Nervous headache, which drives away sleep, can often be removed and sleep satis-

factorily induced with this remedy. The nervous system is in part restored during sleep so induced, and the patient is rested.

In nervous excitation of women consequent upon acute peritonitis, ovaritis, salpingitis, metritis, puerperal fever, or mastitis, this agent has no peer. It is especially commended in the early stages, and if hysterical phenomena develop. Given in the early stages in pronounced, but carefully watched, dosage it will occasionally abort the entire condition, especially if the cause has been removed by proper methods. Extreme full doses are sometimes admissible

In puerperal convulsions this agent has a conspicuous place. If at first. given in accord with its exact symptomatology, in sufficiently large, often heroic doses, no agent will act better, but it must be exactly so given. The symptomatology of veratrum is more often present than that of this agent.

In intestinal inflammation, it has not seemed to me to be often indicated for the actual fever, and yet the reflex nerve phenomena, especially of children, often quickly demand it. It controls nervous or spasmodic pain in these conditions, and I have found it of great service in appendicitis. It seems to retard the inflammatory processes. It is of great advantage in the tenesmus of dysentery, sometimes allaying this troublesome symptom in a single full dose. Usually several frequent, pronounced doses are demanded.

In inflammation within the chest I have not used the agent as often as bryonia and aconite. Others speak highly of it, and there are conditions when the demands for it are too plain to be ignored. Certain forms of asthma are relieved by it quite promptly. Others have had good results from its influence in whooping cough and in laryngismus stridulus. It controls certain forms of spasmodic cough and cough from reflex irritation.

In acute cold, the whole system is influenced by it, the coryza being marked and all the usual symptoms pronounced. Gelsemium given in two or three-drop doses, every half hour for a few doses, will often give relief most promptly and satisfactorily. In epidemic influenza it has been generally used with signal results in nearly all

In acute nephritis it is certainly a sovereign remedy. It at first cases. meets a wide range of the symptoms in a pronounced manner. It reduces the arterial tension, often at once, and consequently the quantity of albumin. It exercises a permanent, soothing influence upon nerves of the entire urinary apparatus in a most satisfactory manner. The quantity of urine is increased, the general nervous phenomena are delayed, the fever abates, and any pain or spasms are controlled. My practice has been to give macrotys with the Gelsemium in acute nephritis from cold, but I am positive the beneficial influence could not be obtained without Gelsemium.

In post diptheritic or post scarlatinal nephritis it controls any undue irritation, but belladonna acts upon the actual condition more satisfactorily than Gelsemium. In post puerperal nephritis, I should certainly fail of a cure without this agent. In three very bad cases I gave Gelsemium in full large doses with the very best results. It anticipates the uremic symptoms, preserves tranquillity of the nervous system, and wards off the otherwise almost inevitable convulsions. It is of especial service in the spasmodic retention of urine of hysterical women, or in acute urinary irritation.

Spasmodic pain in the urinary organs have no more reliable antidote than Gelsemium. Spasmodic pain in the bladder, or in the cystic sphincter, are controlled quickly, and acute cystitis should be treated with Gelsemium from the first. The soothing influence of the agent upon the entire nerve distribution of these organs is soon evident. In spasmodic urethral stricture where pain is excruciating and nothing but a catheter will apparently do any good, Gelsemium is often all sufficient. I have had two marked cases where the catheter could not be passed, in one case, even under chloroform, where full repeated doses of Gelsemium relieved the irritation and retention within two hours. I give from two to five drops of the Specific Medicine every twenty or thirty minutes even if mild physiological symptoms appear. In the tenesmus of chronic catarrhal cystitis it is excellent.

In Gonorrhæa, in the first stages, it is a very prompt remedy, especially if used in conjunction with irrigation of the urethra. This remedy alone will often produce much relief in twenty-four hours. Where there is much excitement with chordee no remedy is more prompt.

Spasmodic types of ovarian neuralgia and neuralgic dysmenorrhœa are controlled with Gelsemium. It relieves uterine colic promptly. In confinement it dilates a rigid os uteri, especially when the parts are dry and hot, and the edges of the os are hard, thin and unyielding, where nervous excitability is present. It soothes the general nervous system at this time, overcomes erratic, sharp, cutting, nagging pains, that seem to be of no benefit, preserves the integrity of the nerve force, and if the pains are exaggerated, and the labor does not advance, the labor is sometimes satisfactorily suspended or retarded until all parts are ready for the expulsive effort.

It is a most soothing remedy after labor, relieving nervous excitability and preventing or controlling after pains, but I do not

consider it a proper or safe remedy with which to control these pains, as I am confident that its influence upon the normal muscular contractility of the uterine fibre causes relaxation, permits uterine hemorrhage, and retards normal involution.

It is a valuable remedy for hysteria. It is combined with pulsatilla to advantage in young girls. In pregnant women with frequently recurring paroxysms, cimicifuga, in small doses, will facilitate its action, as will viburnum or aletris.

In diseases of the nervous system of a chronic character, the influence of Gelsemium is beneficial, but not so pronounced. In excitable mania it exercises a controlling influence, and if sleeplessness be present its influence is enhanced by combination with hyoscyamus. It has exercised a beneficial influence in epilepsy, especially in those cases where acute cerebral hyperæmia is pronounced.

It has prevented and controlled tetanus, especially in the initial stage. Dr. Lewis, of Momence, Ill., claims to have prevented the development of three cases by the use of echinacea for the toxemia, and Gelsemium and passiflora for the spasm. In the tetanus of horses it acts better than in man, and is now quite generally used, hypodermically, by veterinarians throughout America. They claim that it cures many cases. I lay claim to any honor that may be due to first suggesting to the veterinary profession its probable value for this purpose. This I did to my classes in the Chicago Veterinary College in 1884, when lecturing there upon chemistry. My suggestion received a general test at once, and the remedy a wide adoption.

This agent has its place in chorea, but only when its specific indications are present, not in those cases characterized by anemia.

In the treatment of facial neuralgia, especially of the fifth pair, its influence is pronounced. I am of the opinion that the influence of the agent upon the nerve centers is from the brain downward, and that a large dose given for its influence upon the lower spinal nerves will exercise a too pronounced effect upon the nerves of the head and face, and upon the respiration. It is, therefore, seldom given in sufficient doses to control sciatica. It should be used hypodermically over the sciatic nerves. It controls headaches from cerebral engorgement with nervous irritability and excitability.

It is a serviceable remedy for migraine and tic douloureux. In persistent stitch, like pains in the deep muscles of the back, which often completely incapacitate a man for work of any kind, full doses just short of its apparent physiological action will act in a most specific manner. I obtained this suggestion from Dr. Lyman Watkins, and it has been fully verified.

In rheumatic stiffness of the muscles of the neck, often accompanied with sharp pain, this agent should be freely given. In acute rheumatism and in rheumatic fever it is often sharply indicated. Given in connection with aconite, bryonia or rhus tox., as these are indicated, no better treatment can be instituted.

I consider Gelsemium a most important heart remedy. The cases are those of rapid heart from over excitability, irritability, with exaltation of nerve force, excitability induced from general nervous excitability, but where the patient is in full strength. No other remedy need be given in some of these cases. It relieves palpitation so induced and cures cardiac neuralgia. It is especially useful in the irritable heart of hysteria, influencing the entire train of symptoms at once. It is contra-indicated in weak heart, and where there are valvular lesions of any considerable character.

In sea-sickness, Specific Medicine Gelsemium has been used with marked success. Dr. Perce commended it, and in one instance two ladies on a European voyage, who followed his directions, escaped, while nearly all the other voyagers suffered. A teaspoonful of a mixture of thirty drops Specific Medicine in four ounces of water was taken at the time of sailing, and repeated hourly the first day. Afterward it was taken less frequently. Neither party was sick. On the return journey, although the sea was very rough, the same course of indications was pursued with the same result. In this connection, be it said, in sea-sickness the remedy that cures one person may fail in another, and it is not to be hoped that Gelsemium will affect all alike.

I am inclined to the belief that in the South, its natural habitat, the conditions assumed by acute disease are more directly and specifically influenced by Gelsemium than in the colder climates. Perhaps those factors of disease in which Gelsemium is specifically indicated are more frequently induced or increased by the climatic influences of that locality. At least, our physicians in the South, who use the remedy to any extent, use it much more freely, and seem to find its indications present more often than we do in the North.

Dr. Smith, of Leesburg, Florida, told me that in the malarial disorders which prevail in his locality he found indications for its use in nearly all acute cases and almost invariably obtained prompt and satisfactory results. He has occasion to prescribe larger quantities of it than of all other fever and sedative remedies combined. Dr. Wm. M. Durham, of Atlanta, Georgia, and several other physicians of the South confirmed Dr. Smith's opinion as to the frequency of the occurrence of its indications. All these physicians unite in

the opinion that Gelsemium quickly induces or brings about that condition in periodical malarial disorders in which the antiperiodic, quinine, can exercise its happiest influence. It restores secretion, softens and slows the pulse, reduces nerve excitation and irritation, causes a mild transpiration from the skin, and assists in cleaning the tongue. All these conditions must be present if quinine be given to marked advantage and with no unpleasant results. These physicians claim further, that given during the time of the administration of quinine, it prevents undue stimulation of a sensitive nervous system, does away entirely in most cases with the tinnitus aurium, and other unpleasant phenomena, and enhances the influence of the quinine in all lines of its action, the desired effect being obtainable by a less quantity of this antiperiodic than would otherwise be required. These suggestions are no doubt applicable in other localities to a degree.

I have heard physicians say that they believed there were times or seasons when Gelsemium influenced their patients with the same indications much more directly and positively than at other times. Perhaps this is in line with the theory of "epidemic remedial influence" or "epidemic remedial conditions" advanced by Rademacher and referred to by Scudder and other writers.

The necessity of a uniformly active form of Gelsemium, and the fact that in commerce preparations of the dried drug prevail, has led Eclectic physicians to use the Specific Medicine.

Gelsemium in Chorea.—I have often stated to my students that I regarded Gelsemium as being the most important remedy in the entire materia medica. I base my statement upon the fact that there is no other drug that will fulfill so many important conditions. We may get several distinct actions from the same drug, according to the size of the dose, and the condition of the patient. Many practitioners believe that they know all that is to be known regarding such a common remedy as this, but will be surprised at the many unrecorded uses that they will find for it, by giving it their close attention for a period of a year's time.

Within the last two years I have entirely cured several of the most aggravated cases of chorea that I have ever seen with Gelsemium, and the cure was accomplished in about thirty days in each instance. In September, 1888, Benny L., aged 12 years, was brought to the college for treatment. The history of the case was that the boy had been healthy up to his sixth year, when he was severely sick with diphtheria, chorea following the subsidence of the diphtheria, and for the following six years it remained about the same, in spite of continual treatment from "regular" physicians, a dozen or more of whom were employed. I prescribed 3 ss Specific Medicine Gelsemium, to be taken in doses of gtt. ij four times a day. Within thirty days the boy was well.

CASE 2.—This case was a bright little fellow of 11 years. Had been a victim of chorea for over a year, was under treatment in this city for some time, when he was taken to Philadelphia and put under the treatment of a physician of worldwide reputation. Under his treatment the boy improved to some extent, and was

brought back to this city, but within a week after returning was as bad as ever. He came into my hands on June 3, 1889, about a month after his return from the East. He was not able to stand alone, to articulate understandingly, or to feed himself. I gave him a vial of homœopathic globules No. 60, each globule having absorbed a single drop of Specific Medicine Gelsemium, by putting them in a shallow dish, and applying the Specific Medicine with an ordinary medicine dropper. Of this I directed that he take two of the pellets before each meal and ond at bed-time. He was brought to my office four times, the last call being on July 5th, when I discharged him as being entirely well, he having taken about one drachm of Specific Medicine Gelsemium. I have seen him often since that time and there has not been the slightest symptom of the trouble manifest.—Prof. E. R. Waterhouse, California Medical Journal.

Uses of Gelsemium.—This is one of our sheet anchors, and has a very wide field of usefulness. Its indications are bright eyes, contracted pupils, flushed face, elevated temperature and fast pulse. You can thus see that it is frequently called for in acute inflammatory affections of all kinds, and we do thus use it, and many times combine it with the indicated special sedative. It is of use in spasmodic affections. In reflex spasms of childhood we would not exchange it for any other remedy we possess. It is also of great use in spasms of centric origin. In retention of urine from a spasmodic contraction of the neck of the bladder we know of no better remedy; but for this purpose it must be given in full-sized doses. In suppression of the menses from cold, cembined with pulsatilla, it has no equal. The dosage has a wide range—from the fraction of a drop to half a drachm. It is seldom necessary to give the latter dose, though we have done so, in the retention of urine, as stated above, and in a few cases of puerperal eclampsia and meningitis. Gelsemium is the remedy in the early stages of meningitis; belladonna in the latter.—W. N. Mundy, M. D., Eclectic Medical Journal.

Uses of Gelsemium.—Dose, the fraction of a drop to twenty drops. To tell all the good things about Gelsemium would require a separate article. It is almost daily used by me. I cure coryza with a single dose given at night. Those "catches" in lumbar muscles, sometimes causing the patient to fall, are always benefited, and many times cured with Gelsemium. In the acute stage of gonorrhoea it is one of the best internal agents. In many lesions of the kidneys, bladder, and nervous system it is of paramount importance. Specific indications are flushed face, bright eyes, contracted pupils, and general excitation of the nervous system. Equally as good an indication is the pallid face with bounding carotids.—Benj. L. Simmons, M. D., Eclectic Medical Gleaner.

Uses of Gelsemium.-

Indications.—Great restlessness, flushed face, bright eyes, and contracted pupils. Add to this, elevated temperature, full quick and bounding pulse, and we will have the combined indication for both Gelsemium and Veratrum vir. When such symptoms prevail Gelsemium and Veratrum should be put up in the same solution, and they will fulfill all expectations. Gelsemium is seldom if ever indicated alone, and is not called for in connection with any other remedy than veratrum. It is the special remedy in determination of blood to the nerve centers, especially to the roots of the spinal motors.—A. J. Smith, M.D., Eclectic Medical Journal.

SPECIFIC MEDICINE GELSEMIUM RED.

We consider the Crowning Pharmaceutical Success in the line of a Gelsemium preparation to be the elegant Specific Medicine, Gelsemium Red.

Characteristics. This preparation has the following characteristics. It is of a rich crimson color, and can not be mistaken for a common fluid. It has no unpleasant odor, being practically odorless. It does not change in quality from age, neither precipitating nor undergoing other alteration. In medicinal proportions it mixes without precipitation with water, glycerin, syrup, simple elixir, dilute alcohol, or other ordinary prescription diluents. It possesses the full therapeutic properties of fresh Gelsemium, without such objectionable products and by-products as may be found in ordinary preparations of the drug.

The dose is the same as that of the old style Specific Medicine Gelsemium, that stood for decades as a standard. However, its cleanness and clearness, its perfect dilution without precipitation, and its ready assimilation, makes Gelsemium Red exceptionally at-

tractive, effective, and pleasing to the patient.

A Beautiful Experiment. To a half tumbler of clear water, add one fluid drachm (or less) of Specific Medicine Gelsemium Red. There will be no precipitate. Add now half a teaspoonful of baking soda. A beautiful, fluorescent, ultramarine blue color results.

Specific Medicine Gelsemium Red is made by means of the recently discovered Lloyd's Reagent, which enables us to exclude the inert coloring matters of the crude root. The preparation carries the full therapeutic qualities of the drug, (alkaloid and otherwise), and it is, in every wise, a perfect pharmaceutical compound.

Commendations. In a therapeutical sense, the reports of physicians who have used Gelsemium Red speak for themselves. They are of exceptional value, because of the great experience of their authors in the direction of the clinical use of Gelsemium. Within a year thousands of physicians, in even stronger terms, will commend Gelsemium Red to their brother practitioners. The stocks of all jobbers are now being supplied with "Gelsemium Red," at the usual list price of Specific Medicine Gelsemium.

We do not commend Specific Medicines for hypodermic use. See

footnote on page 32.

LLOYD BROTHERS, Cincinnati, Ohio.

February 1, 1915.

Clinical Reports on Specific Medicine Gelsemium Red.

Twenty-eight Years' Use of Gelsemium.—Gelsemium was perhaps the first drug I learned to use satisfactorily, and I have employed it increasingly for about twenty-eight years. I could not now practice medicine successfully without Gelsemium, and I consider Specific Medicine Gelsemium, Red, far the best of all Gelsemium preparations.—Frederick Wallace Abbott, M.D., Taunton, Mass.

Fifteen Years.—I have used Gelsemium for fifteen years. It is one of my sheet anchors for pain. In chronic diseases I employ it very largely. I have been using Specific Medicine Gelsemium, Red, in the pain of renal colitis, and find that its action is fine.—G. Adolphus, M.D., Clearwater, Fla.

Three Years.-

I have used Gelsemium for three years, and class it among my best remedies. Specific Medicine Gelsemium can never with me be replaced by any other preparation of the drug. Physicians who know nothing of this invaluable drug can never have the same satisfactory therapeutic results as the thousands who use it. When Gelsemium is indicated, especially among the children, I get wonderful results from it, and believe there are no other drugs "just as good." The Eclectic materia medica has many such jewels, and should a physician say that he cannot get results I would accept that he failed to follow indications. I find little difference in therapeutic action between Specific Medicine Gelsemium, which I have always used, and the new Specific Medicine Gelsemium "RED."—H. T. Alexander, M.D., Fulton, Ky.

Thirty-four Years.—

I have employed Gelsemium for thirty-four years. When indicated, there is no substitute. I consider the Specific Medicine Gelsemium "RED" superior to the old preparation, in that it is more elegant in appearance, and I believe, more prompt in its action.—

J. B. Barker, M.D., Piqua, Ohio.

Forty-one Years.—I have used Gelsemium ever since 1873, and find it invaluable in my practice. I consider the Specific Medicine,

Red, superior to all other Gelsemium preparations I have ever used.— Isaiah Bennett, M.D., Wilsonville, Neb.

I have used Gelsemium for forty-three years, and could not succeed without it. I always feel confident of results, if my diagnosis be correct. I have always depended upon Lloyd's Specific Medicine. It never disappoints, but brings results desired. I consider all of Lloyd's preparations the very best obtainable. My experience with the "RED" Gelsemium is limited, though, so far, I am deeply impressed with its therapeutic value, and much pleased with the distinctive red color. - Stephen M. Bennett, M.D., New Goshen, Ind.

Twenty-five Years.—I have employed Gelsemium for twentyfive years, and daily find it more and more useful. I consider it one of the most reliable of remedies, and I never visit patients without carrying Specific Medicine Gelsemium in the satchel. Gelsemium ranks among my first and most important of remedial agents. Your recent improvement on the Specific Medicine Gelsemium is another mark of the pharmaceutical excellence and skill of your laboratories.

I have used two bottles of the "red" and find it entirely satisfactory and reliable. I have tried it in acute gonorrhœa, neuralgia, acute catarrhal attacks, or acute catarrhal la grippe, nervous excitement attending infectious diseases, and consider no other remedy its equal in the initial stages of acute colds or catarrhal attacks, especially when the nasal mucous membranes are primarily the seat of attack.

Gelsemium is a safer and better remedy in many conditions for which opiates are frequently exhibited. When opium is given with gelsemium, less of the opium is necessary and a more kindly effect is produced.-Wm. P. Best, M.D., Indianapolis, Ind.

Twenty-six Years.—I have employed Gelsemium for twenty-six years, using it daily, and am never without it. I use no other Gelsemium preparations than those of Lloyd Brothers. The Gelsemium, Red, is more elegant than any form I have used heretofore.—H. H. Blankmeyer, M.D., Aransas Pass, Tex.

Sixteen Years.—I have used Gelsemium for sixteen years, and consider it the most important remedy in my practice. I find a greater variety of uses for Gelsemium than for any other of your preparations. So far as I can see, there is no difference in therapeutic effect between Specific Medicine Gelsemium, "red," and the regular Specific Medicine; but in appearance it is more elegant.—Thomas Bowles, M.D., Harrison, Ohio. 18

Twenty-one Years.—Have used Gelsemium for twenty-one years, using it daily when indicated, and carrying it in the medicine case. We rely upon the Specific Medicine.—Drs. J. B. Brewer and J. C. Brewer, Jefferson, Wis.

Twenty-nine Years.—I have used Gelsemium for twenty-nine years, and it occupies first place in my practice. When indicated, it has no compeer. It is absolutely specific in action when indicated and properly prescribed. The Specific Medicine Gelsemium, "red," is more palatable than the former preparations of this remedy, and in no way objectionable to the patient. I prefer it to the former Specific Medicine, and consider it superior, because of its pleasant taste.—M. A. Carriker, M.D., Nebraska City, Neb.

Twenty-seven Years.—

I have used Specific Medicine Gelsemium for twenty-seven years, and consider it my "sheet anchor" in all spasmodic cases and fevers. I use Gelsemium with marked success, in 15 to 20 drop doses, two hours apart, to abort a sudden cold, with chilly sensations, and also use it in painful spasms of the bladder in cystitis, as well as in cystitis with vesical spasm, frequent urination, etc. I use Gelsemium oftener than any other remedy.—O. S. Coffin, M.D., Alexandria, Ind.

Twenty-five Years.—

I have used Gelsemium for twenty-five years. It is indispensable to me in my practice. After trying the Gelsemium of other pharmacists, I find Lloyd's Gelsemium eminently superior to their preparations, judging by results. The results from the use of the Specific Medicine Gelsemium "RED" seem to me to be the same as those obtained from the old preparation .- A. O. Conrad, M.D., Los Angeles, Cal.

Twenty-seven Years.-

I have used Gelsemium for twenty-seven years. It is indispensable in my practice. I use it daily, and would be at sea without it. In spasmodic conditions I depend upon the Specific Medicine Gelsemium almost exclusively. It is my mainstay in puerperal eclampsia and renal and biliary colic, employed hypodermatically, usually combined with Specific Medicine Veratrum. I give a full hypodermic syringe at a dose, repeating every thirty minutes until there is complete relaxation in puerperal eclampsia.* In biliary colic, give fifteen to twenty drops at a dose, repeating every twenty to thirty minutes, until

^{*}The form of Gelsemium commended for hypodermic use is the Subculoyd Gelsemium.—L. B.

easy. In febrile diseases, especially in children, "colds," vesical and renal irritation of every description, "Gelsemium Red" is my first remedy. Rationally and conservatively used, no other toxic remedy is so safe and free from objectionable results, and in my hands it often cheats "King Morphine" out of a ready victim. Specific Medicine Gelsemium "RED" is more pleasing, and more satisfactory than any other Gelsemium preparation.—M. E. Daniel, M.D., Honey Grove, Tex.

... I have employed Gelsemium for sixteen years. It is one of the ten remedies most used in my practice. I find the new Gelsemium Red acts more quickly than other preparations, besides which it is clean, and presents a more pleasing appearance, which is another point in its favor.—Frank P. Davis, M.D., Enid, Okla.

Twenty-four Years.—I have used Gelsemium for twenty-four years. To practice medicine without Gelsemium would be willful malpractice for me. I never found fault with the old Specific Medicine Gelsemium; the red is very attractive.—N. M. Dewees, M.D., Cambridge, O.

Twenty-nine Years.—Gelsemium is one of my favorite remedies, and I use it frequently with excellent results. It is almost my main stay in obstetrical and other spasmodic troubles, especially in strangury. _L. S. Downs, M.D., Galveston, Texas.

I have employed Gelsemium for forty years, and could not do without it. I have found the new "RED" Gelsemium to be far superior, both in therapeutic excellence and in pharmaceutical elegance, to any other preparation of the drug I have ever used.—W. M. Dur-

Thirty-six Years.—I have employed Gelsemium for thirty-six ham, M.D., Atlanta, Ga. years, and I use it more than any other one drug. Specific Medicine Gelsemium, "red," is a most elegant and reliable preparation of the drug. In therapeutic effect I see but little difference in it and the old Specific Medicine; if any difference, the red Gelsemium is stronger. _G. T. Fuller, M.D., Mayfield, Ky.

Thirty Years.—I have used Gelsemium for more than thirty years. It is one of my most frequently employed drugs. The Specific Medicine Gelsemium, "red," is an elegant preparation, and even superior in appearance to the regular Specific Gelsemium. Gelsemium

has not been as popular with me as it is said to have been with a certain prominent Eclectic of the past generation, who, every morning starting out to make his professional calls, always took with him a pint bottle of tincture of Gelsemium, and usually returned to his office with only the empty bottle. Still, during the past thirty years I have used many gallons of Specific Medicine Gelsemium, and always with gratifying results. My experience in the practice of Specific Medication has fully convinced me that Gelsemium is one of the most frequently needed Specific remedies. In my publication, Specific Diagnosis and Medication, my use of Gelsemium is fully given. I have employed Gelsemium for the prevention of sea-sickness with marked success. I direct the patient to take ten drops of the Specific Medicine in water before going on board the ship, and thereafter five drops in water every hour until it causes double vision. After that an occasional dose of five drops in water in case there is the slightest feeling of nausea.— J. W. Fyfe, M.D., Saugatuck, Conn.

Eight Years.—I have employed Gelsemium every day for eight years, and would not be without it for acute conditions that are often manifested. I always prefer Lloyd's preparations of vegetable remedies, and trust you will live a long time to improve and investigate the vegetable kingdom.—Ino. H. Goss, M.D., Decatur, Ga.

Sixteen Years.-

I have used Gelsemium for sixteen years, and have found it to be absolutely indispensable in my practice. The Specific Medicine Gelsemium "Red" is, therapeutically, a trifle more active. Pharmaceutically it is more elegant. I employ Gelsemium with much satisfaction in the eye pains of glaucoma, in neuralgia, in ear ache, and in acute catarrhal conditions.—Dr. J. P. Harbert, Bellefontaine, Ohio.

Twenty Years.—I have used Gelsemium for twenty years, and would be seriously handicapped without it. The Specific Medicine Gelsemium, "red," is very near perfection in every way. I could wish no better.

In the past twenty years I have noted improvements in many of the Specific Medicines, and it is your perfect medicines that make me a confident prescriber. When I give a dose of Lloyd's medicines, I am sure of favorable results.—Geo. W. Harvey, M.D., Bigpine, Cal.

Eight Years.-

I have used Gelsemium for eight years, and would not now know, without a restudy of the materia medica, what to use if deprived of that remedy. The "RED" Gelsemium looks good, smells good, and

may be just as good as the old Specific Medicine. I have had no occasion to compare it with other preparations, for since I finished my course and began to practice, I have, when attainable, used only Specific Medicines according to the teaching of Specific Medication.—W. B. Hartwig, M.D., Benwood, W. Va.

Twenty-two Years.-

I have employed Gelsemium for twenty-two years. It is one of ten medicines that I use every day. I consider the Red Gelsemium an improvement upon the old Specific Medicine, and like it even better. In treating Tonsilitis this season, Specific Gelsemium "RED" has given me splendid results.—J. Paul Harvill, M.D., Nashville, Tenn.

Thirty-four Years.—I have used Gelsemium for thirty-four years. It is one of the most important drugs of my practice. I have always used the Specific Medicine exclusively, and am never without it. The "red" Gelsemium is surely the highest perfection that is possible.—A. P. Hauss, M.D., New Albany, Ind.

Seventeen Years.—I have used Gelsemium for seventeen years, and it is one of my six favorite drugs. During the past winter Gelsemium has been my "sheet anchor" in nasal sinus troubles and Grippe. "Red" Gelsemium is another triumph of the Lloyd Laboratory.—Wm. L. Heeve, M.D., Brooklyn, N. Y.

Twenty Years.—

I have employed Gelsemium for twenty years. It is a favorite remedy of mine and one of the most important I use. It will act in all hyperemic conditions, whether or not salient symptoms, such as bright eyes, etc., are present. I consider Specific Gelsemium "RED" an improvement, both in taste and action, over all other preparations of the drug.—H. H. Helbing, M.D., St. Louis, Mo.

Twenty-four Years .---

I have used Gelsemium for twenty-four years, and have always given it a place among the first ten remedies in my case. There is no more important or more certain remedy in its action than Specific Medicine Gelsemium. No one will be disappointed with the administration of this remedy, if he be careful to prescribe it according to specific indications. In Gelsemium RED you have given us an ideal pharmaceutical preparation.—A. L. Henderson, M.D., Ft. Worth, Tex.

Thirty-two Years.—I have used Gelsemium for thirty-two years and could not medically "keep house" without it. I do not believe

that any intelligent man can be well informed concerning the therapeutic qualities of Gelsemium and at the same time be a "drug nihilist." The two conditions are absolutely incompatible. Gelsemium, "Red", is a dream of perfection. I sometimes think that it is even more active, therapeutically, than is the ordinary form. Pharmaceutically, it is perfection.-H. L. Henderson, M.D., Astoria, Ore.

[Other physicians (see report of Dr. Fuller) have spoken of the prompt action of Gelsemium, Red, as contrasted with other Gelsemium preparations. One physician, who has long depended on Gelsemium, has particularly described the quick gelsemium action, such as drooping eyelids and muscular relaxation, produced by the Gelsemium, Red, and has reduced his doses correspondingly.—L.B.]

Forty-six Years.—I have used Gelsemium since the date of my graduation, 1868. It is my most highly valued remedy. My use of the Red Gelsemium is yet limited.—Geo. W. Holmes, M.D., Sharpes, Fla.

Gelsemium in Typhoid Fever.

Twenty-six	Years.—
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\mathbf{R}	Sp. Med. Aconite	gtt.	X.
	Sn Med Rhus tox	gtt.	113
	Sp. Med. Gelsemium	gıı.	~~

M. Sig. A teaspoonful every hour.

"With this formula I could challenge the world in the treatment of typhoid fever."-W. N. Holmes, M.D., Nashville, Tenn.

Forty-three Years.-

I have used Gelsemium for forty-three years. It ranks first in my practice. It is well that Gelsemium is an American plant, for there is no substitute for Specific Medicine Gelsemium. The Specific Medicine Gelsemium "RED" is an elegant preparation, but, therapeutically, I have noticed no difference between it and the old remedy.—G. W.Homsher, M.D., Camden, Ohio.

Nineteen Years.-

I have used Gelsemium for more than nineteen years. It is one of the most important remedies in my practice, and I consider it one of the most important in the materia medica. I always use the Specific Medicine Gelsemium when indicated. It never fails to bring results. I wish to compliment your establishment on your Specific Medicine Gelsemium "RED." It meets all requirements. After nineteen or twenty years' experience with your medicines, I may say that the Specific Medicines made by you are a real necessity to the man who understands direct indications and can administer the direct remedy.—Brose Horne, M.D., Gas City, Ind.

Thirty-three Years.—I have used Gelsemium for thirty-three years. It is one of my principal remedies, and if prescribed according to indications, seldom disappoints. The Specific Medicine Gelsemium, "Red," is an elegant preparation.—B. Roswell Hubbard, M.D., Los Angeles, Cal.

Twenty-seven Years.—

I have used Gelsemium for twenty-seven years, and could not practice medicine without it. The new preparation, Specific Medicine Gelsemium "RED," is far superior to any other preparation of the drug I have ever seen.—C. L. Johnstonbaugh, M.D., Bethlehem, Pa.

Sixteen Years.—

I have used Gelsemium for sixteen years, and consider it indispensable. I find this remedy of the utmost importance in many conditions where the indications for it exist, especially so in obstetrics, pediatrics, and genito-urinary practice. The Specific Medicine Gelsemium "RED" is the best preparation of Gelsemium I have ever used. Other forms of Gelsemium I have found to be not uniform. —Earl H. King, M.D., Saratoga Springs, New York.

Twenty Years.—I have used Gelsemium for twenty years. It is very important in my practice, especially in acute disease and those of spasmodic character. I class it with Aconite, Bryonia, etc. I would not have the confidence in other preparations that I have in Lloyd's. They are as indispensable as my automobile, and I could not practice without them.—E. J. Latta, M.D., Kenesaw, Neb.

Seventeen Years.—

I have used Gelsemium for seventeen years. It is one of the most important remedies in my practice. Specific Medicine Gelsemium "RED" is fine, and I consider it as good or better than the old Specific Medicine.—T. C. Leachman, M.D., Richmond, Okla.

Twenty-six Years.—

I have used Gelsemium for twenty-six years. It is to me so important that I am never without it in my office or in my medicine or obstetrical case. Lloyd Brothers should be justly proud of the new "Red" Gelsemium. It is the finest preparation I have ever used. Appearance, taste, and odor are all improvements on the old preparation. I use it often in connection with Macrotys in menstrual trouble, and almost invariably use it with Aconite where there is fever in children. In incipient colds in the head Gelsemium is A No. 1. Macrotys, Bryonia, and Gelsemium is a favorite prescription of mine for La Grippe.—J. D. McCann, M.D., Monticello, Ind.

Forty-two Years.—I have used Gelsemium for forty-two years, and rank it one of my "first ten" remedies. I consider Gelsemium, Red, the best Gelsemium preparation I have ever used.—J. H. Mc-ElHinney, M.D., Palm City, San Diego Co., Calif.

Twenty-eight Years.—

I have employed Gelsemium for twenty-eight years. It is my favorite among all the medicines I use. I find the Specific Medicine Gelsemium Red much better than any other preparation of the drug I have used, being more kindly active, and giving more pleasing results than any other.—O. P. McHenry, M.D., Hamilton, Ohio.

Twenty Years.—I have employed Gelsemium for about twenty years, and consider it one of the most important remedies in my practice. In regard to the therapeutic excellence and pharmaceutical elegance, Specific Medicine Gelsemium, "Red," holds the first place.

—Max Meyer, M.D., New York, N. Y.

Twenty Years.-

I have employed Gelsemium for twenty years. It is very important in my practice, so much so that I could not do without it. In comparison with other preparations of Gelsemium that I have used, there is much to be said to the credit of Specific Medicine Gelsemium "RED:"—James C. Mitchell, M. D., Louisville, Ky.

Twenty-five Years.—

I have used Gelsemium for about twenty-five years. It is a very valuable remedy. I do not think there is a day but what I prescribe it. Specific Medicine Gelsemium "Red" is far superior to any other preparation of its kind.—W. K. Mock, M.D., Cleveland, Ohio.

Thirty-two Years.—I have used Gelsemium every day since 1882 and do not know any other remedy that could take its place. So far as I have used the Specific Medicine Gelsemium, "Red," I consider it equal to, if not superior, to any other preparation that I have employed. —J. A. Monroe, M.D., Wheeling, W. Va.

Forty Years.—I have employed Gelsemium for forty years. It is my most valuable remedy. If I had to practice medicine with only one remedy, I would choose Gelsemium.—J. A. Munk, M.D., Los Angeles, California.

Thirty-eight Years.—

I have used Gelsemium since I have known of Lloyd's preparation of that drug. I couldn't get along without it, and have never used it without obtaining favorable response. I consider the new "RED" Gelsemium superior to all other preparations of the drug I have used.

I used it on my wife, who had a high fever, and inside of twenty-four hours the fever had entirely disappeared.—S. B. Munn, M.D., Waterbury, Conn.

Thirty-one Years.—

I have employed Gelsemium since 1884. I would not feel that I had a complete medicine case unless it carried Lloyd's Specific Medicine Gelsemium. I know when Lloyd Bros. put their seal upon a preparation, it is as near perfection as can be reached. I consider all other preparations inferior, and the new "Red" Gelsemium is even superior to the old preparation. The indications for this remedy are: in headache where we have somewhat glassy eyes, contracted pupils, flushed face, convulsions, and rigid os uteri in child delivery. Gelsemium is also of use in cerebro-spinal meningitis, in spasmodic asthma, and in pleurisy.-F. J. Neifer, M.D., South Bend, Ind.

Twenty-seven Years.—

I use Gelsemium every day, and my twenty-seven years' use of it has made it to me practically indispensable. During these twentyseven years I have never had occasion to employ any preparation of the drug other than the Specific Medicine, and found its use to be followed by excellent results in practically every instance. The general and specific indications for its administration, which are: "a vascular and nervous hypertension," and I believe it will relieve all relievable and curable conditions. I find Specific Gelsemium "RED" is an elegant preparation.-J. S. Niederkorn, M.D., Versailles, Ohio.

Thirty Years .-

I have used Gelsemium for thirty years, and probably not a day passes that it is not employed in some case in my practice. I want to add my vote for "Gelsemium, Red," because I consider it, pharmaceutically, a finer preparation than the old form, though therapeutically I can see no difference.—E. B. Packer, M.D., Osage City, Kan.

Thirty-four Years.—

I have used Gelsemium for about thirty-four years. It would be impossible for me to do without it, and in my practice nothing can replace it. I have found the Specific Medicine Gelsemium "RED" to be most excellent, being safe, sound and effective. All preparations of Lloyd's are the best, and very desirable.-L. A. Perce, M.D., Long Beach, Cal.

Twenty-two Years.—I have used Gelsemium for twenty-two years. It is one of my main stays when the indications are right. So far as I have used the Specific Medicine Gelsemium, "Red," I find it equal to any. In pharmaceutical elegance it exceeds all others. I had exhausted my stock of Gelsemium on a case of threatened lockjaw, when I received my first 4 oz. bottle of Specific Medicine Gelsemium, "Red." It finished the case with success.—H. D. Peterson, M.D., Mülersburg, Ky.

Thirty-three Years.—

I have employed Gelsemium for thirty-three years. I consider it one of the most important of your Specific Medicines, and am never without it, and indeed, could not practice without it. I believe the Specific Medicine Gelsemium "RED" to be even superior to and more valuable than the old preparation, if that can be.—Wm. Rauch, M.D., Johnstown, Pa.

Forty-two Years.—

I have used Gelsemium for forty-two years, my attention being first called to it by my father, who was using it with marked success at that time, over forty-five years ago. It is and always has been so important to me that I would not willingly sacrifice Gelsemium for any other sedative that I know, nor could I do without it in other directions. It is my sheet anchor. The Eclectic physician knows a good remedial agent, and will never forget Gelsemium. When it is indicated it will always bring the right answer. I believe its color will forestall many accidents. I believe also that this new preparation will by its increased use bring out new uses of the drug.—C. W. Rodecker, M.D., Holcombe, Wis.

Twenty-seven Years.—I have used Gelsemium for twenty-seven years. It is of very first importance in my practice. No other preparation on the market, of which I have any knowledge, can even approach the "red" Gelsemium in pharmaceutical elegance. It is "sui generis."—W. R. Ruble, M.D., Smith's Grove, Ky.

Twenty Years.—I have been a user of your medicines for over twenty years, and have always found them satisfactory. Gelsemium, red, certainly is pharmaceutically superior to anything I have seen, although Specific Medicine Gelsemium has never failed to meet the indications for me.—E. G. Sharp, M.D., Guthrie, Okla.

Twelve Years.—

I have used Specific Medicine Gelsemium for almost twelve years. If the European war should cut off our supply of coal-tar pain relievers I could get along very well without them, but I don't see how I could practice without Gelsemium, as I use it for so many things.

The relief of pain, from that of headache to the pain of renal and hepatic colic, for which I use quite large doses, 5 drops every ten minutes until I have administered 20 to 30 drops, combined in severe cases with *moderate* doses of morphine. Specific Medicine Gelsemium "RED" is certainly the finest product of the drug ever offered to the profession.—T. L. Sharp, M.D., Orlando, Okla.

Forty Years.—

I have employed Specific Medicine Gelsemium for forty years, and use it more than any other remedy. The physician who becomes skilled in the use of Gelsemium is prepared to combat, in the most effective way, more pathological conditions than he could with any other remedy in the materia medica. I thoroughly believe in its efficacy. The Specific Medicine has always been my preference, and the new "Red" Gelsemium is in no way inferior to the former preparation, besides being made safer by the warning color.—S. M. Sherman, M.D., Columbus, Ohio.

Twenty-five Years.—

I have used Gelsemium for twenty-five years. I regard it as so important that without it in my medicine case, I would be at a loss in the majority of acute cases and in some chronic lesions. Gelsemium is indicated in many pathologic conditions. In acute states of determination of blood to the brain it is the leading remedy, and in many forms of neuralgia no remedy surpasses it. In malaria, acute or chronic, with cerebral, or cerebro-spinal excitation, Gelsemium is a prominent remedy. In fact, its therapeutic range is very elastic. The new Specific Medicine Gelsemium "RED" is amply equal to the occasion, and its use in place of other fluid forms is appealing and convincing, and since, in my twenty-five years of practice, I have not used more than two ounces of Gelsemium other than the Specific Medicine, I can confidently declare that the "Red" Gelsemium exceeds its brother in elegance and freedom from inert matter.—B. L. Simmons, M.D., Granville, Tenn.

Thirty Years.—

I have used Gelsemium for over thirty years, and consider it very important in my practice. I have always used the Specific Medicine until now. So far, I have not noticed much difference in therapeutic action between the new Specific Medicine Gelsemium, "Red," and the old preparation.—I. R. Spencer, M.D., Cincinnati, Ohio.

Thirty Years.—I have used Gelsemium for thirty years, and it is very important in my practice. The Specific Medicine Gelsemium,

"Red," compares well with the other preparations I have been using. Recently in a typical case of inflammation of the brain in a child three and a half years of age, with all the indications for Gelsemium, the Red gave prompt results.—E. A. Squier, M.D., Frankfort, Ind.

Thirty Years.—I have been using Gelsemium for the past thirty years, and it is one of my most important remedies. The new "Red" Gelsemium certainly carries all the medicinal properties of the plant and is a beautiful pharmaceutical preparation. I have prescribed Specific Medicine Gelsemium during my thirty years of practice, because I know none is better, if any be equal, to it. I have always felt that my patients were entitled to the best there is in the drug market, regardless of price, and believe that Specific Medicine Gelsemium holds that place.—A. F. Stephens, M.D., St. Louis, Mo.

Twenty-seven Years.—For twenty-seven years I have used Gelsemium. It is so important to me that I could hardly do without it, as I know of nothing that could take its place. I like the "Red" Gelsemium better than the former style as to color and appearance. Its effects are fully as positive, if not more so, while the taste is much pleasanter.—Lee Strouse, M.D., Covington, Ky.

Twenty-nine Years.—

I have used Gelsemium for twenty-nine years. It is the remedy of third importance in my practice, Aconite being first, and Asclepias tuberosa second. As Gelsemium has been a standard drug with the profession, the manufacturers as a rule have furnished very good preparations; the observable effects of the drugs are such that none but impostors would dare do otherwise. I have found the Specific Medicine Gelsemium "RED" to be an A No. 1 preparation of the drug.—Geo. W. Thompson, M.D., New York, N. Y.

Twenty-seven Years.—I have employed Gelsemium for twenty-seven years. I use it oftener than any other remedy, and know of no remedy that can take its place. I find the Specific Medicine, Gelsemium, "Red," a very superior preparation.—C. A. Tindall, M.D., Shelbyville, Ind.

Eleven Years .-

I have used Gelsemium for eleven years. I have the utmost confidence in the action of this remedy, and find daily use for it in various diseases. The Specific Medicine Gelsemium is a wonder, and is as near a specific as a drug can be, when prescribed according to indications. Gelsemium "RED" is superior in every way to any other preparation of the drug.—W. W. Tindall, M.D., Shelbyville, Ind.

Three Years.—I have used Gelsemium for three years. It is one of the half dozen most important and widely-used drugs in my practice. I use no other preparations of Gelsemium than the Specific Medicine. I find the red Specific Medicine a more perfect pharmaceutical preparation, and in all respects equal to the older preparation. As Prof. Ellingwood says, "Nerve irritation, whether direct or reflex, comes uniformly under its influence;" but I differ with him where he says, "It is not the remedy when asthenia prevails." In perhaps the large majority of cases where I use Gelsemium the asthenic conditions prevail and the time-established specific indications are present. The drug certainly has its place in the asthenic case, where we want its mildly quieting influence upon the nervous system: the large dose in the sthenic case and the small dose in the asthenic case.

By way of illustration. Take a weak, feeble, asthenic case, where we have a wakeful condition due to nervousness, absolutely without the usual indications for Gelsemium. I know of no other drug that will give as pleasing a result in such a case as does the small dose of Gelsemium. The same indications in the sthenic case call for larger doses of the drug, with possibly the addition of Hyoscyamus.—Paul R. Tindall, M.D., Greensburg, Ind.

Twenty Years.—

I have employed Gelsemium for twenty years. It is to me so important that I could not dispense with it. Like all other Specific Medicines, Gelsemium is always reliable, which cannot, for obvious reasons, be said of many other preparations. The therapeutics of Specific Gelsemium could not be improved upon, and you have therefore, to paraphrase a well-known advertisement, "changed the appearance, because you could not change or improve the drug therapeutically." The "RED" Gelsemium is certainly an improvement in appearance upon the old, and physically and psychically is perfection as applied to the drug Gelsemium .- J. E. G. Waddington, M.D., Detroit, Mich.

Thirty Years.—I have used Gelsemium for about thirty years. It is to me the most important remedy in the whole Materia Medica. The Specific Medicine Gelsemium, "Red," is all that could be desired. A fine preparation and nearly a specific in that terrible disease, tetanus.—E. R. Waterhouse, M.D., St. Louis, Mo.

Forty-five Years.— I have used Gelsemium for forty-five years. It is one of the remedies to which I resort every day. I have used various preparations of Gelsemium, for I could not always get what I wanted, but the Specific Medicine Gelsemium "RED" is certainly the best form I have ever known, and surpasses them all.—H. T. Webster, M.D., Oakland, Cal.

Thirty-seven Years.—Gelsemium (or Gelseminum as then spelled) was included in the first order for drugs after my graduation in 1877, and has been kept in stock since that date. I know of nothing to take its place when indicated, and consider it about the sixth in importance in the list of Specific Medicines.

All doctors realize the value of the psychology of color when dispensing, for it is often accepted by patient, "as is the color, so is the power of the drug prescribed." Two drachms of Red Gelsemium to be taken in three-drop doses would be accepted as much more powerful than a water clear preparation. The red Gelsemium is therapeutically equal to, and much more elegant than any other preparation of this drug I have used.—J. M. Wells, M.D., Vanceburg, Ky.

Fifty Years.—I have used Gelsemium for fifty years, having begun its use in 1864. In 1866 I passed through an epidemic of typhoid fever in the Cedar River bottoms of Iowa, where the miasm of malaria was apparent at the outset of the disease. An old doctor suggested that the green-root tincture of Gelsemium with quinine would break up the fever, and that the toxic effect of these drugs would balance each other, so that quinine given in large doses in connection with Gelsemium would not produce head symptoms (buzzing), and that the drooped eyelid action of Gelsemium would be prevented by the quinine. This doctor gave ten grains of quinine with fifty drops of the green-root tincture of Gelsemium, repeating the dose in two hours, two doses only being given. No bad effects followed. I have used Gelsemium in many cases of tetanus, with fine effect and prompt recovery. My first case of this was in 1870, and since then I have had a number of cases which I have treated with Gelsemium hypodermically and also by mouth. In this disease large doses are necessary. I depend upon Gelsemium to keep down the spasms.

There is not a wrong statement in the Specific Medicine label of indications, while others could be added thereto. You have certainly achieved perfection in Specific Medicine Gelsemium, Red, and our school owes you immortal praise for your persistent labors.—E. P.

Whitford, M.D., Hollister, Mo.

Fifty-four Years.—I have employed Gelsemium since March 1, 1860. No one remedy exceeds it in importance. A few years ago Mr. M., of Brookfield, N. Y., was badly afflicted with cramps in his limbs; all the doctors in the vicinity (three in the village) failed

to give any relief, except by morphine. Some years before (until they moved from my vicinity) I had been the family doctor. I met his son accidentally at Unadilla Forks, Otsego. He stated his father's case and inquired if I thought I could do him any good. His father could walk only by the use of two canes. I filled a vial with Gelsemium, giving him written directions for its use. Inside of a week the father's cramps were a thing of the past. I have seen the man a number of times since, but there has been no return of the cramps, and no need of morphine. This is only one case in many hundreds where I have used Gelsemium.—H. P. Whitford, M.D., Bridgewater, N. Y.

Twenty-one Years.—

I have used Gelsemium for over twenty-one years. It is one of my first three remedies in acute diseases. I cannot see any difference in therapeutic effect between the old Specific Medicine and the new Specific Medicine Gelsemium "RED." The perfected "Gelsemium Red" is a most beautiful preparation.—Fred'k O. Williams, M.D., Columbus, Ohio.

Eleven Years .-

I have used Gelsemium ever since 1904. I have studied it very closely, and the better I know it the more frequently I see indications for its use. I use it more frequently than any other of our special sedatives, and possibly more often than all others together. I use it both by mouth and hypodermically, and though I have used it both ways in large doses, I have never seen any ill effects from its use. I like GELSEMIUM, RED, best of all the Gelsemium preparations.— W. W. Wimer, M.D., Honey Grove, Texas.

Fifty Years.—In puerperal eclampsia, with red face, use a hypodermic of Gelsemium.* In infantile convulsions leave Gelsemium to be administered in small doses and you can go away satisfied that the spasms will be controlled. The cause must, of course, be first removed.

In appearance, Specific Medicine Gelsemium, Red, is superb, and it will unquestionably be established as having the full therapeutic qualities of the root.—E. Younkin, M. D., Villa Ridge, Mo.

Thirty Years.—I have used Gelsemium for over thirty years. When specifically indicated, it is one of the most important drugs in my practice. I regard the new Red Gelsemium as a decided improvement upon the old preparation.—J. M. Keys, M.D., Omaha, Neb.

^{*}Dr. Webb's book, Hypodermic Medication. is devoted wholly to plant remedies. It was written before Subculoyd Gelsemium was perfected, and does not commend Gelsemium hypodermically. Many physicians now use Subculoyd Gelsemium subcutaneously. This book can be obtained by enclosing \$1.00 to the author, Dr. Frank Webb, Bridgeport, Conn.