

ECHINACEA

In the Treatment of the Bites of Venomous Serpents, Reptiles and Insects.

EDITED BY J. S. NIEDERKORN, M.D.

In editing this treatise, the aim has been to give every statement, as precisely as possible, in the words of the reporting physician. Every report received to date is here given, and every original report is kept on file, and can be examined at will by anyone who may feel interested.

-J. S. Niederkorn, M. D.

With a Condensed History of the Drug and Its
Introduction by John Uri Lloyd, Cincinnati, Ohio.

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ECHINACEA ANGUSTIFOLIA.

History.-In the fall of 1885, I received from Dr. H. C. F. Meyer of Pawnee City, Neb., a root of a plant that he wished named.

He stated that it was the principal ingredient of "Meyer's Blood Purifier," and his letter heralded that remedy in large type. Simultaneously, Dr. Meyer sent to Professor John King, author of the American Dispensatory, a bottle of his preparation, for which he made seemingly extravagant claims concerning its therapeutic action. Dr. King informed Dr. Meyer that he could not concern himself in a secret mixture or a drug of unknown origin, and that if it was desired that he present it to the medical profession, the name of the drug must be published. Replying to Dr. Meyer, I made the same statement and informed him that the top of the plant would be necessary to its identification, as it could not be authoritatively determined from the root alone. June 7, 1886, Dr. Meyer mailed me the whole plant, which my brother, C. G. Lloyd, identified as *Echinacea angustifolia*, D. C.

The seemingly exaggerated claims of Dr. Meyer led me to resist the possibilities of the remedy, in some of the directions named, especially as a cure for rattlesnake bite, spider bite, and the bite of other venomous creatures. Professor King, with the knowledge that comes from great experience in investigating drugs, as well as greater liberality in connection with possibilities of remedies introduced empirically, proposed to give the remedy his serious attention. Indeed, he had a personal reason for doing this, for his wife was at that date afflicted with an aggressive cancer, in the treatment of which both the doctor and Mrs. King were possessed by the hopelessness of despair.



1 Dr. Meyer was an illiterate empiricist. I do not know whether he ever graduated in medicine, nor do I know whether he practiced other than in the sale of his preparation of Echinacea. Nor yet do I know how he obtained his information concerning the properties and uses of the drug, but this was probably from the Indians, by whom it was used in other sections for like purposes. This fact, and this introduction, will possibly, with certain people, be taken as an indication of the "scientific" worthlessness of the drug, or as evidence of the "unscientific" incompetence of its discoverer. To a person, however, who understands the origin and the record of the vegetable materia medica of the world, and the manner in which empirically introduced remedial agents have been first damned and next "discovered" and finally appropriated by "authority," such opinions are of no consequence.-L.

2 His label for this preparation I published in *fac simile*. Accompanying the plant, Dr. Meyer, in a letter, expressed the hope that the medical profession generally would become acquainted with this drug, which, in his compound, had proved so valuable to those who employed his "Blood Purifier." This is shown by the following extract from his original letter:

"PAWNEE CITY, Neb., June 7, 1886.

"The child of Mr. Martin was bitten on the foot by a rattlesnake. In order to save her life, the leg of the child was amputated at the knee joint by the doctor. One or two ounces of Echinacea would not only have saved the poor child's leg, but the medicine would have made a complete cure. It is not a poison. It acts upon the blood and the nerves,"

H. C. F. MEYER.

From a portion of the drug sent by Dr. Meyer, I made a concentrated tincture, having first experimented carefully concerning the best method of working it into a representative pharmaceutical preparation, and the best menstruum for extracting its sensible virtues. This preparation Dr. King began using as a palliator in the treatment of Mrs. King. Now came the first relief Mrs. King, had experienced in a long time. Twice, when the supply of the root was exhausted, and once because of the poor quality of a drug grown near Cairo, Ill., Dr. King was very much disturbed because of the increased virulence of the disease. A condensed report by Mrs. Karr, step-daughter of Professor King (who made no written report on the case), is herein appended:

From Mrs. Elizabeth Karr, North Bend, O., Dec. 25, 1909:

Mother was an invalid for many years before her death. She suffered intense pain, and had discharges from what proved to be an ovarian cancer. Means to relieve her had been unsuccessful, and most of the time, for two years, she had been in bed, when finally Dr. King gave her Echinacea, with the result that the pain soon disappeared and the discharge ceased. She improved, left her bed, and was able to attend to her household duties. Whenever, owing to the lack of the proper medicine, there was a return of pain and more discharges, a few doses of Echinacea would bring relief. This condition of affairs lasted for several years. During the last year of her life a firm swelling also appeared in one of her breasts, which developed into a cancer, from which she died. The medicine named prolonged her life, although it did not effect a cure."

Within a short time after the identification of Echinacea, Dr. Meyer wrote to Dr. King and myself, urging us to give the profession the benefit of his discovery. In view of our incredulity as to the virtues of the drug in the direction of the bites of poisonous serpents, he offered to come to Cincinnati, and in the presence of a committee selected by ourselves, allow a rattlesnake of our selection to bite him wherever we might prefer the wound to be inflicted, proposing then to antidote the same by means of Echinacea only. This offer (or, rather, challenge,) we declined. Dr. Meyer, thinking this was because we had no serpent at our command, again offered not only to come to Cincinnati and submit to the ordeal formerly proposed, but to bring- with him a full-sized rattlesnake, possessed of its natural fangs, allow it to bite him repeatedly under the auspices of a selected committee, and having then used the antidote, to thus demonstrate to the profession the value of Echinacea as a remedy for a *human being* thus inoculated. This offer was also declined. A record of the main incidents, together with a botanical description and illustrations of the root and leaf of the drug, were next made by me and published in the *Eclectic Medical Journal*, Cincinnati, August, 1897.*

That the judgment of the talented scholar and investigator, Dr. King, the philanthropic author of the American Dispensary, is entitled to the highest consideration, is evident not only in the record made by Echinacea and other similar products of the vegetable king

It may be asked whether a dog might not have been used experimentally in this direction. Dr. King did not believe that dogs or other animals paralleled mankind, and hence questioned clinical tests of remedies upon animals. To this it may be added that at that time I did not believe in Echinacea as an antidote to snake-bite.

dom, in which he was concerned as an investigator, but by the tribute of no less an authority than the thrice Chairman of the Committee of Revision of the Pharmacopoeia of the United States, Dr. Charles Rice, who writes as follows concerning that Dispensatory and its author:

"It (The American Dispensatory.-L.) constitutes a precious encyclopedia of medical American plants, and their therapeutical uses. It is a very useful work for reference. Its author is as fine a botanist as a judicial observer of therapeutical *effects*."-*Translation pages 9 and 10 of Dr. Charles Rice's "Note sur Certains Medicaments Vegetaux Americains."*

The foregoing brief historical statement is necessary, as a synopsis of the important features of the drug's introduction and early record. It parallels the process by which most of the remedial agents of the American Materia Medica have, through Eclecticism, been introduced from empiricism to the world of general medicine. In this connection, the reproduction, from the above named French publication, of a sentence from a paper by that great scholar, Dr. Charles Rice, is of interest:

"The Eclectics form a class of physicians who reject the use of a large number of remedies of mineral origin, and particularly of all mercurial compounds, and replace them by vegetable remedies, chosen as much as possible from among indigenous plants. It is certain that the persevering and careful study that the adherents of this school have made of the action of several American plants has been very profitable to medicine in general. The regular profession never hesitates to make use of the truly useful among those discovered, whoever be the authors. Many plants of which the Eclectics alone first availed themselves have ended by becoming the common property of the entire medical profession; every practitioner has, and ought to have, the inalienable right of employing every therapeutical agent, provided it be not a patented or secret preparation, which he considers useful to his patient, whether the pharmacopoeia has adopted it or not."

Through Dr. King and Dr. I. J. M. Goss, of Atlanta, Georgia, Echinacea was, during the next few years, repeatedly commended to the study of the medical profession. I made the preparation used for the experiments, making no charge therefore, but refused to permit any comments to appear on its label.

Finally, after hundreds of physicians had used it to its praise, ten years after the first incident of the aforementioned record, the house of Lloyd Brothers, under the direction of Dr. King, introduced Echinacea, accompanying same by a statement of fact concerning its history, and five reports out of a large number voluntarily contributed by physicians who had used it and enthusiastically commended the then new remedy.

*Consider that *more than twenty years ago, the first of the reports on the favorable action of Echinacea in snake-bite were recorded.*

Echafolta.-The crude drug, Echinacea, and the ordinary preparations therefrom, contain much impurity, likely to contaminate a pharmaceutical preparation, and proving, in some cases, very objectionable. This fact led to the separation of the coloring matters and other inert impurities, the nature of which it is unnecessary now to consider, as they are under examination. They include a very interesting mixture, very sweet, glucose, not sugar, as by the term "snake-bite," I mean the bite of only such serpents as are found in this country, most of which are mentioned in the following reports. There are other serpents more to be dreaded, such as the East India Cobra, for whose bite the remedy may perhaps, be of no avail.

Naturally, not only a large number of reports on the therapeutic use of Echinacea accumulated, but a very large number of requests were received for data on its action in snake and insect bites, which phase of the subject is, in this pamphlet, presented for the first time.

But in this direction many reports were early received, one of the first and most pronounced being from a Florida physician in excellent repute, to the effect that a boy, bitten by a large rattlesnake, suffered twelve hours before (he) the physician reached him. The infected leg was black, far above the knee, and into the thigh, the foot swollen nearly to bursting of the skin, and seemingly gangrenous at the point of the wound. The physician immediately bandaged the leg and foot with cotton, saturated it with Specific Medicine Echinacea, and directed that the bandage over the entire surface be kept continually wet with the medicine. Internally, he gave half a teaspoonful of the Echinacea, in water, every thirty minutes. Within a short time, the effect became apparent. The color disappeared progressively downward, the swelling was abated, and within a reasonable period after the physician began his treatment, the child was walking the floor.

Following this came successively letters from physicians of repute concerning the effect of the preparation in snake-bite and stings of virulent reptiles and insects. None of these were printed for a long period, but, finally, as a matter of record, some years ago, in a pamphlet concerning the drug, the three following were recorded without comment:

Insect Stings.-T. J. Daniel, M. D., of Magazine, Ark., reports the case of a boy stung by a stinging lizard, causing excruciating pain. The wound was covered with absorbent cotton saturated with Echafolta. In ten minutes he was perfectly easy, and had no subsequent trouble.

Snake Bite.-Dr. Daniel also reports the case of a boy bitten by a copperhead snake. Dr. Daniel being called, found the arm swollen to the shoulder, and the hand black. Absorbent cotton, saturated with full strength Echafolta, was bound over the affected part, and ten or fifteen drops frequently given internally. In an hour the boy was easy, in two hours the swelling began to go down, and the patient recovered.

John G. Ross, M. D., Portland, Ind., reports an alarming case of a lady bitten on the breast by a black spider. Her pulse was 120, temperature 102, with most alarming systemic conditions, as well as about the locality of the bite. A compress was applied of Echafolta K i, water 5 iij. Next morning temperature and pulse were normal, the tongue clean, tonicity of muscular tissue of breast had returned, inflammatory ring encircling areola had faded out, and recovery was complete.

For aforementioned "conservative" reasons a large number of such reports as these were not printed. In this reserve I now believe a mistake was made, for in the light of subsequent experience, serious results, unnecessary suffering, perhaps more than one death, may have resulted from this information being so long withheld. *Too great conservatism is not far separated from the dogmatism of" authority."* The tenor of these reports may be seen in the following, that shown by the report of Mr. Luther Carpenter, of Bay City, Mich., to whom it was submitted for saccharine provings. It is now under the examination of Professor Schlotterbeck, of the University of Michigan. The purified preparation was called *Echafolta*, and is designed to parallel in therapeutic qualities the Specific Medicine Echinacea.

are characteristic of a great number that have been volunteered during the past twenty years:

From J. H. McCoy, M. D., Tahoka, Tex., Nov. 13, 1908:

"I want to say in regard to Echafolta, that I live on the plains of Texas where rattlesnakes abound. I have used Echafolta with marked success. I use 50% solution hypodermically about bite, apply also on cotton, and give internally a teaspoonful every half hour. The good results I get are surprising.

From W. H. Dice, M. D., Coloma, Mo.: (Letter not dated.)

"I was called to a child six years old, bitten on the second toe by a rattlesnake. Found the foot swollen, also the face and lips. Prescribed Echinacea, Lloyd's, ten drops every two hours, and applied it externally to the parts affected. At the second visit found the entire foot black as a shoe and the entire limb mottled. Continued the Echinacea, and dismissed the patient about the tenth day. However, the Echinacea was given three times a day for three weeks. The annual recurrence of symptoms claimed to develop did not show up."

From A. F. Stephens, M. D., St. Louis, Mo., Dec. 12, 1904:

"You may remember a short article in the *National*, wherein I told of a case of rat-bite in an infant. The face was swollen and purple; in fact so much so that it had little resemblance to a human countenance; the left hand was literally chewed to pieces and so swollen that it did not look like a human hand. Echinacea caused the swelling and discoloration to disappear in forty-eight hours. It seemed wonderful to me."

From J. J. Raulison, M. D., Pamona, Mo., Nov. 6, 1903 :

"I had one case of snake-bite by what is known as the copperhead, bitten just above finger nail on middle finger. A bandage was applied at the wrist, wound was opened slightly, and cotton bound around finger and kept wet with Specific Medicine Echinacea for two days, and five drops of Echafolta internally often repeated for four days. There was but little swelling or pain."

From J. E. Brainard, M. D., Superior, Neb., May 27, 1900:

"Thinking, perhaps the enclosed letter might be of interest to you, I forward it. Let me first explain the letter:

"Three years since Mr. Hunter moved to a ranch near Hot Springs from this place. Having been a patron of mine for seven years I put up several remedies for domestic use. Among them was Specific Medicine Echinacea for 'snake bites.' His son, fourteen years old, was bitten by a tenbutton rattler (which they immediately killed). They at once used the Echinacea, half teaspoonful in water internally, every half hour, and also applied it locally pure. The finger swelled rapidly after the bite, and by the time they began using the medicine, was very dark. In two hours there was a change for the better, and in twelve hours finger was entirely well. An old rancher neighbor who was at Mr. Hunter's at the time, said he never saw anything go after snake-bite like that, and at once sent to me for eight ounces." ,

[From the above-named letter to Dr. Brainard.] From W. N. Hunter, Hot Springs, Ark.:

"A boy named Gene Drain was bitten by a rattlesnake, and was under a doctor for three days, and came near trailing over, when his father brought him to us. We used your snake medicine on him. He is now well, and a lot of people (ranchers) want this medicine. Do you compound it yourself, or where can it be procured?!"*

This is the way the profession of medicine is either induced to enter the domestic medicine business or give the people the name of a remedy. The history of Cinchona, Quassia, Coca, Hamamelis, etc., seems likely to be repeated in Echinacea.-L.

What are these conditions? Briefly, and to cover the whole field with one word,-SEPSIS. Echinacea is "A CORRECTOR OF THE DEPRAVATIONS OF THE BODY FLUIDS," and this whether the mor- bific changes of the fluids of the body are internal, or caused by external introductions. Its use is indicated in *septic infections, septicemia in its various forms, blood-poisoning, adynamic fevers, typhoid fever, cellular abscesses, salpingitis, carbuncles, cancerous cachexia*, and in fevers or conditions where there is a *bluish discoloration of the mucous membranes, tongue brownish, or almost black, or when discharges are foul*,-in fact, in any or all conditions which point to sepsis. To my mind, that which adds a double value to the efficiency of the remedy, is the fact that these conditions are usually serious, and frequently place the patient's life at hazard.

Specific Medicine Echinacea (followed soon by Echafolta), was the original preparation on which the reputation of the drug was established, and these are now almost exclusively used by physicians all over the United States. In fact, the reputation of Echinacea angustifolia as a powerful therapeutic agent has been established, practically if not altogether, upon the excellence of these preparations, as is indicated by the fact that in the reports to follow no other form of the remedy was mentioned.

Echinacea as an Antidote to the Bites of Poisonous Reptiles and Insects.-Echinacea was originally used as a secret antidote for rattlesnake bites and their poison, as well as the bites of other venomous reptiles and insects, the stings of wasps, bees, etc. (See historical portion, pages 2-7). Many careful physicians hesitated to accept these statements, fearing that the enthusiasm Of early observers had carried away their better judgment. But facts and truth will not down. Favorable reports of the effectiveness of Echinacea in antidoting the virus of poisonous reptiles were continuously received, until it has finally become necessary to give detailed information regarding this particular phase of the Echinacea subject. Now, the place to expect exact evidence concerning the special qualities of the medicine in this direction, is in those sections of the country where rattlesnakes, tarantulas, and other poisonous pests exist and thrive, and where people are bitten. The men to speak by authority are those who treat the persons bitten, and note the action of the remedy. However qualified a man may otherwise be, neither the theoretical educator in a university or college, nor the city physician, who never has an opportunity to see or treat snake bites, is of any authority whatever in that direction.

In pages 9 to 15 are presented the reports of a few physicians throughout the South and Southwestern States, known to use Echinacea in their practice. They were requested to report their experience with this drug, in the treatment of snake bites. They were asked to report not only cases of successful issue, but also the failures, if any there were, as well as other conditions of treatment which would help to place the remedy where it rightfully belongs.

In many cases the action of the remedy in wounds, sepsis, etc., was voluntarily appended, but these reports are not here recorded.

In a few instances other remedies than the one under consideration were employed, but the majority of the sufferers were treated with Echinacea alone. Consequently, Echinacea must be accepted as occupying a conspicuous part in the treatment, where compounds were used, being possibly the only effective agent in the prescription.

From W. O. B. Remy, M. D., Wilmer, Tex., Nov. 20, 1909:

Snake Bite.-Child, three years old, was bitten by copperhead snake on leg, just above and in front of ankle. Two hours later I saw the patient, who was then crying with pain. Leg was corded, entire foot and leg swollen very badly up to point of ligation. Made incision of wound and applied Specific Medicine Echinacea freely on cotton. Gave little stimulant, and the Echinacea internally. Treatment commenced at 7 P. M.; patient able to walk around next day, and after three days there was no symptom of snake-bite.

Snake Bite.- (Another case). Young man bitten on foot by copper head. Saw him three hours after. Applied Specific Medicine Echinacea freely to wound, and gave the remedy internally. Reported going around next day, and had no further trouble.

Bee Sting on Eye.-Young lady was stung by bee near the eye, which caused her such excruciating pain that she sent for me to give relief. I applied Specific Medicine Echinacea to the place of sting, which soon relieved her.

Tarantula Bite.-Man bitten by tarantula on back just below scapula, came to be treated three days after, and after having used many washes and other treatments without success, I applied Specific Medicine Echinacea, and in about two days he was well.

Stinging Lizard.-Young man stung by what we call in Texas a sting ing lizard, which left its sting in the flesh of his finger. Pain ran up his arm into shoulder and side, and hurt so much that he could not tell where it hurt the most. Specific Medicine Echinacea relieved at once.

Another gentleman was stung or bit by some poisonous insect on the eyelid. Face swelled enormously, both eyes swollen shut. Used Specific Medicine Echinacea continuously for two days with happy results.

From Charles W. Watson, M. D., Trent, Tex., Nov 15, 1909:

Moccasin Snake Bite.-Cotton-mouth Moccasin bite in a child twelve years old. Child was bitten on heel, and I saw the patient four hours after, when I found the limb greatly swollen, with extensive pains throughout the limb. Gave Specific Medicine Echinacea in twenty-drop doses every two hours, and applied locally to wound, full strength, on absorbent cotton.

Child was easy in thirty minutes, and rapidly recovered.

Centipede Bite.-Adult patient. I was called after another physician had failed to give relief. Centipede bite on left hand, and conditions looked bad. Prescribed thirty drops of Specific Medicine Echinacea every hour for first four hours, then twenty drops every three hours for twelve hours.

Applied the Echinacea full strength to the hand. There was no pain whatever in eight hours, and full recovery in short time.

The doctor also reports the successful treatment of a case of gangrene of the hand with Specific Medicine Echinacea.- J. S. N.

From S. F. Morrow, M. D., Blue Ridge, Tex., Nov. 15, 1909:

Gray Spider Bites.-Adult patient whom I saw two hours after wound was inflicted. Bitten on the hip; result of bite was, first, a small blister, giving a stinging pain: in a few minutes parts were swollen to the size of a large coffee saucer, and very red, the entire skin soon becoming scarlet.

Patient became very restless, chilly, pulse 40, temperature sub-normal, with vomiting and great pain in wound. Gave teaspoonful doses of Specific Medicine Echinacea every two hours, and kept the wound bound with cotton saturated with the Echinacea. Rash all gone in twelve hours, pain relieved, and swelling all removed. In twenty-four hours all bad symptoms disappeared, except the place was sore and sloughed out as large as half a dollar.

Dr. Morrow also reports having successfully treated several other cases of spider bite with Echinacea. Note the dose of the medicine. J. S. N.

From J. H. Mitchell, M. D., Dallas, Tex., Nov. 15, 1909:

Snake Bite.-Adult, wood-chopper, bitten on left wrist by cottou-mouth snake, two days before I saw him. At this time entire left hand and arm were greatly swollen and black to the shoulder. Patient very sick, much prostrated, heart action frail. Applied Specific Medicine Echinacea externally, and gave it internally. Improvement began at once, and in two days patient called at my office, a well man. All swelling and discoloration had disappeared, except a slight abrasion at point of bite.

Spider Bite.-Dr. M. was bitten on the side of the face by spider. Saw the doctor two days later; found black spot on face larger than a silver dollar, cuticle all off. Applied medicine, do not remember what. The doctor was very weak and confined to his bed. Next day he was much worse, wound enlarging rapidly and sloughing into the deeper tissues. I then prescribed Specific Medicine Echinacea, locally and internally. Next day coloration disappeared, swelling less, and by the third day all poisonous effect gone, and recovery was quick.

(Dr. Mitchell does not say in what doses he gave the medicine. J. S. N.)

From John E. Cutler, M. D., Crosby, Tex., Nov. 30, 1909.

Spider Bite.-An adult male was bitten by a common black spider on the head of his penis, as he sat down on closet seat. When I saw the man, an hour later, he was suffering intense pain the full length of his spine, especially in the lumbar region. I applied Specific Medicine Echinacea locally by means of cloth, and internally I gave an ounce of the Echinacea to one-half glass of water, to which I added 30 gtt. of Gelsemium for restlessness, and of this solution I gave a teaspoonful every fifteen minutes for six doses, then every hour. Pain was relieved in about six hours, and there never was any swelling.

From Marquis E. Daniel, M. D., Honey Grove, Tex., Dec. 7, 1909:

Spider Bite.-Adult, postmaster, bitten by small black spider on back of his neck, to the right of median line. About one hour later, when I saw him, his neck was slightly swollen, right eye swollen shut. Gave two teaspoonsful of Specific Medicine Echinacea one-half hour apart, followed by teaspoonful doses, every hour, of a mixture of Specific Medicine Echinacea half ounce, water q. s. to make four ounces. At the same time applied absorbent cotton saturated with full strength Echinacea until all swelling subsided, which was in about two hours, two and one-half hours at outside. Could give other cases, but this one, above all others, I can authoritatively certify to.

(Note in this case of Dr. Daniel's that he did not hesitate to give the Echinacea in large doses.-J. S. N.)

From John A. Lanius, M. D., Bonham, Texas, Nov. 15, 1909:

Spider Bite.-This case was that of a lady who was bitten by a spider on the inner side of upper third of thigh. I saw her about one week after the accident, when I found the entire leg swollen, from hip to knee, as if it would burst. The area of the bite was very black, and had begun to slough, and this covered a space of about three to four inches. Temperature 104, patient very nervous. I prescribed Specific Medicine Veratrum gtt. 20, Specific Medicine Passiflora half ounce, Specific Medicine Echinacea two ounces, Aqua q. s. to make four ounces; M., Sig, teaspoonful every hour until fever reduces. Locally I used a compress saturated with equal parts of Specific Medicine Echinacea and Dist. Hamamelis and kept this compress wet all the time. The third day temperature was normal. I continued giving the Echinacea in half-dram doses every three hours, and kept up my local treatment. There was a considerable slough in this case, which required two months to heal. I used no other treatment except Peroxide of Hydrogen to cleanse wound before applying compress. This lady was seven and a half months pregnant when bitten, and went to full term.

Spider Bite.-Lady, sixty-eight years old, bitten on back of neck by spider. Twenty-four hours later, when I saw her, I found the entire neck swollen to twice its natural size, wound looking very angry and black, temperature 105, patient very nervous and depressed. After a careful examination, I feared the worst would happen in a few hours. Prescribed Specific Medicine Veratrum gtt. 10, Specific Medicine Cactus one dram, Specific Medicine Passiflora half ounce, Specific Medicine Echinacea two ounces, aqua q. s. to make four ounces, mix., sig., teaspoonful every hour.

Locally I applied a compress saturated with equal parts of the Specific Medicine Echinacea and Hamamelis. Her temperature greatly reduced, and was entirely normal in forty-eight hours. I kept up the compresses and the Echinacea internally in half-dram doses every three hours. There was no slough, the patient being entirely well in ten days.

Spider Bite.-Patient, adult, was bitten on neck by spider. I saw her within a few hours, and found her very nervous, and with a temperature of 102. I gave her Specific Medicine Echinacea half dram every *two* hours, and used compresses, as I did in the other cases. In forty-eight hours I considered her well, although I continued my internal treatment for about a week, to be sure I had entirely eradicated the poison from her system. Nothing has given me quicker results in insect stings than the Echinacea treatment, internally and externally, and I wish to emphasize, in these cases of poisonous stings and bites, that it is best to give large doses of the remedy. I fear many fail to get good results, because of their failure to give a sufficient amount of the drug.

(A physician who obtains such results from his treatment has every possible right to congratulate himself, and I am confident that in this case his patient and the patient's family fully appreciated the doctor's services.-J. S. N.)

From Jason Tyson, M. D., Santa Anna, Tex., Nov. 15, 1909:

Snake Bite.-Snake of unknown variety bit child twelve years old on index finger, two fangs penetrating deeply. I saw the child within half an hour and found finger ligated with rubber band. Had no visible local or constitutional effect. Made free incision, removed the bandage, applied solution of Permanganate of Potash, and followed this with a 25% solution of Echafolta. Gave twenty drops Specific Medicine Echinacea every hour. Patient suffered no ill effects from bite, no swelling nor anything to denote effect of poison.

(Probably not a venomous serpent.-ED.)

Red Ants.-A year old child was stung all over body with big red ants, and was in an awful agony when I saw it, half hour later. Applied 25% solution Echafolta freely, which prevented further trouble; next day there was nothing visible to show for the ant bites. Anyone who has had experience with these insects of the prairie, knows how difficult it is to relieve the pain of these stings, especially in children. In all cases of sepsis I use Specific Medicine Echinacea or Echafolta, with but one effect, and that is betterment of the. condition.

From S. G. Arnold, M. D., Dalhart, Tex., Nov. 15, 1909:

Snake Bite.-A gentleman thirty-two years of age was bitten by a copperhead snake on the extensor side of right arm, just below elbow. Within two hours when I saw him he was suffering intense pain in entire arm; site of injury for two inches around slightly raised and discolored, slight discoloration of entire arm, hand and wrist swollen. With a scalpel I immediately scarified site of injury, and applied absorbent cotton and gauze bandage, and all of this I saturated with full strength Specific Medicine Echinacea, and kept dressing saturated with the remedy constantly. Internally I gave Specific Medicine Echinacea fifteen drops in water every hour, and a granule of Abbott's Strychnia Nitr. one sixtyseventh grain every three hours. Within two hours all pain was relieved, and swelling and ecchymosis disappeared in twenty-four. hours. Systemic symptoms disappeared in forty-eight hours, and patient was dismissed with following prescription; Abbott's Saline Laxative, to effect; and Specific Medicine Echinacea three drams, Specific Medicine Baptisia, M. 20, Aqua Dest. q. s. ounces, 4; Mix., Sig. one dram every two hours.

From M. F. Bettencourt, M. D., Gladewater, Tex., Nov 16, 1909:

Black Water Moccasin Bite.-A ten-year-old boy was bitten by a black water moccasin on sole of right foot, one inch from proximal end of toe. The two penetrations of fangs were very distinct, and the reptile held so firmly as to be raised clear from the ground when the boy jumped. I reached the boy two and one-half hours later, when I found the foot markedly swollen, and the leg as well, half way to the knee. Patient was blanched and apprehensive, heart's action rapid, and pulse of lowered tension. I made an incision from one fang puncture to the other, and into the incision applied Echafolta half strength, and kept absorbent cotton saturated with Echafolta constantly applied to incision and considerable area about it. Gave fifteen to twenty drops Specific Medicine Echinacea internally, first every hour, later at two-hour intervals. Gave no other medicine. Patient rested well through the night. Swelling practically gone in twenty-four hours, and patient at play on evening of second day. Saw patient twice, second time for" cramps ,, in stomach, which was apparently the tingling sensation due to the Echinacea.

From Louis H. Freedman, M. D., Fort Worth, Tex., Nov. 20, 1909:

Bee Sting.-Patient, adult, stung on cheek by a bee. Within a few hours cheek was much swollen and eye closed. Applied Echafolta as a dressing over entire swollen surface, with immediate relief, and conditions were normal in twenty-four hours.

Have not had any experience in snake-bites, but I have used Echafolta in many cases of blood dyscrasia and in wounds and sores. I use the remedy *ad libitum*, and fail to see how one can practice medicine to-day without it. I give from ten drops to one dram at a dose, dependent, of course, on the condition of the patient.

From W. R. Fowler, M. D., Pottsville, Tex., Nov. 18, 1909.

Rattlesnake Bite.-Child six years old was bitten on foot in two places by a rattlesnake. An hour later parts were swollen, bitten parts were dark and there was great pain and mnch depression. Compress saturated with Echafolta was applied to parts, and the same remedy given in twenty-drop

doses every hour for twelve hours, then every two hours. Gave a few doses of Strychnia Arsenate one-sixteenth grain. No other medicine. Swelling began to subside inside of six hours, pain better, and recovery was ideal. But very little sloughing at point of bites.

Copperhead Snake Bite.-I have treated several cases of bite by copperhead snake in same manner, with equally good results.

Spider Bite. Have had a great many cases of spider bite, in the treatment of which I depend altogether on Echafoita, and with better results than before I began its use.

From W. C. Morrow, M. D., Trenton, Tex., Nov. 15, 1909:

Copperhead and Rattlesnake Bites.-These were in children, whom I saw one hour after they had each been bitten on the foot. There was no swelling, and children were doing well, as parents had corded limbs and placed injured feet in a basin filled with lamp oil, which I humored, because I believed the oil did good work. Gave Specific Medicine Echinacea in' one-half dram doses every thirty minutes for a few hours, and neither child was confined a day in bed.

(Notwithstanding the fact that the doctor thought the children were doing- well, he wisely gave the Echinacea.-J. S. N.)

Spider Bite.-Adult was bitten on finger by spider, and twelve hours intervened before I saw patient. There was no swelling nor soreness at the site of the bite, but the right side of the body and face were badly swollen, and patient was suffering intensely with severe pains in back and head.

I gave internal treatment only, and this was dram doses of Specific Medicine Echinacea every thirty minutes, which eased and quieted patient like a dose of Morphine. Patient was up next day and able to work, though

I thought for an hour he would die. The effect of the poison was not manifested until about twelve hours after patient was bitten.

Bee Sting.-Have also used the Specific Medicine Echinacea in the treatment of bee stings and poison-oak poisoning-for the treatment of which the remedy stands without a peer. In these conditions I use it both locally and internally. Have used both Echinacea and Echafoita, though I use more of the Echinacea.

From R. O. Braswell, M. D., Fort Worth, Tex., Nov. 17, 1909:

Tarantula Bite.-The tarantula's bite is always serious, and sometimes fatal, and it is more dreaded by the people of Texas than the rattlesnake or the copperhead.

Male, fifty years old, was bitten by a tarantula on biceps muscle of left arm, and when I saw him, six hours afterward, the arm was much swollen, and tissues about the wound caused by the bite were black; patient had high temperature, was delirious, vomited, and was suffering much pain.

Applied gauze saturated with Specific Medicine Echinacea to the wound, changing dressing every two hours for thirty-six hours, then every six hours for five days; then discontinued external application. At the same time gave the Echinacea internally, thirty drops every two hours for two days, then fifteen drops every four hours until fully recovered. Temperature began to abate and delirium subside in about twelve hours after treatment was begun. Toxemia gave way to normal conditions, and the patient made a good recovery. Only a small round place sloughed away, which healed rapidly. I gave this patient nothing more, except Cascara to keep the bowels open.

Specific Medicine Echinacea is the one remedy for snake or spider bites of all classification.

(The speedy results in this case are worthy of special consideration, because of the serious condition of the patient, and the length of time which elapsed before the doctor saw his patient.-J. S. N.)

Dr. C. H. Bellamy, Dallas, Tex., Nov. 19, 1909,

States that for the past seven years he has used Specific Medicine Echinacea extensively in spider bites, wasp stings, and the stings of numerous other insects, and always obtained the best of results in the way of relieving pain, reducing swelling, and controlling constitutional disturbances, that might arise. His method is to apply a 50% solution of the remedy on gauze to the wound, and give dram doses of a 50% solution internally. He prefers the Echinacea to Echafolta in acute infection.

From J. W. Moore, Jacksonville, Tex., Nov. 16, 1909:

Sting of Centipede.-In an adult patient, who was stung by centipede across top of his foot. I saw him five hours afterwards and found foot greatly swollen and patient in great agony with pain, so much so that he seemed almost to go into convulsions. I had to give Morphine hypodermically to relieve him. Then I saturated a cloth with Specific Medicine Echinacea and applied it to foot, and internally gave half teaspoonful doses every two hours. The swelling was almost gone in twelve hours, and the patient was able to work on the second day; had no slough from the sting. I think the Specific Medicine Echinacea is the best remedy we have in these troubles. In stings of bees, wasps, etc., it is a specific; used locally, it gives instant relief.

From W. H. Walker, M. D., Killeen, Tex., Nov. 15, 1909:

Spider Bite.-Adult was bitten by spider, and I saw him a few hours later. Parts then were badly swollen and very painful, patient very nervous and excitable. Applied Specific Medicine Echinacea, full strength, to wound, and gave it internally in twenty-drop doses every hour. Pain was relieved in a few hours, and patient fully recovered in forty-eight hours.

Dr. Walker also finds Echinacea a reliable and satisfactory remedy in most cases of blood-poison and sepsis, used locally and internally.- J. S. N.

From W. C. Ament, M. D., Levita, Tex., Nov. 24, 1909:

Snake Bite.-Patient, lady, bitten by copperhead snake on foot, both fangs entering flesh at instep. Saw her within about two hours, and found foot tightly swollen. swelling extending half way to knee, with much pain and slight shock. Patient first immersed her foot in coal oil, and then applied an onion poultice until I arrived. I immediately applied a 25% solution of Specific Medicine Echinacea to the foot, and internally I gave a teaspoonful of the solution every hour. Result, no more swelling, and full recovery in a few days.

Snake Bite.-Another case was that of a male child bitten on both feet by copperhead snake. The family had applied coal oil on cloths until I arrived, which was in about three hours. With hypodermic syringe I injected twenty- five minims of pure Specific Medicine Echinacea into and around the wounds, and kept compresses moist with 25% solution of the medicine on wounds and feet. Internally gave eight-drop doses of the Echinacea every hour. For pain and shock I gave one-twelfth grain Codeine Sulph. and 1-134 grain Strychnine Arsenate. Swelling was soon reduced, and in a few days patient made complete recovery.

Spider Bite.-Patient, adult male, bitten on both arms by spider. He had applied a poultice of coal oil and soda until I arrived, which was in about two hours. No swelling; pain and shock severe. I injected hypodermic syringe full of Specific Medicine Echinacea into wounds, and dressed them with a 50% solution of the drug; also gave teaspoonful doses of this solution every hour for eight hours. Patient had taken one-half pint of whisky, with no apparent results; so within an hour I gave 1/4 grain Morphine and 1-40 grain Strychnine, and repeated this dose in forty-five minutes, which gave partial relief. Again repeated dose in two hours, and thereafter, as indicated. In this case the Echinacea seemed to have no effect whatever. Patient was able to leave his room after five days, and was six or eight months in recovering, though he was a stout young man.

Spider Bite.-Another case: Was bitten on hip by spider at 10 A. M., and I was called at 5 P. M. There was no swelling, but pain in back and hip was severe. Gave teaspoonful doses of a 50% solution of the Specific Medicine Echinacea every hour for several doses, then every two hours. Applied same strength solution locally to wounds by means of compress, keeping this saturated with the solution. Echinacea gave no apparent results, and as pain seemed to increase, gave half strength H. M. C., which gave partial relief. For two or three days was compelled to give Morphine to relieve pain. Patient completely recovered in fifteen days.

(These two cases are of interest by reason of the fact that no antidote seemed to avail. It is a pity the spider is not identified-Ed.) From R. E. Sawyer, M.D., Bokchito, Okla., Nov. 15, 1909:

Rattlesnake Bite.-Patient twenty-five years of age was bitten by a ground rattlesnake on the ring finger at second joint, three fangs entering the flesh, and from one of the points a small amount of blood was oozing when I saw him, six hours later. Entire hand was swollen, fingers and thumb strutted and deep-seated pain extended up the 'arm to the axilla. Bathed and rubbed hand and arm with Specific Medicine Echinacea; internally gave the same medicine in eight-drop doses in water every hour, and later added Specific Medicine Phytolacca to the Echinacea. On the second day I covered the hand with Libradol, though I do not believe this was necessary. (Libradol will promptly relieve the pain of a bee-sting.-Ed.) I also treated a four-year-old girl who had been bitten on the right foot by a ground rattlesnake. Used the same treatment as above outlined, with complete recovery in three days.

Spider Bites, Stings of Wasps and Bees.-Five cases of spider bites were entirely and satisfactorily relieved and cured with the Specific Medicine Echinacea. In stings of wasps and bees, no other treatment than the use of Echinacea is needed.

From H. W. Gates, M. D., Waco, Texas, Jan. 24, 1910.

Snake Bite.-Girl, thirteen years old, was bitten (May 2, 1907) midway between knee and ankle, on external surface of right leg by a very large "diamond rattler," the largest ever seen in that part of the country. Much laceration of flesh when fangs were removed. About three hours intervened before a physician reached the patient. When I was called about thirty-six hours after, the use of Echafolta was begun, internally and externally. Whisky had previously been administered. I found the patient *unconscious*, with leg swollen twice its normal size, and discolored almost black, the discoloration extending almost to arm pit, then down over half the abdomen. Half a teaspoonful of Echafolta was given every hour, day and night, till improvement was noted. A thin piece of gauze was spread over wounded part, and kept continually saturated with equal parts Echafolta and water. This was all that was used, and the effect was all that could be desired, although it was a month before the girl was able to be out of bed. She walks as well as ever, although there is considerable scar.

Spider Bite.-A man about thirty years of age came to me, June 26, 1909, after a week's treatment from physicians who had applied Iodine and given opiates for relief of pain. The bite was on scrotum, on right side, up against body. The parts had sloughed until there was an opening almost as large as a teacup, with the most offensive odor imaginable. Applied equal parts Echafolta and water, every half hour to hour, night and day, using medicine dropper to inject solution into the cavity. The patient was compelled to lie on back, which allowed the Echafolta solution to reach every part of wound. He complained of a "smarting sensation" on first application, but no more. Internally, half teaspoonful Echafolta was given every hour for four or five days. The odor subsided after sloughing ceased, and very noticeably disappeared after the first few applications. The parts healed by granulation, leaving a deep, ugly scar, but with no inconvenience to patient, who is as well and strong as ever.

Dr. A. Helbing, of Dallas, Tex., writes (Nov. 27, 1909,) that he has not had the opportunity to use Specific Medicine Echinacea or Echafolta in

snake or spider bites, explaining that physicians in cities (see page 8) do not have the chance as have those men who practice in the country or smaller towns, where such accidents are of frequent occurrence.

Dr. H. H. Blankmeyer, of Honey Grove, Tex., is much interested in the subject. He writes (Nov. 15, 1909,) that he uses Echinacea daily in sepsis, but has not yet had occasion to use it in snake and insect bites, although it is his intention to do so when he gets the opportunity.

GENERAL REMARKS

Treatment.-In view of the foregoing evidence concerning the results that have attended the administration of these Echinacea preparations, it might be considered criminal in a physician treating the bites of snakes or other venomous creatures to neglect to administer and apply this remedy, and that, too, regardless of other treatment. Echinacea has never been reported as producing any ill effects, even though in heroic or long continued doses. And surely, if there be any condition requiring that a remedy should be promptly and liberally employed, it is such as follows the bite of these venomous creatures. It will be noted throughout these reports how quickly the poisonous effects of the bites of dangerous reptiles is in evidence; and it is also to be remarked that the rapidity of the antidotal effect of the Echinacea is not only quick, but even better and more thorough than any other known expedient for the relief of such disastrous misfortunes. Even though the physician be skeptical as to the results reported, we should counsel its use, for no harm could possibly result therefrom, while in the case of a fatal result he might, in the light of the foregoing experiences, be criticised for not having employed a remedy that others have found so effective and had so highly extolled in these directions.

Dosage.-These are cases demanding "full doses to effect;" and since no ill effects from the use of the drug have ever been noted, there need be no hesitancy in using liberal doses, at least in the beginning of the treatment. From Thirty Minims to a Teaspoonful of Echafoita or Specific Medicine Echinacea, in a little water, should be administered, repeating this for the first hour every fifteen minutes, and at longer intervals and decreasing in quantity, until the patient is out of danger. At the same time the remedy should be applied locally over the entire surface affected by the bite, the compress being kept saturated at first with the full strength remedy, this being later diluted, first with its bulk of water, and decreasingly, until the septic condition has disappeared, locally and generally.

Hypodermic injection of ten to thirty minims at the site of the wound may be employed with possible advantage; and I would not hesitate to inject even larger doses, without any fear of any local irritating effect from the drug; though in the majority of cases reported the hypodermic use has seemed to be unnecessary.

As before stated, the foregoing treatment should be instituted regardless of any other process of medication, because, first, it can do no harm, and second, its use for this purpose is supported by the testimony of physicians competent to judge of its value, and who have no political concern for or against the remedy, but whose statements of fact are made simply to supply the profession with a personal record that may be of use to their brother practitioners.

J. S. NIEDERKORN, M. D., Versailles. Ohio.