

POISON OF SNAKES.
BY NICOLAS PIKE.

Death comes inevitably to all, and in a thousand varied forms, but outside of hydrophobia, death by the bite of a rattlesnake or other poisonous serpent is surely one of the most horrible. No wonder a venomous snake inspires such dread, as it is rarely the wounds are cured unless tended at once, before the venom has time to spread. Scarcely a week passes without accounts of snake bites that often end fatally. I feel so much interest in the subject that I have for years carefully noted whatever I could find relative to it, and as some of the remedies I have procured have been successful, on the best authority, I give them to the public in hopes they may help some sufferer who is in the neighborhood of such venomous reptiles. Fortunately, North, we have only the rattlesnake and copperhead, and they, in my opinion, are too many, and I trust some of the simple remedies may help where the victim is far from medical aid.

Rattlesnake bites, if not fatal, are always serious, especially in hot weather. It is said that ammonia is not the antidote it has long been represented. All the same, it is a good thing to have handy some strong spirits of ammonia, to be used internally and externally when no other remedy is available, not forgetting to tie a ligature very tightly (or it is useless), above and below the wound, to stop the spread of the poison in the veins. The following recipe I received in a letter from Mr. J. D. Legg, of Long Eddy, N. Y., and I think it invaluable, as it is within the reach of most people in the country.

This gentleman wrote me: "This remedy was obtained by one of the first settlers in this section, from a half-breed Delaware Indian, nearly 100 years ago, and has been successfully used by those knowing it ever since. In no case has there been a failure in man or beast. I have known of it for 30 years, and am personally acquainted with six individuals bitten by rattlesnakes and cured by this remedy. Apply immediately to the wound a poultice of indigo (or common washing blue) and salt, in equal parts, mixed with cold water, and renew every two or three hours. Eat freely and also drink a tea of the leaves of the common blue violet (*Viola sagittata*), which may be distinguished from other species by chewing the leaves for a moment, the taste being like slippery elm* bark. The violet leaves should also be placed round the member bitten, between the wound and the heart, far enough from the bite to be just beyond the swelling, making a compact ring, covering the flesh completely in its course. As the leaves become dry from the fever engendered by the poison, they should be dampened with cold water, and be replaced by new ones from two to three times a day, taking care to keep them just beyond yet close to the swelling. Their effect seems to be both inwardly and outwardly to thoroughly counteract the poison. This is all that is essential to the cure."

Two years ago I was informed for the first time of a sure cure for the bite of a copperhead, so much more to be dreaded than the rattlesnake, as it gives no warning to the intruder, but strikes unawares. This remedy is so simple it would seem almost absurd, did we not know that our Indians and the natives of most other countries find their surest relief from the various ills they are subject to in simples provided by nature close to their doors. I confess, from the ill success attending much of the treatment for snake bites in hospitals, and by the doctors generally, I am inclined to have more faith in the simple remedies. I was told of a young lady who was seeking for wild flowers in the woods at South Salem, Westchester County, N. Y., and was bitten on the foot by a copperhead, or chunk head snake, as it is called in that neighborhood. The snake was killed, and one of the party, a Mr. Judson, sliced an onion and applied it to the wound, and it was cured.

On hearing the story, I resolved to get further information from headquarters, as it certainly ought to be made known if a remedy so accessible to every one is thus efficacious. I wrote to Mr. O. Judson, who is a farmer in that vicinity, to ask if the cure I had heard of was really effected by an onion, and he answered as follows:

"In regard to the *snake business* onion, if applied immediately it will draw out the poison, and it is about as easily cured as a bee sting, and should be treated about the same, only with more promptness. Cut the onion in two, crosswise (not lengthwise), hold a part of the onion on the wound for five minutes, when it will turn green, remove it and apply the other half and let it remain on about the same time. It will take two or three onions to effect a cure. If the person has been bitten say half or three-quarters of an hour, you must apply nitrate of silver to the wound and take plenty of whisky inwardly."

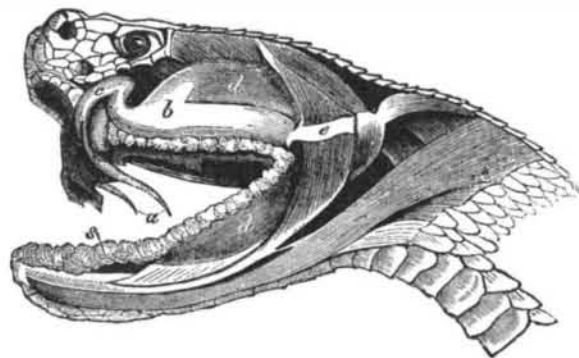
Mr. Judson vouches so assuredly of the certainty of the onion cure from his own experience that whenever he sees a party going into the woods where these snakes abound, he asks if they have any onions with them. Surely it is worth while for collectors

* *Ulmus fulva*, the red or slippery elm.

of deadly reptiles to take a few of these common roots along, as I do not see why they should not also cure the bites of other reptiles and poisonous insects.

At Pernambuco and all through Paraguay an equally simple application is used, they tell me, with certain success. A solution is prepared of two or three grains of permanganate of potash, and a subcutaneous injection made above and below the bite. This remedy was given me by a gentleman who has traveled much in South America collecting insects, and he said they never went out into the field without it, and it rendered him quite fearless of accidents.

In the Cape of Good Hope, South Africa, where there are so many deadly serpents, many people are bitten every year, often fatally. *Cobra capellos* and *puff adders* are two of the commonest snakes all over the colony. A clergyman, who resided where the hideous *puff adders* swarm, had been very successful among his people in his treatment of their bites, and for the



benefit of the whole colony he published his recipe. He writes:

"The following is the best mode of using this invaluable antidote: Mix a teaspoonful of ipecacuanha powder with a little cold water, then scarify the part bitten, making two or three cuts through the skin, and apply the same as a poultice. This should be followed by about thirty grains in a wineglassful of cold water as an emetic, and if necessary, both may be repeated in half an hour. This is seldom required to complete the cure, as the pain generally ceases in less than that time, and appetite and health speedily follow."

It would be too long here to give cases of some remarkable cures he made, and it has been successfully tried in India. To speak of the snakes and their bites in the East Indies would require a volume. So I leave them out. Most of the African tribes, as well as our North American Indians, use nicotine for serpent wounds.

In some of the fine agricultural districts of South Africa, the wheat fields abound with puff adders. Formerly, when engaging the reapers—mostly Hottentots—they would rarely consent to begin work without a "snake doctor" to accompany them to the fields. All Hottentots are great smokers, but the "doctor" de-



ARROW-LEAVED OR SNAKE VIOLET.

Viola sagittata L.

lights in short black pipes, never cleaned, and so impregnated with nicotine no white man could use them. He generally amuses himself hunting the reptiles for a while, then smokes and takes a nap till wanted.

Should a reaper be bitten, the old fellow rouses up at once, as he knows quick work is everything in a snake bite, and his reputation is at stake, too. He applies a ligature above and below the wound, if possible, tightening to strangulation of the parts, a drop of nicotine is extracted from his pipe, and after well scarifying the wound, it is rubbed in. Another drop is diluted and put in the patient's mouth, followed by continuous draughts of fiery "brandwein" or Cape brandy, when he is carried home, and according to the constitution of the man is the length of time he takes to recover.

Even after a cure is effected serious results manifest

themselves from puff adder bites, when the victim has to all appearance completely recovered.

A gentleman I know was bitten in the left arm, but seemed to be all right soon after. Yet, in a year, he quite lost the use of his left eye. A Tambookie girl, who was bitten on the leg, suffered badly, but was apparently cured. For years after, on the recurrence of the hot season, when she was bitten, her leg swelled up to the hip and she was in dreadful agony for over a week. I could cite many other cases were it necessary.

I have received from my friend, Dr. J. H. Garnier, the learned naturalist, of Ontario, Canada, some most interesting notes on snake poisoning. This gentleman received a number of the deadliest snakes of India, and, by accident, the vessel containing them was broken and all the liquor spilled. He placed them in fresh alcohol to soften them, as they were all dried up. After soaking them for some time, he spent hours examining their heads and fangs. Early one morning he had received a slight abrasion on the third finger close to the nail and some trivial scratches, so slight he had scarcely noticed them. When they were first immersed in the alcohol they smarted, but that passed off, and, when he had finished his scrutiny of the heads, he went to visit a patient in the country.

On returning, about 6 p. m., he felt a strange numbness in the fingers and right arm, followed by dizziness, and felt squeamish at the stomach. Being, as far as he knew, in perfect health, he was puzzled, and soon became sick and faint. On questioning himself seriously as to the cause, he bethought himself of his morning's work, and felt sure he was under the influence of poison. Feeling himself getting sleepy and stupid, and not wishing to frighten his family, he went into his surgery and mixed a drachm of iodide of potash in two ounces of cinnamon water, which he drank, and repeated the dose in ten minutes. He then swallowed several glasses of brandy and began to feel relief. When he thought the iodide was well absorbed into the system, he took an ounce of sweet spirits of niter in cinnamon water. He followed this up by whisky, and went to bed, perspiration set in, and though the arm continued numb, the pain decreased. The next morning he was better, but the numbness remained for several days.

This accident set the doctor's busy mind thinking, and he experimented on some dogs with fresh poison from the fangs to try if the iodide of potash would neutralize the venom of a rattlesnake. He was very successful, and then he wrote out a formula for the treatment of snake bites, and gave it to a friend of his, also a doctor.

Very soon after, two very serious cases of men struck by rattlesnakes were brought to him, and a valuable dog was also bitten. He not only cured them from the doctor's remedy, but prevented the after consequences, often so troublesome under ordinary treatment, and a note of each case was carefully written out for Dr. Garnier.

In all the cases some time had elapsed after the bite, as the victims had to go from a distance to the doctor's residence. At once a drachm and a half of iodide of potash was given, and in ten minutes half an ounce of sweet spirits of niter, followed by 3 ounces of brandy. This was repeated at intervals of twenty minutes for about an hour and a half, when the patients were greatly relieved. This treatment was followed by a preparation, viz.:

Iodide of potash..... 4 drachms.
Fluid extract of sarsaparilla..... 2 ounces.
Water enough to make an 8 ounce mixture.

To be taken one teaspoonful in water three or four times a day, and all the patients recovered quickly. The same remedy was applied by Dr. Garnier to a man badly stung in the face and head by wasps from a disturbed nest.

The above remedy is so simple and easy of application, and so well tested, Dr. Garnier intends sending it in pamphlet form to be used in countries where poisonous snakes abound, and courteously gave me the benefit of his notes. I trust some doctor who reads these lines will be induced to try the above, as I feel sure it will save many a life that would be lost by inefficient treatment, or ignorance, and I am glad to give it publicity in a journal that will spread it far and wide for the benefit of humanity at large.

PROFESSOR ELIHU THOMSON delivered a very interesting address upon "The Thunderstorm from the Standpoint of Modern Science" before a large audience at Town Hall, Swampscott, Mass., recently. The lecture was illustrated by experiments that were made successful in spite of the dampness of the evening, by the ingenuity of the lecturer. He produced most of the effects of thunder, lightning, brush discharges and the aurora borealis, and spoke at some length on the researches recently made by Professor Crookes, of England, on the effects of discharges in vacuo. According to the *Electrical World*, the lecture was enjoyed very much by the audience, the more so as it was the first appearance of Professor Thomson before his townspeople.