# SELECTED LIST OF PLANTS USED.

1. UNASTE´TSTIYÛ="very small root"—Aristolochia serpentaria—Virginia or black snakeroot: Decoction of root blown upon patient for fever and feverish headache, and drunk for coughs; root chewed and spit upon wound to cure snake bites; bruised root placed in hollow tooth for toothache, and held against nose made sore by constant blowing in colds. Dispensatory: "A stimulant tonic, acting also as a diaphoretic or diuretic, according to the mode of its application; * * * also been highly recommended in intermittent fevers, and though itself generally inadequate to the cure often proves serviceable as an adjunct to Peruvian bark or sulphate of quinia." Also used for typhous diseases, in dyspepsia, as a gargle for sore throat, as a mild stimulant in typhoid fevers, and to promote eruptions. The genus derives its scientific name from its supposed efficacy in promoting menstrual discharge, and some species have acquired the "reputation of antidotes for the bites of serpents."

2. UNISTIL´Û$^{n}$ISTÎ[8]="they stick on"—Cynoglossum Morrisoni—Beggar lice: Decoction of root or top drunk for kidney troubles; bruised root used with bear oil as an ointment for cancer; forgetful persons drink a decoction of this plant, and probably also of other similar bur plants, from an idea that the sticking qualities of the burs will thus be imparted to the memory. From a similar connection of ideas the root is also used in the preparation of love charms. Dispensatory: Not named. C. officinale "has been used as a demulcent and sedative in coughs, catarrh, spitting of blood, dysentery, and diarrhea, and has been also applied externally in burns, ulcers, scrofulous tumors and goiter."

3. Û$^{n}$NAGÉI="black"—Cassia Marilandica—Wild senna: Root bruised and moistened with water for poulticing sores; decoction drunk for fever and for a disease also called û$^{n}$nage´i, or "black" (same name as plant), in which the hands and eye sockets are said to turn black; also for a disease described as similar to û$^{n}$nagei, but more dangerous, in which the eye sockets become black, while black spots appear on the arms, legs, and over the ribs on one side of the body, accompanied by partial paralysis, and resulting in death should the black spots appear also on the other side. Dispensatory: Described as "an efficient and safe cathartic, * * * most conveniently given in the form of infusion."

4. KÂSD´ÚTA="simulating ashes," so called on account of the appearance of the leaves —Gnaphalium decurrens—Life everlasting: Decoction drunk for colds; also used in the sweat bath for various diseases and considered one of their most valuable medical plants. Dispensatory: Not named. Decoctions of two other species of this genus are mentioned as used by country people for chest and bowel diseases, and for hemorrhages, bruises, ulcers, etc., although "probably possessing little medicinal virtue."

5. ALTSA´STI="a wreath for the head"—Vicia Caroliniana—Vetch: Decoction drunk for dyspepsia and pains in the back, and rubbed on stomach for cramp; also rubbed on ball-players after scratching, to render their muscles tough, and used in the same way after scratching in the disease referred to under û$^{n}$nagei, in which one side becomes black in spots, with partial paralysis; also used in same manner in decoction with Kâsduta for rheumatism; considered one of their most valuable medicinal herbs. Dispensatory: Not named.

6. DISTAI´YĬ="they (the roots) are tough"—Tephrosia Virginiana—Catgut, Turkey Pea, Goat's Rue, or Devil's Shoestrings: Decoction drunk for lassitude. Women wash their hair in decoction of its roots to prevent its breaking or falling out, because these roots are very tough and hard to break; from the same idea ball-players rub the decoction on their limbs after scratching, to toughen them. Dispensatory: Described as a cathartic with roots tonic and aperient.

7. U´GA-ATASGI´SKĬ="the pus oozes out"—Euphorbia hypericifolia—Milkweed: Juice rubbed on for skin eruptions, especially on children's heads; also used as a purgative; decoction drunk for gonorrhœa and similar diseases in both sexes, and held in high estimation for this purpose; juice used as an ointment for sores and for sore nipples, and in connection with other herbs for cancer. Dispensatory: The juice of all of the genus has the property of "powerfully irritating the skin when applied to it," while nearly all are powerful emetics and cathartics. This species "has been highly commended as a remedy in dysentery after due depletion, diarrhea, menorrhagia, and leucorrhea."

8. GÛ´NĬGWALĬ´SKĬ="It becomes discolored when bruised"—Scutellaria lateriflora—Skullcap. The name refers to the red juice which comes out of the stalk when bruised or chewed. A decoction of the four varieties of Gûnigwalĭ´skĭ—S. lateriflora, S. pilosa, Hypericum corymbosum, and Stylosanthes elatior—is drunk to promote menstruation, and the same decoction is also drunk and used as a wash to counteract the ill effects of eating food prepared by a woman in the menstrual condition, or when such a woman by chance comes into a sick room or a house under the tabu; also drunk for diarrhea and used with other herbs in decoction for breast pains. Dispensatory: This plant "produces no very obvious effects," but some doctors regard it as possessed of nervine, antispasmodic and tonic properties. None of the other three species are named.

9. K´GA SKÛⁿTAGĬ="crow shin"—Adiantum pedatum—Maidenhair Fern: Used either in decoction or poultice for rheumatism and chills, generally in connection with some other fern. The doctors explain that the fronds of the different varieties of fern are curled up in the young plant, but unroll and straighten out as it grows, and consequently a decoction of ferns causes the contracted muscles of the rheumatic patient to unbend and straighten out in like manner. It is also used in decoction for fever. Dispensatory: The leaves "have been supposed to be useful in chronic catarrh and other pectoral affections."

10. ANDA´NKALAGI´SKĬ="it removes things from the gums"—Geranium maculatum—Wild Alum, Cranesbill: Used in decoction with Yânû Unihye´stĭ (Vitis cordifolia) to wash the mouths of children in thrush; also used alone for the same purpose by blowing the chewed fiber into the mouth. Dispensatory: "One of our best indigenous astringents. * * * Diarrhea, chronic dysentery, cholora infantum in the latter stages, and the various hemorrhages are the forms of disease in which it is most commonly used." Also valuable as "an application to indolent ulcers, an injection in gleet and leucorrhea, a gargle in relaxation of the uvula and aphthous ulcerations of the throat." The other plant sometimes used with it is not mentioned.

11. Û´ⁿLĔ UKĬ´LTĬ="the locust frequents it"—Gillenia trifoliata—Indian Physic. Two doctors state that it is good as a tea for bowel complaints, with fever and yellow vomit; but another says that it is poisonous and that no decoction is ever drunk, but

that the beaten root is a good poultice for swellings. Dispensatory: “Gillenia is a mild and efficient emetic, and like most substances belonging to the same class occasionally acts upon the bowels. In very small doses it has been thought to be tonic.”

12. SKWA´LǏ=Hepatica acutiloba—Liverwort, Heartleaf: Used for coughs either in tea or by chewing root. Those who dream of snakes drink a decoction of this herb and I´natû Ga´n‘ka=“snake tongue” (Camptosorus rhizophyllus or Walking Fern) to produce vomiting, after which the dreams do not return. The traders buy large quantities of liverwort from the Cherokees, who may thus have learned to esteem it more highly than they otherwise would. The appearance of the other plant, Camptosorus rhizophyllus, has evidently determined its Cherokee name and the use to which it is applied. Dispensatory: “Liverwort is a very mild demulcent tonic and astringent, supposed by some to possess diuretic and deobstruent virtues. It was formerly used in Europe in various complaints, especially chronic hepatic affections, but has fallen into entire neglect. In this country, some years since, it acquired considerable reputation, which, however, it has not maintained as a remedy in hæmoptysis and chronic coughs.” The other plant is not named.

13. DA´YEWÛ=“it sews itself up,” because the leaves are said to grow together again when torn—Cacalia atriplicifolia—Tassel Flower: Held in great repute as a poultice for cuts, bruises, and cancer, to draw out the blood or poisonous matter. The bruised leaf is bound over the spot and frequently removed. The dry powdered leaf was formerly used to sprinkle over food like salt. Dispensatory: Not named.

14. A´TALǏ KÛLǏ´=“it climbs the mountain.”—Aralia quinquefolia—Ginseng or “Sang:” Decoction of root drunk for headache, cramps, etc., and for female troubles; chewed root blown on spot for pains in the side. The Cherokees sell large quantities of sang to the traders for 50 cents per pound, nearly equivalent there to two days’ wages, a fact which has doubtless increased their idea of its importance. Dispensatory: “The extraordinary medical virtues formerly ascribed to ginseng had no other existence than in the imagination of the Chinese. It is little more than a demulcent, and in this country is not employed as a medicine.” The Chinese name, ginseng, is said to refer to the fancied resemblance of the root to a human figure, while in the Cherokee formulas it is addressed as the “great man” or “little man,” and this resemblance no doubt has much to do with the estimation in which it is held by both peoples.

15. ÛTSATǏ UWADSǏSKA=“fish scales,” from shape of leaves—Thalictrum anemonoides—Meadow Rue: Decoction of root drunk for diarrhea with vomiting. Dispensatory: Not named.

16. K´KWĚ ULASU´LA=“partridge moccasin”—Cypripedium parviflorum—Lady-slipper: Decoction of root used for worms in children. In the liquid are placed some stalks of the common chickweed or purslane (Cerastium vulgatum) which, from the appearance of its red fleshy stalks, is supposed to have some connection with worms. Dispensatory: Described as “a gentle nervous stimulant” useful in diseases in which the nerves are especially affected. The other herb is not named.

17. A´HAWǏ´ AKĂ´TĂ´=“deer eye,” from the appearance of the flower—Rudbeckia fulgida—Cone Flower: Decoction of root drunk for flux and for some private diseases; also used as a wash for snake bites and swellings caused by (mythic)

tsgâya or worms; also dropped into weak or inflamed eyes. This last is probably from the supposed connection between the eye and the flower resembling the eye. Dispensatory: Not named.

18. UTĬSTUGĬ′=Polygonatum multiflorum latifolium—Solomon's Seal: Root heated and bruised and applied as a poultice to remove an ulcerating swelling called tu′stĭ′, resembling a boil or carbuncle. Dispensatory: "This species acts like P. uniflorum, which is said to be emetic. In former times it was used externally in bruises, especially those about the eyes, in tumors, wounds, and cutaneous eruptions and was highly esteemed as a cosmetic. At present it is not employed, though recommended by Hermann as a good remedy in gout and rheumatism." This species in decoction has been found to produce "nausea, a cathartic effect and either diaphoresis or diuresis," and is useful "as an internal remedy in piles, and externally in the form of decoction, in the affection of the skin resulting from the poisonous exhalations of certain plants."

19. ĂMĂDITA'TÌ="water dipper," because water can be sucked up through its hollow stalk—Eupatorium purpureum—Queen of the Meadow, Gravel Root: Root used in decoction with a somewhat similar plant called Ămădité′tĭ û′tanu, or "large water dipper" (not identified) for difficult urination. Dispensatory: "Said to operate as a diuretic. Its vulgar name of gravel root indicates the popular estimation of its virtues." The genus is described as tonic, diaphoretic, and in large doses emetic and aperient.

20. YÂNA UTSĔSTA="the bear lies on it"—Aspidium acrostichoides—Shield Fern: Root decoction drunk to produce vomiting, and also used to rub on the skin, after scratching, for rheumatism—in both cases some other plant is added to the decoction; the warm decoction is also held in the mouth to relieve toothache. Dispensatory: Not named.

The results obtained from a careful study of this list may be summarized as follows: Of the twenty plants described as used by the Cherokees, seven (Nos. 2, 4, 5, 13, 15, 17, and 20) are not noticed in the Dispensatory even in the list of plants sometimes used although regarded as not officinal. It is possible that one or two of these seven plants have medical properties, but this can hardly be true of a larger number unless we are disposed to believe that the Indians are better informed in this regard than the best educated white physicians in the country. Two of these seven plants, however (Nos. 2 and 4), belong to genera which seem to have some of the properties ascribed by the Indians to the species. Five others of the list (Nos. 8, 9, 11, 14, and 16) are used for entirely wrong purposes, taking the Dispensatory as authority, and three of these are evidently used on account of some fancied connection between the plant and the disease, according to the doctrine of signatures. Three of the remainder (Nos. 1, 3, and 6) may be classed as uncertain in their properties, that is, while the plants themselves seem to possess some medical value, the Indian mode of application is so far at variance with recognized methods, or their own statements are so vague and conflicting, that it is doubtful whether any good can result from the use of the herbs. Thus the Unaste′tstiyû, or Virginia Snakeroot, is stated by the Dispensatory to have several uses, and among other things is said to have been highly recommended in intermittent fevers, although alone it is "generally inadequate to the cure." Though not expressly stated, the natural inference is that it must be applied internally, but the Cherokee doctor, while he also uses it for fever, takes the decoction in his mouth and blows it over the head and shoulders of the patient. Another of these, the Distai′yĭ, or Turkey Pea, is described in the Dispensatory as having roots tonic and

aperient. The Cherokees drink a decoction of the roots for a feeling of weakness and languor, from which it might be supposed that they understood the tonic properties of the plant had not the same decoction been used by the women as a hair wash, and by the ball players to bathe their limbs, under the impression that the toughness of the roots would thus be communicated to the hair or muscles. From this fact and from the name of the plant, which means at once hard, tough, or strong, it is quite probable that its roots are believed to give strength to the patient solely because they themselves are so strong and not because they have been proved to be really efficacious. The remaining five plants have generally pronounced medicinal qualities, and are used by the Cherokees for the very purposes for which, according to the Dispensatory, they are best adapted; so that we must admit that so much of their practice is correct, however false the reasoning by which they have arrived at this result.

## MEDICAL PRACTICE.

Taking the Dispensatory as the standard, and assuming that this list is a fair epitome of what the Cherokees know concerning the medical properties of plants, we find that five plants, or 25 per cent of the whole number, are correctly used; twelve, or 60 per cent, are presumably either worthless or incorrectly used, and three plants, or 15 per cent, are so used that it is difficult to say whether they are of any benefit or not. Granting that two of these three produce good results as used by the Indians, we should have 35 per cent, or about one-third of the whole, as the proportion actually possessing medical virtues, while the remaining two-thirds are inert, if not positively injurious. It is not probable that a larger number of examples would change the proportion to any appreciable extent. A number of herbs used in connection with these principal plants may probably be set down as worthless, inasmuch as they are not named in the Dispensatory.

The results here arrived at will doubtless be a surprise to those persons who hold that an Indian must necessarily be a good doctor, and that the medicine man or conjurer, with his theories of ghosts, witches, and revengeful animals, knows more about the properties of plants and the cure of disease than does the trained botanist or physician who has devoted a lifetime of study to the patient investigation of his specialty, with all the accumulated information contained in the works of his predecessors to build upon, and with all the light thrown upon his pathway by the discoveries of modern science. It is absurd to suppose that the savage, a child in intellect, has reached a higher development in any branch of science than has been attained by the civilized man, the product of long ages of intellectual growth. It would be as unreasonable to suppose that the Indian could be entirely ignorant of the medicinal properties of plants, living as he did in the open air in close communion with nature; but neither in accuracy nor extent can his knowledge be compared for a moment with that of the trained student working upon scientific principles.

Cherokee medicine is an empiric development of the fetich idea. For a disease caused by the rabbit the antidote must be a plant called “rabbit’s food,” “rabbit’s ear,” or “rabbit’s tail;” for snake dreams the plant used is “snake’s tooth;” for worms a plant resembling a worm in appearance, and for inflamed eyes a flower having the appearance and name of “deer’s eye.” A yellow root must be good when the patient vomits yellow bile, and a black one when dark circles come about his eyes, and in each case the disease and the plant alike are named from the color. A decoction of burs must be a cure for forgetfulness, for there is nothing else that will stick like a bur; and a decoction of the wiry roots of the “devil’s shoestrings” must be an efficacious wash to toughen the

ballplayer's muscles, for they are almost strong enough to stop the plowshare in the furrow. It must be evident that under such a system the failures must far outnumber the cures, yet it is not so long since half our own medical practice was based upon the same idea of correspondences, for the mediæval physicians taught that *similia similibus curantur*, and have we not all heard that "the hair of the dog will cure the bite?"

Their ignorance of the true medical principles involved is shown by the regulations prescribed for the patient. With the exception of the fasting, no sanitary precautions are taken to aid in the recovery of the sick man or to contribute to his comfort. Even the fasting is as much religious as sanative, for in most cases where it is prescribed the doctor also must abstain from food until sunset, just as in the Catholic church both priest and communicants remain fasting from midnight until after the celebration of the divine mysteries. As the Indian cuisine is extremely limited, no delicate or appetizing dishes are prepared for the patient, who partakes of the same heavy, sodden cornmeal dumplings and bean bread which form his principal food in health. In most cases certain kinds of food are prohibited, such as squirrel meat, fish, turkey, etc.; but the reason is not that such food is considered deleterious to health, as we understand it, but because of some fanciful connection with the disease spirit. Thus if squirrels have caused the illness the patient must not eat squirrel meat. If the disease be rheumatism, he must not eat the leg of any animal, because the limbs are generally the seat of this malady. Lye, salt, and hot food are always forbidden when there is any prohibition at all; but here again, in nine cases out of ten, the regulation, instead of being beneficial, serves only to add to his discomfort. Lye enters into almost all the food preparations of the Cherokees, the alkaline potash taking the place of salt, which is seldom used among them, having been introduced by the whites. Their bean and chestnut bread, cornmeal dumplings, hominy, and gruel are all boiled in a pot, all contain lye, and are all, excepting the last, served up hot from the fire. When cold their bread is about as hard and tasteless as a lump of yesterday's dough, and to condemn a sick man to a diet of such dyspeptic food, eaten cold without even a pinch of salt to give it a relish, would seem to be sufficient to kill him without any further aid from the doctor. The salt or lye so strictly prohibited is really a tonic and appetizer, and in many diseases acts with curative effect. So much for the health regimen.

In serious cases the patient is secluded and no strangers are allowed to enter the house. On first thought this would appear to be a genuine sanitary precaution for the purpose of securing rest and quiet to the sick man. Such, however, is not the case. The necessity for quiet has probably never occurred to the Cherokee doctor, and this regulation is intended simply to prevent any direct or indirect contact with a woman in a pregnant or menstrual condition. Among all primitive nations, including the ancient Hebrews, we find an elaborate code of rules in regard to the conduct and treatment of women on arriving at the age of puberty, during pregnancy and the menstrual periods, and at childbirth. Among the Cherokees the presence of a woman under any of these conditions, or even the presence of any one who has come from a house where such a woman resides, is considered to neutralize all the effects of the doctor's treatment. For this reason all women, excepting those of the household, are excluded. A man is forbidden to enter, because he may have had intercourse with a tabued woman, or may have come in contact with her in some other way; and children also are shut out, because they may have come from a cabin where dwells a woman subject to exclusion. What is supposed to be the effect of the presence of a menstrual woman in the family of the patient is not clear; but judging from analogous customs in other tribes and from rules still enforced among the Cherokees, notwithstanding their long contact with the whites, it seems probable that in former times the patient was removed to a smaller house or temporary bark lodge built for his

accommodation whenever the tabu as to women was prescribed by the doctor. Some of the old men assert that in former times sick persons were removed to the public townhouse, where they remained under the care of the doctors until they either recovered or died. A curious instance of this prohibition is given in the second Didû$^{n}$lĕ´skĭ (rheumatism) formula from the Gahuni manuscript (see page 350), where the patient is required to abstain from touching a squirrel, a dog, a cat, a mountain trout, or a woman, and must also have a chair appropriated to his use alone during the four days that he is under treatment.

In cases of the children's disease known as Gû$^{n}$wani´gista´ĭ (see formulas) it is forbidden to carry the child outdoors, but this is not to procure rest for the little one, or to guard against exposure to cold air, but because the birds send this disease, and should a bird chance to be flying by overhead at the moment the napping of its wings would *fan the disease back* into the body of the patient.

## ILLUSTRATION OF THE TABU.

On a second visit to the reservation the writer once had a practical illustration of the gaktû´$^{n}$ta or tabu, which may be of interest as showing how little sanitary ideas have to do with these precautions. Having received several urgent invitations from Tsiskwa (Bird), an old shaman of considerable repute, who was anxious to talk, but confined to his bed by sickness, it was determined to visit him at his house, several miles distant. On arriving we found another doctor named Sû´$^{n}$kĭ (The Mink) in charge of the patient and were told that he had just that morning begun a four days' gaktû´$^{n}$ta which, among other provisions, excluded all visitors. It was of no use to argue that we had come by the express request of Tsiskwa. The laws of the gaktû´$^{n}$ta were as immutable as those of the Medes and Persians, and neither doctor nor patient could hope for favorable results from the treatment unless the regulations were enforced to the letter. But although we might not enter the house, there was no reason why we should not talk to the old man, so seats were placed for us outside the door, while Tsiskwa lay stretched out on the bed just inside and The Mink perched himself on the fence a few yards distant to keep an eye on the proceedings. As there was a possibility that a white man might unconsciously affect the operation of the Indian medicine, the writer deemed it advisable to keep out of sight altogether, and accordingly took up a position just around the corner of the house, but within easy hearing distance, while the interpreter sat facing the doorway within a few feet of the sick man inside. Then began an animated conversation, Tsiskwa inquiring, through the interpreter, as to the purpose of the Government in gathering such information, wanting to know how we had succeeded with other shamans and asking various questions in regard to other tribes and their customs. The replies were given in the same manner, an attempt being also made to draw him out as to the extent of his own knowledge. Thus we talked until the old man grew weary, but throughout the whole of this singular interview neither party saw the other, nor was the gaktû´$^{n}$ta violated by entering the house. From this example it must be sufficiently evident that the tabu as to visitors is not a hygienic precaution for securing greater quiet to the patient, or to prevent the spread of contagion, but that it is simply a religious observance of the tribe, exactly parallel to many of the regulations among the ancient Jews, as laid down in the book of Leviticus.

## NEGLECT OF SANITARY REGULATIONS.

No rules are ever formulated as to fresh air or exercise, for the sufficient reason that the door of the Cherokee log cabin is always open, excepting at night and on the coldest days in winter, while the Indian is seldom in the house during his waking hours unless when necessity compels him. As most of their cabins are still built in the old Indian style, without windows, the open door furnishes the only means by which light is admitted to the interior, although when closed the fire on the hearth helps to make amends for the deficiency. On the other hand, no precautions are taken to guard against cold, dampness, or sudden drafts. During the greater part of the year whole families sleep outside upon the ground, rolled up in an old blanket. The Cherokee is careless of exposure and utterly indifferent to the simplest rules of hygiene. He will walk all day in a pouring rain clad only in a thin shirt and a pair of pants. He goes barefoot and frequently bareheaded nearly the entire year, and even on a frosty morning in late November, when the streams are of almost icy coldness, men and women will deliberately ford the river where the water is waist deep in preference to going a few hundred yards to a foot-log. At their dances in the open air men, women, and children, with bare feet and thinly clad, dance upon the damp ground from darkness until daylight, sometimes enveloped in a thick mountain fog which makes even the neighboring treetops invisible, while the mothers have their infants laid away under the bushes with only a shawl between them and the cold ground. In their ball plays also each young man, before going into the game, is subjected to an ordeal of dancing, bleeding, and cold plunge baths, without food or sleep, which must unquestionably waste his physical energy.

In the old days when the Cherokee was the lord of the whole country from the Savannah to the Ohio, well fed and warmly clad and leading an active life in the open air, he was able to maintain a condition of robust health notwithstanding the incorrectness of his medical ideas and his general disregard of sanitary regulations. But with the advent of the white man and the destruction of the game all this was changed. The East Cherokee of to-day is a dejected being; poorly fed, and worse clothed, rarely tasting meat, cut off from the old free life, and with no incentive to a better, and constantly bowed down by a sense of helpless degradation in the presence of his conqueror. Considering all the circumstances, it may seem a matter of surprise that any of them are still in existence. As a matter of fact, the best information that could be obtained in the absence of any official statistics indicated a slow but steady decrease during the last five years. Only the constitutional vigor, inherited from their warrior ancestors, has enabled them to sustain the shock of the changed conditions of the last half century. The uniform good health of the children in the training school shows that the case is not hopeless, however, and that under favorable conditions, with a proper food supply and a regular mode of living, the Cherokee can hold his own with the white man.

## THE SWEAT BATH—BLEEDING—RUBBING—BATHING.

In addition to their herb treatment the Cherokees frequently resort to sweat baths, bleeding, rubbing, and cold baths in the running stream, to say nothing of the beads and other conjuring paraphernalia generally used in connection with the ceremony. The sweat bath was in common use among almost all the tribes north of Mexico excepting the central and eastern Eskimo, and was considered the great cure-all in sickness and invigorant in health. Among many tribes it appears to have been regarded as a ceremonial observance, but the Cherokees seem to have looked upon it simply as a medical application, while the ceremonial part was confined to the use of the plunge bath. The person wishing to make trial of the virtues of the sweat bath entered the â´sĭ, a small earth-covered log house only high enough to allow of sitting down. After divesting

himself of his clothing, some large bowlders, previously heated in a fire, were placed near him, and over them was poured a decoction of the beaten roots of the wild parsnip. The door was closed so that no air could enter from the outside, and the patient sat in the sweltering steam until he was in a profuse perspiration and nearly choked by the pungent fumes of the decoction. In accordance with general Indian practice it may be that he plunged into the river before resuming his clothing; but in modern times this part of the operation is omitted and the patient is drenched with cold water instead. Since the âsĭ has gone out of general use the sweating takes place in the ordinary dwelling, the steam being confined under a blanket wrapped around the patient. During the prevalence of the smallpox epidemic among the Cherokees at the close of the late war the sweat bath was universally called into requisition to stay the progress of the disease, and as the result about three hundred of the band died, while many of the survivors will carry the marks of the visitation to the grave. The sweat bath, with the accompanying cold water application, being regarded as the great panacea, seems to have been resorted to by the Indians in all parts of the country whenever visited by smallpox—originally introduced by the whites—and in consequence of this mistaken treatment they have died, in the language of an old writer, "like rotten sheep" and at times whole tribes have been almost swept away. Many of the Cherokees tried to ward off the disease by eating the flesh of the buzzard, which they believe to enjoy entire immunity from sickness, owing to its foul smell, which keeps the disease spirits at a distance.

Bleeding is resorted to in a number of cases, especially in rheumatism and in preparing for the ball play. There are two methods of performing the operation, bleeding proper and scratching, the latter being preparatory to rubbing on the medicine, which is thus brought into more direct contact with the blood. The bleeding is performed with a small cupping horn, to which suction is applied in the ordinary manner, after scarification with a flint or piece of broken glass. In the blood thus drawn out the shaman claims sometimes to find a minute pebble, a sharpened stick or something of the kind, which he asserts to be the cause of the trouble and to have been conveyed into the body of the patient through the evil spells of an enemy. He frequently pretends to suck out such an object by the application of the lips alone, without any scarification whatever. Scratching is a painful process and is performed with a brier, a flint arrowhead, a rattlesnake's tooth, or even with a piece of glass, according to the nature of the ailment, while in preparing the young men for the ball play the shaman uses an instrument somewhat resembling a comb, having seven teeth made from the sharpened splinters of the leg bone of a turkey. The scratching is usually done according to a particular pattern, the regular method for the ball play being to draw the scratcher four times down the upper part of each arm, thus making twenty-eight scratches each about 6 inches in length, repeating the operation on each arm below the elbow and on each leg above and below the knee. Finally, the instrument is drawn across the breast from the two shoulders so as to form a cross; another curving stroke is made to connect the two upper ends of the cross, and the same pattern is repeated on the back, so that the body is thus gashed in nearly three hundred places. Although very painful for a while, as may well be supposed, the scratches do not penetrate deep enough to result seriously, excepting in some cases where erysipelas sets in. While the blood is still flowing freely the medicine, which in this case is intended to toughen, the muscles of the player, is rubbed into the wounds after which the sufferer plunges into the stream and washes off the blood. In order that the blood may flow the longer without clotting it is frequently scraped off with a small switch as it flows. In rheumatism and other local diseases the scratching is confined to the part affected. The instrument used is selected in accordance with the mythologic theory, excepting in the case of the piece of glass, which is merely a modern makeshift for the flint arrowhead.

Rubbing, used commonly for pains and swellings of the abdomen, is a very simple operation performed with the tip of the finger or the palm of the hand, and can not be dignified with the name of massage. In one of the Gahuni formulas for treating snake bites (page 351) the operator is told to rub in a direction contrary to that in which the snake coils itself, because "this is just the same as uncoiling it." Blowing upon the part affected, as well as upon the head, hands, and other parts of the body, is also an important feature of the ceremonial performance. In one of the formulas it is specified that the doctor must blow first upon the right hand of the patient, then upon the left foot, then upon the left hand, and finally upon the right foot, thus making an imaginary cross.

Bathing in the running stream, or "going to water," as it is called, is one of their most frequent medico-religious ceremonies, and is performed on a great variety of occasions, such as at each new moon, before eating the new food at the green corn dance, before the medicine dance and other ceremonial dances before and after the ball play, in connection with the prayers for long life, to counteract the effects of bad dreams or the evil spells of an enemy, and as a part of the regular treatment in various diseases. The details of the ceremony are very elaborate and vary according to the purpose for which it is performed, but in all cases both shaman and client are fasting from the previous evening, the ceremony being generally performed just at daybreak. The bather usually dips completely under the water four or seven times, but in some cases it is sufficient to pour the water from the hand upon the head and breast. In the ball play the ball sticks are dipped into the water at the same time. While the bather is in the water the shaman is going through with his part of the performance on the bank and draws omens from the motion of the beads between his thumb and finger, or of the fishes in the water. Although the old customs are fast dying out this ceremony is never neglected at the ball play, and is also strictly observed by many families on occasion of eating the new corn, at each new moon, and on other special occasions, even when it is necessary to break the ice in the stream for the purpose, and to the neglect of this rite the older people attribute many of the evils which have come upon the tribe in later days. The latter part of autumn is deemed the most suitable season of the year for this ceremony, as the leaves which then cover the surface of the stream are supposed to impart their medicinal virtues to the water.

## SHAMANS AND WHITE PHYSICIANS.

Of late years, especially since the establishment of schools among them, the Cherokees are gradually beginning to lose confidence in the abilities of their own doctors and are becoming more disposed to accept treatment from white physicians. The shamans are naturally jealous of this infringement upon their authority and endeavor to prevent the spread of the heresy by asserting the convenient doctrine that the white man's medicine is inevitably fatal to an Indian unless eradicated from the system by a continuous course of treatment for four years under the hands of a skillful shaman. The officers of the training school established by the Government a few years ago met with considerable difficulty on this account for some time, as the parents insisted on removing the children at the first appearance of illness in order that they might be treated by the shamans, until convinced by experience that the children received better attention at the school than could possibly be had in their own homes. In one instance, where a woman was attacked by a pulmonary complaint akin to consumption, her husband, a man of rather more than the usual amount of intelligence, was persuaded to call in the services of a competent white physician, who diagnosed the case and left a prescription. On a second visit, a few days later, he found that the family, dreading the consequences of this departure from old customs, had employed a shaman, who asserted that the trouble was caused by a sharpened stick which

some enemy had caused to be imbedded in the woman's side. He accordingly began a series of conjurations for the removal of the stick, while the white physician and his medicine were disregarded, and in due time the woman died. Two children soon followed her to the grave, from the contagion or the inherited seeds of the same disease, but here also the sharpened sticks were held responsible, and, notwithstanding the three deaths under such treatment, the husband and father, who was at one time a preacher, still has faith in the assertions of the shaman. The appointment of a competent physician to look after the health of the Indians would go far to eradicate these false ideas and prevent much sickness and suffering; but, as the Government has made no such provision, the Indians, both on and off the reservation, excepting the children in the home school, are entirely without medical care.

## MEDICINE DANCES.

The Cherokees have a dance known as the Medicine Dance, which is generally performed in connection with other dances when a number of people assemble for a night of enjoyment. It possesses no features of special interest and differs in no essential respect from a dozen other of the lesser dances. Besides this, however, there was another, known as the Medicine Boiling Dance, which, for importance and solemn ceremonial, was second only to the great Green Corn Dance. It has now been discontinued on the reservation for about twenty years. It took place in the fall, probably preceding the Green Corn Dance, and continued four days. The principal ceremony in connection with it was the drinking of a strong decoction of various herbs, which acted as a violent emetic and purgative. The usual fasting and going to water accompanied the dancing and medicine-drinking.

## DESCRIPTION OF SYMPTOMS.

It is exceedingly difficult to obtain from the doctors any accurate statement of the nature of a malady, owing to the fact that their description of the symptoms is always of the vaguest character, while in general the name given to the disease by the shaman expresses only his opinion as to the occult cause of the trouble. Thus they have definite names for rheumatism, toothache, boils, and a few other ailments of like positive character, but beyond this their description of symptoms generally resolves itself into a statement that the patient has bad dreams, looks black around the eyes, or feels tired, while the disease is assigned such names as "when they dream of snakes," "when they dream of fish," "when ghosts trouble them," "when something is making something else eat them," or "when the food is changed," i.e., when a witch causes it to sprout and grow in the body of the patient or transforms it into a lizard, frog, or sharpened stick.

## THE PAY OF THE SHAMAN.

The consideration which the doctor receives for his services is called ugista´'tĭ, a word of doubtful etymology, but probably derived from the verb tsĭ´giû, "I take" or "I eat." In former times this was generally a deer-skin or a pair of moccasins, but is now a certain quantity of cloth, a garment, or a handkerchief. The shamans disclaim the idea that the ugistâ´'tĭ is pay, in our sense of the word, but assert that it is one of the agencies in the removal and banishment of the disease spirit. Their explanation is somewhat obscure, but the cloth seems to be intended either as an offering to the disease spirit, as a ransom to procure the release of his intended victim, or as a covering to protect the hand of a

shaman while engaged in pulling the disease from the body of the patient. The first theory, which includes also the idea of vicarious atonement, is common to many primitive peoples. Whichever may be the true explanation, the evil influence of the disease is believed to enter into the cloth, which must therefore be sold or given away by the doctor, as otherwise it will cause his death when the pile thus accumulating reaches the height of his head. No evil results seem to follow its transfer from the shaman to a third party. The doctor can not bestow anything thus received upon a member of his own family unless that individual gives him something in return. If the consideration thus received, however, be anything eatable, the doctor may partake along with the rest of the family. As a general rule the doctor makes no charge for his services, and the consideration is regarded as a free-will offering. This remark applies only to the medical practice, as the shaman always demands and receives a fixed remuneration for performing love charms, hunting ceremonials, and other conjurations of a miscellaneous character. Moreover, whenever the beads are used the patient must furnish a certain quantity of new cloth upon which to place them, and at the close of the ceremony the doctor rolls up the cloth, beads and all, and takes them away with him. The cloth thus received by the doctor for working with the beads must not be used by him, but must be sold. In one instance a doctor kept a handkerchief which he received for his services, but instead sold a better one of his own. Additional cloth is thus given each time the ceremony is repeated, each time a second four days' course of treatment is begun, and as often as the doctor sees fit to change his method of procedure. Thus, when he begins to treat a sick man for a disease caused by rabbits, he expects to receive a certain ugista´'tĭ; but, should he decide after a time that the terrapin or the red bird is responsible for the trouble, he adopts a different course of treatment, for which another ugista´'tĭ is necessary. Should the sickness not yield readily to his efforts, it is because the disease animal requires a greater ugista´'tĭ, and the quantity of cloth must be doubled, so that on the whole the doctrine is a very convenient one for the shaman. In many of the formulas explicit directions are given as to the pay which the shaman is to receive for performing the ceremony. In one of the Gatigwanasti formulas, after specifying the amount of cloth to be paid, the writer of it makes the additional proviso that it must be "pretty good cloth, too," asserting as a clincher that "this is what the old folks said a long time ago."

The ugista´'tĭ can not be paid by either one of a married couple to the other, and, as it is considered a necessary accompaniment of the application, it follows that a shaman can not treat his own wife in sickness, and vice versa. Neither can the husband or wife of the sick person send for the doctor, but the call must come from some one of the blood relatives of the patient. In one instance within the writer's knowledge a woman complained that her husband was very sick and needed a doctor's attention, but his relatives were taking no steps in the matter and it was not permissible for her to do so.

## CEREMONIES FOR GATHERING PLANTS AND PREPARING MEDICINE.

There are a number of ceremonies and regulations observed in connection with the gathering of the herbs, roots, and barks, which can not be given in detail within the limits of this paper. In searching for his medicinal plants the shaman goes provided with a number of white and red beads, and approaches the plant from a certain direction, going round it from right to left one or four times, reciting certain prayers the while. He then pulls up the plant by the roots and drops one of the beads into the hole and covers it up with the loose earth. In one of the formulas for hunting ginseng the hunter addresses the mountain as the "Great Man" and assures it that he comes only to take a small piece of

flesh (the ginseng) from its side, so that it seems probable that the bead is intended as a compensation to the earth for the plant thus torn from her bosom. In some cases the doctor must pass by the first three plants met until he comes to the fourth, which he takes and may then return for the others. The bark is always taken from the east side of the tree, and when the root or branch is used it must also be one which runs out toward the east, the reason given being that these have imbibed more medical potency from the rays of the sun.

When the roots, herbs, and barks which enter into the prescription have been thus gathered the doctor ties them up into a convenient package, which he takes to a running stream and casts into the water with appropriate prayers. Should the package float, as it generally does, he accepts the fact as an omen that his treatment will be successful. On the other hand, should it sink, he concludes that some part of the preceding ceremony has been improperly carried out and at once sets about procuring a new package, going over the whole performance from the beginning. Herb-gathering by moonlight, so important a feature in European folk medicine, seems to be no part of Cherokee ceremonial. There are fixed regulations in regard to the preparing of the decoction, the care of the medicine during the continuance of the treatment, and the disposal of what remains after the treatment is at an end. In the arrangement of details the shaman frequently employs the services of a lay assistant. In these degenerate days a number of upstart pretenders to the healing art have arisen in the tribe and endeavor to impose upon the ignorance of their fellows by posing as doctors, although knowing next to nothing of the prayers and ceremonies, without which there can be no virtue in the application. These impostors are sternly frowned down and regarded with the utmost contempt by the real professors, both men and women, who have been initiated into the sacred mysteries and proudly look upon themselves as conservators of the ancient ritual of the past.

## THE CHEROKEE GODS AND THEIR ABIDING PLACES.

After what has been said in elucidation of the theories involved in the medical formulas, the most important and numerous of the series, but little remains to be added in regard to the others, beyond what is contained in the explanation accompanying each one. A few points, however, may be briefly noted.

The religion of the Cherokees, like that of most of our North American tribes, is zootheism or animal worship, with the survival of that earlier stage designated by Powell as hecastotheism, or the worship of all things tangible, and the beginnings of a higher system in which the elements and the great powers of nature are deified. Their pantheon includes gods in the heaven above, on the earth beneath, and in the waters under the earth, but of these the animal gods constitute by far the most numerous class, although the elemental gods are more important. Among the animal gods insects and fishes occupy a subordinate place, while quadrupeds, birds, and reptiles are invoked almost constantly. The uktena (a mythic great horned serpent), the rattlesnake, and the terrapin, the various species of hawk, and the rabbit, the squirrel, and the dog are the principal animal gods. The importance of the god bears no relation to the size of the animal, and in fact the larger animals are but seldom invoked. The spider also occupies a prominent place in the love and life-destroying formulas, his duty being to entangle the soul of his victim in the meshes of his web or to pluck it from the body of the doomed man and drag it way to the black coffin in the Darkening Land.

Among what may be classed as elemental gods the principal are fire, water, and the sun,

all of which are addressed under figurative names. The sun is called Une´'lanû´hĭ, "the apportioner," just as our word moon means originally "the measurer." Indians and Aryans alike, having noticed how these great luminaries divide and measure day and night, summer and winter, with never-varying regularity, have given to each a name which should indicate these characteristics, thus showing how the human mind constantly moves on along the same channels. Missionaries have naturally, but incorrectly, assumed this apportioner of all things to be the suppositional "Great Spirit" of the Cherokees, and hence the word is used in the Bible translation as synonymous with God. In ordinary conversation and in the lesser myths the sun is called Nû´$^{n}$tâ. The sun is invoked chiefly by the ball-player, while the hunter prays to the fire; but every important ceremony —whether connected with medicine, love, hunting, or the ball play—contains a prayer to the "Long Person," the formulistic name for water, or, more strictly speaking, for the river. The wind, the storm, the cloud, and the frost are also invoked in different formulas.

But few inanimate gods are included in the category, the principal being the Stone, to which the shaman prays while endeavoring to find a lost article by means of a swinging pebble suspended by a string; the Flint, invoked when the shaman is about to scarify the patient with a flint arrow-head before rubbing on the medicine; and the Mountain, which is addressed in one or two of the formulas thus far translated. Plant gods do not appear prominently, the chief one seeming to be the ginseng, addressed in the formulas as the "Great Man" or "Little Man," although its proper Cherokee name signifies the "Mountain Climber."

A number of personal deities are also invoked, the principal being the Red Man. He is one of the greatest of the gods, being repeatedly called upon in formulas of all kinds, and is hardly subordinate to the Fire, the Water, or the Sun. His identity is as yet uncertain, but he seems to be intimately connected with the Thunder family. In a curious marginal note in one of the Gahuni formulas (page 350), it is stated that when the patient is a woman the doctor must pray to the Red Man, but when treating a man he must pray to the Red Woman, so that this personage seems to have dual sex characteristics. Another god invoked in the hunting songs is Tsu´l'kalû´, or "Slanting Eyes" (see Cherokee Myths), a giant hunter who lives in one of the great mountains of the Blue Ridge and owns all the game. Others are the Little Men, probably the two Thunder boys; the Little People, the fairies who live in the rock cliffs; and even the De´tsata, a diminutive sprite who holds the place of our Puck. One unwritten formula, which could not be obtained correctly by dictation, was addressed to the "Red-Headed Woman, whose hair hangs down to the ground."

The personage invoked is always selected in accordance with the theory of the formula and the duty to be performed. Thus, when a sickness is caused by a fish, the Fish-hawk, the Heron, or some other fish-eating bird is implored to come and seize the intruder and destroy it, so that the patient may find relief. When the trouble is caused by a worm or an insect, some insectivorous bird is called in for the same purpose. When a flock of redbirds is pecking at the vitals of the sick man the Sparrow-hawk is brought down to scatter them, and when the rabbit, the great mischief-maker, is the evil genius, he is driven out by the Rabbit-hawk. Sometimes after the intruder has been thus expelled "a small portion still remains," in the words of the formula, and accordingly the Whirlwind is called down from the treetops to carry the remnant to the uplands and there scatter it so that it shall never reappear. The hunter prays to the fire, from which he draws his omens; to the reed, from which he makes his arrows; to Tsu´l'kalû, the great lord of the game, and finally addresses in songs the very animals which he intends to kill. The lover prays

to the Spider to hold fast the affections of his beloved one in the meshes of his web, or to the Moon, which looks down upon him in the dance. The warrior prays to the Red War-club, and the man about to set out on a dangerous expedition prays to the Cloud to envelop him and conceal him from his enemies.

Each spirit of good or evil has its distinct and appropriate place of residence. The Rabbit is declared to live in the broomsage on the hillside, the Fish dwells in a bend of the river under the pendant hemlock branches, the Terrapin lives in the great pond in the West, and the Whirlwind abides in the leafy treetops. Each disease animal, when driven away from his prey by some more powerful animal, endeavors to find shelter in his accustomed haunt. It must be stated here that the animals of the formulas are not the ordinary, everyday animals, but their great progenitors, who live in the upper world (galû´ⁿlati) above the arch of the firmament.

## COLOR SYMBOLISM.

Color symbolism plays an important part in the shamanistic system of the Cherokees, no less than in that of other tribes. Each one of the cardinal points has its corresponding color and each color its symbolic meaning, so that each spirit invoked corresponds in color and local habitation with the characteristics imputed to him, and is connected with other spirits of the same name, but of other colors, living in other parts of the upper world and differing widely in their characteristics. Thus the Red Man, living in the east, is the spirit of power, triumph, and success, but the Black Man, in the West, is the spirit of death. The shaman therefore invokes the Red Man to the assistance of his client and consigns his enemy to the fatal influences of the Black Man.

The symbolic color system of the Cherokees, which will be explained more fully in connection with the formulas, is as follows:

| | | |
|---|---|---|
| East | = red | = success; triumph. |
| North | = blue | = defeat; trouble. |
| West | = black | = death. |
| South | = white | = peace; happiness. |
| Above? | = brown | = unascertained, but propitious. |
| ——— | = yellow | = about the same as blue. |

There is a great diversity in the color systems of the various tribes, both as to the location and significance of the colors, but for obvious reasons black was generally taken as the symbol of death; while white and red signified, respectively, peace and war. It is somewhat remarkable that red was the emblem of power and triumph among the ancient Oriental nations no less than among the modern Cherokees.[9]

## IMPORTANCE ATTACHED TO NAMES.

In many of the formulas, especially those relating to love and to life-destroying, the shaman mentions the name and clan of his client, of the intended victim, or of the girl whose affections it is desired to win. The Indian regards his name, not as a mere label, but as a distinct part of his personality, just as much as are his eyes or his teeth, and believes that injury will result as surely from the malicious handling of his name as from

a wound inflicted on any part of his physical organism. This belief was found among the various tribes from the Atlantic to the Pacific, and has occasioned a number of curious regulations in regard to the concealment and change of names. It may be on this account that both Powhatan and Pocahontas are known in history under assumed appellations, their true names having been concealed from the whites until the pseudonyms were too firmly established to be supplanted. Should his prayers have no apparent effect when treating a patient for some serious illness, the shaman sometimes concludes that the name is affected, and accordingly goes to water, with appropriate ceremonies, and christens the patient with a new name, by which he is henceforth to be known. He then begins afresh, repeating the formulas with the new name selected for the patient, in the confident hope that his efforts will be crowned with success.

## LANGUAGE OF THE FORMULAS.

A few words remain to be said in regard to the language of the formulas. They are full of archaic and figurative expressions, many of which are unintelligible to the common people, and some of which even the shamans themselves are now unable to explain. These archaic forms, like the old words used by our poets, lend a peculiar beauty which can hardly be rendered in a translation. They frequently throw light on the dialectic evolution of the language, as many words found now only in the nearly extinct Lower Cherokee dialect occur in formulas which in other respects are written in the Middle or Upper dialect. The R sound, the chief distinguishing characteristic of the old Lower dialect, of course does not occur, as there are no means of indicating it in the Cherokee syllabary. Those who are accustomed to look to the Bible for all beauty in sacred expression will be surprised to find that these formulas abound in the loftiest nights of poetic imagery. This is especially true of the prayers used to win the love of a woman or to destroy the life of an enemy, in which we find such expressions as—"Now your soul fades away—your spirit shall grow less and dwindle away, never to reappear;" “Let her be completely veiled in loneliness—O Black Spider, may you hold her soul in your web, so that it may never get through the meshes;” and the final declaration of the lover, “Your soul has come into the very center of my soul, never to turn away.”

In the translation it has been found advisable to retain as technical terms a few words which could not well be rendered literally, such as ada´wĕhĭ and ugistā´‘tĭ. These words will be found explained in the proper place. Transliterations of the Cherokee text of the formulas are given, but it must be distinctly understood that the translations are intended only as free renderings of the spirit of the originals, exact translations with grammatic and glossarial notes being deferred until a more extended study of the language has been made, when it is hoped to present with more exactness of detail the whole body of the formulas, of which the specimens here given are but a small portion.

The facsimile formulas are copies from the manuscripts now in possession of the Bureau of Ethnology, and the portraits are from photographs taken by the author in the field.

## SPECIMEN FORMULAS.

### NOTE ON THE ORTHOGRAPHY AND TRANSLATION.

In the Cherokee text both *d* and *g* have a medial sound, approximating the sounds of *t* and *k* respectively. The other letters are pronounced in regular accordance with the alphabet of the Bureau of Ethnology. The language abounds in nasal and aspirate sounds, the most

difficult of the latter being the aspirate *ʻl*, which to one familiar only with English sounds like *tl*.

A few words whose meaning could not be satisfactorily ascertained have been distinctively indicated in the Cherokee text by means of italics. In the translation the corresponding expression has been queried, or the space left entirely blank. On examining the text the student can not fail to be struck by the great number of verbs ending in *iga*. This is a peculiar form hardly ever used excepting in these formulas, where almost every paragraph contains one or more such verbs. It implies that the subject has just come and is now performing the action, and that he came for that purpose. In addition to this, many of these verbs may be either assertive or imperative (expressing entreaty), according to the accent. Thus *hatû$^{n}$ganiʻga* means "you have just come and are listening and it is for that purpose you came." By slightly accenting the final syllable it becomes "come at once to listen." It will thus be seen that the great majority of the formulas are declarative rather than petitional in form—laudatory rhapsodies instead of prayers, in the ordinary sense of the word.

## MEDICINE.

### DIDÛ$^{n}$LĔʻSKĭ ADANÛ$^{n}$ʻWÂTĭ KANÂHĔʻSKĭ.

Sgĕ! Ha-Nû$^{n}$dâgûʻ$^{n}$yĭ tsûlʻdâʻhistĭ, Giʻʻlĭ Gigageʻĭ, hanâʻgwa hatûʻ$^{n}$ganiʻga usĭnuliʻyu. Hidaʻwĕhi-gâgûʻ, gahuʻstĭ tsanʻultĭ nigeʻsû$^{n}$na. Ha-diskwûltiʻyû tĭʻnanugagĭʻ, aseʻgwû nigeʻsû$^{n}$na tsagistaʻʻtĭ adû$^{n}$niʻga. Ulsgʻeta hû$^{n}$hihyûʻ$^{n}$staniʻga. Ha-usdigʻiyu-gwû ha-eʻlawastûʻ$^{n}$ iytûʻ$^{n}$ta dûhilâʻhĭstaniʻga.

Sgĕ! Ha-Uhû$^{n}$tsâʻyĭ tsûlʻdâʻhistĭ Giʻʻlĭ Saʻkaʻnĭ, hanâʻgwa hatûʻ$^{n}$staniʻga usĭnuliʻyu. Hidaʻwĕhi-gâgûʻ, gahuʻstĭ tsanuʻltĭ nigeʻsû$^{n}$na. Diskwûltiʻyû tiʻnanugaiʻ, aseʻgwû nigeʻsû$^{n}$na tsagistaʻʻtĭ adû$^{n}$niʻga. Ulsgeʻta hû$^{n}$hihyû$^{n}$staniʻga. Ha-usdigiʻyu-gwû ha-eʻlawastûʻ$^{n}$ iyûʻta dûhitâʻhĭstaniʻga.

Sgĕ! (Ha)-Usûhiʻ(-yĭ) tsûlʻdâʻhistĭ, Giʻlʻĭ Gû$^{n}$nageʻĭ, hanâʻgwa hatûʻ$^{n}$staniʻga usĭnuliʻyû. Hidaʻwĕhi-gâgûʻ, gahuʻsti tsanuʻltĭ nigeʻsûʻ$^{n}$na. Diskwûltiʻyû tinanugagĭʻ, aseʻgwû nigeʻsû$^{n}$na tsagistaʻʻtĭ adû$^{n}$niʻga. Ulsgʻeta hû$^{n}$hihyû$^{n}$staniʻga. Ha-usdigiʻyu-gwû ha-eʻlawastûʻ$^{n}$ iyûʻ$^{n}$ta dûhitâʻhĭstaniʻga.

Sgĕ! Waʻhalăʻ tsûlʻdâʻhistĭ, Giʻʻlĭ Tsûneʻga, hanâʻgwa hatûʻ$^{n}$staniʻga usĭnuliʻyu. Hidaʻwĕhi-gâgûʻ, gahuʻstĭ tsanuʻltĭ nigeʻsû$^{n}$na. Diskwûltiʻyû tiʻnanugagĭʻ, aseʻgwû nigeʻsû$^{n}$na tsagistaʻʻtĭ adû$^{n}$niʻga. Ha-ulsgeʻta hû$^{n}$hihyûʻ$^{n}$staniʻga. Ha-usdigiʻyu-gwû eʻlawastûʻ$^{n}$ iyûʻ$^{n}$ta dûhitâʻhĭstaniʻga.

Sgĕ! Waʻhală tsûlʻdâʻhistĭ Tûʻksĭ Tsûneʻga, hanâʻgwa hatûʻ$^{n}$staniʻga usĭnuliʻyu. Hidaʻwĕhi-gâgûʻ, gahuʻstĭ tsanuʻltĭ nigeʻsû$^{n}$na. Ha-kâʻlû *gayûskeʻta* tsatû$^{n}$ʻneliʻga. Utsĭnaʻwa nuʻtatănûʻ$^{n}$ta.

(Degâsisisgûʻ$^{n}$ĭ.)—Tûksĭ uhyaʻska gûnstaʻtĭʻ naʻskĭ igahiʻta gunstâʻĭ hĭʻskĭ iyuntaleʻgĭ tsûntûngiʻya. Û$^{n}$skwûʻta kĭlûʻ atsâʻtastĭ sâʻgwa iyûtsâʻtastĭ, nûʻʻkĭ igûʻ$^{n}$ktaʻtĭ, naski-gwûʻ

diû$^{n}$lĕ´nĭskâhĭ´ igû$^{n}$yi´yĭ tsale´nihû. Nû´‘kine û$^{n}$skwû´ta kĭlû´ nû´‘kĭ iyatsâ´tastĭ. Uhyaskâ´hi-‘nû ade´la degû‘la´ĭ tă´lĭ unine´ga-gwû´ nû´$^{n}$wâti-‘nû´ higûnehâ´ĭ uhyaskâ´hĭ usdi´a-gwû. Une´lagi-‘nû sâĭ´ agadâ´ĭ agadi´dĭ û´$^{n}$ti-gwû´ yĭkĭ´ âsi´yu-gwû na´ski-‘nû aganû$^{n}$li´eskâ´ĭ da´gûnstanehû´$^{n}$ĭ ŭ‘taâ´ta. Hiă‘-nû´ nû´$^{n}$wâtĭ: Yâ´na-Unatsĕsdâ´gĭ tsana´sehâ´ĭ sâ´i-‘nû Kâ´ga-Asgû´$^{n}$tagĕ tsana´sehâ´ĭ, sâi-‘nû´ *Egû´$^{n}$li*-gwû, sâi-nû´ (U)wa´sgilĭ tsĭgĭ´ Egû´$^{n}$lĭ Usdi´a tsĭgĭ´, nû$^{n}$yâ´hi-‘nû tsuyĕ‘dâ´ĭ Yâ´na-Utsĕsdâgĭ naskiyû´ tsĭgĭ´, usdi´-gwû tsĭgĭ´. Egû´$^{n}$lĭ (u)wa´sgilĭ tsĭgĭ´; sâ´ĭ Wâ´tige Unas(te´)tsa tsĭgĭ´, sâ´i-‘nû Û´$^{n}$age Tsunaste´tsa, Niga´ta unaste´tsa gesâ´ĭ.

Sunale´-gwû ale´ndĭ adanû´$^{n}$wâtĭ; tă´line e´ladĭ tsitkala´ĭ; tsâ´ine u´lsaladĭ´‘satû´; nû´‘kine igû´ ts´kalâ´ĭ. Yeli´gwû´ igesâ´ĭ. Nû´lstâiyanû´na gesâ´ĭ akanû$^{n}$wi´skĭ, nasgwû´ nulstaiyanû´na.

## *Translation.*

### FORMULA FOR TREATING THE CRIPPLER (RHEUMATISM).

Listen! Ha! In the Sun Land you repose, O Red Dog, O now you have swiftly drawn near to hearken. O great ada´wĕhĭ[10], you never fail in anything. O, appear and draw near running, for your prey never escapes. You are now come to remove the intruder. Ha! You have settled a very small part of it far off there at the end of the earth.

Listen! Ha! In the Frigid Land you repose, O Blue Dog. O now you have swiftly drawn near to hearken, O great ada´wĕhĭ, you never fail in anything. O, appear and draw near running, for your prey never escapes. You are now come to remove the intruder. Ha! You have settled a very small part of it far off there at the end of the earth.

Listen! Ha! In the darkening land you repose, O Black Dog. O, now you have swiftly drawn near to hearken. O great ada´wĕhĭ, you never fail in anything. O, appear and draw near running, for your prey never escapes. You are now come to remove the intruder. Ha! You have settled a very small part of it far off there at the end of the earth.

Listen! On Wa´hală you repose. O White Dog. Oh, now you have swiftly drawn near to hearken. O great ada´wĕhĭ, you never fail in anything. Oh, appear and draw near running, for your prey never escapes. You are now come to remove the intruder. Ha! You have settled a very small part of it far off there at the end of the earth.

Listen! On Wa´hală, you repose, O White Terrapin. O, now you have swiftly drawn near to hearken. O great ada´wĕhĭ, you never fail in anything. Ha! It is for you to loosen its hold on the bone. Belief is accomplished.

(Prescription.)—Lay a terrapin shell upon (the spot) and keep it there while the five kinds (of spirits) listen. On finishing, then blow once. Repeat four times, beginning each time from the start. On finishing the fourth time, then blow four times. Have two white beads lying in the shell, together with a little of the medicine. Don’t interfere with it, but have a good deal boiling in another vessel—a bowl will do very well—and rub it on warm while treating by applying the hands. And this is the medicine: What is called Yâ´na-Utsĕ´sta ("bear’s bed," the Aspidium acrostichoides or Christmas fern); and the other is called Kâ´ga-Asgû´$^{n}$tagĭ ("crow’s shin," the Adianthum pedatum or Maidenhair fern); and the

other is the common Egû´ⁿlĭ (another fern); and the other is the Little Soft (-leaved) Egû´ⁿlĭ (Osmunda Cinnamonea or cinnamon fern), which grows in the rocks and resembles Yâna-Utsĕ´sta and is a small and soft (-leaved) Egû´ⁿlĭ. Another has brown roots and another has black roots. The roots of all should be (used).

Begin doctoring early in the morning; let the second (application) be while the sun is still near the horizon; the third when it has risen to a considerable height (10 a.m.); the fourth when it is above at noon. This is sufficient. (The doctor) must not eat, and the patient also must be fasting.

## *Explanation.*

As this formula is taken from the manuscript of Gahuni, who died nearly thirty years ago, no definite statement of the theory of the disease, or its treatment, can be given, beyond what is contained in the formula itself, which, fortunately, is particularly explicit; most doctors contenting themselves with giving only the words of the prayer, without noting the ceremonies or even the medicine used. There are various theories as to the cause of each disease, the most common idea in regard to rheumatism being that it is caused by the spirits of the slain animals, generally the deer, thirsting for vengeance on the hunter, as has been already explained in the myth of the origin of disease and medicine.

The measuring-worm (Catharis) is also held to cause rheumatism, from the resemblance of its motions to those of a rheumatic patient, and the name of the worm *wahhĭlĭ´* is frequently applied also to the disease.

There are formulas to propitiate the slain animals, but these are a part of the hunting code and can only be noticed here, although it may be mentioned in passing that the hunter, when about to return to the settlement, builds a fire in the path behind him, in order that the deer chief may not be able to follow him to his home.

The disease, figuratively called the intruder (ulsgéta), is regarded as a living being, and the verbs used in speaking of it show that it is considered to be long, like a snake or fish. It is brought by the deer chief and put into the body, generally the limbs, of the hunter, who at once begins to suffer intense pain. It can be driven out only by some more powerful animal spirit which is the natural enemy of the deer, usually the dog or the Wolf. These animal gods live up above beyond the seventh heaven and are the great prototypes of which the earthly animals are only diminutive copies. They are commonly located at the four cardinal points, each of which has a peculiar formulistic name and a special color which applies to everything in the same connection. Thus the east, north, west, and south are respectively the Sun Land, the Frigid Land, the Darkening Land, and Wă´hală´, while their respective mythologic colors are Red, Blue, Black, and White. Wáhală is said to be a mountain far to the south. The white or red spirits are generally invoked for peace, health, and other blessings, the red alone for the success of an undertaking, the blue spirits to defeat the schemes of an enemy or bring down troubles upon him, and the black to compass his death. The white and red spirits are regarded as the most powerful, and one of these two is generally called upon to accomplish the final result.

In this case the doctor first invokes the Red Dog in the Sun Land, calling him a great adáwehi, to whom nothing is impossible and who never fails to accomplish his purpose. He is addressed as if out of sight in the distance and is implored to appear running swiftly

to the help of the sick man. Then the supplication changes to an assertion and the doctor declares that the Red Dog has already arrived to take the disease and has borne away a small portion of it to the uttermost ends of the earth. In the second, third, and fourth paragraphs the Blue Dog of the Frigid Land, the Black Dog of the Darkening Land, and the White Dog of Wáhală are successively invoked in the same terms and each bears away a portion of the disease and disposes of it in the same way. Finally, in the fifth paragraph, the White Terrapin of Wáhălă is invoked. He bears off the remainder of the disease and the doctor declares that relief is accomplished. The connection of the terrapin in this formula is not evident, beyond the fact that he is regarded as having great influence in disease, and in this case the beads and a portion of the medicine are kept in a terrapin shell placed upon the diseased part while the prayer is being recited.

The formulas generally consist of four paragraphs, corresponding to four steps in the medical ceremony. In this case there are five, the last being addressed to the terrapin instead of to a dog. The prayers are recited in an undertone hardly audible at the distance of a few feet, with the exception of the frequent *ha*, which seems to be used as an interjection to attract attention and is always uttered in a louder tone. The beads—which are here white, symbolic of relief—are of common use in connection with these formulas, and are held between the thumb and finger, placed upon a cloth on the ground, or, as in this case, put into a terrapin shell along with a small portion of the medicine. According to directions, the shell has no other part in the ceremony.

The blowing is also a regular part of the treatment, the doctor either holding the medicine in his mouth and blowing it upon the patient, or, as it seems to be the case here, applying the medicine by rubbing, and blowing his breath upon the spot afterwards. In some formulas the simple blowing of the breath constitutes the whole application. In this instance the doctor probably rubs the medicine upon the affected part while reciting the first paragraph in a whisper, after which he blows once upon the spot. The other paragraphs are recited in the same manner, blowing once after each. In this way the whole formula is repeated four times, with four blows at the end of the final repetition. The directions imply that the doctor blows only at the end of the whole formula, but this is not in accord with the regular mode of procedure and seems to be a mistake.

The medicine consists of a warm decoction of the roots of four varieties of fern, rubbed on with the hand. The awkward description of the species shows how limited is the Indian's power of botanic classification. The application is repeated four times during the same morning, beginning just at daybreak and ending at noon. Four is the sacred number running through every detail of these formulas, there being commonly four spirits invoked in four paragraphs, four blowings with four final blows, four herbs in the decoction, four applications, and frequently four days' gaktu$^{n}$´ta or tabu. In this case no tabu is specified beyond the fact that both doctor and patient must be fasting. The tabu generally extends to salt or lye, hot food and women, while in rheumatism some doctors forbid the patient to eat the foot or leg of any animal, the reason given being that the limbs are generally the seat of the disease. For a similar reason the patient is also forbidden to eat or even to touch a squirrel, a buffalo, a cat, or any animal which "humps" itself. In the same way a scrofulous patient must not eat turkey, as that bird seems to have a scrofulous eruption on its head, while ball players must abstain from eating frogs, because the bones of that animal are brittle and easily broken.

## HIĂ'-NÛ´ NASGWÛ´ DIDÛ$^{n}$LĔ´SKĬ ADĂNÛ´$^{n}$WÂTĬ.

| | |
|---|---|
| Asga´ya yûkanû´ⁿwĭ<br>*Agĕ´‘ya Giagage´ĭ* atătĭ´;<br>agĕ´‘ya-nû yûkanû´ⁿwĭ<br>*Asga´ya Gigage´ĭ* atătĭ´. | Yû! Higĕ´‘ya Gigage´ĭ tsûdante´lûhĭ gese´ĭ. Ulsge´ta hi´tsanu´y’tani´leĭ´. Ha-Nûⁿdâgû´ⁿyĭ nûnta´tsûdălenû´hĭ gese´ĭ. Gasgilâ´ gigage´ĭ tsusdi´ga tetsadĭ´ilĕ´ detsala´siditĕ-gĕ´ĭ. Hanâ´gwa usĭnuli´yu detsaldisi´yûĭ. |

Utsĭ(nă´)wa nu´tatanû´ⁿta. Usû´hita nutanû´na. Utsĭnă´wa-gwû nigûⁿtisge´stĭ.

(Degâ´sisisgû´ⁿĭ)—Hiă-gwû´ nigaû´ kanâhe´ta. Nû´‘kiba nagû´nkw’tisga´ dagû´ⁿstiskû´ĭ. Sâ´gwa nûⁿskwû´ta gûnstû´ⁿĭ agûnstagi´s-kâĭ hûⁿtsatasgâ´ĭ nû´‘kine-‘nû ûⁿskwû´ta nû´‘kĭ nûⁿtsâtasgâ´ĭ. Hiă-‘nû´ nû´ⁿwâtĭ: Egû´ⁿlĭ, Yâ´na-‘nû Utsĕsdâ´gĭ, (U)wa´sgilĭ tsĭgĭ´ Egû´ⁿlĭ, tă´lĭ tsinu´dalĕ´ha, Kâ´ga-‘nû Asgû´ⁿtagĕ tsiûⁿnâ´sehâ´ĭ, Da´yĭ-‘nû Uwâ´yĭ tsiûⁿnâ´sehâ´ĭ. Su´talĭ iyutale´gĭ unaste´tsa agâ´tĭ, uga´nawû‘nû´ dagûnsta´‘tisgâ´ĭ nû´ⁿwâtĭ asûⁿga‘la´ĭ. Usû´hĭ adanû´ⁿwâtĭ, nu´‘kĭ tsusû´hita dulsi´nisû´ⁿ adanû´ⁿwâti. Ă‘nawa´gi-‘nû dilasula´gĭ gesû´ⁿĭ ûlĕ´ tsĭkani´kaga´ĭ gûw’sdi´-gwû utsawa´ta ă‘nawa´-gwû-nû´.

Hiă-nû´ gaktû´ⁿta gûlkwâ´gĭ tsusû´hita. Gû´ⁿwădana´datlahistĭ´ nige´sûⁿna—Salâ´lĭ, gi´‘li-‘nû, wĕ´sa-‘nû, ă´tatsû-nû´, a´mă-‘nû´, anigĕ´‘ya-nû. Uda‘lĭ´ ya´kanûⁿwi´ya nû´‘kiha tsusû´hita unădană´lâtsi´-tastĭ nige´sûⁿna. Gasgilâ´gi-‘nû uwă´suⁿ-gwû´ u´skĭladi´stĭ uwă´sû nû´‘kĭ tsusû´hită´. Disâ´i-‘nû dega´sgilâ û´ⁿtsa nû‘nă´ uwa´‘tĭ yigesûĭ nû´‘kĭ tsusû´hita.

## *Translation.*

### AND THIS ALSO IS FOR TREATING THE CRIPPLER.

Yû! O Red Woman, you have caused it. You have put the intruder under him. Ha! now you have come from the Sun Land. You have brought the small red seats, with your feet resting upon them. Ha! now they have swiftly moved away from you. Relief is accomplished. Let it not be for one night alone. Let the relief come at once.

(Prescription)—(*corner note at top*.) If treating a man one must say *Red Woman*, and if treating a woman one must say *Red Man*.

This is just all of the prayer. Repeat it four times while laying on the hands. After saying it over once, with the hands on (the body of the patient), take off the hands and blow once, and at the fourth repetition blow four times. And this is the medicine. Egû´ⁿlĭ (a species of fern). Yâ´-na-Utsĕ´sta ("bear’s bed," the Aspidium acrostichoides or Christmas fern), *two* varieties of the soft-(leaved) Egû´ⁿlĭ (one, the small variety, is the Cinnamon fern, Osmunda cinnamonea), and what is called Kâ´ga Asgû´ⁿtagĕ ("crow’s shin," the Adiantum pedatum or Maidenhair fern) and what is called Da´yĭ-Uwâ´yĭ ("beaver’s paw"—not identified). Boil the roots of the six varieties together and apply the hands warm with the medicine upon them. Doctor in the evening. Doctor four consecutive nights. (The pay) is cloth and moccasins; or, if one does not have them, just a little dressed deerskin and some cloth.

And this is the tabu for seven nights. One must not touch a squirrel, a dog, a cat, the

mountain trout, or women. If one is treating a married man they (*sic*) must not touch his wife for four nights. And he must sit on a seat by himself for four nights, and must not sit on the other seats for four nights.

## *Explanation.*

The treatment and medicine in this formula are nearly the same as in that just given, which is also for rheumatism, both being written by Gahuni. The prayer differs in several respects from any other obtained, but as the doctor has been dead for years it is impossible to give a full explanation of all the points. This is probably the only formula in the collection in which the spirit invoked is the "Red Woman," but, as explained in the corner note at the top, this is only the form used instead of "Red Man," when the patient is a man. The Red Man, who is considered perhaps the most powerful god in the Cherokee pantheon, is in some way connected with the thunder, and is invoked in a large number of formulas. The change in the formula, according to the sex of the patient, brings to mind a belief in Irish folk medicine, that in applying certain remedies the doctor and patient must be of opposite sexes. The Red Man lives in the east, in accordance with the regular mythologic color theory, as already explained. The seats also are red, and the form of the verb indicates that the Red Woman is either standing upon them (plural) or sitting with her feet resting upon the rounds. These seats or chairs are frequently mentioned in the formulas, and always correspond in color with the spirit invoked. It is not clear why the Red Woman is held responsible for the disease, which is generally attributed to the revengeful efforts of the game, as already explained. In agreement with the regular form, the disease is said to be put under (not into) the patient. The assertion that the chairs "have swiftly moved away" would seem from analogy to mean that the disease has been placed upon the seats and thus borne away. The verb implies that the seats move by their own volition. Immediately afterward it is declared that relief is accomplished. The expression "usû´hita nutanû´na" occurs frequently in these formulas, and may mean either "let it not be for one night alone," or "let it not stay a single night," according to the context.

The directions specify not only the medicine and the treatment, but also the doctor's fee. From the form of the verb the tabu, except as regards the seat to be used by the sick person, seems to apply to both doctor and patient. It is not evident why the mountain trout is prohibited, but the dog, squirrel, and cat are tabued, as already explained, from the fact that these animals frequently assume positions resembling the cramped attitude common to persons afflicted by rheumatism. The cat is considered especially uncanny, as coming from the whites. Seven, as well as four, is a sacred number with the tribe, being also the number of their gentes. It will be noted that time is counted by nights instead of by days.

### HIÂ´ I´NATÛ YUNISKÛ´LTSA ADANÛ´NWÂTĬ.

1. *Dûnu´wa*, dûnu´wa, dûnu´wa, dûnu´wa, dûnu´wa, dûnu´wa (*song*).
   Sgĕ! Ha-Walâ´sĭ-gwû tsû$^{n}$lû´$^{n}$tani´ga.
2. *Dayuha*, dayuha, dayuha, dayuha dayuha (*song*).
   Sgĕ! Ha-*Usugĭ*-gwû tsû$^{n}$-lû$^{n}$´-tani´ga.

(Degâ´sisisgû´$^{n}$ĭ).—Kanâgi´ta nâyâ´ga hiă´ dilentisg´û$^{n}$ĭ. Tă´lĭ igû´nkw'ta'tĭ, ûlĕ´ talinĕ´ tsutanû´$^{n}$na nasgwû´ tâ´lĭ igû´nkw'ta'tĭ´. Tsâ´la aganû´$^{n}$lieskâĭ´ tsâ´la yikani´gû$^{n}$gû´âĭ´

watsi´la-gwû ganû$^{n}$li´yětĭ uniskûl‘tsû´$^{n}$ĭ. Nû´‘kĭ nagade´stisgâĭ´ aganû$^{n}$li´esgû$^{n}$ĭ. Akskû´nĭ gadest´a‘tĭ, nûû‘kĭ nagade´ sta hû$^{n}$tsatasgâ´ĭ. Hiă-‘nû´ i´natû akti´sĭ udestâ´ĭ yigû´n‘ka, naski-‘nû´ tsagadû´lăgisgâ´ĭ iyu´stĭ gatgû´$^{n}$ĭ.

## *Translation.*

**THIS IS TO TREAT THEM IF THEY ARE BITTEN BY A SNAKE.**

1. Dûnu´wa, dûnu´wa, dûnu´wa, dûnu´wa, dûnu´wa, dûnu´wa.
   Listen! Ha! It is only a common frog which has passed by and put it (the intruder) into you.
2. Dayuha, dayuha, dayuha, dayuha, dayuha.
   Listen! Ha! It is only an *Usu´‘gĭ* which has passed by and put it into you.

(Prescription.)—Now this at the beginning is a song. One should say it twice and also say the second line twice. Rub tobacco (juice) on the bite for some time, or if there be no tobacco just rub on saliva once. In rubbing it on, one must go around four times. Go around toward the left and blow four times in a circle. This is because in lying down the snake always coils to the right and this is just the same (*lit.* “means like”) as uncoiling it.

## *Explanation.*

This is also from the manuscript book of Gahuni, deceased, so that no explanation could be obtained from the writer. The formula consists of a song of two verses, each followed by a short recitation. The whole is repeated, according to the directions, so as to make four verses or songs; four, as already stated, being the sacred number running through most of these formulas. Four blowings and four circuits in the rubbing are also specified. The words used in the songs are sometimes composed of unmeaning syllables, but in this case dûnuwa and dayuha seem to have a meaning, although neither the interpreter nor the shaman consulted could explain them, which may be because the words have become altered in the song, as frequently happens. Dûnu´wa appears to be an old verb, meaning “it has penetrated,” probably referring to the tooth of the reptile. These medicine songs are always sung in a low plaintive tone, somewhat resembling a lullaby. Usu´‘gĭ also is without explanation, but is probably the name of some small reptile or batrachian.

As in this case the cause of the trouble is evident, the Indians have no theory to account for it. It may be remarked, however, that when one dreams of being bitten, the same treatment and ceremonies must be used as for the actual bite; otherwise, although perhaps years afterward, a similar inflammation will appear on the spot indicated in the dream, and will be followed by the same fatal consequences. The rattlesnake is regarded as a supernatural being or ada´wehi, whose favor must be propitiated, and great pains are taken not to offend him. In consonance with this idea it is never said among the people that a person has been bitten by a snake, but that he has been “scratched by a brier.” In the same way, when an eagle has been shot for a ceremonial dance, it is announced that “a snowbird has been killed,” the purpose being to deceive the rattlesnake or eagle spirits which might be listening.

The assertion that it is “only a common frog” or “only an Usu´‘gĭ” brings out another characteristic idea of these formulas. Whenever the ailment is of a serious character, or,

according to the Indian theory, whenever it is due to the influence of some powerful disease spirit the doctor always endeavors to throw contempt upon the intruder, and convince it of his own superior power by asserting the sickness to be the work of some inferior being, just as a white physician might encourage a patient far gone with consumption by telling him that the illness was only a slight cold. Sometimes there is a regular scale of depreciation, the doctor first ascribing the disease to a rabbit or groundhog or some other weak animal, then in succeeding paragraphs mentioning other still less important animals and finally declaring it to be the work of a mouse, a small fish, or some other insignificant creature. In this instance an ailment caused by the rattlesnake, the most dreaded of the animal spirits, is ascribed to a frog, one of the least importance.

In applying the remedy the song is probably sung while rubbing the tobacco juice around the wound. Then the short recitation is repeated and the doctor blows four times in a circle about the spot. The whole ceremony is repeated four times. The curious directions for uncoiling the snake have parallels in European folk medicine.

## GÛ$^{n}$WĂNI´GISTÂ´Ĭ ADANU´$^{n}$WÂTĬ.

Sgĕ! Ha-tsida´wĕiyu, gahus´tĭ aginúl‘tĭ nige´sû$^{n}$na. Gû$^{n}$gwădag´anad‘diyû´ tsida´wĕi´yu. Ha-Wăhuhu´-gwû hitagu´sgastanĕ‘hĕĭ. Ha-nâ´gwa hŭ‘kikahû$^{n}$û´ ha-dusŭ´‘gahĭ digesû´$^{n}$ĭ, iyû´$^{n}$ta wû$^{n}$‘kidâ´hĭstani´ga.

Sgĕ! Ha-tsida´wĕi´yu, gahu´stĭ aginu´l‘tĭ nige´sû$^{n}$na. Gû$^{n}$gwădaga´nad’diyû´ tsida´wĕi´yu. Ha-Uguku´-gwû hitagu´sgastanĕ´heĭ´ udâhi´yu tag´u´sgastanĕ´hĕĭ´. Ha-na´gwadi´na hû$^{n}$kikahû$^{n}$nû´. Ha-nânâ´hĭ digesŭ´$^{n}$ĭ iyû´$^{n}$ta wû$^{n}$‘kidâ´hĭstani´ga.

Sgĕ! Ha-tsida´wĕi´yu, gahu´stĭ aginu´l‘tĭ nige´sû$^{n}$na. Gû$^{n}$gwădaga´nad’diyû´ tsida´wĕi´yu. Ha-Tsistu-gwû hitagu´sgastanĕ´he´ĭudâhi´yu tag´usgastanĕ´hĕĭ´. Ha-nâ´gwadi´na hû´$^{n}$kikahû´$^{n}$nû. Ha-sunû$^{n}$da´sĭ iyû´$^{n}$ta kane´skawâ´dihĭ digesû´$^{n}$ĭ, wû$^{n}$‘kidâ´hĭstani´ga.

Sgĕ! Ha-tsida´wĕi´yu, gahu´stĭ aginu´l‘tĭ nige´sû$^{n}$na. Gû$^{n}$gwădaga´nad’di´yû tsida´wĕi´yu. Ha-De´tsata´-gwû (hi)tagu´sgastanĕ´hĕĭ udâhi´yu tagu´sgastanĕ´hĕĭ. Ha-nâ´gwadi´na hû$^{n}$kikahû´$^{n}$a. Ha-udâ´tale´ta digesû´$^{n}$ĭ, iyû´$^{n}$ta wû$^{n}$‘kidâ´hĭstani´ga.

(Degâ´sisisgû´$^{n}$ĭ)—Hiă´-skĭnĭ´ unsdi´ya dĭkanû´$^{n}$wâtĭ tsa‘natsa´yihâ´ĭ tsaniska´iha´ĭ; gû$^{n}$wani´gista´ĭ hi´anûdĭ´sgaĭ´. Ămă´ dûtsati´stĭsgâ´ĭ nû´‘kĭ tsusû´hita dĭkanû´$^{n}$wâtĭ Ulsinide´na dakanû´$^{n}$wisgâ´ĭ. Ŭ´$^{n}$tsa iyû´$^{n}$ta witunini´dastĭ yigesâ´ĭ.

## *Translation.*

### TO TREAT THEM WHEN SOMETHING IS CAUSING SOMETHING TO EAT THEM.

Listen! Ha! I am a great ada´wehi, I never fail in anything. I surpass all others—I am a great ada´wehi. Ha! It is a mere screech owl that has frightened him. Ha! now I have put it away in the laurel thickets. There I compel it to remain.

Listen! Ha! I am a great ada´wehi, I never fail in anything. I surpass all others—I am a great ada´wehi. Ha! It is a mere hooting owl that has frightened him. Undoubtedly that has frightened him. Ha! At once I have put it away in the spruce thickets. Ha! There I compel it to remain.

Listen! Ha! I am a great ada´wehi, I never fail in anything. I surpass all others—I am a great ada´wehi. Ha! It is only a rabbit that has frightened him. Undoubtedly that has frightened him. Ha! Instantly I have put it away on the mountain ridge. Ha! There in the broom sage I compel it to remain.

Listen! Ha! I am a great ada´wehi, I never fail in anything. I surpass all others—I am a great ada´wehi. Ha! It is only a mountain sprite that has frightened him. Undoubtedly that has frightened him. Ha! Instantly I have put it away on the bluff. Ha! There I compel it to remain.

(Prescription)—Now this is to treat infants if they are affected by crying and nervous fright. (Then) it is said that something is causing something to eat them. To treat them one may blow water on them for four nights. Doctor them just before dark. Be sure not to carry them about outside the house.

## *Explanation.*

The Cherokee name for this disease is Gu$^{n}$wani´gistâĭ´, which signifies that "something is causing something to eat," or gnaw the vitals of the patient. The disease attacks only infants of tender age and the symptoms are nervousness and troubled sleep, from which the child wakes suddenly crying as if frightened. The civilized doctor would regard these as symptoms of the presence of worms, but although the Cherokee name might seem to indicate the same belief, the real theory is very different.

Cherokee mothers sometimes hush crying children, by telling them that the screech owl is listening out in the woods or that the De´tsata—a malicious little dwarf who lives in caves in the river bluffs—will come and get them. This quiets the child for the time and is so far successful, but the animals, or the De´tsata, take offense at being spoken of in this way, and visit their displeasure upon the *children born to the mother afterward*. This they do by sending an animal into the body of the child to gnaw its vitals. The disease is very common and there are several specialists who devote their attention to it, using various formulas and prescriptions. It is also called ătawi´nĕhĭ, signifying that it is caused by the "dwellers in the forest," i.e., the wild game and birds, and some doctors declare that it is caused by the revengeful comrades of the animals, especially birds, killed by the father of the child, the animals tracking the slayer to his home by the blood drops on the leaves. The next formula will throw more light upon this theory.

In this formula the doctor, who is certainly not overburdened with modesty, starts out by asserting that he is a great ada´wehi, who never fails and who surpasses all others. He then declares that the disease is caused by a mere screech owl, which he at once banishes to the laurel thicket. In the succeeding paragraphs he reiterates his former boasting, but asserts in turn that the trouble is caused by a mere hooting owl, a rabbit, or even by the De´tsata, whose greatest exploit is hiding the arrows of the boys, for which the youthful hunters do not hesitate to rate him soundly. These various mischief-makers the doctor banishes to their proper haunts, the hooting owl to the spruce thicket, the rabbit to the broom sage on the mountain side, and the De´tsata to the bluffs along the river bank.

Some doctors use herb decoctions, which are blown upon the body of the child, but in this formula the only remedy prescribed is water, which must be blown upon the body of the little sufferer just before dark for four nights. The regular method is to blow once each at the end of the first, second, and third paragraphs and four times at the end of the fourth or last. In diseases of this kind, which are not supposed to be of a local character, the doctor blows first upon the back of the head, then upon the left shoulder, next upon the right shoulder, and finally upon the breast, the patient being generally sitting, or propped up in bed, facing the east. The child must not be taken out of doors during the four days, because should a bird chance to fly overhead so that its shadow would fall upon the infant, it would *fan the disease back* into the body of the little one.

### GÛⁿWANI´GISTÛ´ⁿǏ DITANÛⁿWÂTI´YǏ

Yû! Sgĕ! Usĭnu´lĭ hatû´ⁿgani´ga, Giya´giya´ Sa‘ka´nĭ, ew’satâ´gĭ tsûl‘da´histĭ. Usĭnu´lĭ hatlasi´ga. Tsis´kwa-gwû´ ulsge´ta uwu´tlani‘lĕĭ´. Usĭnuli´yu atsahilu´gĭsi´ga. Utsĭnă´wa nu´tatanû´ⁿta. Yû!

Yû! Sgĕ! Usĭnu´lĭ hatû´ⁿgani´ga, Diga´tiskĭ Wâtige´ĭ, galû´ⁿlatĭ iyû´ⁿta ditsûl‘dâ´histĭ. Ha-nâ´gwa usĭnu´lĭ hatlasi´ga. Tsi´skwa-gwû dĭtu´nila´w’itsû´hĭ higese´ĭ. Usĭnûlĭ kĕ‘tati´gû‘lahi´ga. Utsĭnă´wa adûⁿni´ga. Yû!

## *Translation.*

### TO TREAT GÛⁿWANI´GISTÛ´ⁿǏ—(SECOND).

Yû! Listen! Quickly you have drawn near to hearken, O Blue Sparrow-Hawk; in the spreading tree tops you are at rest. Quickly you have come down. The intruder is only a bird which has overshadowed him. Swiftly you have swooped down upon it. Relief is accomplished. Yû!

Yû! Listen! Quickly you have drawn near to hearken, O Brown Rabbit-Hawk; you are at rest there above. Ha! Swiftly now you have come down. It is only the birds which have come together for a council. Quickly you have come and scattered them. Relief is accomplished. Yû!

## *Explanation.*

This formula, also for Gûⁿwani´gistû´ⁿĭ or Atawinĕ´hĭ, was obtained from A‘wan´ita (Young Deer), who wrote down only the prayer and explained the treatment orally. He coincides in the opinion that this disease in children is caused by the birds, but says that it originates from the shadow of a bird flying overhead having fallen upon the pregnant mother. He says further that the disease is easily recognized in children, but that it sometimes does not develop until the child has attained maturity, when it is more difficult to discern the cause of the trouble, although in the latter case dark circles around the eyes are unfailing symptoms.

The prayer—like several others from the same source—seems incomplete, and judging from analogy is evidently incorrect in some respects, but yet exemplifies the disease theory in a striking manner. The disease is declared to have been caused by the birds, it

being asserted in the first paragraph that a bird has cast its shadow upon the sufferer, while in the second it is declared that they have gathered in council (in his body). This latter is a favorite expression in these formulas to indicate the great number of the disease animals. Another expression of frequent occurrence is to the effect that the disease animals have formed a settlement or established a townhouse in the patient's body. The disease animal, being a bird or birds, must be dislodged by something which preys upon birds, and accordingly the Blue Sparrow-Hawk from the tree tops and the Brown Rabbit-Hawk (Diga´tiskĭ—"One who snatches up"), from above are invoked to drive out the intruders. The former is then said to have swooped down upon them as a hawk darts upon its prey, while the latter is declared to have scattered the birds which were holding a council. This being done, relief is accomplished. Yû! is a meaningless interjection frequently used to introduce or close paragraphs or songs.

The medicine used is a warm decoction of the bark of Kûnstû´tsĭ (Sassafras—Sassafras officinale), Kanû$^{n}$si´ta (Flowering Dogwood—Cornus florida), Udâ´lana (Service tree—Amelanchier Canadensis), and Uni´kwa (Black Gum—Nyssa multiflora), with the roots of two species (large and small) of Da´yakalĭ´skĭ (Wild Rose—Rosa lucida). The bark in every case is taken from the east side of the tree, and the roots selected are also generally, if not always, those growing toward the east. In this case the roots and barks are not bruised, but are simply steeped in warm water for four days. The child is then stripped and bathed all over with the decoction morning and night for four days, no formula being used during the bathing. It is then made to hold up its hands in front of its face with the palms turned out toward the doctor, who takes some of the medicine in his mouth and repeats the prayer mentally, blowing the medicine upon the head and hands of the patient at the final *Yû!* of each paragraph. It is probable that the prayer originally consisted of four paragraphs, or else that these two paragraphs were repeated. The child drinks a little of the medicine at the end of each treatment.

The use of salt is prohibited during the four days of the treatment, the word (amă´) being understood to include lye, which enters largely into Cherokee food preparations. No chicken or other feathered animal is allowed to enter the house during the same period, for obvious reasons, and strangers are excluded for reasons already explained.

## HIA´ DU´NIYUKWATISGÛ´$^{n}$Í KANA´HÈHÛ.

Sgĕ! Nû$^{n}$dâgû´$^{n}$yĭ tsûl‘dâ´histĭ, Kanani´skĭ Gigage. Usĭnu´lĭ nû´$^{n}$nâ gi´gage hĭnû$^{n}$ni´ga. Hida´wĕhi-gâgû´, astĭ´ digi´gage usĭnû´lĭ dehĭkssa´û$^{n}$tani´ga. Ulsge´ta kane´ge kayu´‘ga gesû´$^{n}$, tsgâ´ya-gwû higese´ĭ. Ehĭstĭ´ hituwa´saniy’teĭ´. Usĭnu´lĭ astĭ´ digi´gage dehada´û$^{n}$tani´ga, adi´na tsûlstai-yû´‘ti-gwû higese´ĭ. Nâ´gwa gânagi´ta da´tsatane´lĭ. Utsĭnă´wa nu´tatanû´$^{n}$ta nû$^{n}$tûneli´ga. Yû!

Hĭgayû´$^{n}$lĭ Tsûne´ga hatû´$^{n}$gani´ga. “A´ya-gâgû´ gatû´$^{n}$gisge´stĭ tsûngili´sĭ deagwûlstawĭ´stitege´stĭ,” tsadûnû´hĭ. Na´ski-gâgû´ itsa´wesû´hĭ nâ´gwa usĭnu´lĭ hatu´$^{n}$gani´ga. Utsĭnă´wa nútatanû´ta nû$^{n}$tû´neli´ga. Yû!

Sgĕ! Uhyû$^{n}$tlâ´yĭ tsûl‘dâ´histi Kanani´skĭ Sa‘ka´nĭ. Usĭnu´lĭ nû´$^{n}$nâ sa‘ka´nĭ hĭnû$^{n}$ni´ga. Hida´wĕhi-gâgû´, astĭ´ (di)sa‘ka´nĭ usĭnu´lĭ dehĭksa´û$^{n}$tani´ga. Ulsge´ta kane´ge kayu´‘ga gesû´$^{n}$, tsgâ´ya-gwû higese´ĭ. Ehĭstĭ´ hituwa´saniy‘te(ĭ´). Usĭnu´lĭ astĭ´ disa‘ka´nige dehada´û$^{n}$taniga, adi´na tsûlstai-yû´‘ti-gwû higese´ĭ. Nâ´gwa tsgâ´ya gûnagi´ta

tsûtûneli´ga. Utsĭnă´wa nu´tatanû´ⁿta nûⁿtûneli´ga. Yû!

Hĭgayû´ⁿlĭ Tsûne´ga hatûⁿgani´ga. “A´ya-gâgû´ gatû´ⁿgisge´stĭ tsûngili´sĭ deagwûlstawĭ´stitege´stĭ,” tsadûnû´hĭ. Nas´kigâgû´ itsawesû´hĭ nâ´gwa usĭnu´lĭ hatû´ⁿgani´ga. Utsĭnă´wa nutatanû´ⁿta nûⁿtûneli´ga. Yû!

Sgĕ! Usûhi´yĭ tsûl‘dâ´histĭ Kanani´skĭ Û´ⁿnage. Usĭnu´lĭ nû´ⁿnâ û´ⁿnage hĭnûⁿni´ga. Hida´wĕhi-gâgû´, astĭ´ digû´ⁿnage usĭnu´lĭ dehĭksa´ûⁿtani´ga. Ulsge´ta kane´ge kayu´‘ga gesû´ⁿ, tsgâ´ya-gwû higese´ĭ. Ehĭstĭ´ hituwa´saniy‘teĭ´. Usĭnu´lĭ astĭ´ digû´ⁿnage dehada´ûⁿtani´ga, adi´na tsûlstai-yû´‘ti-gwû higese´ĭ. Nâ´gwa tsgâ´ya gûnagi´ta tsûtûneli´ga. Utsĭnă´wa nutatanû´ⁿta nûⁿtûneli´ga. Yû!

Hĭgayû´ⁿlĭ Tsûne´ga hatûⁿgani´ga. “A´ya-gâgû´ gatû´ⁿgisge´stĭ tsûngili´sĭ deagwûlstawĭ´stitege´stĭ,” tsadûnû´hĭ. Na´skigâgû´ itsawesû´hĭ nâ´gwa usĭnu´lĭ hatû´ⁿgani´ga. Utsĭnă´wa nutatanû´ⁿta nûⁿtûneli´ga. Yû!

Sgĕ! Galû´ⁿlatĭ tsûl‘dâ´histĭ, Kanani´skĭ Tsûne´ga. Usĭnu´lĭ nû´ⁿnâ une´ga hĭnûⁿni´ga. Hida´wĕhi-gâgû´, astĭ´ tsune´ga usĭnu´lĭ dehĭksa´ûⁿ tani´ga. Ulsge´ta kane´ge kayu´‘ga gesû´ⁿ, tsgâ´ya-gwû higese´ĭ. Ehĭstĭ´ hituwa´sănіy’teĭ´. Usĭnu´lĭ astĭ´ tsune´ga dehada´ûⁿtani´ga, adi´na tsûlstai-yû´‘ti-gwû higese´ĭ. Nâ´gwa tsgâ´ya gûnagi´ta tsûtûneli´ga. Utsĭnă´wa nu´tatanû´ⁿta, nûⁿtûneli´ga. Yû!

Hĭgayû´ⁿlĭ Tsûne´ga hatû´ⁿgani´ga. “A´ya-gâgû´ gatû´ⁿgisge´stĭ tsûngili´sĭ deagwûlstawĭ´stitege´stĭ,” tsadûnû´hĭ. Naski-gâgû´ itsawesû´hĭ nâ´gwa usĭnu´lĭ hatûⁿgani´ga. U´tsĭna´wa nutatanû´ⁿta nûⁿtûneli´ga. Yû!

(Degasi´sisgû´ⁿĭ)—Hiă´ duniyukwa´tisgû´ⁿĭ dĭkanû´ⁿwătĭ ătanû´ⁿsida´hĭ yĭ´gĭ. Na´skĭ digû´nstanĕ´‘ti-gwû ûlĕ´ tsĭtsâtû´ yie´lisû. Nigûⁿ´-gwû usû´na [*for* usûnda´na?] gû´ⁿtatĭ nayâ´ga nû´ⁿwatĭ unanû´ⁿskă‘la´ĭ. Kane´ska dalâ´nige unaste´tla tsĭ´gĭ. Se´lu dĭgahû‘nû´hĭ tsuni´yahĭstĭ´ nû´‘kĭ tsusû´hita, kanâhe´na-‘nû naskĭ´ iga´ĭ udanû´stĭ hi´gĭ nayâ´ga.

## *Translation.*

### THIS TELLS ABOUT MOVING PAINS IN THE TEETH (NEURALGIA?).

Listen! In the Sunland you repose, O Red Spider. Quickly you have brought and laid down the red path. O great ada´wehi, quickly you have brought down the red threads from above. The intruder in the tooth has spoken and it is only a worm. The tormentor has wrapped itself around the root of the tooth. Quickly you have dropped down the red threads, for it is just what you eat. Now it is for you to pick it up. The relief has been caused to come. Yû!

O Ancient White, you have drawn near to hearken, for you have said, “When I shall hear my grandchildren, I shall hold up their heads.” Because you have said it, now therefore you have drawn near to listen. The relief has been caused to come. Yû!

Listen! In the Frigid Land you repose, O Blue Spider. Quickly you have brought and laid

down the blue path. O great ada´wehi, quickly you have brought down the blue threads from above. The intruder in the tooth has spoken and it is only a worm. The tormentor has wrapped itself around the root of the tooth. Quickly you have dropped down the blue threads, for it is just what you eat. Now it is for you to pick it up. The relief has been caused to come. Yû!

O Ancient White, you have drawn near to hearken, for you have said, “When I shall hear my grandchildren, I shall hold up their heads.” Because you have said it, now therefore you have drawn near to listen. The relief has been caused to come. Yû!

Listen! In the Darkening Land you repose, O Black Spider. Quickly you have brought and laid down the black path. O great ada´wehi, quickly you have brought down the black threads from above. The intruder in the tooth has spoken and it is only a worm. The tormentor has wrapped itself around the root of the tooth. Quickly you have dropped down the black threads, for it is just what you eat. Now it is for you to pick it up. The relief has been caused to come. Yû!

O Ancient White, you have drawn near to hearken, for you have said, “When I shall hear my grandchildren, I shall hold up their heads.” Because you have said it, now therefore you have drawn near to listen. The relief has been caused to come. Yû!

Listen! You repose on high, O White Spider. Quickly you have brought and laid down the white path. O great ada´wehi, quickly you have brought down the white threads from above. The intruder in the tooth has spoken and it is only a worm. The tormentor has wrapped itself around the root of the tooth. Quickly you have dropped down the white threads, for it is just what you eat. Now it is for you to pick it up. The relief has been caused to come. Yû!

O Ancient White, you have drawn near to hearken, for you have said, “When I shall hear my grandchildren, I shall hold up their heads.” Because you have said it, now therefore you have drawn near to listen. The relief has been caused to come. Yû!

(Prescription)—This is to treat them if there are pains moving about in the teeth. It is only (necessary) to lay on the hands, or to blow, if one should prefer. One may use any kind of a tube, but usually they have the medicine in the mouth. It is the Yellow-rooted Grass (kane´ ska dalâ´nige unaste´tla; not identified.) One must abstain four nights from cooked corn (hominy), and kanâhe´na (fermented corn gruel) is especially forbidden during the same period.

## *Explanation.*

This formula is taken from the manuscript book of Gatigwanasti, now dead, and must therefore be explained from general analogy. The ailment is described as “pains moving about in the teeth”—that is, affecting several teeth simultaneously—and appears to be neuralgia. The disease spirit is called “the intruder” and “the tormentor” and is declared to be a mere worm (tsgâ´ya), which has wrapped itself around the base of the tooth. This is the regular toothache theory. The doctor then calls upon the Red Spider of the Sunland to let down the red threads from above, along the red path, and to take up the intruder, which is just what the spider eats. The same prayer is addressed in turn to the Blue Spider in the north, the Black Spider in the west and the White Spider above (galû$^{n}$´lati). It may be stated here that all these spirits are supposed to dwell above, but when no point of the

compass is assigned, galû$^{n}$´lati is understood to mean directly overhead, but far above everything of earth. The dweller in this overhead galû$^{n}$´lati may be red, white, or brown in color. In this formula it is white, the ordinary color assigned spirits dwelling in the south. In another toothache formula the Squirrel is implored to take the worm and put it between the forking limbs of a tree on the north side of the mountain.

Following each supplication to the spider is another addressed to the Ancient White, the formulistic name for fire. The name refers to its antiquity and light-giving properties and perhaps also to the fact that when dead it is covered with a coat of white ashes. In those formulas in which the hunter draws omens from the live coals it is frequently addressed as the Ancient Red.

The directions are not explicit and must be interpreted from analogy. “Laying on the hands” refers to pressing the thumb against the jaw over the aching tooth, the hand having been previously warmed over the fire, this being a common method of treating toothache. The other method suggested is to blow upon the spot (tooth or outside of jaw?) a decoction of an herb described rather vaguely as “yellow-rooted grass” either through a tube or from the mouth of the operator. Igawĭ´, a toothache specialist, treats this ailment either by pressure with the warm thumb, or by blowing tobacco smoke from a pipe placed directly against the tooth. Hominy and fermented corn gruel (kanâhe´na) are prohibited for the regular term of four nights, or, as we are accustomed to say, four days, and special emphasis is laid upon the gruel tabu.

The prayer to the Spider is probably repeated while the doctor is warming his hands over the fire, and the following paragraph to the Ancient White (the Fire) while holding the warm thumb upon the aching spot. This reverses the usual order, which is to address the fire while warming the hands. In this connection it must be noted that the fire used by the doctor is never the ordinary fire on the hearth, but comes from four burning chips taken from the hearth fire and generally placed in an earthen vessel by the side of the patient. In some cases the decoction is heated by putting into it seven live coals taken from the fire on the hearth.

## UNAWA STÎ EGWA (ADANÛ$^{n}$WÂTÏ).

(2) (3) (4) (5) (6)
Sgĕ! Galû´$^{n}$latĭ´ hinehi´ hinehi´yû hinida´we, utsinâ´wa adû$^{n}$niga
12 12 22 34 33 566—Hayĭ´!

(1) (2) (3) (4) (5) (6)
Sgĕ! U$^{n}$wadâ´hi hinehi´, hinehi´yû hinida´we, utsinâ´wa adû$^{n}$ni´ga
12 12 22 34 33 566—Hayĭ´!

(1) (2) (3) (4) (5) (6)
Sgĕ! Nâtsihi´ hinehi´ hinehi´yû hinida´we utsinâ´wa adû$^{n}$ni´ga
12 12 22 34 33 566—Hayĭ´!

(1) (2) (3) (4) (5) (6)
Sgĕ! Amâyi´ hinehi´, hinehi´yû hinida´we utsinâ´wa adû$^{n}$ni´ga
12 12 22 33 33 566—Hayĭ´!

Sgĕ! Ha-nâ´gwa hatû´ⁿngani´ga, Agalu´ga Tsûsdi´ga, hida´wĕhĭ, â´tali tsusdiga´hĭ duda´w'satû´ⁿ ditsûldâ´histĭ. (Hida´wĕhĭ, gahu´stĭ tsanu´lûⁿhûⁿsgĭ´ nige´sûⁿna.) Ha-nâ´gwa da´tûlehûⁿgû´. Usdi´gi(yu) utiya´stanûⁿ´(hĭ) (higese´i). (Hûⁿ)hiyala´gistani´ga igâ´tĭ usdigâ´hĭ usa´hĭlagĭ´ Igâtu´ltĭ nûⁿnâ´hĭ wĭte´tsatănûⁿ´ûⁿsĭ´. A´ne´tsâge´ta *getsatûnĕhĭ* nûⁿgûlstani´ga igûⁿ´wûlstanita´sti-gwû. Ati´gale´yata tsûtû´neli´ga. Utsĭnâ´wa [11] nigûⁿtisge´stĭ.

Sgĕ! Ha-nâ´gwa hûⁿhatû´ⁿgani´ga, Agalu´ga Hegwahigwû´. Â´talĭ tsegwâ´hĭ duda´w'satûⁿ iyûⁿta ditsûldâ´histĭ. Agalu´ga He´gwa, hausĭnu´lĭ da´tûlehûⁿgû. Usdi´giyu utiya´stanû´ⁿhĭ. Hiyala´gistani´ga ulsge´ta igâ´t-egwâ´hĭ) usa´hĭlagĭ´. (Igat-(egwâ´hĭ iyûⁿ´ta nûⁿnâ´hĭ wĭtetsatanû´ⁿûⁿsĭ´. A´ne´tsâge´ta *getsatûne´litise´sti* igûⁿ´wûlstanita´sti-gwû. Utsĭnâ´wa-gwû nutatanûⁿta. Nigagĭ´ Yû!

(Degâsi´sisgû´ⁿĭ)—Unawa´stĭ e´gwa u´nitlûⁿgâ´ĭ. Ta´ya gû´ⁿtatĭ, ditsa´tista´'ti. Tsâ´l-agayû´ⁿlĭ yă´hă ulû´ⁿkwati-gwû nasgwû´.

## *Translation.*

### TO TREAT THE GREAT CHILL.

Listen! On high you dwell, On high you dwell—you dwell, you dwell. Forever you dwell, you anida´we, forever you dwell, forever you dwell. Relief has come—has come. Hayĭ!

Listen! On Ûⁿwadâ´hĭ you dwell, On Ûⁿwadâhĭ you dwell—you dwell, you dwell. Forever you dwell, you anida´we, forever you dwell, forever you dwell. Relief has come—has come. Hayĭ!

Listen! In the pines you dwell, In the pines you dwell—you dwell, you dwell. Forever you dwell, you anida´we, forever you dwell, forever you dwell. Relief has come—has come. Hayĭ!

Listen! In the water you dwell, In the water you dwell, you dwell, you dwell. Forever you dwell, you anida´we, forever you dwell, forever you dwell. Relief has come—has come. Hayiĭ!

Listen! O now you have drawn near to hearken, O Little Whirlwind, O ada´wehi, in the leafy shelter of the lower mountain, there you repose. O ada´wehi, you can never fail in anything. Ha! Now rise up. A very small portion [of the disease] remains. You have come to sweep it away into the small swamp on the upland. You have laid down your paths near the swamp. It is ordained that you shall scatter it as in play, so that it shall utterly disappear. By you it must be scattered. So shall there be relief.

Listen! O now again you have drawn near to hearken, O Whirlwind, surpassingly great. In the leafy shelter of the great mountain there you repose. O Great Whirlwind, arise quickly. A very small part [of the disease] remains. You have come to sweep the intruder into the great swamp on the upland. You have laid down your paths toward the great swamp. You shall scatter it as in play so that it shall utterly disappear. And now relief has come. All is done. Yû!