

tain them ready for use, prepared with scrupulous accuracy, there could be but one answer. In short, in the course of time, it has been found impossible to dispense with the assistance of professional pharmacæutists."

I would further add, that whatever we may think of homœopathic pharmacy, there is one advantage we must all admit: that should a mistake occur in dispensing, there is no danger of it proving fatal, or of the physician, chemist, or any one else, ever finding it out.

NASHVILLE, 1873.

II. MATERIA MEDICA.

ON THE MEDICINAL AGENTS OF INDIANS.

BY B. F. STACEY, CHARLESTOWN, MASS.

QUERY 25, vol. 18.—What medicinal articles are in popular use among the Indian tribes, and what properties are ascribed to such as are unknown to commentaries?

THIS query was proposed at the annual meeting in 1870 for general acceptance; not having been replied to, it was taken up by the writer this year with the expectation of having a rich field of research. In this he was disappointed; the natural slyness and cunning of the Indian doctors render it very difficult to discover many of their medicines, and from a thorough investigation I am convinced that the list is not lengthy, and that there is but little to be learned from their school of practice or repertoire of medicinal agents. In many tribes more reliance is placed in charms and spells for curing diseases, and even when brought within the influences of civilization, the Indian when sick has refused all medicines, and looked only to incantations and the jingling of bells as a panacea to his ills. They are very prone to hang their faith on all the old traditional remedies of the past, and in many cases it is difficult to induce them to try anything else. It is related in King's American Dispensatory, "that J. J. Caldas, pupil of the celebrated botanist Mutis, who

travelled from 1802 for many years in the mountains of Peru, in order to examine the natural history and geographical distribution of the Cinchonas," states that the Indians who inhabit those regions, and among whom fever makes sad inroads, will not use it, believing that it heats the blood and the humors; and that the heaviest penalties are often inflicted to compel them to employ it as a remedy; and he remarks, "that this prejudice is much against the fact of their ever having been acquainted with its use, as they cling with the greatest obstinacy to their inherited customs, vices, and prejudices." "Ulloa and Humboldt also express the opinion that the Indians were unacquainted with the use of cinchona."

As there is a wider difference in the histological elements, the higher in the scale is animal life, so is there a wider field for disease, and consequently for the action of remedies; we might therefore reasonably expect to find from these sources valuable hints, as well as useful adjuvants from aboriginal pharmacopœia, instead of which we have to confess embarrassment and meagre unreliable intelligence. The substance of my investigation only proves how little is known, and ever can be known now, to answer the above question.

Should one desire information concerning legends, religious customs, missions, dress, antiquities, moral or social condition, traditions or official relations with the North or South American Indians, curiosity could more readily be gratified. Observations concerning disease and more especially medicinal remedies, are not so generously recorded, if indeed they were ever at any time made. For one, I was never at any time able to see in the Indian character and life, noble traits outweighing repulsive barbarity. The miserable hordes of degenerate beings, enfeebled but not benefited by society, are quite likely the too common association with our opinion of the Indians; undoubtedly we do not realize the *pride, energy, self-reliance, independence of thought and action* which must have characterized their primitive simplicity. They have been compared in this condition to the cedar trees, withstanding the storms of ages; the dying of the top branches alone

showing signs of decay. In one volume I saw at the Boston Public Library, published in the latter part of the last century, it was proved, at least to the writer's belief, that the Indians of the West are descendants of Jacob, and are in fact the long-lost tribes of Israel.

Before the landing of Europeans, the diseases common among the Indians were few in comparison with those which now debilitate their constitutions, and thin their numbers. Tribes are mentioned in which never were known to exist any deaf, dumb, idiotic, or cases of insanity; others where only one or two instances of a deaf and dumb child or lunatic. Scrofulous and pulmonary diseases have always existed among them; probably, too, common continued, intermittent, and bilious fevers, dysentery, and rheumatism. Small-pox, however, ophthalmia, and venereal complaints in their most severe and loathsome forms, are the result of their acquaintance with civilized nations. We can imagine these maladies, their nature unknown, attacking a people exposed to storms and winds, liable to colds, with insufficient and unwholesome diet, subjected, too, to extremes of heat and fatigue, carrying heavy burdens, a deer, for example, weighing two hundred pounds, for miles, victims of intoxication, and of their wounds and internal injuries from fighting, furnishing material for a virulence heightened and fatal. When, too, we learn that one-half their children die before youth, we can realize why Indian tribes are now becoming among the extinct nations of the earth.

It has seemed strange to me, that in the amalgam of races, which serves to constitute the present American character, the Indian has formed so inconsiderable a constituent. Their characteristics would prove quite as desirable as the African, which some philosophers would make us believe is the only remaining element necessary to its perfection.

Where Indian tribes have received treatment from physicians at military and naval posts, the result of their experience with them is, that grave operations in surgery are not well borne, and that doses in minimum rather than maximum quantity produce better results.

The management of disease, when left to native skill exclusively, consists in the use of charms, rude forms of baths, and simple herbs. Their incantations might be compared to homœopathy, often a harmless interference, while nature effects the curative process.

One form of their baths is constructed of a wigwam, covered with hides, some three or four feet in height, in which is a large vessel of water. Into this water are plunged heated stones, and the vapor gives to the patient, seated in the inclosure, a most effectual steam bath. Each tribe has its medicine men and women. Powwow, which signifies with us a noise, confusion, is in fact an Indian medical phrase, from their conjurations, attended with great noise and confusion, for the cure of diseases. Powwow is their term for a medical man, who is supposed to exercise dominion over nature and the unseen world, uniting the character of priest and prophet, and often that of juggler.

Beth root (*Trillium pendulum*) is much used by the Indian women to promote parturition, uterine hemorrhage, &c.; it is also used in connection with unicorn root (*Aletris farinosa*) as a poultice for scrofula, glandular swelling, &c.

Mulberry leaves (*Morus rubra*), steeped in human urine, for fomentations in orchitis.

Wild cherry bark (*Prunus Virginiana*) has always been used by them for its tonic effects, and also in dyspepsia, intermittents, and consumption.

Black cohosh (*Cimicifuga racemosa*) was given in rheumatism and for coughs. For rheumatism they used it in combination with poke-root (*Phytolacca decandra*).

Blue cohosh (*Caulophyllum thalictroides*), used by the squaws to ease parturition.

The water avens (*Geum rivale*), prominently mentioned by Dr. Wood, is valued for debility; it would appear the Chipewa Indians employ for the same purpose ragged cup (*Silphium perfoliatum*). The same tribe use yellow lily (*Nuphar advena*) in dropsy.

The well-known golden rod (*Solidago odora*), they use as a

beverage in sickness, probably like our tea, for which it has been claimed it is really a pleasant substitute.

Masterwort (*Angelica atropurpurea*) aromatic is used in flatulence and colic. The *Senecio aureus*, a species of groundsel, from its saline taste, was employed externally and internally as an antidote to poisoned weapons.

Sweet clover (*Trifolium pratense*), used by the Penobscot Indians for sore eyes; also made into a salve for burns.

Night-blooming cereus (*Cactus grandiflora*), used by the Mexican Indians in irritation of the bladder, intermittent fever, difficulty in breathing, cough, &c.

The root of the *Actæa nigra*, a variety not noticed in our Dispensatory, a species of baneberry, thus classified because the berries are deemed deleterious, was much esteemed as expectorant and cathartic.

In venereal diseases, for chancre, they employ the actual cautery and an herb called *Rosia*, resembling it is said *sarsaparilla*.

For gonorrhœa, pills of wild pigeon manure, the therapeutics of which is not stated; also an herb named *Chancelayna*, which grows plentifully in California, and is a bitter astringent.

Dr. Herbert Miles, Surgeon British Army, relates his experience of the employment of the pitcher plant (*Sarracenia purpurea*) among the Nova Scotia Indians. "It is given in infusion; a large wineglass is taken; the effect of this is to bring out the eruption. After a second or third dose, given at intervals of from four to six hours, the pustules subside, apparently losing their vitality. The patient feels better at the end of each dose, and in the graphic expression of the 'Micmac,' knows there is a great change in him at once." Its action assimilates vaccination, modifies completely the disease, prevents pitting, and renders certain a favorable prognosis for the genuine variola.

Says the Scientific American, "Youpon or *Ilex cassine*, a plant indigenous to the Southern States, but found only along the coast, is also used by them as an ingredient of the celebrated 'Black Drink,' which was used by the red men as a

medicine, and as a state drink at some of their religious festivals. Youpon is used in some portions of the South as a substitute for tea and coffee and other stimulants; and it is reported to be very beneficial to inebriates who wish to cure themselves of their love for liquor."

Deer's tongue (*Erythroneum*), used by the Missouri tribes for breast complaints.

This brings me to the end of my list as far as I have had opportunity to catalogue.

At the present day, amongst the masses of the people and the uninformed, there is supposed to be a wealth of knowledge among the Indians concerning the treatment of disease, and "Indian Vegetable Pills," "Indian Restorative Bitters," and the host of patent medicines with the Indian prefix, are amongst the most saleable preparations in the market; and in our large cities there are swarms of advertising quacks, self-styled Indian physicians, not one-tenth part of whom have a drop of Indian blood, and some I very much doubt ever saw a genuine "son of the forest." But the name takes; there is much in it, and always will be. Many regard the meadows, hills, and forests as laboratories, from which a medicinal agent for every known disease can be obtained, and that many of these panaceas are known only to our dusky brethren.

ON THE PROPER TIME TO COLLECT THE LEAVES OF BIENNIAL PLANTS.

BY JOHN M. MAISCH.

THIS is a subject which can be satisfactorily solved only in two ways, namely, by way of chemical, or of physiological analysis. The writer being incompetent to make any researches by the last-named method, there remained only the chemical way for him to attempt the solution of the important query, provided the proper material could have been obtained.

Of the three plants named in the query, lobelia, hyoscy-