

BULLETIN
OF THE
PUBLIC MUSEUM OF THE CITY OF MILWAUKEE

Vol. 4, No. 1, pp. 1-174, plates 1-36

December 10, 1923

**Ethnobotany of the Menomini
Indians**

BY

Huron H. Smith

MILWAUKEE, WIS., U. S. A.

Published by Order of the Board of Trustees

FOREWORD

The writer has often been called upon, while in the Field Museum, Chicago, as well as in the Public Museum, Milwaukee, to identify plants or parts of plants used by various Indian tribes. Indian uses of plants thus became interesting. The use of many plants is rapidly being abandoned by most tribes, and knowledge of their ethnobotany will soon be no longer even a memory.

Thus, at the suggestion of Dr. S. A. Barrett and Mr. Alanson Skinner, of the Public Museum, investigations into the uses of plants by the Menomini Indians were undertaken. This tribe was chosen, because a good guide and interpreter was still available, Captain John V. Satterlee, of the Indian police, and also because so much work has already been done among these people by Dr. Barrett and Mr. Skinner, thus making the preliminary work easier.

Four field trips, each of three weeks' duration, were made to the Menomini reservation in Shawano county, Wisconsin. These periods were in June, October, May and September in 1921 and 1922. Different periods were necessary because the Indian usually does not recognize the species he uses, at all seasons of the year, any more than most white men recognize plants when they are not in bloom.

Several groups of Menomini talked over the plants obtained, thus affording a check on the Indian name as well as its different uses.

Although it is customary for a botanist to list plants according to the Gray or the Engler und Prantl system, it is the writer's intention to list them (1) under their various uses and (2) under each of these captions, alphabetically by families. Where possible, the literal translation of the Indian name is given. Thanks are due to Mr. Alanson Skinner for correcting the phonetic spelling of Menomini names. Much credit is also due to Captain Satterlee, the guide and interpreter, for his untiring efforts to bring to light all of the aboriginal uses and customs pertaining to each plant. His photograph appears as the frontispiece, plate 1.

With this bulletin as a basis, the writer expects to investigate in like manner, the ethnobotany of the Chippewa, Winnebago, Oneida, Sauk and Potawatomi Indians, all of whom are now or were formerly in Wisconsin.

Since the largest number of plants are used as medicines, we will first treat of these, then of foods, fibers, dyes and miscellaneous plant uses.

PHONETIC KEY

The writer lays no claim to being a linguist, but was able to pronounce the words so that Mr. Skinner could give him the correct phonetic spelling. We have used his phonetic key, taking the continental value for letters not included. Our f and r sounds do not occur in Menomini.

ä, as in flat

â, as in raw

au, as ow in how

ai, as in aisle

î, as in bit

ê, as in bet

û, as in luck

u, a whispered terminal u

x, a whispered aspirant

', glottal stop

For convenience in reference a "finding list" has been appended, in which the scientific and English names are listed alphabetically.

INTRODUCTION

The subjects of this bulletin, the Menomini Indians, since our first knowledge of them, have been largely dependent on plant life for food and many other uses. Their tribal name, Menomini, was early translated by the French who found them in the heart of the wild rice district, into "folles avoines." The Menomini word for wild rice is "Mä'nomän" and they took to themselves the name of the "wild rice men," "Mä'nomäneo inä'niwug."

The Menomini are of Algonkian stock and number at present about 1745. They live on their reservation, which comprises twelve townships in Shawano county, northeastern Wisconsin. They are typical forest Indians, versed in woodcraft, hunting and agriculture. They have been a peaceable and industrious people for many decades.

Doubtless many Milwaukeeans have passed through the Menomini reservation without realizing its exact location or extent. Travel by auto takes Wisconsin highway 15 to Appleton, where highway 47 starts. Highway 47 proceeds due north 31 miles to Bonduel and joins highway 16 to Shawano for nine miles. Thence it runs north and west through the reservation, leaving the reservation at Phlox, some 12 miles from Antigo, the terminus of highway 47. From Shawano, the reservation line is 5.4 miles distant, the chief town, Keshena, shown in plate 2, fig. 1, being two miles farther. From Keshena to Neopit, the only other large town on the reservation, it is 12.7 miles in a northwesterly direction. From Neopit to Phlox, just off the reservation, is 12.5 miles. Thus highway 47 may be followed for nearly 28 miles through the reservation. Plate 8, fig. 4, shows Moccasin hill near Neopit, one of the typical scenes along this highway.

The reservation proper contained originally 12 townships, two of which were ceded to the Stockbridge and Munsee Indians, leaving ten townships, comprising 360 square miles or about 230,400 acres. It is well wooded with a large variety of conifers and hardwoods, and is well supplied with streams, rivers and lakes, which abound in fish.

The Wolf river, shown in plate 5, fig. 1, flows from north to south through the eastern half of the reservation. It is a turbulent stream with many rapids and waterfalls. In earlier Wisconsin history it was much used, together with its tributaries, for log drives to New London and

Oshkosh. In those days, the Indians caught many large sturgeons, as well as quantities of other fish. Nowadays, a special reservation permit must be purchased before anyone but a Menomini may fish there. Most of the lakes are small and are connected in a chain in the southeastern part of the reservation. A typical one of these is Lake Lamotte, shown in plate 5, fig. 2. Good fishing is still enjoyed in all parts of the reservation.

The soil varies greatly. Perhaps the largest part is a sandy loam, which is quite fertile. The sandy land is of two kinds. The low-lying sandy soil is swampy, with lakes and their accompanying humus. Here white spruce, larch, Norway and white pine, arbor-vitae, hemlock, balsam, juniper, birches, alders, willows, poplars, red maple, red ash, chokecherry and slippery elm are found, The high sandy soil is nearly pure sand with a clay subsoil and is very low in fertility, the haunt of the blueberry. Here jack pine, Norway and white pine, juniper, paper birches, willows, white ash, white elm, and white and red oak are found, most of them of scrubby growth. Such a situation is shown in plate 3, fig. 1.

The swamps of loam and decaying vegetable humus are veritable jungles of arbor-vitae, hemlock, white spruce, balsam, white and norway pine, with occasional hardwoods scattered therein. This type of land is seen in plate 3, fig. 2. The upland loam may support two kinds of forests. Where rock is close to the surface, large, nearly pure stands of pine are encountered. In other situations, the forests may be almost pure hardwoods, with predominating species of hard maple, basswood, red and white oak and beech.

By act of Congress in 1908, the Menomini were enabled to build a large sawmill. This mill, shown in plate 6, fig. 1, is of fifty million feet annual capacity and is located at Neopit. Here one may see a modern mill, with its large mill pond on the west branch of the Wolf river, modern houses and stores, the Green Bay and Western Ry., a logging railroad running out 15 miles into the timber, electric lights and a thriving up-to-date industry. This lumbering is conducted as a school of industry for the Menomini. About 38 per cent of the men of the tribe find continuous employment here, while in the winter, when farm work is impossible, a much higher proportion is employed. There is a government school at Neopit as well as a Catholic mission.

The four western and the two northern townships of the

reservation are heavily timbered with hardwood, pine and hemlock, estimated at two billion feet of standing timber, valued at ten million dollars. The Neopit plant is valued at one million dollars, and it has accumulated a tribal fund known as the four per cent fund. In its first two years of operation, it earned half a million dollars.

The five eastern townships contain good farming land with scattered timber stands. Here some progress has been made in agriculture and farms of from 3 to 20 acres are encountered. The government, through its experts and the Neopit operation or demonstration farm, is encouraging the Menomini to become self-supporting. Only a hundred members of the tribe receive aid as rationers from the government, on account of old age, disease, disability or no means of support. The government, too, has taken up the problem of re-foresting the reservation. This past year three million white and Austrian pine seedlings were started on the Neopit operation farm. This forest nursery is shown in plate 6, fig. 2.

In agricultural pursuits, the Menomini are far ahead of the average tribe. Their annual Indian fair is the best of Indian fairs in the state. The writer attended the, 1922 fair from September 12th to 15th, and was surprised at the agricultural and horticultural exhibits. He saw a larger head of cabbage than any exhibited at the Wisconsin State Fair. Pumpkins, squashes, watermelons, muskmelons and other cucurbitaceous crops were quite in line with similar exhibits at the State Fair. Root crops were on a similar plane. Forage crops were good, though not so carefully trimmed and dressed as the State Fair exhibits. Several moks of maple sugar were exhibited and numberless evidences of skill in baking, preserving and canning were displayed. Indian art, both aboriginal and that of the school children, occupied a prominent place at the fair. Farm animals were shown, demonstrating that the Menomini is not far behind his white brother in this plane of activity.

While the Menomini are known as a progressive tribe in agriculture, there are yet a goodly number of pagans among them, who cling to the old rites and customs of the tribe, and who are therefore well versed in the aboriginal uses of plants for foods, textiles, medicines and various other uses. It was largely through them that the writer was able to conduct his investigations. The Satterlee family who gave much of the information is seen in plate 2, fig. 2. The pagan, to the Menomini, means

any non-Catholic Indian. The pagan cemetery where Chief Oshkosh is buried is shown in plate 6, fig. 3. He might be a Methodist, Baptist, Presbyterian or an Atheist, but would still be considered and known by the Menomini as a pagan. The white man uses the term as meaning that the pagan Indian clings to the aboriginal practices of medicine, which is really the great feature of their religion.

The pagan Menomini is a much more interesting man than his Catholic brother, and in his own way, more deeply religious and careful of sacred things. The outstanding advisors or councilors of the tribe are fine old pagan Menomini, such as Wishonakwît and Louise Amor, seen in plate 4, figs. 1 and 2. There is a dignity and sense of worth radiated by these fine old Menomini that surpasses anything shown by their Christian brothers. A pagan Menomini observes his ritual and gives his attention to sacred things in a far larger measure than many of our denominational ministers, yes, and prays more, too. The Christian members of the tribe might be characterized as the "drifters," those not firmly grounded in their own religion, hence apt to attach themselves to other faiths.

Because of the sanctity of most of their medicinal knowledge, it is difficult to obtain full information on the uses of plants as medicines. The first trip one makes to the reservation will result in the gathering of a host of medicinal plants, and a feeling that now he has something of value to give to the scientific world. The second trip will discover that there is much more than he supposed on the first trip, while remaining trips will finally convince him that no white man will ever get all of the data, names and uses of plants from the Menomini. In fact, such data could not be had from any one Menomini. To complete the list, one would need the co-operation of every old pagan man and woman on the reservation, for they all have different things handed down to them by word of mouth from their parents. Since many of their uses of the various plants are revealed to the medicine men in their dreams, which form the diagnostic part of the treatment, it is quite evident that there are remedies known only to particular medicine men and not to any of the rest of the tribe.

Just because certain plants collected have been given no Indian names or uses, does not necessarily mean that they are not used by the Menomini and have no Indian names. In fact, the writer discovered on

subsequent trips, that many unassigned plants were later identified by certain other Menomini as powerful medicines.

In compiling this bulletin, the writer has decided that plants not known to be used by the Menomini should be included in the various lists, so that future investigators may discover and record names and uses of such plants. In listing the different plants, the English common name will be followed by the latin binomial according to Gray's manual of botany, then the Menomini name and its literal translation, if this be known. Following these will be the uses, supposed properties, its value as an official or eclectic drug by the white man, and any known myths connected with it.

The same procedure will be followed in the other subheads under investigation, viz.: foods, fibers, dyes, and miscellaneous uses.

MENOMINI VEGETAL MEDICINES

The history of medicines in Menomini lore is inextricably bound up with their religion. Very long and detailed stories were related to the writer by his guide and interpreter, Uncle John Satterlee, who is pleased to call the writer his nephew. Most of these stories have been printed in other publications by Dr. S. A. Barrett¹ and Mr. Alanson Skinner². However, a brief review of the salient points of the origin of their medicines as related to the writer, is necessary to an understanding of the connection between their medicines and their religion.

Mä'tc häwä'tûk, the creator of all and ruler over all, counseled with the other gods and supernatural spirits over the different spheres of the world concerning Mä'näpus, the culture hero of the Menomini and other tribes. When Mä'näpus became of age he was given the protection and guardianship of the earth. But Mä'näpus was uninstructed in his duties and powers, so Mä'tc häwä'tûk and the other gods undertook to instruct him. Accordingly, Wolf was sent to his lodge as his younger brother. Mä'näpus welcomed him and on the morrow Wolf hunted and brought

¹ The Dream Dance of the Chippewa and Menominee Indians of Northern Wisconsin; Bull., Public Mus., Milwaukee, Vol. I, Art. IV, 1911.

² Medicine Ceremony of the Menomini, Iowa, and Wahpeton Dakota, with notes on the Ceremony among the Ponca, Bungi, Ojibwa, and Potawatomi. Ind. Notes and Mono., Mus. Amer. Ind., Heye Foundation, Vol. IV, 1920, and Material Culture of the Menomini, Ind. Notes and Mono., Mus. Amer. Ind., Heye Foundation, 1921.

home a deer to eat. The following day he did likewise, greatly pleasing Mä'näpus. That night Mä'näpus boasted to Wolf, saying that there were no other gods on that island³ (the earth), only the two of them. At this time, all the other spirits were not even hidden under the earth and they overheard Mä'näpus. They reported to their chief who lay beneath them, and the lowermost tier of gods, the White Bear gods, said to the spirits above them to do whatever they desired, being assured of their assistance.

At a council of the various spirits it was decided to kill Wolf. Mä'näpus in his sleep overheard their decision and warned Wolf to be very careful. He was never to undertake to cross the "sea," or walk over it on the ice, and he must come home before the setting of the sun. The fastest runner of the underworld spirits was selected and instructed to make tracks to toll Wolf to follow him, and to show himself occasionally

³ The Menomini conceives our universe as comprising an island floating in an illimitable ocean, separating the two halves of the universe into an upper and lower portion, presided over by the good and evil spirits, respectively. Each portion is divided into four superimposed tiers, inhabited by supernatural spirits, whose power increases as their distance from the earth increases. In the highest tier above lives the supreme spirit. Early writers agreed that this was the Sun, but through missionary influence he is now personified as the Great Spirit (Mätc häwä'tuk). Beneath the Great Spirit are three tiers of bird-like deities. First, in the sky, come the Thunderbirds, gods of war. Associated with these is the Morning Star. Next comes the realm of the Golden or War Eagles, and the White Swan, and last, in the tier that touches the earth, birds of all species, headed by the Bald Eagles and various hawks, kites and swallows. All of these birds, regardless of the stratum, are servants and messengers of the Great Spirit.

Except for the Sun and the Morning Star, little attention is paid to the heavenly bodies. The Moon is regarded as possessed of power, but is not Important. There are also certain minor sacred personages who dwell in the sky country, among whom are several sisters who preside over the destinies of women, and to whom various colors are appropriate. Their place in the heavenly strata is not fixed. Beneath the earth, in the lowest tier, dwells the Great White Bear with a long copper tail, who in addition to being the chief patron of all earthly bears and the traditional ancestor of the Menomini, is the principal power for evil. He has for a servant a mythical hairless bear. Next, in ascending order, is the great Underground Panther, who figures extensively in the demonology of the Central Algonkian and Southern Siouan tribes. He is represented on earth by the panther and the lynx. Next is the White Deer, prominent in the origin myth of the Medicine Dance. Last of all, close to the earth, and often visible to the inhabitants, is the Horned Hairy Serpent, so generally found in North American mythology.

The earth itself is peopled by a myriad of fantastic hobgoblins. Cannibal giants dwell in the icy region of the north; a malevolent living skeleton, with death-dealing eyes, haunts the forest after nightfall. Similar to him, but less terrible, is a mysterious person bearing a sacred bundle upon his back, doomed to travel endlessly for some forgotten sin. He wrestles with the Indians from time to time, and if overcome grants long life to the victor, if he wins then the vanquished will die soon. Rocks, ponds and hills have their fancied denizens. All species of animals are ruled by the supernatural chiefs, most dwelling underground. In swamp-holes, lakes and rivers, under waterfalls and in lonely hills may be found stray horned snakes, bears, panthers, and in modern times, dogs, hogs and horses. See footnote two, second reference, pp. 29-32.

to lead and lure Wolf on. Wolf fell into the scheme by chasing him until sunset. Then he thought to run home as fast as he could, but could only see sky and ice in every direction. Knowing his brother's lodge was directly opposite, he decided to run across the ice, contrary to instructions. When he reached the center the ice broke and he was compelled to jump from cake to cake, which grew continually smaller. Then he called out to Mä'näpus to save him, but before Mä'näpus could reach him, he had sunk. The following day Mä'näpus searched all the mountains and caves, but to no avail. His grief at the loss of his little brother was so cataclysmal that it shook the earth and frightened the guilty spirits below.

The spirits of the first tier above besought the advice of Mä'tc häwä'tük and on consultation with the guilty spirits, he advised them to make Mä'näpus forget his loss by giving him the Mitä'wîn (Medicine Lodge Ceremony) and presenting him with some of their medicines and powers. Accordingly a long medicine lodge was erected and fashioned in the approved manner, between the earth and the highest tier of Heaven. Duck Hawk was sent to bid Mä'näpus to attend but was refused because he belonged to the spirits above. So Otter, Migîk, the white one, chief of the Otters, was sent and Mä'näpus came to the lodge.

There he was initiated into the secrets of the medicine lodge, which is in many ways similar to Masonry, swallowed the sacred bead (mê'gisê) and was given his own medicine bag, thus becoming a "mitä'o" or member of the medicine lodge. In the medicine bag were all of the medicines, the uses of which were taught him, so that he in turn might teach his uncles and aunts (the Indians) how to use them and the purpose of each. He was given power over all the earth, excepting the evil spirits, which the gods informed him could not be destroyed, as they moved too swiftly. This Mä'näpus found to be the truth.

The great spirits further aided and told Mä'näpus that tobacco must be offered to them through Mä'näpus before the prayers of the Indians would be answered. They told him of the different types of medicine bags and their powers. Some of the medicines which Mä'näpus was to give were to be found in certain parts of animals, like the beaver, etc., and some were to be given from his own body.

Then Mä'näpus descended to the world from the medicine lodge and called Grandmother Nokomä (the earth) to his side. He had her

examine the medicine bag and all the roots and medicines. Then he gave them to her to keep in charge. That is, she should allow them to grow in her body or bosom, and add her power to them. To this she agreed. After testing the gifts from the great spirits Mä'näpus told Grandmother Earth that he would teach his uncles and aunts how to use them, in the coming spring. So when spring arrived, Mä'näpus looked and saw all the medicines beginning to grow out of the Grandmother Earth, who had been asleep all winter. This meant that she also was ready.

Mä'näpus decided to appear personally to the Menomini and show them the ceremony first of all of all the tribes of Indians. So he went to a ridge running into the Menominee river (on the border of Wisconsin and Michigan)⁴, appearing to an old man. After he had convinced the old uncle that he was Mä'näpus he instructed him to build the proper type of medicine lodge and have it ready in four days. Four is the sacred number of the Menomini. This the uncle communicated to his people, who erected the lodge in one day.

True enough, Mä'näpus appeared on the fourth day and, after sending the younger members of the tribe back, initiated the elders into the "Mitä'win" or medicine lodge, demonstrating the uses of all plants and medicines and telling them the proper ceremonial form for addressing each medicine and for collecting it. It took four days to thus instruct them. The Menomini nowadays shorten the ceremony to two days, but say that the Potawatomi still adhere to the four-day ceremony.

Since they have been taught that these medicines are very valuable, and that it would offend the various spirits to value them lightly, they guard the lore very jealously. Each remedy is highly prized and, though it may be for some trifling ailment, the patient must pay well for the information. Even when death is imminent, a person must pay an exorbitant price to the owner, although the patient may be a close friend or even a relative. This explains the often outlandish value that is placed upon some simple formula. For only the song, which accompanies the digging of one of the simplest remedies, an old medicine man, Wishonakwî, whose picture is shown in plate 4, fig. 1, demanded two ponies and a rig. Yet not all of those who believe in the medicines are so grasping, for one of the Menomini, as a special favor, offered to sell the

⁴ The traditional home of the Menomini was located on the upper Michigan peninsula. In their early contact with the whites and up to the time they moved on to their present reservation, their territory extended down to the vicinity of the city of Green Bay on the mainland.

writer, for two dollars, the knowledge of the roots that go together to effect the cure of gonorrhoea. He was quite put out when assured that the writer never had use for such a remedy, and suggested in that case that it would be a fine thing for his friends.

There is a proper season for obtaining all medicines. It may, in some instances, be of only two or three days' duration. This the Indian knows and if he wants to save the remedy at the right time, nothing will distract his attention from that work. A few years ago, a group of the Menomini were brought to the Wisconsin State Fair at West Allis, to exhibit Indian handicraft and native dress. One of their number discovered some prickly ash (*Zanthoxylum americanum*) near the fair grounds, and the whole band immediately settled to the task of gathering the bark for medicine, much to the consternation of the fair authorities. When they remonstrated, the Indians told them that it was the right time to gather this, and here it was, so what else could they do? An Indian can be as dense as a Chinaman, when he wants to be. From such observations as the writer could make, it appears that the proper time for gathering Menomini medicines coincides closely with the proper time of the white man for gathering native drugs. There are times when the drug properties are inert, and times when the medicinal ingredients are at their best, as, for instance, just before the plant blooms, or when the sap is first moving and the inner cambium layer of the tree is active in new growth. The Indian has learned to recognize these periods in his own way and proceeds accordingly. It may be surprising to the reader to also know that the Menomini have Indian names for certain species that have only been recently discovered as valid species by the white man. Scientists who have worked on monographs of certain groups are now and then discovering specific differences that would subdivide a parent species, such as *Amelanchier canadensis*. The Menomini has from time immemorial given this new species of the white man a different Indian name from the parent *A. canadensis*, indicating that he recognized the differences in the tree long before we did.

Undoubtedly many of their remedies are mythical insofar as any medicinal value is concerned, but they are not the only folk who "kid" themselves back to health. And, again, there are remedies of medicinal value which the white man has acquired from his Indian brother.

To acquire a complete list of all their medicines would require several years of intimate life with the Indians throughout the entire growing season, but we believe that this study in the past year has discovered a goodly percentage of at least the commoner medicines now in use among the pagans of the Menomini.

The procedure is much the same for all medicines. The diagnosis of the ailment is the first step. The medicine man or woman comes to see the patient and finds out where the pain is located, and how it was brought about. Then he goes home and at night he dreams about the case. A spirit tells him what is the matter, how it may be cured, and what herbs are needed. Oftentimes the medicine man, or even one uninitiated in medicine practices, will visit a spirit rock and leave his votive offering of tobacco on the rock with the prayer for light on some disease. Such a spirit stone is seen in plate 6, fig. 4.

After the diagnostic dream, the medicine man or woman goes to gather the herbs. When he finds the proper plant he starts to chant a song, telling Grandmother Earth why he has chosen this root or herb and how he intends to use it, at the same time asking that she lend her power to the medicine that it may heal. It is necessary to tell this to Grandmother Earth so that she may understand and not be displeased. My informant gave me a specimen song, which translated means, "I am inserting my hand into your bosom, Grandmother Earth, to get this root." This is repeated four times, then the name of the medicine is spoken and Grandmother Earth is told what it is wanted for, that she may approve and lend her power to the herb. The Menomini words are "Nokomä nesase' konau" chanted four times, then followed by the interjections: "he, he, he, he," then the name of the medicine like "Wapinakakwosêt," the hop wafer ash, and then the disease it is to heal. Then he plucks or digs the plant from Grandmother Earth's bosom or pulls the hairs from her head as some have it. In the cavity, he places as a gift to Grandmother Earth a little portion of tobacco.

When he has brought the ingredients together, he takes or sends them to the patient with proper directions for their use. In four days the patient should be well. If he is not, then the medicine man will have to try some more powerful medicine, or perhaps he will give instructions to continue this same medicine for a week or a month. When applying the remedy the same song for the herbs must be sung and the patient makes

a gift when he is cured. This gift is whatever the treatment is worth in the mind of the medicine man, who is blessed with a vivid imagination and is not at all bashful. It is usually a quantity of cloth, tobacco, blankets, grain, hay, cooking utensils, or a cow or a horse. The medicine man or woman then tells the patient what it was that cured him, how it was combined, and what song to sing while gathering it.

There are also songs for the medicines when they are put into the war-bundles. Such a one was given as a sample in Satterlee's orthography. Verse: "Ah nomahwah yat katinay ah wahtakutton," meaning, "those things we use are surely of God's power." Verse: "Ta ta kasamakutton anay koio ia," meaning, "powerful are the things we use." Verse: "Ali wah tok os kayes atah tata kasamakutton," meaning, "God said to us they shall be powerful."

Most Menomini remedies are combinations, because they feel that one herb represents one man and one man has only one unit of strength. Then more herbs represent more strength and the medicine becomes more powerful with the increase in numbers. All are not of the same rank, some being more powerful than others of like kind. For instance, there are said to be twenty kinds of Colorado root, the most powerful being mäni'k (*Ligusticum filicinum* Wats.) which grows in the mountains of Colorado. The Menomini have a native younger brother and call it mänik'o'sa or little Colorado root (*Taenidia integerrima*).

The government takes cognizance of the Indian medicine man and is trying to wean the Indians away from his dominance. This succeeds only in the degree of confidence which the Indian places in the white doctor. The Menomini have, as their Reservation physician, Dr. Lawrence White, a man whom all love and appreciate, and he has been unusually successful in winning their confidence. Yet even some of the Christians, failing to get relief from the white doctor, will steal away to the medicine man or woman, sing the old pagan songs, dig the Indian remedies, and offer tobacco in the old pagan way.

For example, a man at Neopit had a cancer on the cheek, and came to see the agency doctor, who told him it could not be cured except surgically. His Indian wife gathered some pisewa'xtîk (*Cornus alternifolia*) and by poultices of the inner bark, in some manner cured the cancer. Dr. White said this was a wonderful cure, and told the man that he would become famous if he would tell the remedy, so that others

might be cured. But this is not the Menomini way and his secret cure will die with him.

Last summer, the writer was importuned by a Menomini to photograph his wife and himself. The reason the photograph was wanted, was because his wife had received a miraculous cure from the Indian doctor. He said that she had been dead six hours and fifteen minutes. Her heart did not beat nor did she breathe. The Indian doctor had brought her back to life, and he thought he would like to have her photograph for this reason.

So we see that superstition is not all dead among the Menomini and that many of their number still believe in their aboriginal remedies. These remedies follow alphabetically under their proper family names, except that cryptogams are placed before phanerogams.

MENOMINI MEDICINAL PLANTS

CRYPTOGAMS

LICHENS

Tree Lichen (*Sticta glomulerifera*) “wakûn” [plural wakûnûk]. Shown in plate 10, fig. 1. This is a plate-like lichen growing on many different kinds of trees on the reservation, but is gathered only from hard maple or hemlock trees. It is in a sense a food, and yet a food eaten as a medicine to act as an alterative in run-down systems. It is gathered at any season of the year and put away dried. When wanted for use it is put into soups, where it swells somewhat like Irish moss, and is eaten with a relish. There is probably no more nourishment in it than in the general run of fleshy fungi, or about five per cent of food value, but it is highly esteemed by the Menomini for its tonic effect on the system and the blood.

CHARACEAE

Chara (*Chara fragilis* or *vulgaris*). Indian name unknown. This flourishes on the floor of several lakes, and was thought to be of some use in kidney troubles, but its exact name or use was unknown to my guide.

FUNGI

Gem Puffballs (*Lycoperdon pyriforme* Schaeff.), “iniki'wi opa'skûk.” Shown in plate 10, fig. 4. These small puffballs were an aboriginal remedy of the Indian mother to cure chafing under the armpits and between the legs of the Indian baby. It might well be called the “Indian baby talcum,” as it was eminently the proper shade to use. One Indian said that it had been used in the past by another to blind his enemy, inducing permanent blindness. It has been used in our pharmacopoeias under the name of *Lycoperdon* spores as a hemostatic and surgical dusting powder.

MARCHANTIALES

Marchantia or Liverwort (*Marchantia polymorpha* L.). This plant had no Indian name and no use was known to my informant, who thought likely

some Indian might use it for liver complaints.

PHANEROGAMS

ANACARDIACEAE (SUMAC FAMILY)

Staghorn Sumac (*Rhus typhina* L.), “Kaka'ki mînûka,”—the tree. Shown in plate 9, fig. 4. “Kaka'ki mînûka utcipa,” the root bark. “Kaka'ki mînûka wona'u,”—the top of the tree. “Kaka'ki menûn,” the fruit. Shown in plate 3 1, fig. 4. “Kaka'ki mênûka ûsmene'wît,”—the seeds. This tree is a very valuable one to the Indians, yielding three distinct kinds of medicines. The root bark, divested of the outer skin and inner wood, yields a tea which is a remedy for “inward” troubles. It is of course very meagre in quantity compared to the amount of root peeled. The inner bark of the trunk is considered a valuable pile remedy and is spoken of as being “puckering” or astringent. The “top,” or twigs, of the smaller shrubs is hairy, and because of this is used in the treatment of various female diseases. The acid flavored berries are used in combination with other herbs like the Greater St. John's Wort for consumption and pulmonary troubles.

AQUIFOLIACEAE (HOLLY FAMILY)

Winterberry (*Nemopanthus mucronata* (L.) Trel.). Indian name unknown. So far as my informant knew these berries were considered poisonous to human beings, though he said that bears eat them. He thought if they were used by the Menomini, it was for some evil purpose,

ARACEAE (ARUM FAMILY)

Sweet Flag (*Acorus calamus* L.), “Apaxkiu utcipa” “We'ke,” and “Wia'biskitcipa kakasapo'tcikun.” The root of this plant is used to cure cramps in the stomach. It is considered a very powerful remedy and is used only in very minute quantities. The measure of a dose is the length of a finger joint. It is also called “Enausa'pokotcikun” meaning “a simple penetrator.” It is a good physic for the whole system, clearing the bile and all, but if too much is taken, the Menomini say that it will kill the

patient. The blade of the plant was also used in constructing the wigwam. Calamus is official in most pharmacopoeias. It is not largely used in medicine now, but may be given as a mild aromatic stimulant and tonic. It was formerly used by the white man, in the treatment of flatulent colic and atonic dyspepsia, and was supposed to be beneficial in typhoid as a stimulant. Any amount of the dried root may be chewed to relieve dyspepsia.

Dragon Root (*Arisaema dracontium* (L.) Schott.), “miniuv oset” [owl's foot]. Shown in plate 10, fig. 2. Not much was known to my guide about this medicine, except that it was used in the treatment of female disorders.

Jack-in-the-pulpit (*Arisaema triphyllum* (L.) Schott.), “äwä'sê oske'sîk” [the bear's eye]. Shown in plate 15, fig. 4. The fiery root of this plant is pounded up and used as a poultice for sore eyes. The writer did not possess the nerve to try this remedy over the eye, knowing that the fiery prickles when the root is taken into the mouth are due to the mechanical punctures of the very pungent calcium oxylate crystals. He was unable to discover how such a poultice felt, as the informant had never tried it on himself. Small doses of the partially dried drug are used by the white man to treat chronic bronchitis, asthma, flatulent colic and rheumatism. Juice of the fresh corm in lard has been applied as a local treatment for ringworm.

Skunk Cabbage (*Symplocarpus foetida* (L.) Nutt.), “sika'k utci'pa” [skunk root]. Shown in plate 10, fig. 3. This is a root that the bear likes to dig and eat. It is employed as a poultice. The root is first dried, then powdered and then sprayed over the surface of the wound. It is also used as a seasoner with other medicines. Skunk root is also known to the Menomini under the name “mâtc otcipa” and according to Naxpon Perrote, the proper name is “mâtc pise'wiûs otic'pa.” They give the use as a remedy for cramps. The root hairs alone are used for stopping hemorrhages.

Skunk root is one of the ingredients of the tattooing set. Tattooing was not employed by the Menomini so much for the design as for the

treatment of diseases, being a talisman against their return. The medicines were tattooed in over the seat of the pain. Not all of the herbs used were identified, for the writer did not see them growing. Among them were powdered birchbark, charcoal pigment, skunk root, deer's ear root (*Menyanthes trifoliata* L.), red top root (*Lobelia cardinalis* L.?), black root (unknown), and yellow root, probably *Oxalis acetosella* L. The medicines were moistened and tattooed into the flesh with the teeth of the gar pike, dipped in the medicines. The various colors stay and form a guard against the disease. After the tattooing is done, the surface is poulticed with and painted with the medicines.

Under the drug name of Dracontium, the white man has employed skunk root as a medicine, as a stimulant, sialagogue, emetic, antispasmodic and narcotic. When taken in large amounts, it causes nausea and vomiting, headache and vertigo. It is probably of little value and rarely employed by the white man.

ARALIACEAE (GINSENG FAMILY)

Indian Spikenard (*Aralia racemosa* L.), “kwutä'tcia kopûn” [crane-root, and like a potato]. Shown in plate 15, fig. 3, The root of this species is used in cases of blood poisoning and as a poultice for sores. A drink is also said to be made from the root which is said to be good for the stomachache.

Wild Spikenard (*Aralia nudicaulis* L.). Not used.

Ginseng (*Panax quinquefolium* L.) , “Mätcx'e'tasa” [little Indian⁵]

A specimen was given the writer by Joe Pekore. It was the especial medicine of his wife, Sophie, who had dug it in the woods and transplanted it under a lattice shelter in their yard. Information of its exact use was unobtainable, but it was supposed to act as a tonic and a strengthener of mental powers. While the medicinal value of ginseng is almost nothing, the white man grows it in large quantities and the Menomini seek it as a native drug very assiduously, because of the large

⁵ The informant insisted that the term mätc should be here translated as little. In all other cases, however, it signifies big or great.

price it brings on the market. It is only a mild stomachic with us, but in China it is their great medicine and is used as a panacea, particularly for dyspepsia, vomiting, nervous disorders and sexual impotence. The value to the Chinese is based upon fanciful considerations, of form and wrinkles, and a single root may be worth as much to them as the entire remainder of the bale.

Dwarf Ginseng (*Panax triflorum* L.). The use of this as a medicine was not known to my informant, who thought it may have been an aboriginal food.

ARISTOLOCHIACEAE (BIRTHWORT FAMILY)

Wild Ginger (*Asarum canadense* L.), “nami'pîn” [beaver potato]. The fresh or dried root of wild ginger is used by the Menomini as a mild stomachic. When the patient is weak or has a weak stomach, and it might be fatal to eat something he craves, then he must eat a part of this root. Whatever he wants then may be eaten with impunity. Under the name of Canada snakeroot, the white man considers this to be a feeble remedy possessing tonic, aromatic and slight diuretic properties. It is sometimes given with other tonics in convalescence from acute febrile infections.

ASCLEPIADACEAE (MILKWEED FAMILY)

Butterfly Weed (*Asclepias tuberosa* L.), “kinokwe waxtsêtau” [lying Indian or deceiver, and man-in-the-ground]. Shown in plate 15, fig. 1. This is one of the most important Menomini medicines. The root is pulverized and used for cuts, wounds and bruises. It is also used in mixing with other roots for other remedies. One of the most important of these compounds consists of this root, ginseng, man-in-the-ground (*Echinocystis lobata*), and sweet flag. This is considered by the Menomini to represent four Indians in power. The “deceiver” is half boiled, then pounded to strings, to get out the substance, in this case. When a Menomini cuts his foot with an axe, this is the first remedy that comes to his mind. Under the name of pleurisy root, the white man uses a fluid extract as a diuretic and carminative, and in large doses as a cathartic and emetic. Because of its diaphoretic qualities, it has been used in the start of acute diseases like

pleurisy and pneumonia. As an expectorant, it has been recommended in many pulmonary and bronchial affections.

BERBERIDACEAE (BARBERRY FAMILY)

Blue Cohosh (*Caulophyllum thalictroides* L.), “winupauwa'tcîlûn” [check flow or to stop a flowing]. Shown in plate 28, fig. 2. The root of this plant is boiled to obtain a tea which is drunk for the suppression of profuse menstruation. It is accounted a very valuable female remedy. Physicians among the white men very rarely employ this medicine. Eclectics have used it in the treatment of hysteria and uterine diseases, corresponding to the use made of it by the Menomini. Eclectics claim that it will prevent abortion, causing uterine contractions when uterine inertia is present.

Mandrake (*Podophyllum peltatum* L.), “mäskätä'mîn utci'pa.” Shown in plate 15, fig. 2. This is not a medicine for the Menomini, but his substitute for paris green. The whole plant is boiled and the resulting liquid is sprinkled on the potato plants to kill potato bugs. The Menomini claim that it kills the eggs of the potato bugs in the ground, as well as the bugs. *Podophyllum* is official with the white man. It is the slowest acting purge in the pharmacopoeia, requiring ten to twenty-four hours to produce its effect. The root extract excites the flow of the bile. Summer diarrhoea of children often responds to this drug, where none other is of avail.

BETULACEAE (BIRCH FAMILY)

Hoary Alder (*Alnus incana* (L.) Moench.), “Watôp” [bitter]. The bitter inner bark of this alder is used for poultices to reduce swellings. For more power from the alder, the Menomini employ the root bark, which is termed “Watôp titä'pi” meaning “sharp.” When the mucus is too loose in a, cold, then it will be congested somewhat by drinking an infusion of the root bark. This infusion may also be used as a wash for sores, being astringent and healing. The Menomini use it as a wash to cure saddle gall in horses. The leaves and bark of all alders possess astringent properties, which the white man has held valuable in the treatment of diarrhoea and haematuria. The liquid has been used as a mouth wash or gargle in the treatment of stomatitis and pharyngitis. When injected into the vagina, it

is said to cure leucorrhoea.

Smooth Alder (*Alnus rugosa* (DuRoi) Spreng.), “Watôp” [bitter]. The inner bark is made into an infusion which is used as an alterative.

Dwarf Birch (*Betula pumila glandulifera* Regel.). No medicinal use known to the Menomini.

Blue Beech (*Carpinus caroliniana* Walt.). No medicinal use known to the Menomini. The bark of the blue beech is known by the white man to yield a yellow dyestuff, and it may have been so known to the Menomini in aboriginal times. The bark tea is said to be tonic, astringent and antiperiodic. It has been employed by the white man for loss of appetite, diarrhoea and intermittent fever.

Hazelnut (*Corylus americana* Walt.), “kâpowix'si pakane'sa” [binding little nut]. Shown in plate 16, fig. 3. The inner bark of the hazel bush is used with other herbs as a binder to cement the virtues of all together. Eclectics have used the prickles on the burs of the husk as a remedy to expel worms.

CAMPANULACEAE (BELLFLOWER FAMILY)

Bluebell (*Campanula rotundifolia* L.). No medicinal use known to the Menomini.

CAPRIFOLIACEAE (HONEYSUCKLE FAMILY)

Bush Honeysuckle (*Diervilla lonicera* Mill.), “wasau'wus kwu'kamîk.” The root of this plant is credited with being a cure for senility. It is also a mild diuretic. In both cases a tea is brewed from the root. Eclectics among the white men have used the fruit for its emetic and cathartic properties. This plant is valued by them as a diuretic and as a means to relieve itching.

Twin Flower (*Linnaea borealis americana* (Forbes), Rehder.). The writer was informed that some of the Menomini knew the use of this plant, but

was unable to find any of them.

American Fly Honeysuckle (*Lonicera canadensis* Marsh.), “mätc wasau'wüo kwû'kamîk” [big yellowish liquid bush]. The bark of this bush is used in the treatment of urinary diseases. It is used in combination with other plants to cure gonorrhoea. All of the local species of *Lonicera* have been used by the white man as medicine, though only as non-official drugs. Many of them have more than a local repute as emetic and cathartic drugs.

Glaucous Honeysuckle (*Lonicera dioica* L.). No medicinal use was assigned to this plant by the Menomini.

Common Elderberry (*Sambucus canadensis* L.), “papaskitcî'ksi kănax'tîk.” Shown in plate 16, fig. 2. Strangely enough, the Menomini name for this shrub is the same as for the red-berried elder, but the use is quite different. The dried flowers of the common elderberry are made into a tea which is used as a febrifuge. Elder flowers have some local repute as a medicine among the white men and in infusion are employed on sores, blisters, hemorrhoids, etc. Young shoots of elderberry have been gathered for their inner bark which is diuretic and purgative in large amounts. It has also been used in keeping away the flies and insects which seem to find the odor highly objectionable. The root of elder is extremely poisonous when taken internally.

Red Elderberry (*Sambucus racemosa* L.), “papaskitcî'ksi kănax'tîk.” It is the common supposition of the white man that the berries of this elder are poisonous. The Menomini recognizes that it is a very powerful medicine and only to be used when the instructions for use are very carefully followed, and when other remedies for the same complaint are of no avail. Four joints of the trunk are chosen, the diameter of a man's finger, say three-quarters of an inch. These sticks are of a measured length, from the point of the ulna to the point of the humerus. If these sticks are now peeled downward, the resulting inner bark and rind are steeped and boiled, then thrown away. The liquid is drunk and saves the life of one threatened with serious constipation. This remedy is only used in extreme cases, for there are many other remedies for constipation and

this is a dangerous one unless needed, when it becomes a drastic purgative. If these same sticks were peeled upwards and the tea drunk, then it would have acted as a powerful emetic. There is probably no doubt of its emetic and purgative properties, but the mechanical difference in preparation is surely pure superstition.

Maple-leaved Viburnum (*Viburnum acerifolium* L.), “Ape'snêtu mäkise'sûk” [black beads hanging (on the tree)]. Shown in plate 16, fig. 4. The inner bark of this bush yields a tea which is drunk for cramps or colic.

High-bush Cranberry (*Viburnum opulus americanus* (Mill.) Ait.). Shown in plate 17, fig. 2. This is the cramp bark of the pharmacist, but is not known to be used medicinally by the Menomini.

CARYOPHYLLACEAE (PINK FAMILY)

Night-flowering Catchfly (*Silene noctiflora* L.). The Indian name for this was not obtainable, but the interpreter knew that it was used for medicine. He did not, however, know its use or efficacy.

CHENOPODIACEAE (GOOSEFOOT FAMILY)

Lambs' Quarters (*Chenopodium album* L.). This plant might be supposed to be medicinal since it has been used by eclectic practitioners. It is not known to be used by the Menomini except as greens in the spring.

COMPOSITAE (COMPOSITE FAMILY)

Yarrow (*Achillea millefolium* L.), “Onawonî'koso” [squirrel tail]. Shown in plate 16, fig. 1. The Menomini name given by my informant was somewhat in question as it really belongs to another plant with an entirely different use. This plant is used in the treatment of fevers, a hot tea being steeped from the leaves. The Menomini also used the fresh tops to rub eczema sores to cure them. The leaves were used as a poultice for the rash of children. Although this is one of the most ancient of the white man's drugs, it is seldom employed by him now. However, some of it is

still to be found on the market. It was employed for the aromatic and bitter principles it contained. It was used as an emmenagogue and for the various ailments of the reproductive organs. It is sometimes used now to cure diseased conditions of the mucous membrane of the entire gastrointestinal tract.

Fennel (*Anthemis cotula* L.). This plant was not used, hence had no Menomini name. Under the name of chamomile it has been used by the white man for its stimulant and antispasmodic properties. It is of use in summer diarrhoea of children and in intermittent fevers. It has also been employed as an emmenagogue. Hot fomentations of the flowers with water and vinegar have been used with success as stimulants to sluggish ulcers, and for the relief of deep-seated pain such as earache and rheumatism.

Lesser Cat's Foot (*Antennaria neodioica* Greene). This plant had no Menomini name nor was it used.

Biennial Wormwood (*Artemisia biennis* Willd.). This plant had no Menomini name nor was it used.

Canada Wormwood (*Artemisia canadensis* Mx.), “Onawenxîkoso” [squirrel's tail]. This is the true herb known by this Menomini name and is a very important leaf medicine. It is used in combination with angelica root for suppressed menstruation. When the patient has a cold or the menstrual flow is stopped for any reason, tea of these two make it easy again. *Artemisia* has been used by the white man as a household remedy in ailments of the digestive and genital tracts. It is an excitant to the circulation and an irritant to the mucous membrane.

Lowrie's Aster (*Aster lowrieanus* Porter). Not used.

Ox-eye Daisy (*Chrysanthemum leucanthemum* L.). The Menomini name was not known to my informant, but he knew that the plant was used by his people for fevers. This has been used by the white man for its volatile oil. The herbage is pleasantly aromatic and slightly bitter. It has been used as a diuretic, antispasmodic and mucous membrane tonic. Large doses are

said to have an emetic effect.

Daisy Fleabane (*Erigeron annuus* (L.) Pers.). Not used by the Menomini. Erigeron was used by the white man for a diaphoretic and expectorant. Its common use, in country districts, is as an intestinal astringent in diarrhoea.

Robin's Plantain (*Erigeron pulchellus* Mx.). Not used.

Daisy Fleabane (*Erigeron ramosus* (Walt.) BSP.). This plant is used by the Menomini but the exact name and use were unknown to my informant.

Boneset (*Eupatorium perfoliatum* L.). Shown in plate 18, fig. 3. This plant is used by the Menomini to brew a tea which is used to dispel a fever. The Menomini name for this plant was not known to my informant. He thought that its use was a later one acquired from the white man. Eupatorium is nowhere official in white man's medicines, but eclectics use it largely and it is a time-honored home remedy. It is stimulant in small doses, and laxative in large ones. In warm infusions, it is an emetic and diaphoretic. It is used for the purpose of aborting colds, bronchitis, sore throat, and such acute inflammations.

Joe-pye Weed (*Eupatorium purpureum* L.), "pii'sanikiki" [finehaired roots]. Shown in plate 11, fig. 3. This is one of a large group of different plants known by the same Menomini name, but not all are for the same use. Most of them are used in diseases of the genitourinary canal. The white man has used the roots of Joe-pye weed for its astringent and diuretic properties.

Mouse-ear Everlasting (*Gnaphalium polycephalum* Mx.), "nä'sîkûn" [a reviver]. Shown in plate 11, fig. 2. The leaves of this plant furnish a very important sorcerer's medicine. It is used separately or with "nämä wi'niûn" or gall from the beaver's body, to make a smudge as a reviver. When one has fainted this is used to bring him back to consciousness again, the smoke being blown into his nostrils. Then again, when one of the family has died, his spirit or ghost is supposed to come back to trouble the living. Bad luck and nightmares will result to the family from

the troublesome ghost. This smudge discourages and displeases the ghost which, after a fumigation of the premises with this smudge, leaves and never returns. Burning of these herbs gives off a peculiar characteristic odor, reminding one of the smell of elm bark, dried medick flowers, and coltsfoot herb. Among the white men, it has been used as a soothing expectorant, but because of its bitter qualities it is also used for its stomachic principles.

Sneezeweed (*Helenium autumnale* L.), “aiatci'a ni'tcîkûn,” [sneezing spasmodically]. Shown in plate 11, fig. 4. The flower heads, when nearly mature, are dried and kept in a loose bunch which is hung from the rafters of the house. When wanted for use it is pulverized and used as a snuff up the nostrils. It makes one sneeze violently several times, and is used to loosen up a cold in the head. It can be used alone or mixed with other medicines. The dose is experimental, starting small and increasing in size as needed. It is also mixed with other foliage to brew an infusion which is drunk for its alterative effects. The white man recognizes the property of *Helenium* that causes sneezing, in the volatile oil of the florets, and sometimes uses it for that purpose. The plant is also known as a cattle poison.

Wild Lettuce (*Lactuca canadensis* L.). Although no Menomini had a name for this plant, my informant said that it is used to cure poison ivy. The milky juice of the fresh plant is rubbed on the eruptions.

Black-eyed Susan (*Rudbeckia hirta* L.). Not used. The leaves of this *Rudbeckia* have been used by eclectics as a stimulating diuretic, in the form of a decoction freely administered.

Sweet Coltsfoot (*Petasites Palmatus* (Ait.) Gray), “titä'pitcipa” [puckering and drawing]. The white roots of this plant are boiled to provide a liquid which cures the itch. Sweet Coltsfoot is not official, but has been largely used in domestic practice by the white man. The roots are demulcent and slightly tonic. It is used in bronchitis and pulmonary troubles. The pulverized root is smoked in Germany and Sweden to cure a cough.

Golden Ragwort (*Senecio aureus* L.). Not used. *Senecio* contains much

tannin and there are records of its use as an astringent by other peoples than the Menomini.

Zigzag Goldenrod (*Solidago latifolia* L.). Not used.

Late Goldenrod (*Solidago serotina* Ait.), “wasa'wa na'okûk.” This plant was used in medicine by the Menomini, but my informant did not know how. In earlier times, under the name of Blue Mountain tea, *Solidago* was given a rather important place in materia medica. The white man used it as a mild carminative, antispasmodic and an intestinal astringent.

CONVOLVULACEAE (MORNING GLORY FAMILY)

Hedge Bindweed (*Convolvulus sepium* L.). Not used. This plant has been known to the white man as a drastic purgative.

CORNACEAE (DOGWOOD FAMILY)

Silky Cornel (*Cornus amomum* Mill.), “kinnikunik” and “miâ'makwukwa.” Shown in plate 18, fig. 4. Due to a confusion in the mind of my informant, this species was shown me three times, once near the Wolf river, where it was called “Kinnikinnik” and twice in the woods, where it was called “Miä'makwukwa.” In the first instance it was accredited with being the bark gathered as an Indian tobacco, the method of gathering, preparing and using being described in Dr. Barrett's treatise on the “Dream Dance.” In the latter case it is considered the source of a valuable medicine for the treatment of diarrhoea. In this case an infusion of the bark is used in a rectal injection. The bark of this species has been locally used by the white man for its bitter and astringent properties. It was formerly employed as an antiperiodic, and in large doses it is an emetic. The next species was similarly used by the white man.

Alternate-leaved Dogwood (*Cornus alternifolia* L. f.), “kinnikunik,” “muski'ki wax'tîk,” and “pise'waxtîk.” Shown in plate 18, fig. 1. This species was also doubtless confused in the mind of my informant. It is true that there are several species of *Cornus* on the reservation, *Cornus amomum*, *C. stolonifera*, *C. alternifolia*, *C. circinata*, and *C. paniculata* as

shown by herbarium specimens gathered, but all of four to which he gave Menomini names turned out to be *C. alternifolia*. Doubtless it is one of the sorts used for Indian tobacco under the name “kinnikinik.” Under the name “muski'ki wa'xtik” the bark of this shrub is gathered to yield liquid pile remedy. The use of the various pile remedies was interestingly given by my informant. The tepid liquid is placed in a special rectal syringe. This is made from the bladder of the deer or bear, into the neck of which is bound a two-inch hollow duck bone. This is tied on with sinew. By compressing the bladder, the liquid is forced into the rectum where it is retained for intervals of half an hour for each application. Under the name “pise'waxtik” [lynx tree] it is used for diarrhoea. It is used in the special rectal syringe just described. The bark is also pulverized and put upon a bandage, where a wet application is bound against the anus.

The strength of the medicine in this case is supposed to travel upward.

This bark is the species used by a Menomini at Neopit to cure cancer. He had been told by Dr. White that his facial cancer was incurable save by surgical excision. His wife made a poultice of this bark with something else and cured the cancer. But the Menomini would not divulge the exact formula or method of use of this medicine.

CRUCIFERAE (MUSTARD FAMILY)

Hoary Mustard (*Berteroa incana* (L.) DC.). This adventive plant was not used by the Menomini, but is giving considerable trouble as a noxious spreading weed on their school campus.

Shepherd's Purse (*Capsella bursa-pastoris* (L.) Medic.), “wisakipûko'sa” [a tiny bitter leaf]. This plant seems to hold equal favor with the Virginia Peppergrass as a cure for poison ivy. The plant is steeped, and the water when tepid is used as a wash. Next to mustard, horseradish and scurvy-grass, this is the most important drug of the family according to white man's uses, on account of a peculiar acid. Among the eclectics it is used as a diuretic, emmenagogue, and antirheumatic, and is an excellent healing agent for unhealthy sores.

Wormseed Mustard (*Erysimum cheiranthoides* L.). Not used.

Small Erysimum (*Erysimum parviflorum* Nutt.). Not used.

Virginia Peppergrass (*Lepidium virginicum* L.), “wisakipûko'sa” [a tiny bitter leaf]. Shown in plate 18, fig. 2. This was the first plant to be pointed out to me as a cure for poison ivy. It is steeped in water to compound a liquid wash. My informant said that the freshly bruised plant is just as efficacious. The white man uses *Lepidium* infusions as a cure for scurvy. It has also been used among eclectics as a substitute for *Capsella*.

Three *Sisymbrium*s were found, of which one was suspected of Menomini importance, the Tall *Sisymbrium* (*S. altissimum* L.). The others were *S. officinale leiocarpum* DC., and *S. thalianum* (L.) G. Gay.

CUCURBITACEAE (GOURD FAMILY)

Squash (*Cucurbita pepo* var.). Shown in plate 26, fig. 1. The seeds of squash and pumpkin are gathered by the Menomini and pulverized in a mortar. This powder is taken in water to facilitate the passage of urine.

Balsam Apple (*Echinocystis lobata* (Mx.) T. & G.), “mâtç mama'tcêtau” [big Indian or Man-in-the-ground]. This root is pulverized and used as a poultice for headache. A decoction is used as a bitter tonic drink, and it is also used in love potions. It is described as being the greatest of all medicines and useful in any combination. The hard fleshy root of Man-in-the-ground has been used by eclectic practitioners as an active purgative.

CYPERACEAE (SEDGE FAMILY)

Out of the twenty sedges collected and investigated, but one was used by the Menomini for medicine. Sedges collected were: *Carices*,—*Carex bromoides* Schkr.; *C. conoidea* Schkr.; *C. cristata* Schwein.; *C. gracillima* Schwein.; *C. hystericina* Muhl.; *C. intumescens* Rudge; *C. laxiflora* Lam. *leptonervia* Fernald; *C. lupulina* Muhl.; *C. pennsylvanica* Lam.; *C. plantaginea*,

Lam.; *C. rosea* Schkr.; *C. rostrata* Stokes; *C. stipata* Muhl.; and *C. stricta* Lam. *Dulichium arundinaceum* (L.) Britton. *Eleocharis palustris* (L.) R. & S. *Eriophorum callitrix* Cham. *Eriophorum viridi-carinatum* (Engel.) Fernald. *Scirpus atrovirens* Muhl. *Scirpus validus* Vahl.

Plantain-leaved Sedge (*Carex plantaginea* Lam.), “kînu'bîkwûs” [snake-medicine]. This seems to be considered one of the snake charms along with blue-eyed grass. Their particular virtue seems to be that the wearer will not be molested by rattlesnakes, and that the house so guarded will not be troubled with snakes. Then, too, it features in the cure of snakebite through the agency of the medicine man. The medicine man chews the root and sprays the spittle on the wound of the patient.

DIOSCOREACEAE (YAM FAMILY)

Wild Yam-root (*Dioscorea villosa* L.). This plant is probably used by the Menomini according to my informant, though the Indian use and name were not known to him. In Wisconsin, a tincture of the roots has been used as an expectorant and diaphoretic, and a decoction of the root is said to be beneficial in bilious colic.

EQUISETACEAE (HORSETAIL FAMILY)

Scouring Rush (*Equisetum hyemale* L.), “kise'paskûn” [everlasting vine]. Shown in plate 11, fig. 1. The water in which these are boiled is used to cure kidney troubles, and is drunk by the women after childbirth, to clear up the system. *Equisetum* has been used in South America as an intestinal and urethral astringent.

Wood Rush (*Equisetum sylvaticum* L.), “skako'sa hasinu'kwa.” [evergreen]. The tea from these stems is used to cure dropsy. Pulverized it is used as a poultice to stop the flow of blood.

ERICACEAE (HEATH FAMILY)

Andromeda (*Andromeda glaucophylla* Link.). Not used.

Bearberry (*Arctostaphylos uva-ursa* (L.) Spreng.), “kâkâ'kâpûtkosa” [evergreen]. The diminutive “osa” relates this to *Chimaphila umbellata*. It is used as a seasoner, to make certain female remedies taste good. It is accounted fully as good for this purpose as *Chimaphila*. The dried leaves of *Uva-ursa*, which the Menomini use, is likewise a valued remedy of the white man, being official in nearly all pharmacopoeias. It combines diuretic, tonic and astringent properties. It is especially useful in urinary diseases where inflammation exists. It has been used in chronic bronchitis, diarrhoea, leucorrhoea, amenorrhoea, and uterine hemorrhages.

Leatherleaf (*Kalmia calyculata* (L.) Moench.). This is not used so far as is known by the Menomini.

Prince's Pine (*Chimaphila umbellata* (L.) Nutt.), “kâkîkâ'pûk” [evergreen]. Shown in plate 20, fig. 1, the smaller specimen. This is a valuable remedy in female troubles. It is used as a seasoner to make the medicine taste good. The constituents, properties and uses of *Chimaphila* are nearly identical with *Uva-ursa*, and it is so used by the eclectics among the white men.

Wintergreen (*Gaultheria procumbens* L.), “winä'nomî'nûn” [real or true berry]. The leaf of this plant with the berry is steeped to make a tea, which is drunk for rheumatism. This corresponds closely with the white man's use, since the wintergreen was at one time the source of methyl salicylate. Approximately the same active principle is incorporated into the trade product, aspirin. This was formerly a very important medicine of the white man, but it is no longer the commercial source of salicylic acid. Like many other volatile oils, it was used as an antiseptic, analgesic, flavoring agent -and carminative. Added to liniments it was used in treating muscular rheumatism, sciatica, and similar complaints. Overdoses of the pure oil on the skin produce drowsiness, congestion and delirium.

One-flowered Wintergreen (*Moneses uniflora* (L.) Gray). So far as is known this is not used by the Menomini. Three species of *Pyrola* were also unknown to my informant so far as Menomini medicinal use was

concerned. These were *Pyrola americana* Sm.; *P. elliptica* Nutt.; and *P. secunda* L.

FAGACEAE (BEECH FAMILY)

Beech (*Fagus grandifolia* Ehrh.), “säwä'mia” [beech tree]. Shown in plate 9, fig. 2. “Säwä'mia onä'xki,” the root and bark names. The inner bark of the trunk and of the root are both valuable to the Menomini. They are used in several compounds, but never by themselves alone. The bark of beech is quite rich in tannin and infusions have been used by the white man for diarrhoea.

White Oak (*Quercus alba* L.), “oskextîmi'.” Shown in plate 7, fig. 1. The inner bark of the white oak is also used in compounds, possibly because of its bitter tannic acid content. White oak bark is official with the white man, and has been used chiefly because of the contained tannic acid. Infusions with water have been used as vaginal irrigants in leucorrhoea, simple or gonorrhoeal vaginitis, as astringent rectal injections for piles, and as a gargle for chronic inflammations of the tonsils and pharynx.

Black Oak (*Quercus velutina* Lam.), “anepakakwa'tik” or “anepakäkwa'tik.” The bark of the black oak is crushed and boiled to furnish a watery infusion to cure sore eyes.

GENTIANACEAE (GENTIAN FAMILY)

Spurred Gentian (*Halenia deflexa* (Sm.) Griseb.). Not used.

Buckbean (*Menyanthes trifoliata* L.). This was given a name, though only one shared in common with other water plants,—“osä'shin.” The Buckbean is a medicinal plant of the Menomini, though my informant did not know its use. The white man uses it as a tonic, purgative and emmenagogue. In large doses it acts as an emetic and vermifuge.

GERANIACEAE (GERANIUM FAMILY)

Wild Crane's-Bill (*Geranium maculatum* L.), “mûtcîä'tû'tak säp'onîkûn”

[the devil's needle]. Shown in plate 19, fig. 2. This is so-called from the appearance of the fruit pods. The Menomini claim that it has binding qualities in its roots, hence employ it in the treatment of flux and like troubles. The species, while not official, is the one recommended by eclectics and used by them where an astringent is needed. It is especially useful for infants and people who have a delicate stomach, because it is not irritating. It is valuable in serous diarrhoeas. It has also been used by the white man for injections both rectal and vaginal to strengthen weak muscles.

GRAMINAE (GRASS FAMILY)

Three grasses were collected, none of which were known to be of use in medicine by the Menomini. They were *Glyceria canadensis* (Mx.) Trin.; *Hystrix patula* Moench.; and *Phleum pratense* L.

HALORHAGIDACEAE (WATER MILFOIL FAMILY)

Spiked Water-milfoil (*Myriophyllum spicatum* L.), “osä'shîn” [water-weed]. This is not a differentiating name and, so far as is known, but few of this class of plants are employed by the Menomini in medicines.

HAMAMELIDACEAE (WITCH-HAZEL FAMILY)

Witch-hazel (*Hamamelis virginiana* L.), “pisewa'xtîk” and “pisä'kiwûs.” Shown in plate 20, fig. 2. A decoction of witch hazel was used by the participants in games, to rub on their legs to keep them limbered up. The twigs of witch hazel are steeped and the decoction is used to cure a lame back. This is the use that the Menomini have found out from the Stockbridge Indians, their neighbors. The seeds were also used as the sacred bead in the medicine ceremony. These black seeds were called “mê'gîsê.”

HYDROCHARITACEAE (FROG'S BIT FAMILY)

Water weed (*Elodea canadensis* L.). Not used.

HYDROPHYLLACEAE (WATERLEAF FAMILY)

Virginia Waterleaf (*Hydrophyllum virginianum* L.), “titä'pitci'pa” [puckering root]. Shown in plate 33, fig. 1. The root of this plant is known as a remedy for flux, because of its astringent properties.

HYPERICACEAE (ST. JOHN'S WORT FAMILY)

Great St. John's Wort (*Hypericum ascyron* L.), “meti'komîn äpû'kwa” [taste of the woodenberry (or acorn)]. This is a very important Menomini remedy. The root is used in connection with others for weak lungs, and if taken in the first stages of consumption, it is thought by the Menomini to be a specific. In compound with blackcap raspberry root, it is used for kidney troubles. The leaves of this species have been formerly employed by the white man as a laxative, alterative and vulnerary. It has also been used by him internally as an emmenagogue, diuretic and stimulating expectorant. The fresh drug is given internally in the treatment of chronic catarrhal conditions of the respiratory, intestinal and urinary apparatuses, thus paralleling the Menomini uses.

Dwarf St. John's Wort (*Hypericum mutilum* L.). Not used.

IRIDACEAE (IRIS FAMILY)

Blue Flag (*Iris versicolor* L.) This is not used by the Menomini. The irisin or iridin of the eclectics among the white men is the powdered dried root, which they believe is second only to podophyllum as an hepatic stimulant. It is used as an emetic, diuretic and cathartic.

Blue-eyed Grass (*Sisyrinchium albidum* Raf.), “kînu'bîkwûs” [snake medicine]. Shown in plate 12, fig. 2. This species is not differentiated by the Menomini from the Prairie Blue-eyed Grass (*S. campestre* Beckm.), shown in plate 19, fig. 1, both of which are known by the same name. It is used in the house to ward off snakes, or carried in the pocket for the same purpose. It has another peculiar use as a horse medicine. The roots are mixed with the oats, when fed, to make the animal sleek and vicious. This renders the pony bite poisonous, but it will not bite its owner. The

pony will bite out a chunk of flesh and the victim will die, unless the medicine man uses some of the same herb on the bite to cure it.

JUGLANDACEAE (WALNUT FAMILY)

Butternut (*Juglans cinerea* L.) “pûka'nawe” [nut tree]. Shown in plate 7, fig. 4. The sap of the butternut is used by the Menomini in the same manner as maple sap, but with the difference that the syrup and sugar from the butternut are a standard Indian physic. This use recalls the practice of the native whites of Pickens Co., W. Va., in 1908, where butternut molasses was also used for a similar purpose. The root bark of butternut is the drug of the white man, which is employed as a mild cathartic and slight hepatic stimulant. The remedy has been recommended in the treatment of acute malarial affections, and is said to be efficacious in chronic constipation and dysentery.

JUNCACEAE (RUSH FAMILY)

Neither of the two *Junci* were used for medicines by the Menomini. They were *Juncus effusus* L. and *Luzula saltuensis* Fernald.

LABIATAE (MINT FAMILY)

Motherwort (*Leonurus cardiaca* L.). Not used.

Cut-leaved Water Hoarhound (*Lycopus americanus* Muhl.). Not used.

Wild Mint (*Mentha arvensis canadensis* (L.) Briquet), “nämi'wûsko'sa” [little sturgeon root]. Shown in plate 20, fig. 3. This is one of the three plants taken together to form a cure for pneumonia. The others used with it are *Nepeta cataria* L. and *Mentha piperita* L. The compound is drunk in the form of a tea and is also used as a poultice on the chest.

Peppermint (*Mentha piperita* L.), “dakixkomîk” [cold water, as it tastes]. Shown in plate 20, fig. 4. This is one of the ingredients in the foregoing compound and the Menomini name is ably descriptive of its leaves. Peppermint is an official drug of the white men dependent on its volatile

oil for its carminative, stimulant and anodyne effects. An infusion is given for the relief of nausea and flatulent colic. The bruised fresh leaves are applied for the relief of local pains.

Wild Bergamot (*Monarda fistulosa* L.), “oia'tcia nāsikun” [sneezing spasmodically]. Shown in plate 19, fig. 3. This is a universal remedy of the Menomini for catarrh. The leaves and inflorescence are the parts employed, and are used alone or in combination with others to form a tea. Monarda is an aromatic stimulant, diaphoretic and carminative, occasionally employed by the white man for the relief of flatulent colic, nausea and vomiting, and diarrhoea resulting from cold.

Catnep (*Nepeta cataria* L.), “ka'saka muskl'ki” [cat medicine]. Shown in plate 19, fig. 4. This is one of the three plants used in the cure of pneumonia, the others being wild mint and peppermint as described above. By the white man, catnep is employed in infusions of the leaves as an emmenagogue and antispasmodic. It has been used as a carminative in the flatulent colic of infants, and is supposed to be useful in allaying hysteria.

Ground Ivy (*Nepeta hederacea* (L.) Trevisan). Not used.

Heal-all (*Prunella vulgaris* L.). Not used.

Hooded Scullcap (*Scutellaria galericulata* L.). Not used.

Rough Hedge Nettle (*Stachys tenuifolia* Willd. *aspera* (Mx.) Fernald). Not used.

LEGUMINOSAE (BEAN FAMILY)

Large-flowered Tick Trefoil (*Desmodium grandiflorum* (Walt.) DC.). Not used.

Creamy Vetch (*Lathyrus ochroleucus* Hook.). Not used.

Marsh Vetchling (*Lathyrus palustris* L.). Not used.

Veiny Pea (*Lathyrus venosus* Muhl.). Not used.

Lupine (*Lupinus perennis* L.), “päskigokasi'wûs” [horse-medicine] or literally [animal with the -undivided hoof medicine]. Shown in plate 22, fig. 1. This is used to fatten the horse and to make him spirited and full of fire. This plant is also used by the white man for fodder and is found to be highly nutritious and wholesome if not fed in too large amounts, and fed before the seeds have matured. The Menomini also use the plant to control horses, the user rubbing it on his own hands or person.

Black Locust (*Robinia pseudacacia* L.), “kawa'xtik” or “kaiawako'sîk tê'tîk.” The bark of the trunk is used as a seasoner to give flavor to other wild medicines. That this is a dangerous practice is held by white physicians who cite records of poisoning by the inner bark. It will also agglutinate and clot the blood corpuscles of certain animals and possesses, for the human body, strong emetic and purgative properties.

American Vetch (*Vicia americana* Muhl.). Not used.

LENTIBULARIACEAR (BLADDERWORT FAMILY)

Common Bladderwort (*Utricularia vulgaris* L. *americana* Gray). Not used.

LILIACEAE (LILY FAMILY)

Northern Clintonia (*Clintonia borealis* (Ait.) Raf.). Shown in plate 14, fig. 3. My informant said this is the plant that the dog uses to poison his teeth, so that he can kill his prey. Should the dog bite a human, then it would be necessary to take the same herb and put it on the bite to draw out the poison.

Turk's Cap Lily (*Lilium superbum* L.). Not used.

Canada Mayflower (*Maianthemum canadense* Desf.). Not used.

Solomon's Seal (*Polygonatum biflorum* (Walt.) Ell.), “nä'sikûn” [a reviver].

The root is dried and pulverized. Then it is mixed with cedar balm (the twigs and leaves) and burned as a smudge to revive one who has become unconscious. If they suppose the patient is about to die, then the smoke of this smudge is blown into his nostrils to bring him back to life. Solomon's Seal has been employed by eclectics among the white men as a substitute for digitalis, though it is much less powerful. Since it augments the flow of urine, it was formerly used in the treatment of dropsy. It is said to increase the appetite and digestion.

False Spikenard (*Smilacina racemosa* (L.) Desf.), “paki'sikûn” [a smudge]. The root of this is ground up and soaked to furnish a liquid that is put on a hot stove. The fumes that arise are inhaled by the person who is suffering from catarrh.

Carrion Flower (*Smilax herbacea* L. *pulverulenta* (Mx.) Gray). Not used.

Nodding Trillium (*Trillium cernuum* L.). Not used.

Large-flowered Trillium (*Trillium grandiflorum* (Mx.) Salisb.), “waiä'pîski wasakwona'wät” [little white flower in the spring] or “äwä'se wasakwona'wät,” so called because the bear, “äwä'se,” is fond of the root. Shown in plate 13, fig. 2. This root was used to reduce the swelling of the eye. The raw root is grated and applied as a poultice to the eye. For cramps, it is grated, steeped and drunk as a tea. For irregularity of the menses, this root is grated and put into water to simmer, and then drunk. There is a further use. It is drunk to remove the defilement entailed by intercourse with one during the menstrual period. Under the name birthroot, trillium was formerly used by the white man as a parturient, a local stimulant and a stimulating expectorant.

Bellwort (*Uvularia grandiflora* Sm.). Shown in plate 13, fig. 1. The Menomini name for this is unknown to my informant, who, however, knew that it was used by the Menomini to reduce swellings.

LOBELIACEAE (LOBELIA FAMILY)

Pale Spiked Lobelia (*Lobelia spicata* Lam.). Not used.

LYCOPODIACEAE (CLUB MOSS FAMILY)

Ground Pine (*Lycopodium complanatum* L.). Not used.

Shining Club Moss (*Lycopodium lucidulum* Mx.). Not used. Lycopodium spores are used by the white man as a surgical and antiseptic healing dusting powder.

MYRICACEAE (BAYBERRY FAMILY)

Sweet Fern (*Myrica asplenifolia* L.), “kipahime'nûn” [a coverer and berry]. The sweet fern is used as a seasoner as well as a potent medicine for use in childbirth. A tea is made from it. Sweet fern and mullen leaf together are sometimes used by Menomini medicine women to kill some one they hate. The two leaves are pulverized and peppered upon the medicine that they give to the sick person. Sweet fern is also used to keep berries from spoiling. They gather leaves and line the bottom of the pail with them, covering the berries with the same leaf. The white man uses the sweet fern as a stimulant and astringent; sometimes using it to relieve colic and check diarrhoea and as a fomentation in rheumatism.

NAIADACEAE (PONDWEED FAMILY)

Three Potamogetons were collected, none of which were known to my informant other than as water-weeds, “osä'shîn.” They are: *Potamogeton alpinus* Balbis.; *P. hillii* Morong.; and *P. natans* L.

NYMPHAEACEAE (WATER LILY FAMILY)

Water Shield (*Brasenia schreberi* Gmel.). Not used. The rhizomes of *Brasenia* have been used by white men in the treatment of phthisis, also in dysentery.

Sweet White Water Lily (*Castalia odorata* (Ait.) Woodville & Wood). Not used. The roots of this species have been used by white men in the treatment of diarrhoea, dysentery and leucorrhoea.

Tuberous Water Lily (*Castalia tuberosa* (Paine) Greene). Not used.

Yellow Water Lily (*Nymphaea advena* Ait.), “woka'tamo” [having legs to stand]. This plant is described by the Menomini as belonging to the “Underneath Spirits” and is accounted a great medicine. The large, fibrous, monocotyledonous, underwater stems are pulled and the so-called root is dried and then powdered. This powder is used for poultices to heal cuts and swellings. The Menomini say this plant makes the fogs that hover over the lakes. The uses of the yellow water lily among white men correspond to the uses of the sweet white water lily.

OLEACEAE (OLIVE FAMILY)

Black Ash (*Fraxinus nigra* Marsh.), “anepa'kăkwûtik.” Shown in plate 9, fig. 3. The inner bark of the trunk is a valuable Menomini medicine as a seasoner for other medicines. Ancient superstition of the white race accredited the ash with being a charm against serpents. Scotch mothers fed infants on the sap to make the baby immune to snakes and even in our time ash cradle rockers were supposed to shield the baby from snakes. The wine of white ash bark is a remedy of the white man used as a bitter tonic and astringent, and said to be valuable as an antiperiodic. It was also formerly used in the treatment of intermittent fevers.

ONAGRACEAE (EVENING PRIMROSE FAMILY)

Lesser Enchanter's Nightshade (*Circaea alpina* L.). Not used.

Enchanter's Nightshade (*Circaea lutetiana* L.). Not used.

Great Willow Herb (*Epilobium angustifolium* L.). The root of this plant is used to make a wash for swellings. The Menomini name was not known to my informant. With the white men it is a demulcent, tonic and astringent. It has been used for its tonic effect on mucous surfaces and its value in intestinal disorders.

Dwarf Evening Primrose (*Oenothera pumila* L.). Not used.

OPHIOGLOSSACEAE (ADDER'S TONGUE FAMILY)

Oblique Grape Fern (*Botrichium obliquum* Muhl.). Not used.

Virginia Grape Fern (*Botrichium virginianum* (L.) Sw.). Not used.

ORCHIDACEAE (ORCHID FAMILY)

Arethusa (*Arethusa bulbosa* L.). Not used.

Grass Pink (*Calopogon pulchellus* (Sw.) R. Br.). Not used.

Stemless Ladies' Slipper (*Cypripedium acaule* Ait.). Shown in plate 13, fig. 4. The root of this species is used in male disorders by the Menomini, but my informant did not know the Menomini name.

Showy Ladies' Slipper (*Cypripedium hirsutum* Mill.). Shown in plate 22, fig. 2. Not used by the Menomini. This species has been employed by the white man as an antispasmodic, and is supposed to produce a slight stimulant effect on the nervous system. It is a feeble remedy.

Yellow Ladies' Slipper (*Cypripedium parviflorum* Salisb. *pubescens* (Willd.) Knight), “miniuvosê't” [owl's foot]. Shown in plate 32, fig. 3. This is said to be used by the Menomini in female disorders. It has also been found in sacred bundles where its purpose is to induce dreams of the supernatural. The white man uses it as a gentle tonic for the nerves, a stimulant and antispasmodic, similar to Valerian, only less powerful.

Several *Habenarias* were collected, none of which were known to my informant. They were: *H. bracteata* (Willd.) R. Br.; *H. flava* (L.) Gray; *H. hyperborea* (L.) R. Br.; *H. orbiculata* (Pursh.) Torr.; and *H. psycodes* (L.) Sw.

OSMUNDACEAE (FLOWERING FERN FAMILY)

Flowering Fern (*Osmunda regalis* L.), “nonakona'wûs” [milk]. This plant furnishes a Menomini medicine from its roots, but my informant did not

know the nature of its cures.

OXALIDACEAE (SORREL FAMILY)

Wood Sorrel (*Oxalis acetosella* L.). Not used.

PAPAVERACEAE (POPPY FAMILY)

Bloodroot (*Sanguinaria canadensis* L.), “wapitcika'wi” [blood root] and “ona'mûn utci'pa” [vermillion root]. Shown in plate 14, fig. 2. This root is often added to medicines to strengthen their effect. *Sanguinaria* is a drug of the U. S. pharmacopoeia only, and is used for many effects. In small doses it stimulates gastric secretions. It has been used as an expectorant, a sternutatory and an emetic.

PHRYMACEAE (LOPSEED FAMILY)

Lopseed (*Phryma leptostachya* L.). Not used.

PINACEAE (PINE FAMILY)

Balsam Fir (*Abies balsamea* (L.) Mill.), “pikewa'xtik.” This is the name of the balsam tree and the medicine is known as “okikaxtik.” There are two remedies from this tree. The liquid balsam which is pressed from the trunk blisters is used for colds and pulmonary troubles. The inner bark is also gathered, observing the same rules as in the gathering of white pine bark, with, of course, the particular song and a deposit of tobacco in the ground that accompanies all medicines. It is a very valuable remedy with the Menomini. The inner bark is steeped and the tea is drunk for pains in the chest. It is also used fresh for poultices. It is further used as a seasoner for other medicines. Inquiry as to whether the Menomini gathered the bark with the oil vesicles intact and used it as the Hudson Bay Indians do under the name of “wayakosh” for wounds, developed that they did not know this use. Yet the same effect would probably be produced by the inner bark used as poultices, which the Menomini did.

Tamarack (*Larix laricina* (DuRoi) Koch), “munipi'anawä” [it stands in the swamp]. Shown in plate 13, fig. 3. The bark from both the trunk and the root is described by the Menomini as being pitchy and as equaling one man as a medicine alone, without help from any other. It is used as a poultice when fresh and is steeped to make a tea. This tea drives out inflammation and generates heat. The water is also given to horses to better their condition from distemper. The tincture or extract of the inner bark of *Larix* is employed by the white men in chronic bronchitis with profuse expectoration, in chronic inflammation of the urinary passages and in certain hemorrhage affections.

White Spruce (*Picea canadensis* (Mill.) B. S. P.), “pikewa'xtîk kaienana'kesît” [gum tree and which goes up to a peak]. Shown in plate 21, fig. 4. The inner bark is used to make a tea which is described as good for inward troubles for either man or woman. The half cooked, beaten, inner bark is used as a poultice placed on a rag and applied to a wound, cut or swelling.

Jack Pine (*Pinus banksiana* Lamb), “okika'xtîk” [stump or stick standing up]. Every part of this tree is used as a medicine. Even the cone is boiled to make a sort of medicine. The uses were not divulged.

Norway Pine (*Pinus resinosa* Ait.). Not used.

White Pine (*Pinus strobus* L.), “skako'sa wenakä'x.” Shown in plate 21, fig. 3. The inner bark of the young tree, about two feet above the ground, is used. The trunk must be smooth and free from cracks. The first incision is made vertically facing the east, then the outer bark is peeled and the inner bark removed. While this is being done, the proper song for gathering this medicine is sung and tobacco is buried about the roots of the sapling. This bark may be steeped to form a drink to cure pain in the chest, or it may be pounded to shreds and used as a poultice for wounds, sores or ulcers. It is one of the most important Menomini medicines. White pine bark is the basis of the white man's cough syrup, though it possesses little value as an expectorant.

Arbor-vitae (*Thuja occidentalis* L.), “kesa'sata'uk” and “kesa'wuna'ukai” [cedar bark or skin]. Shown in plate 8, fig. 3. Besides being used in the sudatory, the inner bark of the cedar is also used. It is gathered, dried and steeped to make a tea to treat suppressed menstruation. When the patient contracts a cold and there is a cessation of menses, then the tea is drunk to make the flow easy again. The leaves are used in the smudge for reviving lost consciousness. The inner bark is also a seasoner for other medicines.

Hemlock (*Tsuga canadensis* Marsh.), “misiku'kowa wuna'ukai” [a puckering to heal skin]. Shown in plate 8, fig. 2. The inner bark is used to make a tea to heal pains in the abdomen. One quart of tea is drunk to cure a cold. The leaves are used in the sudatory, of which ground hemlock is the principal medicine. Another Menomini name for this tree is “miusaku'kowa.”

PLANTAGINACEAE (PLANTAIN FAMILY)

Rugel's Plantain (*Plantago rugelii* Dcne.), “siä'sakip'okena” [a wide leaf or a leaf that spreads]. Shown in plate 31, fig. 2. The Menomini does not distinguish between species of *Plantago* and *P. major* is used the same as *P. rugelii*. The fresh leaf is heated and applied to swellings with the top of the leaf towards the flesh. In other ailments, the underside of the leaf may be placed next to the skin. The matter of the proper side of the leaf to use is carefully observed by the Menomini, which is probably superstition. The writer, in trying this remedy, reduced to normal a badly swollen and probably infected hand in one afternoon, by merely binding plantain leaves to the hand, which caused profuse perspiration. Plantain has been thought by the white man to possess curative powers in many diseases, although it is really a very feeble remedy. It is still used to some extent by eclectics in the treatment of inflammations of the skin, malignant ulcers, intermittent fevers, etc. The leaves are of some value in arresting hemorrhages, when applied to the bleeding surface.

POLEMONIACEAE (PHLOX FAMILY)

Downy Phlox (*Phlox pilosa* L.). Not used.

POLYGALACEAE (MILKWORT FAMILY)

Flowering Wintergreen (*Polygala paucifolia* Willd.). Not used

Racemed Milkwort (*Polygala polygama*. Walt.). Not used.

POLYGONACEAE (BUCKWHEAT FAMILY)

Only one species of this family is used, so far as was known to my informant. The Polygonums collected were: *P. cilinode* Mx.; *P. hydropiper* L.; *P. pennsylvanicum* L.; *P. persicaria* L. and *P. sagittatum* L. The Rumex species were: *Rumex acetosella* L. and *Rumex crispus* L.

Pennsylvania Persicaria (*Polygonum pennsylvanicum* L.), “wesakä'pûk.” This is a bitter leaf which is dried by the Menomini for tea. When one has a hemorrhage of blood from the mouth, this is drunk to stop it. Mixed with other herbs, it is drunk by women after childbirth, and heals them internally.

POLYPODIACEAE (POLYPODY OR FERN FAMILY)

Maidenhair Fern (*Adiantum pedatum* L.), “nonakona'wûs apesa'kwosêt” [fern and black stem]. The blades, stem and root of this fern are all used in the treatment of female maladies. In syrup or infusion, the roots of this fern have been used by the white man in the treatment of chronic affections of the respiratory tract. It is also said to be of value for the relief of cough.

Ostrich Fern (*Onoclea struthiopteris* (L.) Hoffman), “nonakona'wûs” [fern]. The leaf of this fern is used as a poultice. The root is steeped to make a drink to take when the urine is whitish.

Oak Fern (*Phegopteris dryopteris* (L.) Fee). Not used.

Brake (*Pteris aquilina* L.), “nonakona'wûs” [milk or the breast of a woman]. The root of this fern is boiled to make a drink to relieve caked

breast. A dog whisker is used to pierce a hole in the teat.

PONTEDERIACEAE (PICKEREL WEED FAMILY)

Pickereel Weed (*Pontederia cordata* L.). Not used.

PRIMULACEAE (PRIMROSE FAMILY)

So far as is known, none of the Primrose family is used for medicines among the Menomini. Species collected and inquired about were: *Lysimachia quadrifolia* L.; *L. terrestris* (L.) BSP.; *L. thyrsoiflora* L.; *Steiromena ciliatum* (L.) Raf.; and *Trientalis americana* (Pers.) Pursh.

RANUNCULACEAE (CROWFOOT FAMILY)

Red Baneberry (*Actaea rubra* (Ait.) Willd.). Not used. The rhizomes and roots of baneberry resemble *Cimicifuga* or Black Cohosh, in appearance, composition and properties and have been found beneficial by the white man for their effect on the circulation. It has also been used to relieve headache due to eye-strain.

Canada Anemone (*Anemone canadensis* L.). Not used.

Wood Anemone (*Anemone quinquefolia* L.). Not used. This anemone has often been used by the white man in place of *Pulsatilla* in the treatment of more diseases than any other drug listed. Internal doses cause inflammation of the stomach and intestines.

Virginia Anemone (*Anemone virginiana* L.), “wasai'imi'awûs.” The root of this is used to poultice and cure a boil.

Wild Columbine (*Aquilegia canadensis* L.). Not used.

Gold Thread (*Coptis trifolia* Salisb.), “osauwaki'nîm” [yellow thread or golden thread]. The roots yield an astringent mouth wash for sore throat of babies, and it is much used for teething babies. This wash also cures cankers in the mouth. The white man agrees with the use of this root,

which is official for the same purposes, and this may have been the original source of knowledge for the white man.

Liverleaf (*Hepatica acutiloba* DC.), “wêkisi'kwa wasak'onanêt” [the flower that peeps out in the spring]. Shown in plate 21, fig. 2. It is also called “piisa'nikiki wäsakwonawät” [fine hairs] referring to the rootlets, and [its flower] . The roots of this plant are used with the roots of Maidenhair fern in various female maladies, especially to cure leucorrhoea.

White Water Crowfoot (*Ranunculus aquatilis* L. *capillaceus* DC.). Not used.

Bristly Crowfoot (*Ranunculus pennsylvanicus* L. f.). Not used.

Purple Meadow Rue (*Thalictrum dasycarpum* Fisch. & Lall.). Not used.

Early Meadow Rue (*Thalictrum dioicum* L.). Not used.

RHAMNACEAE (BUCKTHORN FAMILY)

New Jersey Tea (*Ceanothus americanus* L.), “kitû'ki ma'nitu” [spotted and great spirit]. Shown in plate 21, fig. 1. The roots of this shrub are used partly because they cross over each other in a tangled manner and partly because the inner wood is red. The tea from the roots is held as a cure-all for stomach troubles among the Menomini.

ROSACEAE (ROSE FAMILY)

Wild Strawberry (*Fragaria Virginiana* Duchesne). Not used.

None of the native Geums were known to be used. They were: *Geum canadense* jacq.; *G. rivale* L.; and *Geum strictum* Ait.

Ninebark (*Physocarpus opulifolius* (L.) Maxim.), “shipiawasha'wûs pû'kamîk.” The bark of this shrub yields a valuable drink for female maladies. It cleans out the system, and if the patient is barren, the drinking of this renders them again fertile, according to the Menomini.

Two cinquefoils were collected but neither of them was used. *Potentilla canadensis* L. and *P. fruticosa* L.

Black or Rum Cherry (*Prunus serotina* Ehrh.), “iwî'skîpi mîna'xtik.” Shown in plate 23, fig. 3. My informant took this to be choke cherry and said that it was sometimes eaten by the Indian to make him drunk, but that the berries were also made into a medicine. The white man uses the bitter principle of the bark as a stomachic and bitter tonic, useful in gastric and general debility. It has been employed as a circulatory sedative in hectic tuberculosis and in cardiac palpitation from nervous disorders.

Choke Cherry (*Prunus Virginiana* L.), “panä'xnowi mîna'xtîk,” “pînä'nawe mîna'xtîk” and “pä'xnana we'mîna'xtîk.” Shown in plate 8, fig. 1. Possibly the Menomini name for this tree is only one word, but in hearing it at different times, it was thought to be slightly different. “Pinä'nawe” is the word for “puckering” and “mîna'xtîk” means “tree.” The inner bark is pounded to make a poultice and Mä'näpus, the culture hero, pointed it out as a medicine to heal a wound or gall on man or beast. The inner bark is also dried, then steeped in water, the tea being drunk for diarrhoea. When administered to children it is sweetened. In aboriginal times, it was also a kind of beverage or tea to drink with meals. The liquid made by boiling the dried berries is also used to cure diarrhoea.

Smooth Rose (*Rosa blanda* Ait.). Not used.

Pasture Rose (*Rosa humilis* Marsh.), “sipitiä'mîn” [to itch (like the piles)]. Shown in plate 14, fig. 4. The Menomini believe that eating the rose hips of this species will cause a healthy person to get an itching like the piles. The medicinal part is the skin of the fruit. This is eaten to cure stomach troubles.

Blackberry (*Rubus allegheniensis* Porter), “ona'kanawûs otci'pa” [blackberry root]. Shown in plate 25, fig. 4. An infusion of the steeped root is used to cure sore eyes, as an eye wash, and is also used as a poultice. The root bark is used by the white man as a tonic and

astringent. Blackberry root is a favorite household remedy of the white man for its tonic and astringent properties. It is useful in the summer diarrhoea of children and adults.

Red Raspberry (*Rubus idaeus* L. *aculeatissimus* (C. A. Mey) Regel & Tiling), “mäki'nîtu onakonowä'x” [red berry] and [raspberry]. Shown in plate 25, fig. 3. The root of this species is used as a seasoner for other medicines. The white man uses the fruit to make a syrup, which is a refrigerant, mild laxative and dietetic.

Black Raspberry (*Rubus occidentalis* L.). The proper name of the Menomini for this species was not known to my informant, but he knew the root was used with *Hypericum ascyron* in curing consumption, when in its first stages.

Dwarf Raspberry (*Rubus triflorus* Richards). Not used.

RUBIACEAE (MADDER FAMILY)

Northern Bedstraw (*Galium boreale* L.). Not used. The plant of bedstraw has been used by the white man as a diuretic and for various skin diseases.

Fragrant Bedstraw (*Galium triflorum* Mx.), “Clivus.” Shown in plate 25, fig. 2. “Clivus” is not an Indian word, though it comes to the Menomini from the Stockbridge who live on the adjoining reservation. Some of the Menomini use an infusion of the herb to clear up kidney troubles.

Bluets (*Houstonia longifolia* Gaertn.). Not used.

Partridge Berry (*Mitchella repens* L.), “wenä'xnomîn” [stinking berry]. The word for stinking in Menomini may refer alike to perfumes and stench. The leaves of this plant are steeped to make a tea to cure insomnia. It is a minor drug of the white man, used for its bitter, astringent properties.

RUTACEAE (RUE FAMILY)

Three-leaved Hop Tree (*Ptelea trifoliata* L.), "wapu'niaka'kwosêt" [white bark]. Shown in plate 28, fig. 4. This is a sacred medicine among the Menomini. The only specimen of it on the reservation grows in the yard of Frank Käkäk about four miles north of Keshena. It was brought from Kansas by Käkäk's ancestors years ago, and he says it has never fruited here, though it was in flower when seen. The white bark of the root is the part used, and a piece about the size of the index finger is the proper amount. For such a piece, a blanket or two, or a pony is given. It is called a great leader among all medicines and is accredited with all sorts of cures. It is used principally as a seasoner and to render potent other known remedies for various ailments. The root bark of *Ptelea* contains a powerful volatile oil, an acrid resin and an alkaloid, and is the drug part that is most frequently employed by the eclectics among the white men. It is used in various sorts of diseases.

Prickly Ash (*Zanthoxylum americanum* Mill.), "kawaku'mia suma'tcîkûn" [prickly ash sprayer]. Shown in plate 23, fig. 2. The bark, root bark and fruit of this tree are all medicines with the Menomini. The ripe berries thrown into hot water make a medicine which is used in the mouth to spray on the chest and throat in bronchial diseases or on sores. It is also used as a seasoner in mixtures. The root bark is used in poultices. This, along with other medicines, is often put upon swellings in a special method by the Menomini medicine man. The teeth of the gar fish are moistened with the medicine. The medicine man makes three striking motions with this in his hand, saying with each motion "wehe." The fourth time, saying "we ho ho," he strikes the swelling and makes it bleed so that the pulverized or liquid medicine may enter the flesh. He strikes the swelling three or four times. Then a poultice of the medicines is kept on for four days, when it should be healed. The berries of the Prickly Ash are called "sêsoma'tcîkûn" and the liquid in which they are soaked is often drunk for minor maladies. Prickly Ash has no proven physiological value, but in the past has been used by the white man in many ailments. It is regarded as a pungent stimulant, sialagogue, diuretic, diaphoretic, alterative, and emmenagogue. It is a stimulant to the mucous membrane and excites the glands of the buccal, gastric and

intestinal tracts. It is said to promote secretion of the pancreas, liver, kidneys and skin and to augment the rate and force of the pulse.

SALICACEAE (WILLOW FAMILY)

Balm of Gilead (*Populus candicans* Ait.), “yênosêti.” The resinous buds are boiled in fat to make a salve for dressing wounds and to put up the nostrils to cure a cold in the head. The white man has found the resin of these buds to be stimulant, tonic, diuretic, antiscorbutic and antiseptic. It has been beneficial in certain pectoral, stomach, nephretic and rheumatic affections.

Peach-leaved Willow (*Salix amygdaloides* Anders.). Not used.

Hoary Willow (*Salix candida* Fluegge). Not used.

Dwarf Willow (*Salix humilis* Marsh.), “kînosi'si kopuai'a otc'i'pa” [little willow root]. It is also called “kinusishiwu'pwis täpa'sikît” [dwarf plant of willow]. The root is used in curing spasmodic colic and to stop dysentery and diarrhoea. The medicinal root is only taken from the shrub that bears insect galls. Other shrubs of the same species are not considered of value medicinally by the Menomini.

Beaked Willow (*Salix rostrata* Richards). This species was used by the Menomini but my informant did not know its name or use.

SANTALACEAE (SANDALWOOD FAMILY)

Bastard Toad Flax (*Comandra umbellata* (L.) Nutt.). Not used.

SARRACENIACEAE (PITCHER PLANT FAMILY)

Pitcher Plant (*Sarracenia purpurea* L.), “mi'niuv makä'sîn,” [horned owl's moccasin]. This plant is used in Menomini medicine, but data concerning its use was not available. My informant thought that it was used by the sorcerers. The white man has ascribed to the plant the properties of a nervous and circulatory stimulant, mild tonic, diuretic and laxative, but it

is not of much value in medicine.

SAXIFRAGACEAE (SAXIFRAGE FAMILY)

Rough Heuchera (*Heuchera hispida* Pursh), “sabokoa'wûs otci'pa” [diarrhoea root]. This Heuchera or Alum root is recognized by the Menomini for its puckering qualities and an infusion of the root is used to stop diarrhoea.

Swamp Saxifrage (*Saxifraga pennsylvanica* L.), “wapo'sota'wûk” [rabbit's ear]. Shown in plate 23, fig. 4. This is one of the famous remedies known as the rabbit's ear, but not the most important one, which is *Valeriana uliginosa*.

SCROPHULARIACEAE (FIGWORT FAMILY)

Sessile Paintbrush (*Castilleja sessiliflora* Pursh). Menomini name not learned. The flowers and leaves are macerated in grease, such as bear oil or lard, and after the virtues are extracted, the grease is set aside for use as a hair oil, invigorating the hair and making it glossy.

Toad Flax (*Linaria vulgaris* Hill.). Not used.

Cow Wheat (*Melampyrum lineare* Lam.). Not used.

Monkey Flower (*Mimulus ringens* L.). Not used.

Wood Betony (*Pedicularis canadensis* L.), “päskigo'käsieu mûski'ki” [horse medicine]. The root is chopped up fine and put into oats that are fed to the pony. The Menomini claim that it will make him fat and vicious to all but his owner.

Great Mullen (*Verbascum thapsus* L.), “mêtciovä'tûk nä'nimau” [the devil's tobacco]. Shown in plate 24, fig. 4. The root of this plant is used in pulmonary diseases, while the leaf is gathered and smoked as an Indian tobacco. The writer has often seen white men gathering the leaf of this plant to smoke for the relief of asthma and bronchitis. The flowers are

supposed to have diuretic properties and have been used in the treatment of tuberculosis.

Culver's Root (*Veronicastrum virginicum* L.), “wi'sîkau säksikûn.” Shown in plate 25, fig. 1. This root is a strong physic for the Menomini. It is likewise a reviver and when eaten it purifies the person, animal, child, medicine, or weapon which has been defiled by the touch of a person who has just been bereaved by death in the family. This is only one of many such revivers and is always found with evil medicines, so that a sorcerer can undo his work. It is also always found in medicine bags and war-bundles.

SOLANACEAE (POTATO FAMILY)

No medicines were found in this family, and only two species were collected. They were *Physalis heterophylla* Nees and *Physalis virginiana* Mill.

TAXACEAE (YEW FAMILY)

American Yew or Ground Hemlock (*Taxus canadensis* Marsh.), “satô'k' päpamapihû'sit” [palm leaf that creeps on the ground]. Branches of this, with white cedar leaves and hemlock leaves, form the medicines of the sudatory to cure rheumatism, numbness and paralysis. *Taxus* is pulled in a long string from the ground, and coiled into a circle to fit inside an iron pot. The lateral twigs are tied down to the main circle. Hemlock and *Arbor-vitae* are likewise coiled. Equal quantities of each are put into the pot with water. Then additional sprays of each are placed on top of the pot to keep the steam and the medicine confined. While this is boiling, four stones as big as the fist are heating on the stove. A cabinet is made of canvas or cloth and the naked patient is covered completely with the pot placed in front of the knees. The four stones are then put in and the medicated steam treats the ailment. The sudatory is called “asapaki'tci.” The patient remains in this tent until dry again, then puts on fresh clothing. The old clothes are washed before wearing again. This is, of course, a modern form of the sudatory. The aboriginal one consisted of a small wigwam, with the stones heated in the open fire and the treatment in general was probably taken with much more ceremony. Both the

leaves and fruit were formerly used by the white man in medicine, but are little used now.

THYMELEACEAE (MEZEREUM FAMILY)

Leatherwood (*Dirca palustris* L.), “wetike'xkop” and “kibi'sä kini'wûs otcipa.” The latter name means “variegated urine.” The roots of this shrub are steeped to make a tea, which heals kidney troubles. It is diuretic. It has been used by the white man in chronic skin diseases.

UMBELLIFERAE (PARSLEY FAMILY)

Angelica (*Angelica atropurpurea* L.), “mätc otcipa” [big root]. Shown in plate 24, fig. 2. This is a very important medicine to reduce swellings. The roots are cooked and pounded to a pulp. Then some bruised leaves of *Artemisia canadensis* are peppered over this pulp. With this mass and a piece of cloth, a hot plaster is made, that the Menomini claim is good for any pain in the chest or body. It is applied to the side of the body opposite the pain. This is done here because it is supposed to draw the pain through to the surface where it can make its escape. Although angelica is not employed extensively by the white man in medicine, it has been used as a stimulant and tonic, and in a warm infusion as a diaphoretic and emetic. It has been recommended as a stimulating expectorant in chronic inflammation of the upper air passages.

Caraway (*Carum carvi* L.). An escape. Not used.

Musqash Root (*Cicuta maculata* L.). Not used. The Menomini say that this root poisons the beaver.

Honewort (*Cryptotaenia canadensis* (L.) DC.). Not used.

Cow Parsnip (*Heracleum lanatum* Mx.) “piki'wûnûs” [very leafy medicine]. Shown in plate 24, fig. 1. An evil medicine used by the sorcerers. The fresh leaves and root of this plant may produce vesication, and have been used by the white man as a counterirritant. They have also used the root with an alleged curative effect in epilepsy. In infusion

it is thought to correct dyspeptic disorders.

Osha or Colorado Root (*Ligusticum filicinum* Wats.), “mani'k.” This is not native to Wisconsin, still quantities are used by the Menomini, who buy it from the Shawano druggists under the name of Colorado root. It is supposed to be the greatest of twenty “mani'k” roots and good for many ailments.

Sweet Cicely (*Osmorrhiza longistylis* (Torr.) DC.). Not used.

Woolly Sweet Cicely (*Osmorrhiza claytoni* (Mx.) Clarke), “sia'wa otc'pa.” This is the remedy to enable one to put on flesh. The root has the taste of carrots and only one piece or branch must be eaten at one time.

Black Snakeroot (*Sanicula marilandica* L.). This root was not used by the Menomini, which is somewhat strange as it has been a noted aboriginal remedy with other Indians, and possesses rather active aromatic, bitter principles. When pressed for information, my informant thought it might be used by the sorcerers for some evil purpose

Clustered Snakeroot (*Sanicula gregaria* Bicknell). The same comment may be made on this species as in the preceding, for it was often used without distinguishing the difference in the species for the same purposes.

Yellow Pimpernel (*Taenidia integerrima* (L.) Drude), “maniko'sa,” (little manik). Shown in plate 17, fig. 3. My informant explained that there are twenty roots of the “manik” class and that the most powerful of all was “manik” itself, or as it might be called “mätc mani'k,” which grows in the mountains near Denver, Colorado. The Pimpernel is the younger brother, the youngest one of the family, and it was considered powerful in the treatment of pulmonary troubles. The root tea is the medicine used by the Menomini. The roots are fibrous, while the roots of “manik” are thickened and fleshy. Pimpernel is also used as a seasoner, “opa'powûn,” in making various female remedies taste good. It may be steeped alone for a while and then the root taken out and chewed for bronchial affections. Any phlegm that develops in chewing is spat out. The Menomini meaning of “manik” is “bestowing favor.” In Colorado, Utah

and the adjacent territory, “manik” is highly prized by the aborigines for its aromatic, expectorant qualities. The Colorado root is also the chief of all as a lure in hunting and trapping. It is pulverized by the Menomini and, when steeped, the liquid is used to dip sticks for trap construction. These traps lure the water animals and they are easily caught.

URTICACEAE (NETTLE FAMILY)

Wood Nettle (*Laportea canadensis* (L.) Gaud.). It is strange that this is not regarded as an aboriginal medicine by the Menomini, for it possesses peculiar diuretic properties. Notable quantities of ammonia have been distilled from this plant.

Slippery Elm (*Ulmus fulva* Mx.), “sausî'kop” and “osa'sikûp,” shown in plate 7, fig. 3. When the inner bark is made into a tea, it is taken as a physic. The inner bark is also used to draw pus out of a wound. A small sliver is forced into the sore and bound up with a poultice to reduce the swelling. After the pus has been drawn out, the sliver is removed, taking the pus with it, and the wound heals readily. Slippery Elm bark is a favorite remedy with the white man because of its demulcent and healing qualities. It is used to relieve the irritation and cough of bronchial diseases. The mucilage of the bark acts as a soothing astringent draught in diarrhoea, dysentery, and inflammation of the urinary passages. In some parts of the country, slippery elm poultices are popular in the treatment of abscesses, felons and other local inflammations, being employed the same as among the Menomini.

VALERIANACEAE (VALERIAN FAMILY)

Edible Valerian (*Valeriana edulis* Nutt.), “osakakimi'wûs,” [tapeworm medicine]. Shown in plate 24, fig. 3. This root is fine for cuts and wounds. It is ground to a pulp in a mortar and placed on a cut to stop pain and bleeding. It draws out inflammation and is very healing. For this reason, it is much used in poulticing bolls. It is also used as a tapeworm medicine, after which it derives its Menomini name. After the tapeworm is expelled, the worm is then washed clean, pulverized and swallowed again, then the patient becomes fat and healthy again.

Swamp Valerian (*Valeriana uliginosa* (T. & G.) Rydb.), “mûski'kwûs,” [swamp medicine]. It is also called “wapusata'wûk utci'pa,” [rabbit's ear root], because of its rosette of long basal leaves, which resemble a rabbit's ear in shape and its ciliate hairs. This is a very important Menomini medicine, jealously guarded as to its identity. Tea from its roots is drunk for cramps and for disorders of the head, throat and lungs. Pounded to a pulp it is highly esteemed as a poultice for cuts and wounds. If one chews it and spits the juice on the hook and bait, it allures the fish, so that an Indian and a white man might fish side by side, and the Indian knowing the secret would catch all the fish, while the white man would not get a bite. If you have some of this in your mouth while arguing, your opponent cannot win the argument. This genus contains possibly two hundred species and the properties of all are similar to the official drug, *Valeriana officinalis* L. The medicinal virtues of Valerian are found in the volatile oil. It is a feeble sedative to the nervous system. In large doses it causes a sense of warmth in the stomach, a quickening of the pulse and sometimes nausea and vomiting. Larger amounts produce purging and mental stupor. It is used by the white man in quieting hysteria and functional nervousness. It seems to be of value in palliating the nervous symptoms which occur at the menopause. It also benefits the delirium of exhausting fevers. The peculiar acrid odor is only developed in the dried root.

VERBENACEAE (VERVAIN FAMILY)

Blue Vervain (*Verbena hastata* L.), “piisa'nikiki,” [fine hair], referring to the slender roots shown in plate 17, fig. 4. The root tea is used to clear up cloudy urine. The white man attributes properties to it similar to *Eupatorium*. It was formerly used as an antiperiodic, but now as a nauseating expectorant and diaphoretic, being emetic in large doses. The white man uses the flowering tops, however, and not the roots.

White Vervain (*Verbena urticaefolia* L.). This is not used by the Menomini, though there are records of its aboriginal use by other Indians as an antidote to poison ivy. A bitter glucoside has been extracted from its leaves.

VIOLACEAE (VIOLET FAMILY)

None of the violets are considered medicinal by the Menomini, though they have been used in the past by white men and by some tribes of Indians. The white men used the dried plant, while the Indians used the acrid roots. It was used as a blood purifier and as a remedy in chronic affections of the lungs and in cutaneous diseases, but is no longer employed in scientific medicine. A decoction of the root was used in pulmonary diseases, and like ipecac in dysentery. The Menomini species collected were: *Viola adunca* J. E. Smith; *V. arenaria* DC.; *V. canadensis* L.; *V. conspersa* Richards; *V. cucullata* Ait.; *V. pallens* (Banks) Brainerd; *V. pubescens* Ait.; and *V. scabriuscula* Schwein.

VITACEAE (GRAPE FAMILY)

Virginia Creeper (*Parthenocissus quinquefolia* (L.) Greene). This was not used by the Menomini, but has been used by the white man for its acidulous foliage. The tartaric acid and its salts in the foliage have been used as a refrigerant and diuretic.

Frost Grape (*Vitis cordifolia* Mx.), “sewanu'ka,” [vine tree], and “sewa'nûn,” referring to the grape. There were two versions of the use of this fruit. The first was that the seeds were used to remove foreign matter from the eye, as we use flax seeds for the same purpose. The other was that the grape was crushed and the juice used to wash out wild rice hulls from the eyes of the threshers or winnowers.

MENOMINI VEGETAL FOODS

In the early history of the Menomini, they were known as great hunters and as an agricultural tribe. They made good use of nearly every native plant that was edible, except some of the mushrooms that grew in northern Wisconsin. As previously mentioned, even the name Menomini is derived from their native name for wild rice.

Several Menomini still gather the old time foods in the woods and fields and along the streams and ponds, and prize them above store food. Many old Menomini took pride in telling about the palatable dishes they used to make from native herbs and berries. In aboriginal times, they say that the food of the Menomini was closer to nature, and that their food then was the same as medicine, too, in that the acids, salts and minerals occurring in nature were found in their food. The old Menomini explains that, now that they have taken up the use of white man's food, they have thus inherited the white man's diseases.

Especially in the spring, the Menomini gather native foods after the long winter, and consider that they are taking a tonic as well as a food. With encroaching civilization, these foods are becoming harder to find, and are becoming of great value to the Menomini. Even wild rice cannot be gathered in sufficient quantities to last all winter. Small wonder, then, that they do not want to sell any to the white man, and when they do sell get ninety cents a pound. Then, too, last year, the game warden who patrols the reservation warned them that they could not gather their wild rice as before, for he said it was against the law, and that he would arrest them and throw them in jail, if they did. Imagine a whole tribe of 1800 Indians, named after the wild rice and forbidden to gather it on their own reservation. The truth of the matter probably was that this game warden knew that wild ducks would not be so plentiful if the rice was gathered, and that hunting would not be as good. He therefore profited by their ignorance, and played this peanut politics game to further his own ends.

The Menomini are fond of mixtures in their cooked foods, just as they seem to prefer compounds in their medicines. Usually the dishes are combinations such as corn with blueberries, or acorn meal with beans, etc. However, botanically, we are interested in naming the various

species utilized, in their various families, indicating as we progress such combinations as we found. It was much easier to get discussion on the matter of aboriginal foods than on medicines, for everyone seems to be fond of food and loquacious when talking about good things to eat. Only the families in which known foods occur will be listed alphabetically.

MENOMINI FOOD PLANTS CRYPTOGAMS

LICHENS

Tree Lichen (*S. glomulerifera*), “waku'n,” or plural, “wakûnû'k.” Shown in plate 10, fig. 1. The literal translation would be “moss or eggs dangling or hanging on tree.” Lichens are supposed to be the scabs from the head of Mä'näpus. He has said that he put them there for his uncles and aunts to eat to keep them from starving. Another version was that these lichens are the scabs from Mä'näpus' buttocks, after he had given the “Mä'näpus otä'te” to the Menomini. His buttocks were still scabbed from the fire at this time, so he slid down a slanting rock and left these lichens on the rocks. These are to eat and to sustain life. In olden times, these lichens, with no reference to any particular species, were boiled in the broth of deer or pork, and eaten for their flavor as well as for their medicinal qualities. The moss on the trees which is similar in appearance to the lichens is called “onäx'komîk” and is also used to cook and eat. It is likewise a medicine.

“Wa'kun” is gathered at any season of the year and put away dried. When wanted for use it is put into soups where it swells somewhat as Irish Moss, and is eaten with a relish. There is probably no more nourishment in it than in the general run of fleshy fungi, or about five percent of food value, but it is highly esteemed by the Menomini for its tonic effect on the system and the blood. This curious use as a food suggests the lichen, *Lecanorea esculenta*, which was the manna of the children of Israel during their forty years in the wilderness. However, there is much more flesh to *Lecanorea* than to this species. The Menomini speak of this moss or lichen as being a food for the deer, much as

Cladonia rangiferina is eaten by the reindeer in Alaska. The deer of northern Wisconsin are fond of "wa'kun."

FUNGI

So far as was known to my informant only puffballs are regarded as food by any of the Menomini. He was surprised to learn that there were many edible fungi around him. Even after seeing the writer eat them without harm, he was still unconvinced, for undoubtedly in the past the Menomini have suffered from mushroom poisoning. Yet, evidently they have learned what the white man knows that all puffballs are edible.

PHANEROGAMS

ACERACEAE (MAPLE FAMILY)

Hard Maple (*Acer saccharum* Marsh.), "sopoma'-xtik." Shown in plate 7, fig. 2. Maple sugar, "sopoma'xtik so'pomo," is one of the most important of Menomini foods and is used in almost every combination of cookery. It takes the place of salt in Menomini cuisine, for the aboriginal people did not use salt, and most of them do not use it today. The legends of sugar making have been told in Mr. Skinner's "Material Culture of the Menomini."⁶ However, it is not out of place here to give a brief resume of the process. In the latter part of March and the first week in April, the Menomini visit their sugar camps, the men repairing the camps and boiling vats, and cutting wood, the women washing the birch-bark dishes and recaulking them with pitch of the fir tree. During the sap flow, a man chops and taps from two hundred to three hundred trees a day. Sap is collected an hour before dark, as they believe that the night flow turns the sap bitter. Gathered sap is stored in a hollowed basswood tree trunk vat. The boiling in metal kettles proceeds the same as with the white man, except that the syrup is strained through a cloth and recooked in two or three quart quantities, until it is ready to sugar. It is then, while still warm, poured into a wooden trough, where it is pounded and crushed with a heavy wooden paddle as it hardens. It is stored in birch-bark baskets called mokoks, of from 25 to 75 pounds

⁶ Indian Notes and Monographs, Museum of the American Indian, Heye Foundation, pp. 164-165. 1921.

capacity. The sugar is graded according to its whiteness and stored away. Sap is added to the dregs in the kettles and a second grade sugar is made. It would be considered an insult to Mä'näpus to waste or spill any sap and the sugar would shrink in amount as a punishment.

ALISMACEAE (WATER PLANTAIN FAMILY)

Arum-leaved Arrowhead (*Sagittaria arifolia* Nutt.), “wapisi'piniûk” [White potatoes]. Shown in plate 31, fig. 3. Curiously enough, the rhizomes of a similar species in California were formerly used as a food under the name of Wappate or Wapatoo, by the Indians there. It was also called Tule root. This is one of the Menomini valued wild potatoes and hard to get on their reservation. Not far from the reservation, near Oconto, is a lake bordered by these plants, which is accordingly named “White Potato lake.” They also grow sparingly along the banks of the reservation streams. These rhizomes are very white inside and out. The Indians usually see them in the water, washed out by the current, or see them near the burrow of a muskrat or home of a beaver, where these industrious animals have carried them for a food cache. These white potatoes are boiled, then sliced and strung on a string of we'kop (Basswood) for winter use.

ANACARDIACEAE (SUMAC FAMILY)

Staghorn Sumac (*Rhus typhina* L.), “kaka'kiumê'nuka” [raven berries]. Shown in plate 31, fig. 4. The sumac berries are dried and stored for winter use. When they are wanted, an infusion in water produces a drink very similar to lemonade. They are drunk as a beverage.

ARALIACEAE (GINSENG FAMILY)

Indian Spikenard (*Aralia racemosa* L.), “kwûtä'xcia kopûn” [crane root and like a potato]. Shown in plate 15, fig. 3. This medicinal root is also edible. An aboriginal Menomini dish was spikenard root, wild onion, wild gooseberry and sugar, This is described as being very fine.

ASCLEPIADACEAE (MILKWEED FAMILY)

Swamp Milkweed (*Asclepias incarnata* L.), and **Common Milkweed** (*Asclepias syriaca* L.), shown in plate 26, fig. 2, are both called “nänawi'tca” [thread material]. When these milkweeds are in bloom, or even better, in bud, the heads are highly esteemed as a food, much like the asparagus tips of the white man. They are made into soup with deer broth or fat of some sort. They are often added to cornmeal mush. They are also cut and dried and stored for winter use.

BERBERIDACEAE (BARBERRY FAMILY)

May Apple (*Podophyllum peltatum* L.), “mäskatämîn.” Shown in plate 15, fig. 2. The fresh ripe fruits of the Mandrake are prized as a food. The writer has seen them gathered by the peck and taken home to eat or preserve.

BETULACEAE (BIRCH FAMILY)

Hazelnut (*Corylus americanus* Walt.), “paka'e'sûk” [little nuts]. Shown in plate 16, fig. 3. The Menomini are very fond of these when they are in the milk stage, and also gather and dry them for winter use.

CAPRIFOLIACEAE (HONEYSUCKLE FAMILY)

Nannyberry (*Viburnum lentago* L.), “weatcime'nûn.” Shown in plate 17, fig. 1. Although the name means “bitter poisonous berries,” it was said that some Menomini eat them. We well know that many white men eat and enjoy them.

High-bush Cranberry (*Viburnum opulus* L. *americanum* (Mill.) Ait.), “pawa'hime'nûn.” Shown in plate 17, fig. 2. These are rather scarce on the Menomini reservation, but are favored as a fruit whenever they can be found.

CELASTRACEAE (STAFF TREE FAMILY)

Bittersweet (*Celastrus scandens* L.), “mä'näpus otäte” [the entrails of Mä'näpus]. Shown in plate 34, fig. 3. My informant had quite a story about the gift of this food to the Menomini. Bittersweet is abundant on the reservation, and is found in dense woods climbing to the tops of trees thirty feet or more in height. The curled and twisted liane stems curiously resemble the intestines of a man, and doubtless inspired the story. It is recognized by the Menomini that the inner bark is palatable and will sustain life when food is hard to get. Although the story may seem a bit vulgar to the white man, the Indian does not consider it so, being more a child of nature and apt to call a spade, a spade. This, then, is their origin story of bittersweet. One day Mä'näpus, their cultural hero, unclothed as always in the aboriginal days, was roasting wild geese and turkeys in the embers of a long fire he had built. He had put them down in the ashes, leaving only the feet sticking out, in a fine straight row. Becoming weary with waiting for them to cook, he decided to lie down and take a nap. Before going to sleep he addressed his anus, as if it were a person, and charged it to watch the fowls and allow no one to take them. He was to awaken Mä'näpus should anyone come. So he went to sleep with his back to the fire. While he slept, some Winnebago Indians saw the smoke and were curious. As they crept up to see what was going on, they saw the legs of the fowls sticking up above the ashes. They cautiously pulled on the legs and at once Anus began to work at his appointed task of awaking Mä'näpus. But Mä'näpus did not waken at the first trial, and the Winnebago fearing that he might be wakened, bargained with Anus to be quiet, giving him a fine beadwork sash to bind the bargain. Then they took all the fowls, cutting off the legs and rearranging them just as they had found them. Finally Mä'näpus awoke and feared that he had overslept and let the fowl burn. So he took hold of the legs of one to try it, but it came up easily. Then he tried all with the same result, and concluded that someone had come while he slept and stolen them. He questioned Anus, who professed to have tried to waken him. Then, spying the sash, Mä'näpus accused Anus of accepting a bribe not to waken him, which Anus finally admitted. This made Mä'näpus very angry at Anus as well as at the Winnebago, and he pronounced a curse on the Winnebago, saying that they should be

thieves from that time on as long as they lived. Next he bethought himself of a proper punishment for Anus. He built a small fire and squatted over it, exposing Antis to its flames. As the fire began to scorch Anus, he complained in hisses and crackled with agony. He was reminded by Mä'näpus that his orders were not to be disobeyed and that this was his punishment. Finally, Anus was subdued and cooked so he could complain no more, so Mä'näpus walked away. As he walked, the flesh cracked open and blood spurted forth staining the bushes ("kinnikinik") which are red to this day. Feeling something dragging as he walked, Mä'näpus turned around and discovered that his intestines were coming out and dragging on the ground. He broke these off and flung them on a tree, and told them to stay there and grow for his uncles and aunts (the Menomini people). "Now," he said, "when the chase is in vain, and food is scarce in the wigwam, you, my uncles and aunts, may eat this vine, and you will not starve. This will save your life." And to this day the Menomini call the bittersweet vine "Mä'näpus otäte." He rid himself of the scabs which he felt on his buttocks by sliding down a slanting rock, and these too became a food, the lichen or "wa'kun" of the Menomini. Bittersweet has another name that is rarely used, "aia'pîta mama'tcetau," meaning "half Indian." After giving this food to the Menomini, Mä'näpus told them that he would go to the east and remain seated there and whenever his people talked to him, he would hear them. By the east, they understand out over Lake Michigan and toward Detroit. Near Detroit there are rocks sticking up which he left there. There too may be seen his cane.

COMPOSITAE (COMPOSITE FAMILY)

Dandelion (*Taraxacum officinale* Weber), "wäsanowä'k wasakana'wät." Shown in plate 31, fig. 1. The vinegar, made from the last run of sap in the maple tree, is used to cook the leaves of dandelion for a dish of greens.

CRUCIFERAE (MUSTARD FAMILY)

Large Tooth Cress (*Dentaria maxima* Nutt.), "tapîkpî'niûk" [long potato]. The running rootstock of this cress literally mats the ground where there

is a rich forest loam, wet by a spring. The tiny thread root that connects the main stem with the rootstock is so frail that it is difficult to associate the subterranean root with the leaf and flower, but finally we were able to dig one in the spring of the year, with a flower that had just withered and determined its genus and species.

It is a “potato” much relished by the Menomini, but has a pungent, acrid taste when it is freshly dug. The mass of cleaned roots is accordingly heaped on a blanket and covered closely to exclude the air. Then there is a natural process of fermentation for four or five days, following which the roots are found to be sweet. The Menomini cook it with corn, and say that, besides being good to eat, it is a good medicine for the stomach.

CUCURBITACEAE (GOURD FAMILY)

Squash (*Cucurbita Pepo* var.), “winamakwu'asîn.” Shown in plate 26, fig. 1. The native Menomini squash appears to be a cross between a summer crookneck and a pattypan squash. They are prepared in two ways for winter use. The more common way, at least so far as the writer observed, was to cut them horizontally into circles and dry them, hanging them on poles on the rafters of the house. Some cut them into strips and braid them after a partial drying, then dry them stiff and hang up the braids for winter use. They also grow and exhibit at their Indian annual fair, the pumpkin, “wisa'uwikwi nama'kwûn” and a Hubbard squash, “oka'xmakumu'în.”

ERICACEAE (HEATH FAMILY)

Cranberry (*Vaccinium oxycoccus* L.), “pawahimê'nuka.” This is a Menomini food that is sweetened with maple sugar and eaten in the same way as the blueberry.

Blueberry (*Vaccinium pennsylvanicum* Lam.), “pawahime'nûn” or simply “me'nûn.” Shown in plate 28, fig. 1. Blueberries are a favorite food with the Menomini. They gather them in large quantities and dry them in the sun as raisins or currants are dried for winter use. They are dried on a scaffold thatched with rushes. Dried blueberries and dried sweet corn

are eaten together, sweetened with maple sugar, as a special dish.

FAGACEAE (BEECH FAMILY)

Beechnuts. (*Fagus grandifolia* Ehrh.), “säwä'nimîn” [beech nuts]. Beechnuts are gathered and stored for winter use, as are all of the native nuts.

White Oak (*Quercus alba* L.), “oske'xtîmi,” the acorns being called “oske'xtemî'nûn.” Any kind of acorns that were available were eaten in aboriginal times, such as any of the acorns shown in plate 34, fig. 2. The hulls were flailed off after parching, and the acorn was boiled till almost cooked. The water was then thrown away. Then to fresh water, two cups of wood ashes were added. The acorns were put into a net and were pulled out of the water after boiling in this. The third time, they are simmered to clear them of lye water. Then they are ground into meal with mortar and pestle, then sifted in a birch-bark sifter. The fourth time, the meal is cooked in soup stock of deer meat until finished and ready to eat, or made into mush with bear oil seasoning. The old Indians never made pie, but the Menomini now make pie of them.

Hill's Oak (*Quercus ellipsoidal* E. J. Hill) called Pin Oak by the Menomini or “apä'simînûn.” The pin oak acorns were roasted and ground up for coffee. The hulls were removed by flailing, and the parched acorn ready to grind was called “ape'smenun” [black berry].

GRAMINAE (GRASS FAMILY)

Corn (*Zea mays* L.), “apesa'pimîn.” The native varieties of corn are variegated in the color of the grain on the same cob, ranging from cream color to blue and black. Corn has been more or less cultivated by the Menomini from aboriginal times, and they possess an origin myth about it which is described by Mr. Skinner in his “Material Culture of the Menomini.”⁷ Their use nearly parallels the white man's uses, even to the roasting ears and hominy, which is made substantially the same way. But their various ways of curing and drying it for winter use differ from the

⁷ Op. Cit., pp. 154-156.

white man's way. Their after use and the combinations of it with other foods are also different. The women gather the corn in the field when it is nearly ripe and parboil it. When half cooked, they cut off or shell the kernels and dry them in the sun. They also make more use of popcorn than does the white man. Popcorn, "nanisa'pimîn" [mouse corn], was prepared by roasting or parching and pounding it to a meal, adding dried venison, maple sugar or wild rice or all three. This made a very sustaining ration for the hunter, taking very little space to carry and being very nourishing. Another trail ration was parched ordinary corn ground and mixed with bear oil. Scorched or parched corn was often used as a substitute for coffee.

Wild Rice (*Zizania aquatica* L.), "mä'no'män." Shown in plate 27, fig. 2. This is the plant from which the Menomini tribe derived its name and is, of course, their chief and best aboriginal food. The whole story of wild rice has been carefully worked out in Mr. Skinner's "Material Culture of the Menomini"⁸ and has been made the topic of one of the first Public Museum exhibition groups. The writer has seen the present day camps and methods of gathering, preparing and storing, and will give a brief account of the same. The Indians go to the lakes where it grows, while it is still in the milk, and set up camp such as that shown in plate 28, fig. 3, to wait for it to ripen, as time is no object to them. When this time arrives, all of the spirits connected with the rice are addressed in prayer and are feasted, so that a good harvest may be had. The next morning, if ripe rice is to be gathered, the Indians go to the rice beds, three in a canoe, two women to gather the rice and one man to pole the boat. The women pull the heads over the boat and beat off the grains into the bottom of the boat. On the return loaded trip, the women trample the rice to break off the spiny beards or awns. The unhulled kernels are next parched in a dry kettle. A small hole is dug and fitted with a candy bucket or lined with cloth for the threshing floor. A small quantity is poured in and a man wearing moccasins that are new, steps in to trample and thresh it, as will be seen in plate 29, fig. 1. He has a stake driven into the ground near the hole, to grasp and help him keep his balance, while tramping up and down on the rice. The next operation is winnowing, as shown in plate 29, fig. 2. A large shallow birch-bark tray is shaken up

⁸ Op. Cit., pp. 142-152.

and down by a woman to allow the chaff to be removed by the wind or to bring it to the top to be removed by hand. Next the rice is washed to clean it of foreign matter and of the smoky flavor of parching. Then it is ready to cook or store. One part of this rice to six parts of water, gives one the notion of how greatly it swells in cooking. The kernels are about six times as long as they are broad and in cooking the ends curl back till both are brought back to the middle, thus differing from *Oryza sativa*, the white man's rice. The proper way to cook it is with deer broth and season it with maple sugar. Failing this, nowadays, pork or butter is used, with maple sugar.

HYDROPHYLLACEAE (WATERLEAF FAMILY)

Virginia Waterleaf (*Hydrophyllum virginianum* L.), “pitä'pitci'pa.” Shown in plate 33, fig. 1. The leaves of this plant are eaten as greens. First they are wilted like lettuce in vinegar made from the last run of maple sap, then simmered in a kettle. The first water is thrown away. They are then boiled with pork and fine meal until ready to serve.

JUGLANDACEAE (HICKORY FAMILY)

Shellbark Hickory (*Carya ovata* (Mill.) K. Koch), “nano'tckopäkan.” Shown in plate 9, fig. 1. The use of these nuts parallels that of the white man, with no uses peculiar to the Menomini, so far as we could learn.

Butternut (*Juglans cinerea* L.), “pûka'nawe” and the nuts “pûka'nawe paka'n.” Shown in plate 7, fig. 4. No black walnuts were found on the reservation, but butternuts were plentiful. The Indians use them in the same way that the white man does.

LEGUMINOSAE (BEAN FAMILY)

Groundnut (*Apios tuberosa* Moench.), “ma'tcetaupä'niûk” [Indian potatoes]. Shown in plate 29, fig. 3. It was difficult to connect the root of this very important “potato” with its above ground portion. Only on a fourth trial was it definitely seen to be the groundnut. It usually grows in low-lying rich soil and in such a tangle of other vegetation that it is

difficult to work out the connection between the root and the stem. If one knew in advance what species to seek, then the connection would be easily found. The root-stocks are moniliform, that is, like a chain of beads, running in every direction for from fifteen to twenty-five feet, at five or six inches below the surface. The tuberous enlargements or beads are very numerous with no definite intervals between them, usually from six to twenty inches apart, as will be seen in plate 30, fig. 1. They run from marble size to three inches in diameter. These "potatoes" are sweet, starchy and quite palatable raw. They are peeled, parboiled, sliced and dried for winter use. When cooked, maple sugar is used until it thickens to a sticky syrup and the resulting flavor is superior to candied yams.

Cranberry Bean (*Phaseolus vulgaris* L.). Shown in plate 29, fig. 4. Our present day red Cranberry pole beans originally came from the Indians, and this is the variety that the Menomini grew in aboriginal times. It is a staple article of food with them and has been cultivated so long that it is really not known how old it is. It enters into many combinations of Menomini food, which would seem queer to the white man.

LILIACEAE (LILY FAMILY)

Wild Leek (*Allium tricoccum* Ait.), "pikwu'tc sikaku'shia" [the skunk]. Shown in plate 32, fig. 4. The word for skunk in Menomini as well as other Algonkian Indian tongues in different parts of the country is "sika'k." The word "shika'ko" or "skunk place" is the origin of the word Chicago, which in aboriginal times was the locality of an abundance of these wild leeks. This is the larger wild onion known as the hero's onion, or the one pointed out by Mä'näpus for food. It is very highly esteemed by the Menomini and is sought especially in the spring. It is then much rounder and plumper than in the fall when it is shrunken. It is also gathered and dried for future use. It is somewhat bitter to the taste. The smaller wild onion is sweeter.

Wild Onion (*Allium canadense* Roth), "sikaku'sia." Shown in plate 32, fig. 1. The smaller wild onion is sweeter in flavor than the one above mentioned, and is much sought by the Menomini for food. It is too small to be a very large addition to their menu.

NYMPHACEAE (WATER LILY FAMILY)

Yellow Water Lily (*Nymphaea advena* Ait.), “waka'tamo.” The root as a vegetable is called “wa'kepîn.” The large fleshy rhizomes are starchy and firm. They are cooked in the same manner as rutabaga.

OSMUNDACEAE (CINNAMON FERN FAMILY)

Cinnamon Fern (*Osmunda cinnamomea* L.), shown in plate 27, fig. 1, “nonakona'wûs” [milk or breast of woman], a general name for ferns, because of their medicinal value to the Menomini in promoting a flow of milk and in curing caked breasts. The young coiled fronds as they are opening are comparable to asparagus tips and are much relished by the Menomini. The frond tips are simmered for an hour to rid them of ants. This water is discarded. The fern is then put into soup stock and thickened with flour. It is widely eaten by the tribe and has a flavor similar to wild rice.

When these fronds are unfolding, it is the time of the year that fawns are being dropped, and as the doe feeds upon these shoots, the intending hunter must eat nothing else while he is hunting for deer. Then he will not give off any other scent than that of the fern, and the deer will not be frightened away. The hunter takes his bow and arrow and his “squaker,” along with his deer charm, “pitcime'wûs,” and, hiding himself, imitates the sound of a fawn in distress. The doe comes and, not scenting anything but the fern, is easily shot with the arrow. After killing the deer, the hunter may eat whatever he wants.

RANUNCULACEAE (CROWFOOT FAMILY)

Marsh Marigold (*Caltha palustris* L.), “wâsasipu'kwa” [a leaf that is slippery]. Shown in plate 33, fig. 4. The Menomini use this as greens in the spring and many know it under the name of Cowslip, the white man's name.

RHAMNACEAE (BUCKTHORN FAMILY)

New Jersey Tea (*Ceanothus americanus* L.), “kitû'ki mänitu” [spotted manitou]. Shown in plate 21, fig. 1. The dried leaves of New Jersey Tea are used as a substitute for Ceylon black tea by the Menomini. Although my informant could not say, it is quite possible that the tribe learned this use from the civil war veterans among their number, who discovered it during the war.

ROSACEAE (ROSE FAMILY)

Juneberries (*Amelanchier huronensis* Wieg.), (*Amelanchier laevis* Wieg.) and (*Amelanchier canadensis* x *laevis*), “osäkwikomînu'ka” and “ane'pimînun.” Shown in plate 30, fig. 2. The Juneberry or service-berry is a favorite food of the Menomini, seemingly as important as blueberries. It is gathered and dried for winter use the same as blueberries.

Wild Strawberry (*Fragaria virginiana* Duchesne). Shown in plate 33, fig. 2. There is nothing quite so full of flavor as the wild strawberry and the Menomini are very fond of eating them on the spot.

Sand Cherry (*Prunus pumila* L.), “naxno'emîn.” The large sand cherries are eaten out of hand and are sometimes gathered and preserved.

Black Cherry (*Prunus serotina* Ehrh.), “iwî'skîpi me'nûn,” Shown in plate 23, fig. 3. These cherries, if eaten when they have been picked and allowed to stand some time, are said to make the Indian drunk. They are also eaten fresh.

Choke Cherry (*Prunus virginiana* L.), “päna'nowe me'nûn” [puckering berry], “tätä'kimenûm” and “wiki'shimenûn” [birchbark berry]. Shown in plate 8, fig. 1. The writer has observed women and children working on baskets, and keeping a continual stream of choke cherry seeds dropping from their lips as they stripped small branches of cherries to eat. The bark of the choke cherry is boiled to furnish a regular tea which is drunk with meals.

Blackberry (*Rubus allegheniensis* Porter), “onakana'wûs.” Shown in plate 25, fig. 4. The Menomini gather and eat the blackberries in pies, and also dry and store them for winter use.

Red Raspberry (*Rubus idaeus aculeatissimus* (C. A. Mey) Regel & Tiling), “maki'niku onakanawä.” Shown in plate 25, fig. 3. This berry is not as abundant as the blackberry and is only eaten fresh, so far as my informant knew.

Black Raspberry (*Rubus occidentalis* L.), “onakana'wûs.” On the Menomini reservation, this is the least frequently seen of the three *Rubus* species, and it is not important as a fresh fruit.

SAXIFRAGACEAE (SAXIFRAGE FAMILY)

Prickly Gooseberry (*Ribes cynosbati* L.), “nomä'kimîn” [beaver berry], and “kawime'nûn” [the thorny berry]. Shown in plate 23, fig. 1. Gooseberries are one of the staple berries gathered by the Menomini and are preserved and stored for winter use. Previous reference has been made to its use in a favorite aboriginal Menomini dish.

SOLANACEAE (POTATO FAMILY)

Indian Potato (*Solanum tuberosum* L.), “wakikpä'niûk.” Shown in plate 32, fig. 2. These “Irish potatoes” were referred to in English by some of the Menomini as “nigger toes.” They were an odd looking sort of early “potato,” with suggestions in color of the Early Rose, but a deeper purple hue. They grow differently in the hill from our Irish potato, standing upon end, or being vertically dependent. The Menomini grower said that his grandfather grew this same kind of potato and that so far as he knew, the Menomini had always grown them. They produce heavily in new ground and attain a length of eight inches, with a diameter of possibly two inches. The writer had never seen anything like them and sent back some to be modeled for the Museum exhibit collections.

UMBELLIFERAE (PARSLEY FAMILY)

Woolly Sweet Cicely (*Osmorrhiza claytoni* (Mx.) Clarke), “mäno'na häsenu'kwosêt” [the one that looks like wild rice]. Shown in plate 33, fig. 3. This is not so much a food as a medicine. For one that is losing flesh, this is a fattener. It has the taste of a carrot and must be eaten cautiously, eating one branch or piece of the root at a time.

VITACEAE (VINE FAMILY)

Frost Grape (*Vitis cordifolia* Mx.), “sewa'nûn.” Wild grapes are esteemed by the Menomini in exactly the same way that the white man likes them. They eat them fresh, preserve them, dry them or make jelly from them.

MENOMINI VEGETAL FIBERS

The writer believes that there were plants used for fibers that are not known to the present members of the Menomini tribe. The white man's fiber plants for use as textiles, cordage, in the fine arts, and in all lines of uses are so much better and more cheaply manufactured, that native uses of fibers have become almost a thing of the past. Thread, string, rope, cotton or woolen cloth have all been so inexpensive in the past that it was hardly worth while for the Indian to continue his laborious home manufacture of these often inferior articles.

With the passing of the use of native fiber plants, and the changing from the wigwam to the frame house (see plate 12, fig. 1), the technique of fabricating their wigwams, house furnishings and clothing is also passing so that possibly another ten years will write the end of their native fiber chapter. Nowadays, there are many automobiles owned by the Menomini and there is a marked change in every phase of their life.

The writer was fortunate enough to still find some old Menomini who still recalled native uses of fibers. In the pagan settlement around Zoar, one may still see a good deal of native art. The native bone needles, however, have given way to the white man's steel needles and the hum of the sewing machine may be heard in many a Menomini home.

It seems likely that we must look to the government schools for the perpetuation of Indian art or design, more than to the instruction of the

children by their parents. In the industrial school at Keshena, the children are encouraged in their art and craft work to preserve the Indian designs, and this is as it should be.

Strictly speaking, the use of woods in their houses, for utensils, implements and so forth is not a fiber use, but it will be treated under this head, because it is not so varied as to merit a separate section of this publication.

As before, the families will be listed alphabetically, and descriptions of uses will be given along the same lines as those preceding.

MENOMINI FIBER PLANTS

ACERACEAE (MAPLE FAMILY)

Mountain Maple (*Acer spicatum* Lam.), “sopoma'tík nípia'kum asepa'ka.” From this leaf comes the maple leaf design found in Menomini bead-work and applique work. It is not the usual sugar maple-leaf shape, which one might suppose that they would copy. A paper copy of one of these leaves forms a single stencil which is laid down and repeated as often as desired. It is covered with charcoal or flour paste to transfer the design.

APOCYNACEAE (DOGBANE FAMILY)

Spreading Dogbane (*Apocynum androsaemifolium* L.), “sä'nûp.” Shown in plate 35, fig. 4. The outer bark or rind of this herb furnished the finest Menomini thread material. The smallest divisions of this bast fiber are finer than our finest cotton thread and stronger. Just before the fruit has ripened the outer bark is peeled. By using three strands, it is plaited so that a very strong cord is obtained. In the old days, this was the way the Menomini made their bow string. It was also by further combining and plaiting made into heavier ropes.

ASCLEPIADACEAE (MILKWEED FAMILY)

Common Milkweed (*Asclepias syriaca* L.), “nänäwi'tca” [thread material]. Shown in plate 26, fig. 2. This and other milkweeds are used in the same way that spreading dogbane is used, for sewing thread and making cords for fishlines, etc.

BETULACEAE (BIRCH FAMILY)

The yellow birch, white birch, hazel shoots, and smooth and speckled alders are all used casually by the Menomini for making medicine lodge frames, fencing and for poles of various kinds, but without any special reference to the fitness of any particular species or any special name other than those already given. Their wide use of white birchbark for storage baskets, sap buckets, wigwam coverings, canoes and many kindred uses is well known.

CAPRIFOLIACEAE (HONEYSUCKLE FAMILY)

Common Elderberry (*Sambucus canadensis* L.), “papa'skitci'ksi kanax'tîk.” Shown in plate 16, fig. 2. Aside from the medical uses, the stems were used by the children to make pop guns after punching out the pith.

CYPERACEAE (SEDGE FAMILY)

Great Bulrush (*Scirpus validus* Vahl.), “nipla'skûn” [weed that grows in the water]. This is the standard Menomini mat material. The writer saw the various processes in the making of mats. The rushes are gathered, cleansed, bleached and dried in the sun, and then sorted for weaving. Native dyes are used in working out patterns, plain mats selling at a dollar a yard. Large sewed mats of the cat-tail were formerly used in making the covering and side walls of wigwams and medicine lodges. In this case, the rushes were pierced and sewed with bone needles, using basswood string for thread.

EQUISETACEAE (HORSETAIL FAMILY)

Field Horsetail (*Equisetum hyemale* L.). “kise'paskûn.” Shown in plate 11, fig. 1. This species is employed as a scouring rush for pots and pans in the same manner as it was formerly used by the white man.

FAGACEAE (BEECH FAMILY)

Beech and also oaks were used by the Menomini for fencing, for building and for fuel. The names of the different kinds have already been given in the discussions of medicines and foods.

GRAMINAE (GRASS FAMILY)

Sweet Grass (*Hierochloe odorata* (L.) Wallerib.), “we'nuskwûn” [stinking]. Fragrant and vile odors are all designated by the one word in Menomini, which is translated “stinking.” This grass is used in their basketry and as a perfume. The Menomini will find it when it is not in fruit and where the white man would overlook it. It was also said to be used to burn as an oblation to their deities. In sewing, sweet grass is used wet, and when it dries it is tight. Cooked resin was often used to go over the sewing. This resin is called “askapike'wi” and is from the fir or pine tree. A flat skillet is used to heat the resin, and there must be no blaze. It must be cooked slowly. Seasoned hemlock bark, “neisano paianek” [two times blaze], is used for the fuel because it makes a good fire without smoke. This same fuel is used in cooking maple syrup.

OLEACEAE (OLIVE FAMILY)

Black Ash (*Fraxinus nigra* Marsh.), “anepaka'xkwû'tik.” Shown in plate 9, fig. 3. Ash wood is used in the same manner by the Menomini as by the white man. In aboriginal times, bows and arrows were made of black ash.

PINACEAE (PINE FAMILY)

Balsam fir, white spruce, jack, red and white pine, and cedar are all used

as woods by the Menomini.

Jack Pine (*Pinus banksiana* Lamb), “okika'tik.” The small roots of jack pine, whole or split, are used as cords to sew the birch bark canoe. They are boiled to render them more pliable, and the stitching is sealed with pitch or boiled resin.

Cedar or Arbor-vitae (*Thuja occidentalis* L.), “kesa'wana'uki” [cedar bark]. Shown in plate 8, fig. 3. Cedar bark is very stringy, and this fiber was used by the aboriginal Menomini to weave bags.

ROSACEAE (ROSE FAMILY)

Juneberry, choke cherry, and black cherry woods were used by the Menomini as by the white man.

SALICACEAE (WILLOW FAMILY)

Balm of Gilead, large toothed aspen, and the native willows were all used by the Menomini as ordinary woods. One basket woven from willow twigs was observed.

THYMELEACEAE (MEZEREUM FAMILY)

Leatherwood (*Dirca palustris* L.), “wêx'tike'kop.” The tough bark or even twigs of the leatherwood was used for cordage by the aboriginal Menomini. Even now emergency cordage is made from the leatherwood.

TILIACEAE (BASSWOOD FAMILY)

Basswood (*Tilia americana* L.), “wexkop'.” Shown in plate 12, fig. 4. Basswood bast or bark fiber was and is the ready cordage for the Menomini. Balls of the twine are kept in every Menomini household, for tying, sewing, or for weaving bags. The women make this twine and go to the forest to gather the raw material. Saplings are peeled in the spring when the cambium is active and it is readily separable. A long strip of bark is peeled off and the outer cortex is slightly cut. Then the bark is

bent at the cut until it projects far enough to get the teeth fastened on the outer rind. This is then pulled off and thrown away. It is now ready for use, except dividing it down to the desired size. Should a ball of twine be wanted, the gathered bark is coiled and bound to keep it in a coil, then boiled in lye water. When the fibers begin to spread, it is taken out, dried and seasoned. Then it is cut three feet long and rolled to break up the fibrovascular bundles. Finally, it is twisted and joined by the Menomini woman against her shin and between her palms. Basswood fiber is used widely in many arts. Matting and baskets, fish-nets and nets for snowshoes are made from it.

TYPHACEAE (CAT-TAIL FAMILY)

Cat-tail (*Typha latifolia* L.), “up'akiuoti'pa.” Shown in plate 35, fig. 3. The root of the cat-tail is used as a natural oakum for caulking leaks in boats. The leaves are used to make mats to cover the winter lodges, much as the bulrush mats are made. Because of the heavy flat layers, they keep out the rain and snow and are well adapted to winter thatching. In summer they are stored away for the next year's use.

URTICACEAE (NETTLE FAMILY)

Slender Nettle (*Urtica gracilis* Alt.), shown in plate 35, fig. 2, and wood nettle (*Laportea canadensis* (L.) Gaud.) are both called “Sä'nap,” which is the rightful name for another genus. Both are retted to obtain the Indian hemp twine, which is used in making fiber bags called “Sä'nûp mînu'ti.”

Slippery Elm (*Ulmus fulva* Mx.), “sausî'kop.” Shown in plate 7, fig. 3. The slippery elm bark is gathered and boiled and used in the same manner as basswood bark for making fiber bags, large storage baskets, etc.

MENOMINI VEGETAL DYES

There is some evidence to lead one to believe that the Menomini have forgotten how some of their colors were obtained. Green was said to have been a vegetable dye, but there are none of the Menomini now

that know the source of it. All their vegetal dyes were obtained by boiling the part of the plant that yields the color, be it the leaves, root or bark.

The present day Menomini still depends on the native vegetal dyes to a large extent for his red, yellow and black colors. Other colors are supplied by the dyes of the white man. The Menomini says that the white man's dyes are not so permanent as his native dyes, and for this reason prefers his own.

MENOMINI DYE PLANTS

ANACARDIACEAE (SUMAC FAMILY)

Staghorn Sumac (*Rhus typhina* L.), “kaka'kiumênû'ka.” Shown in plate 9, fig. 4. The roots of the Sumac when boiled yield the Menomini yellow dye, their word for the color being “wasa'ukîk.”

BALSAMINACEAE (TOUCH-ME-NOT FAMILY)

Spotted Touch-me-not (*Impatiens biflora* Walt.), “sewäpoko'tcîkûn.” Shown in plate 36, fig. 1. The whole plant is used to make an orange yellow dye.

BETULACEAE (BIRCH FAMILY)

Speckled Alder (*Alnus incana* (L.) Moench.), “wä'top.” This alder bark is boiled to yield a reddish brown dyestuff. The cloth or other material to be colored is immersed in the boiling liquid.

JUGLANDACEAE (WALNUT FAMILY)

Butternut (*Juglans cinerea* L.), “puka'nawe.” Shown in plate 7, fig. 4. The juice of the husk of this nut was formerly used to dye the Menomini deerskin shirts brown. Butternut bark is used to obtain their black color called “ape'siu,” “ä'pänik” or “äpe'skîk.” For a deep black color, the bark was boiled with blue clay.

OXALIDACEAE (OXALIS FAMILY)

Ladies' Sorrel (*Oxalis corniculata* L.), “wasa'wûs.” Shown in plate 14, fig. 1. The Menomini do not distinguish between *O. corniculata* and *O. acetosella* and *O. stricta* so far as furnishing the color is concerned. The whole plant, when boiled, gives a yellow dye.

PAPAVERACEAE (POPPY FAMILY)

Bloodroot (*Sanguinaria canadensis* L.), “wapitcika'wi.” Shown in plate 14, fig. 2. The fresh root of blood root was often used to paint the face of a warrior. The boiled root furnished a dye that the Menomini women used in coloring their mats red or orange red. Other tribes use the fresh juice of the blood root on maple sugar to cure a sore throat, but the writer was unable to find any such practice among the Menomini.

PINACEAE (PINE FAMILY)

Hemlock (*Tsuga canadensis* (L.) Carr.), “miusiku'kowe wona'uki” [hemlock bark]. Boiled hemlock bark is the source of the dark red coloring of the Menomini.

RANUNCULACEAE (CROWFOOT FAMILY)

Hooked Crowfoot (*Ranunculus recurvatus* Poir.), “sewapokä'tcîkûn” [sweet water and the added color]. The root of this plant is a coloring material for a shade of red. When it is boiled, the coloring matter is extracted and the material is immersed in the tepid dye water.

MISCELLANEOUS USES OF PLANTS

Under this head will be considered plants used in tanning, love charms and for sacred or ceremonial uses. In the latter class, much of the information might be regarded as pure superstition.

Much of the tanning is not done with vegetable matter, but with animal and mineral matter, as described in Mr. Skinner's “Material

Culture of the Menomini.”⁹ Yet there are roots and herbs used in the preparation of skins with the fur left on, to prevent moths and insects from eating off the hairs. Unfortunately, my informant was not versed in this branch of their art, and was unable to find anyone who could give the information relating to this work.

LYCOPERDALES (PUFFBALL FAMILY)

Gem Puffballs (*L. pyriforme* schaeff.), “iniki'wi opa'skûk.” Shown in plate 10, fig. 4. The powder of this puffball was sometimes used by warriors for putting out the eyes of the enemy. When puffed into the enemy's eyes it was said to induce permanent blindness.

APOCYNACEAE (DOGBANE FAMILY)

Spreading Dogbane (*Apocynum androsaemifolium* L.), “nimuskwä'tcîkûn” [hunting medicine]. Shown in plate 35, fig. 4. This plant stalk is also used as a helper to call up deer. It becomes a magnet. The hunter has a regular deer “squacker” and keeps this plant or cynthia in his mouth, sucking it as he proceeds, making believe that he is the fawn, wanting to call the doe because he is hungry. When he is hunting for deer he must not eat pepper, onions, or any sweet. After he has killed the deer, he may eat whatever he chooses.

ARACEAE (ARUM FAMILY)

Dragon Root (*Arisaema dracontium* (L.) Schott.), “miniuv'osêt” [owl's foot]. Shown in plate 10, fig. 2. This root is often found in sacred bundles, where it gives the power of supernatural dreams to the owner.

ARALIACEAE (GINSENG FAMILY)

Ginseng (*Panax quinquefolium* L.), “mätcxetasa” [little Indian]. Ginseng root is also used as a hunting charm, as well as a medicine. The root is chewed and imparts a lure to the breath, assisting the “squacking” machine or deer call to become effective in luring the deer. It is also put

⁹ Op. Cit., pp. 224-229.

into some war-bundles as well as hunting bundles.

BORAGINACEAE (BORAGE FAMILY)

Hoary Puccoon (*Lithospermum canescens* (Mx.) Lehm.), “mêgi'si'sê” [bead]. Shown in plate 36, fig. 2. - It is very difficult for a white man to get any exact information about sacred objects of the Menomini. The white ripened seed of this plant is supposed to be a sort of sacred bead used in the “mitä'wîn” ceremony.

COMPOSITAE (COMPOSITE FAMILY)

Cynthia (*Krigia amplexicaulis* Nutt.), “pitcime'wûs.” Shown in plate 36, fig. 4. This and a *Lactuca canadensis* were said to be a deer charm. The old Menomini were able to take the hollow stem, much as children nowadays make a pipe out of dandelion stems to blow a note, and make a wail that simulated a fawn in distress. Because this plant had milk like the doe at that time, it lured the doe, which would come close to the hunter so that he could kill it with his bow and arrow.

CORNACEAE (DOGWOOD FAMILY)

Silky Cornel (*Cornus amomum* Mill.), “kinnikinik,” shown in plate 18, fig. 4, and **Alternate-leaved Cornel** (*Cornus alternifolia* L.f.), shown in plate 18, fig. 1, also called “kinnikinik.” The inner bark of both species was used by the Menomini for smoking tobacco. In these latter days it is mixed with real tobacco, but in olden times it was used alone. It was gathered and toasted to prepare it, the manner of preparation being well told in Dr. Barrett's “Dream Dance of the Chippewa and Menomini Indians of Northern Wisconsin.”¹⁰

FUMARIACEAE (FUMITORY FAMILY)

Dutchman's Breeches (*Dicentra cucullaria* (L.) Bernh.), “a'nimau kapotise'sa” [the one that looks like little pants, with his hands in his pockets]. Shown in plate 12, fig. 3. This is probably a translation into

¹⁰ Present series, Vol. 1, Art. IV, pp. 357-368.

Indian of the English name. This is one of the most important love charms of the Menomini. The young swain tries to throw it at his intended and hit her with it. Another way is for him to chew the root, breathing out so that the scent will carry to her. He then circles around the girl and when she catches the scent, she will follow him wherever he goes, even against her will.

PINACEAE (PINE FAMILY)

Cedar (*Thuja occidentalis* L.), “ke'sa'sata'uk.” Shown in plate 8, fig. 3. The leaves of the cedar are the Menomini moth balls. They store away clothes with layers of the leaf sprays to keep out the moths.

SAXIFRAGACEAE (SAXIFRAGE FAMILY)

Bishop's Cap (*Mitella diphylla* L.). Shown in plate 35, fig. 1. The small shining black seed of this insignificant plant is the sacred bead, “mê'gîsê,” that is swallowed in the medicine dance, during the reinstatement ceremony.

SCROPHULARIACEAE (FIGWORT FAMILY)

Indian Paintbrush, (*Castilleja coccinea* (L.) Spreng.), “mene'nun matciki'kto'.” Shown in plate 34, fig. 4, and in plate 36, fig. 3. This is a Menomini love charm like the Dutchman's Breeches. However, it is employed in a somewhat different fashion, the scheme being to try to secrete some of the herb upon the person who is the object of the enamour.

Wood Betony (*Pedicularis canadensis* L.), “mitä'mu sewûs otci'pa” [woman enticer root]. Shown in plate 34, fig. 1. The root of this is carried on the person of the Menomini who is contemplating making love advances.

UMBELLIFERAE (PARSLEY FAMILY)

Cow Parsnip (*Heracleum lanatum* Mx.), “piki'wûnûs.” Shown in plate 24, fig. 1. This herb is always found in the hunting bundle. It is a very

personal sort of a deer charm, as only the owner of the bundle can handle it. If others touch it they will turn black and die. After the deer is killed, then it must be hung up and smudged for four days, after certain parts are removed. This plant and the leaves of Cynthia are burned in the smudge to take out the charm, by which the hunter was enabled to kill the deer. This smudge is also to drive away the evil spirit called sokenau, whose special mission is to steal one's hunting luck. On a deer hunt, as soon as the camp is established and the fire built, some of this cow parsnip is thrown into the fire, and the odor and smoke permeate the air for great distances, making it impossible for the sokenau to approach too closely under ordinary circumstances. But if sokenau is desperate and determined to steal one's hunting luck, he may come right into camp, but the smoke of pikiwunus will cause him to go blind. In case a person is afflicted with bad hunting luck, a medicine made of pikiwunus seeds, muskikwus and na'sikun is used. The whole hunting paraphernalia is smoked and smudged to drive away bad luck. The hunter must not eat any of the meat during this four days' smudging process, if he did, the Menomini believe that he would turn black and die. Wild ginger root is boiled with deer meat to remove the hunting charm.

CONCLUSION

In conclusion, the writer wants to lament the passing of the olden times. It hardly seems necessary, when the Menomini tribe is so numerically weak, that they should struggle to ape the white man. They have a good reservation and have always been self-supporting in their own fashion, and have been in many respects a happier race than the whites. At best, their traditions and instincts keep cropping out, and it is a hard struggle to put themselves on a plane of competition with the white man. They are certainly more interesting and happier among themselves, to follow their own ways, and only a small percentage will ever be absorbed into our population.