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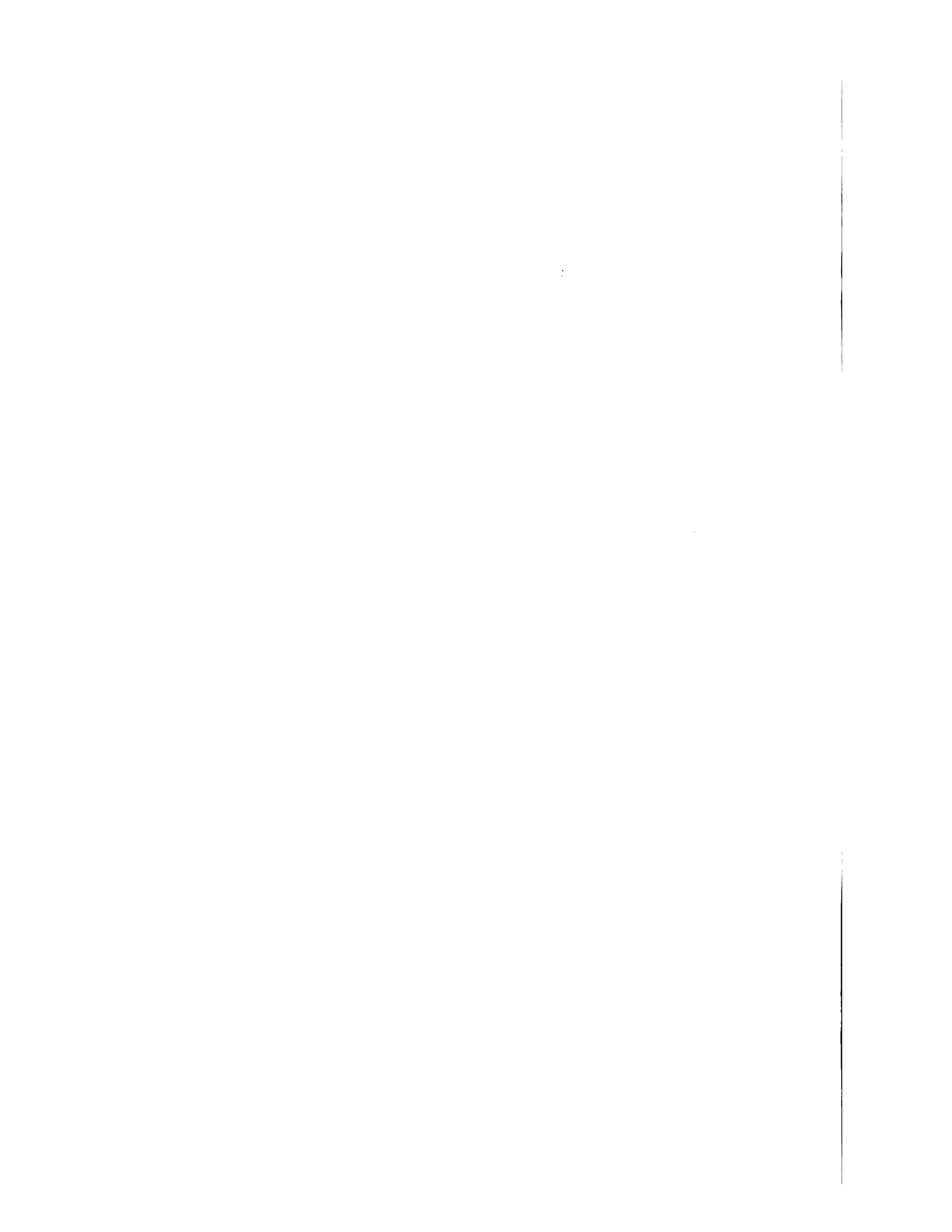
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May 2, 1932

**Ethnobotany of the Ojibwe
Indians**

By
Huron H. Smith

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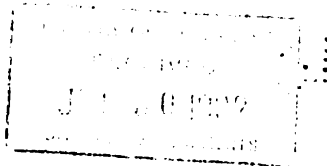
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Ethnobotany of the Ojibwe Indians

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FOREWORD

This bulletin is the third in a series of six, recounting the field work done among Wisconsin Indians to discover their present uses of native or introduced plants and, insofar as is possible, the history of these plant uses by their ancestors. As far back as 1888 Hoffman⁸⁵ reported that the medicinal lore of the Ojibwe would soon be gone. But thirty-two years later, it is still partially recalled and practised among the more primitive bands of these people. How long it will persist is problematical. The Ojibwe are the most numerous of any of our tribes and as long as they live in the northern forest and lake district of Wisconsin, so long will the older Indians continue to explain the natural history of their environment to the young men and women of the tribe.

The writer deploras the brevity of the time that could be devoted to each tribe, and applauds the similar study reported by Miss Frances Densmore⁸⁶ in her fifteen years of research among the Ojibwe. Necessarily the most valuable information comes from the oldest Indians, and many informants have died since this study was made.

Three trips were made, usually of six weeks duration. The first was made in June, 1923 to the Lac du Flambeau Reservation, in Vilas County, Wisconsin. The same region was visited again later in the fall. During the spring of 1924 one trip was made to Leech Lake, Minnesota, where the remnant of the Pillager Band of the Ojibwe live on Bear Island, (Plate 60, fig. 1), and the surrounding mainland. Since then, trips have been made to Redcliff, Bayfield County, to Odanah, Iron County, to Lac Court Oreilles, Clark County, and to scattered bands in various sections of northern Wisconsin. The principal work was done at Lac du Flambeau and Leech Lake. The Leech Lake trip checked results obtained at Lac du Flambeau.

The writer thanks those officials and private citizens who assisted by introductions to Indians and by making his stay among them comfortable. Mr. James W. Balmer, Indian Agent, then at Lac du Flambeau, now at Pipestone, Minnesota, and his chief clerk, Mr.

⁸⁵Walter J. Hoffman. "The Midewiwin or 'Grand Medicine Society' of the Ojibwa." In the 7th Annual Report of Bur. of Ethnol. 1891, pp. 142-299.

⁸⁶Miss Frances Densmore, "Use of Plants by the Chippewa Indians." In 44th Ann. Rept. Bur. Am. Ethnol., 1928, pp. 275-397.

Walter H. Shawnee, a Shawnee Indian, still in service at Lac du Flambeau, and Mr. John Allen, Ojibwe Indian and school disciplinarian all gave valued advice and quartered us at their Teacher's Club. Mr. Edward Rogers, of Walker, Minnesota, a very successful Ojibwe attorney, and the Noble brothers, Mr. John W. Noble and Mr. E. W. ("Van") Noble, proprietor of Forest View Lodge, directly across from Bear Island, rendered valuable assistance with the Piller band of Ojibwe.

The writer collected every plant he could find in each region because he had been informed that the Ojibwe differ from other Wisconsin Indians in that they believe that every plant that grows is some kind of medicine or useful for something. The only plants discovered for which they had no name or use were adventive plants, and one could fairly well establish the date of their appearance in the state, because the Indians pay much more attention to our native flora than do the whites.

Most of our informants were men, because they found it easier to talk to the writer than the women. It was easy to get the women to talk of old time methods of preparing aboriginal foods. The Ojibwe had a large number of hunting medicines used as charms. These were accompanied by drawings on the ground designating what they hoped to accomplish in killing game for their larder. About sixty-five per cent. of their medicinal plants were actually valuable medicinally, the remainder being employed in a shamanistic or superstitious manner. The writer concludes that their great knowledge of plants has been achieved through long periods of time by a process of trial and error, basing this belief upon their fear of mushrooms. Both men and women pointed out plants in their native habitat and were willing to explain their uses. They are the real ones to thank for the facts discovered and without their cooperation such a study would be impossible. A list of them follows.

In conformity with previous bulletins, the plants will be listed (1) under their various uses and (2) under each of these captions, alphabetically by their families. Where possible, the literal translation of the Indian name is given.⁸⁷

⁸⁷Field work is completed upon the ethnobotany of the Forest Pottawatomi, Winnebago and Oneida Indians, and bulletins will appear upon their ethnobotany at a future date. All will follow the same general plan.

INFORMANTS

In the course of this work many informants have assisted the author, among whom the following residents of Lac du Flambeau, Wisconsin, should be noted:

Jas. W. Balmer, Indian Agent; Walter H. Shawnee, Chief Clerk; Charley Burns, Cagkecci, Indian Policeman; John Allen, Indian Disciplinarian; Anawabi (Exalted One) Village Chief; Jack Doud, Kékék (Sparrow-hawk) Captain in Civil War; Bert Skye, Anawabi's Son; Mrs. Bert Skye; Bear Skin, Múkwean (Bearskin) Medicine Man; Jack Patterson, Sikurtz, of Sand Lake; Long John Bear of Pelican Lake; John White Feather, Wabacki'gane'bi, of Flambeau Lake; Mrs. John White Feather; Webujuonokwe, of Flambeau village; Amfkons (Young Beaver) of Flambeau village.

We also received information from the following residents of Leech Lake, Minnesota, Ga-saga'skwadji'mékag:

Ben Smith, Peikci (Deer) of Boy Lake, Minnesota; Edward Rogers of Walker, Minnesota; John Peper, Jigwa'be of Bear Island; Pi'awantagi'núm, Peper's mother; White Cloud, Wabacks'nakwad (White Cloud) of Bear Island; Inwapi'kwe, White Cloud's wife; Wasawana'kwit, White Cloud's son of Federal Dam, Minnesota; John Smith, Ajo'vbène'sa of Bear Island; Mowitga'wús of Bear Island; Ed Coming, Getaki'bines, of Brevick, Minnesota.

Mici'min (Apple), Chief, and John Goslin, Wabacki'gane'bi, of Lac Court Oreilles, Wisconsin, also contributed information.

PHONETIC KEY

The Ojibwe have written their language for a longer time than any other Algonquin tribe and, while they employ a syllabary⁸⁸ in corresponding with absent members of the tribe, it has little value to the ethnologist. The writer has two books printed in English and

*OJIBWE SYLLABARY

ba be bi bo
sa se si so
sha she shi sho
na ne ni no
ma me mi mo
ta te ti to
tta tte tti tto

ka ke ki ko
wa we wi wo
ya ye yi yo
a e i o
da de di do
ga ge gi go

The letters all have the English value except tta and ga, which are pronounced cha and kwa. A, e, i, and o when pronounced alone become ha, he, hi, ho. Extra characters are Ji, pronounced shi, and di, pronounced dahi.

Ojibwe. One is "A collection of Chippeway and English Hymns", translated by Peter Jones, Indian Missionary, the second edition of which was printed by the Methodist Book Concern in 1847. This was given to the writer by Mr. Henry Ritchie, an Ojibwe, of Laona, Wisconsin. The other is "A Dictionary of the Otchipwe Language", explained in English, Part 1, English-Otchipwe, by R. R. Bishop Baraga, published by Beauchemin and Valois, Montreal, in 1878. This was given to the writer by Capt. John Valentine Satterlee, of the Menomini tribe, Keshena, Wisconsin. With the aid of either of them one experiences little difficulty in pronouncing Ojibwe words.

In this bulletin, the following phonetic system will be used.

VOWELS

a as in art	ā as in flat
e as in prey	ê as in met
i as in police	î as in bit
o as in go	ô as in luck
u as in rule	w, y and h as in English
ai as in aisle	

CONSONANTS

	Post-Pal	Medio-Pal	Pre-Pal	Dental	Bilabial
Stop	k, g		d t	t	b p
Spirant			c j	s z	
Affricative		dj	tc	f v	
Nasal	ñ		n		m
s as in since					
g as in give					
z as in zeal					
c as sound of sh					
j as sound of zh					
tc as sound of tc in witch					
dj as sound of j in jug					

While the writer is not a linguist, Indian pronunciation came easily to him and he was able to pronounce all plant names in an intelligible manner to Ojibwe people whom he had never seen before.

INTRODUCTION

The subjects of this bulletin, the Ojibwe Indians, have probably been designated by more different spellings of their name than any other tribe in the country. The anglicized version is Chippewa, an adaptation of the Ojibway of Longfellow. Ojibway means "to roast till puckered up," referring to the puckered seams on their moccasins, from "Ojib", "to pucker up", "ub-way", "to roast". In historic literature some of the more common ways of spelling their name have been: Achipoes, Chepeways, Chipaways, Odjibwag, Otchipwe, Uchipweys. Less familiar names applied to them have been: Baouichtigouin, Bawichtigouek, Dewakanha, Dshipowehaga, Estiaghicks, Hahatwawne, Khahkhahtons, Neayaog, Ninniwas, Saulteur, Santeaux, Wahkahtowah and at least fifty others.

The Ojibwe is one of the largest tribes in the United States and Canada, and lived originally along both shores of the Great Lakes as far west as the Turtle Mountains, North Dakota. They are of Algonkian stock and in the north are closely related to the Cree and Maskegon tribes. In the south, through Michigan, Wisconsin and Minnesota they have always been closely associated with the Ottawa and Pottawatomi. These three have been recently called the Three Fires Confederacy. Their languages were even similar, and Pottawatomi have often told the writer that their tongue was an abbreviated Ojibwe language,—“like it was a nickname”.

This numerous people lived far away from the frontiers of the colonial war period, hence are not often mentioned in the early history of the United States. The original habitation of the Ojibwe in Wisconsin is supposed to have been at La Pointe, a town no longer in existence, in Ashland County, near Lake Superior. The first reference to them in history is in the Jesuit Relation of 1640 when they resided at Sault Ste. Marie. It is thought that Nicolet met them either in 1634 or 1639. Father Allouez found them at Superior, Wisconsin, in 1665-67. According to Perrot,⁸⁹ in 1670-99 those Ojibwe on the Lake Superior shore of Wisconsin cultivated corn and were living peaceably with their neighbors, the Sioux. About this time they first obtained

⁸⁹"The Indian tribes of the Upper Mississippi Valley and region of the Great Lakes" By Nicolas Perrot, translated by E. H. Blair, 1911, Vol. 1, p.100.

fire-arms, and pushed their way westward fighting with the Sioux and the Meskwaki. The French established a trading post at Shangawawmikong, afterwards La Pointe, in 1692, which was the most important Ojibwe settlement in Wisconsin.

In the early years of the eighteenth century, the Ojibwe succeeded in driving the Meskwaki from northern Wisconsin, when the Meskwaki joined forces with the Sauk Indians. The Ojibwe then turned their attention to the Sioux, driving them across the Mississippi and as far as the Turtle Mountains in North Dakota. The Ojibwe took part in frontier settlement wars up to the close of the war of 1812. Those living within the United States made a treaty with the Government in 1815 and have since remained peaceful, with the exception of a minor uprising among the Pillager Band of Ojibwe on Leech Lake, Minnesota. Most of them live on reservations or allotted land in Michigan, Wisconsin, Minnesota and North Dakota. There was a small band of Swan Creek and Black River Ojibwe who sold their lands in Michigan in 1836 and went to live with the Munsee, in Franklin County, Kansas.

It was represented to the writer that the Pillager Band of Ojibwe should be quite interesting and primitive since they were the only unsubdued Indians left in the United States. They are supposed to have revolted during the Civil War, when Government attention was concentrated on determining whether or not, the Union should be preserved. They pillaged a small town, killed the inhabitants, took all of the food stores and fled to Bear Island in Leech Lake, Minnesota, shown in plate 60, fig. 1. Again, while the United States was at war with Spain in 1898, the Ojibwe complained bitterly about certain irregularities in regard to the disposal of the dead and fallen timber on Leech Lake Reservation. They accused white speculators of firing the woods to create a class of timber known as dead and down timber, thus depriving them of their winter livelihood in logging operations.⁹⁰

Rather indiscriminate arrests of the Pillager Indians by United States marshals caused resentment and the actual warfare was caused by the attempt of a deputy marshal to arrest certain Indians accused of selling whiskey on the reservation. On September 15, 1898, two

⁹⁰"The last Indian uprising in the U. S." Louis H. Roddis, Minn. Hist. Bull. Vol. 3, No. 5, pp. 273-290.

Indians were arrested by deputy marshals and rescued by their comrades. Warrants were issued for the arrest of the more than twenty Indians who had assisted in the rescue. Since the marshals feared the Indians, they asked for the assistance of troops. It was thought that a show of force by regular troops would be sufficient. Twenty men of the Third Regiment U. S. Infantry were sent, but since the Indians showed no sign of yielding eighty more left Fort Snelling for Walker, Minnesota. Major M. C. Wilkinson and General J. M. Bacon were in charge.

Two small lake steamers and a barge took the troops to Bear Island, and they anchored in shoal water just across from the island, proceeding by barge to the mainland. The battle took place at the house of Bujonegicig, who died only a few years ago. The troops were fired upon from the woods and Major Wilkinson, Sergeant Butler and four privates were killed. Ten were wounded. On October 6, 1898, 214 more troops came to assist, but no further firing was encountered and the uprising was over. The Commissioner of Indian Affairs, W. A. Jones, arrived from Washington, October 10. The next morning he and Father Aloysius, a priest with great influence over the Indians, held a long and friendly conference with the Pillager chiefs investigating and settling the timber complaints. Troops flooded that country and persuaded the Bear Islanders to respond to the warrants. They were duly tried, sentenced and fined, but the fines were remitted and after two months imprisonment the sentences were commuted and pardons granted.

The writer found but few who remembered the battle, for while there were over a hundred men able to bear arms in 1898, the Ojibwe could not successfully fight the influenza attack of 1919 and the present population consists of only fourteen persons: John Peper, wife, daughter and mother; White Cloud: shown in plate 59, fig. 2, wife and son; Moicka'wus and wife; John Smith, Frank Marshall, wife and two children. John Peper's mother was said to be 106 years old and looked the part, as shown in plate 59, fig. 1. John, her youngest boy was past 70 years of age. Another very old resident, John Smith, had died the year before the writer arrived. His age was said to be 138 years. His recollections are said to have included George Washington as President of the United States.

All of our Ojibwe residents in Wisconsin and those in Michigan and Minnesota were forest Indians and, as such, great hunters, although they cultivated maize in a small way. They made very superior birch bark canoes and were at home on the many lakes of the northland, subsisting largely on fish and game. While at the present time, they dress themselves to satisfy the pre-conceived ideas of tourists, in the early days, their headdress consisted of otter skin caps, often embellished with eagle feathers, one for each enemy slain in battle and consequently for each scalp secured. The great feathered bonnet was not of their culture, but has been more recently borrowed from the Plains Indians. They never used the tepee of the Plains Indians, such as is shown in plate 46, fig. 2, and in plate 58, fig. 2, but built a wigwam. The wigwam was easily constructed in a half-day's time. Poles were thrust into the ground in a circle of from twelve to twenty feet, their tips bent and securely tied in the center with basswood bark cord to form a hemisphere, about eight feet in height at the center. The whole was then covered with bark of balsam, or woven cattail mats, such as the one shown in plate 46, fig. 2, and roofed with birch bark. An entrance and smoke hole were left and mats thrown upon the ground. It was much warmer than a tepee and better adapted to the heavy snow fall of the north, and to low temperatures. All of their storage houses and their smaller sweat lodges were similarly made. Their medicine lodges followed the same construction though they were much longer: being eighty, a hundred and even a hundred and fifty feet in length.

We had occasion to see the medicine lodge in use several times during our stay at Lac du Flambeau. This lodge was in the old Flambeau village, just at the edge of the woods. It was a huge affair, about one hundred and fifty feet long, with a stout framework of saplings joined together and arched over at a height of eight feet. The framework was rigidly held together with other horizontal saplings secured by basswood bark cord at every junction of poles. It stood as a framework for several years. During use, the sides of this framework are covered with cattail mats and the top with sewed birch bark, as shown in figure 21, of the Museum's 1923 Yearbook. By using a bone needle and nettle string the cattail mats are sewed together with an invisible stitch, that makes a windproof cover.

Down the center of the lodge is a long ellipse where countless

dance steps have bared the earth of this otherwise grassy plot. The entrance of the lodge faces the east, and there is an exit to the west. A fire is usually burning just inside the eastern entrance, the smoke ascending through a smoke hole left in the roof. The medicine men are gathered to the left of the fire on the north while the patient is usually seated to the right of the fire on the south. The medicine drum in use during a treatment for healing is smaller than the dream dance drum, usually seen by tourists, and of a different shape. It is about eight inches in diameter and sixteen inches high. The buckskin stretched over the end is moistened from time to time by reversing the drum which contains water, and rubbing the skin to permit it to take up the liquid. The tone and volume are greatly enhanced by this procedure.

The medicine lodge members sit in groups around the lodge starting at the north side, and proceeding down to the west and back along the south side toward the east again. Every song and march around the lodge is repeated four times, this being their sacred number. The time needed in effecting a cure is varied but the writer has seen a woman carried in on a litter, recover in three hours time and take part in the dancing.

The Indian Service in the past has wished to discourage treatment by medicine men and on larger reservations has supplied a resident physician. It is a constant competition between the two, for naturally a white physician cannot cure every case any more than a medicine man can, and when the medicine man apparently effects cures after the physician has given up or appeared to produce no improvement, the credulous patients are going to continue to believe in the medicine men. Christianity has had but little effect upon the Ojibwe so far as the writer has been able to observe, largely because of the reputation of the medicine men among them.

According to the late Dr. William Jones, the ethnologist mentioned in "Ethnobotany of the Meskwaki Indians", Part 2 of this volume, the Pillager Band of Bear Island occasionally practiced cannibalism ceremonially, and even as late as 1902 ate human flesh on the Rainy River during a famine. He cites the fact in 1905 that polygamy was once common and even still occurred among wandering bands.

Many visitors to the northland think of the country in terms of sand, and consider it unfit for use agriculturally. While sandy soil

is common, it is also easy to find very good productive soil and in some cases even clay. The Indian settlements and homesteads were never extensive and four or five acres of land seem to suffice them for growing hay and garden crops. The agency Indian farmer maintains demonstration garden plots, such as the one shown in plate 46, fig. 1, and also more extensive farms, and constantly advises with those who are trying to farm. The Indian women even grow some cultivated flowers. At Lac du Flambeau, the Ojibwe take great pride in their annual Indian fair and display farm animals, horticultural products, and native arts and crafts for premiums. It is a pity that more do not follow agriculture because they have sufficient farming land and have also good examples to follow. Most of them like the quick returns made in selling Indian art work, or made acting as guides for fishing and hunting parties. The easy money is too soon spent and they suffer considerably before the winter is over.

The native flora is about the same at both Lac du Flambeau and Leech Lake, and the species are by no means as varied as on the Menomonic Reservation. They make full use of everything that occurs with them except the adventive or introduced plants. They recognize regular types of soil as sources of their medicinal plants. Sandy meadows, sandy wastes, lakes, still ponds, swamps, upland swamps, rocky openings in the forest, evergreen forests, and hardwood forests all are searched for distinctive plants. The greatest number of species of native plants are found in the composite family and we find the Ojibwe making more use of these than any other tribe. The heath family contributes many species and is important to them. Grasses and sedges, while numerous in species are not so well known to them, although here again they use more species than the neighboring tribes.

John Whitefeather, of the Couderay Ojibwe, who adopted the writer into their tribe, related their origin myth. Briefly it is as follows: There has always been a controversy among the whites as to whether such an Indian as Hiawatha ever lived. Hiawatha is the name that Henry Wadsworth Longfellow gave to their cultural hero, Winabojo. Hiawatha or Winabojo was never seen by man, although sometimes both names have been used for proper names among the Ojibwe. Their great spirit or ruler of the universe was named Dzhe Manido.

According to Whitefeather, Winabojo was the one who caused the

deluge that covered the world and was responsible for building it again. Winabojo was sitting at the mouth of a big river and noticed a stick bobbing up and down near the middle of the stream. He thought it was curious that it was not carried on down stream to the big lake and further thought that it would be fun to sit on the stick. So he swam out and sat on it. Dzhe Manido had told him two phrases, one of which he might sing to himself, which is translated "Lake must close in" and the other was "Lake should spread out", and he must not say that. Winabojo became curious to see what would happen if he repeated the second of these phrases. He said it. Immediately the stick sank and he fell under. He swam back to the top but could discover no land. Other animals were swimming around, so he requested muskrat to dive down and get him some mud from the bottom of the lake. Muskrat dived down but it was too far and he drowned. The martin tried it and drowned. The otter tried it and drowned. Then beaver tried it and obtained some mud, but died as he reached the surface. Winabojo took the mud that remained between the claws of beaver and rolled it into a little ball. Winabojo made this ball grow as he rolled it around in his hands, while the animals swam around him. Finally the ball grew large enough for the fox to jump upon it and run around. Then it grew larger until all the animals could get upon it.

So Winabojo and the animals were the first inhabitants and Winabojo put the plants upon the world. Winabojo lived in a little valley with his grandmother, Nokomis. Against her wishes, he went on a voyage of exploration, leaving his valley to climb a hill. In the next valley he saw a lot of people all dancing and he wanted to dance with them. So he went down and danced all day, though none of them spoke to him or said a word to each other. When the wind died down at sunset, he discovered them to be only cattails, so he started back home. On his way he was approached by Cumpa. No one knows who sent Cumpa there, but we think that it was Dzhe Manido. Nokomis had told him that there were inhabitants somewhere on the earth. Winabojo sat down with Cumpa and they talked over the matter of how to regulate the world. In their conference they developed the medicine lodge idea and the Ojibwe count Winabojo as its founder. The painted post that they erect in their medicine lodge represents Winabojo. It is carved to resemble a human form, but

not too closely, as they wish it to be understood that Winabojo is a god and not a human being.

Winabojo started during the month of July to hunt for the inhabitants of the earth and finally found them in the latter part of December or early January. Then he stayed with them for several months, teaching them the secrets of the medicine lodge. He told them how they must gather roots and what songs they must sing. A specimen song and its meaning is here given.

Nin ba ba odji'blke o'o'we'dasa'ssema
I go to gather roots; here is tobacco;
 mfnode ni nowi nfmicfn gi wedji'blkei'en
Give me direct guidance, You,-maker of roots
 da mino wi dji'blkei'an.
That I may get the proper roots.

Their story of creation is the common one among the northern Algonkians. They believe that all objects, both animate and inanimate possess some mysterious power, and speak of that power as the manido that dwells in it. On the Lac du Flambeau Reservation, the writer saw two or three large stones, shown in plate 48, fig. 2, that were thought to be spirit rocks. They also believed that the spirit of the departed brave often returns to the grave, as long as the body has not turned to dust. They often buried the body in a sitting position facing west, or in a shallow grave on its back or side, making a mound, over which bark, birch poles or boards were erected, to form a little grave house, as shown in plate 51, fig. 2. This, they believe to be often inhabited by the spirit of the departed one which they occasionally feed with wild rice or dried jerky (deer meat) through a small opening. According to McKenney,⁹¹ the Ojibwe of Fond du Lac, Wisconsin, buried their dead in a box which was elevated upon a platform of poles. Mourning for the departed usually lasted a year, unless some medicine man shortened the time, or a relative performed some notable feat in war.

Their religion was the teachings of their Grand Medicine society or *midewiwin*. The Ojibwe are probably the strictest disciples of this society of any of our Wisconsin Indians and the part played

⁹¹"Sketches of a tour of the Lakes, of the character and customs of the Chippeway Indians, and of the incidents connected with the treaty of Fond du Lac," Thos. L. McKenney, (Balto. 1827).

by plants is the greatest of any factor. Things other than plants were used, such as rattlesnake meat, duck bones, clay and feathers, but these were so far in the minority that they are scarcely worth mentioning. According to the Ojibwe, every plant is medicine; if not to your particular informant, then to some other medicine man or woman. It was a matter of finding the proper informant to get the correct name and use. Consequently, in the field we gathered every tree, shrub, perennial or annual, herb or grass we encountered. All of these being medicinal plants were thus sacred to them and must be secured with the proper mide ceremony. This consisted of an explanatory song, and the offering of tobacco to grandmother, the earth, and Winabojo, their cultural hero.

The constant effort of the Government to educate the Indian is resulting in the gradual discarding of the medicine lodge ceremonies. The Ojibwe, who have stayed on the frontier of civilization, are among the last to change, and have clung tenaciously to their medicine society. As with other Wisconsin Indians, the Ojibwe love their children dearly and are rarely harsh to them. The children are taught to dance at an early age and while subsequent education may make them forget the names and uses of medicinal plants, they never forget the dance tunes and steps. It is a common conception among white men that it is useless to educate an Indian. Too many have agreed with Mark Twain that "the only good Indian is a dead one." Stories are related concerning Indian college graduates that revert to the tepee and to the dog feast. Some of these may be true, but according to Indian psychology, there is nothing disgraceful about this. It is the fallacy of the white man in trying to impose his culture on other peoples and in always assuming that it is superior to any other way of living. We are prone to point to the exceptional fall from grace, and forget about the many who have made a success of their life according to our standards. There are many full-blooded Indian men and women in Milwaukee, who are useful citizens. Many Milwaukee men and women are proud of the Indian strain in their blood. Education has been of great assistance to the Ojibwe, who have many times proven that they have the same capabilities as their white brothers. The Indian has the same anatomical characteristics as the Caucasian race and is capable of going far along the road of education.

Since the field work among the Ojibwe was completed in 1923 and

1924, some scattering members of the tribe have adopted the peyote lodge. The Ojibwe are fond of visiting and, in the summer time, some are always away on visits to other tribes in Wisconsin, Iowa, Minnesota, the Dakotas, Kansas or Oklahoma. The old idea of fighting other tribes was forgotten long ago and they feel that all red men are their brothers. Those Ojibwe who have visited the Winnebago Indians in Wisconsin have been especially influenced to adopt the peyote cult. This rarely happens where the Ojibwe live in close contact with their tribesmen on reservations. But several live as isolated families on the shores of our northern lakes, and when they adopt the peyote religion they throw overboard all of their medicine lodge paraphernalia and beliefs.

The members of the peyote cult, chew and swallow the peyote buttons which are the button-shaped branches of a cactus (*Lophophora williamsii*) found in Texas, New Mexico and Old Mexico. The practice is said to have originated among the Indians of old Mexico. Under its narcotic influence the peyote Indian claims to see in a vision and to commune with Jesus Christ, who gives him the rule of conduct for his life. The Indians justify their use of peyote by comparing it to the sacramental wine of the white man. However, peyote carries a governmental disapproval and the Indian police are supposed to be vigilantly alert for peyote. A jail sentence, as well as confiscation of the supply of peyote, is meted out to any member they can detect using it.

Another type of ceremonial dance used by the Ojibwe, and in fact by all of the forest Indians of Wisconsin, is the dream dance, such as is shown in plate 47, fig. 1. While this is sacred, it is not performed in secret, and the white people are often invited to come and witness these dances. They do come from many miles away to see the Indian dances and games. At the Lac du Flambeau Reservation, they perform several kinds of dances, such as the corn dance, the warrior dance, the prisoner dance, the deer hunt dance, and many others.

One dance in particular was brought back from Oklahoma by Anawabi. It is called the "Squaw Dance." In it men and women dance together, as shown in figure 20 of the Museum's Yearbook for 1923. Anawabi, the medicine man, was credited with powers of witchcraft as well as healing. A young Ojibwe boy sick with pneumonia, told his parents in a delirium that Anawabi had come and was

taking his breath away. His parents believed him, and he eventually died, but before he did, some friend hastened to Anawabi and Anawabi stood not on the order of his going, but left at once for Oklahoma where he stayed two years. He probably witnessed the modern two step among the Oklahoma Indians, which they called the "Squaw Dance." It is distinctly opposed to the Indian way of dancing. It has always been the custom for women to remain in the background at any of the old time dances, dancing by themselves, outside and back of the circle or group of the men. For them to take an equal part in a dance seems out of place. This caused a rift in the tribe, and the older residents at the old Flambeau village will have nothing to do with such dances.

The participants in the dream dance usually dress in all of their native finery and now-a-days wear many ornaments that are not of Ojibwe origin. While under the spell of the singing and drumming, the dancers assume a smiling face and are usually oblivious to the presence of any spectators.

The Ojibwe use two types of drums. One is the large dream-dance drum, about two feet in diameter and fourteen inches deep. The other is a tambourine-shaped drum of rawhide only a couple of inches thick and possibly ten inches in diameter, suspended by a loop of sinew, decorated with human figures, and beaten with the hands or a smaller bone drum stick. This drum is used in games and the songs differ considerably for the various games. La Crosse, the woman's shinny game, the bowl and dice game, the moccasin game and others are all announced by preliminary songs from the chief, who accompanies himself on the game drum.

In writing this bulletin, the system adopted in previous bulletins will be followed. Plants not found to be of use are included in this list, as other investigators may find that they were used. The listing of each plant will be by family and English names, followed by the Latin binomial according to Gray's Manual of Botany, then the Ojibwe name and its literal translation, if that be known. Following this will be the uses, methods of use, supposed properties, its value as an official or eclectic drug by the whites, and any known myth connected with it. The same procedure will be followed in the other sub-headings under investigation, viz.: foods, fibers, dyes, and plants of miscellaneous uses such as utility, good luck charms, love potions and so on.

OJIBWE MEDICINES

The Ojibwe are probably the best informed and the strictest observers of the medicine lodge ceremonies in the country. Their knowledge of plants both in their own environment and far away is probably the best of any group of Indians. While their flora is not so rich in species as that of Indians farther south, they make trips far away from their home to obtain necessary plants.

As among the white people, one plant may bear several common names, according to different individuals in different sections of the country, and again, one name may be given to several plants, as in the case of plants used as "revivers". Yet, there is an agreement in names of Lac du Flambeau and Leech Lake Ojibwe, that well checks information received. The name is usually descriptive, just as their names for animals usually are either descriptive or representative of the cry or note uttered by the animal, like "ko-ko-ko-o", the hoot owl, or "ka-ka-ka", the raven or crow. The medicine name usually tells what the plant looks like, where it may be found, some peculiar taste or property, or its chief use. Often a termination is added signifying the plural of a noun or the part of the plant used, such as the wood, the leaf, the flower, the root, or the berry or fruit.

It is worth noting that they understand the proper time to gather the plant part. At times, the medicinal qualities are inert, undeveloped or dispersed by being too old. Much of the knowledge of white men originated from studying the Indian plant uses, in the early days. Eclectic practitioners sought the Indian herbs and observed carefully what parts of the plant were used. This mass of early information was sifted scientifically by the students of medicine, and finally tested physiologically on animals. Perhaps sixty-five per cent of their remedies were found to be potent and are included in our pharmacopoeas; the other thirty-five per cent were discovered to be valueless medicinally. All of the references to uses of the plants by white men were obtained from the 1916 edition of the National Standard Dispensatory, by Hare, Caspari & Rusby.

The medicine man depended largely upon his reputation and often cured fancied diseases by shamanistic suggestions. His peculiar incantations to the patient to inspire confidence and induce the patient to think he was getting well, often worked, as it works in the case

of quack doctors and credulous white men. The young man who had the proper dream following the period of fasting in his youth, predicting his predilection towards the medicine man's profession, was taken through a rigorous course of training. Individual knowledge was handed down through the family. Instruction to boys and girls usually comes from the uncle or aunt, and if they have no natural uncle or aunt, then one is assigned to them. This is considered the closest relationship among Wisconsin Indians, and when one is adopted into the tribe and given a medicine bag, it will be through the sponsorship of an uncle for his nephew. Among the Ojibwe, both at Lac du Flambeau and at Lac Court Oreilles, the writer is known as Shagash-kandawe "Flying Squirrel," which they say was the name of a famous old chief and medicine man.

The Ojibwe still use the songs essential to digging medicine roots. Jack Doud, the old scout captain of the Civil War, of the old Flambeau village, told the writer that Winabojo, their deity, had received the seeds of all plants from Dzhe Manido, the creator of the universe, and that Winabojo had given them to Nokomis, grandmother, the Earth, to keep in her bosom, for the use of the Indians. Jack Doud also said that Winabojo took some of the native foods from his own body. He said that Winabojo pulled out a little pinch of flesh and threw it on the ground telling it to grow there as *mandamin* or corn for the Indians. Another pinch yielded squash, another beans and so on until Winabojo had very little flesh left on his body. In other words, the Indians did not know the sources of their cultivated crops, and had invented this tradition to attempt to explain their presence.

As with other Algonkians, the Ojibwe place tobacco in the cavity from which they dig the root, as an offering to Grandmother Earth, to Winabojo, and to Dzhe Manido, praying in song to these deities to make their chosen medicine potent. The medicine man or woman is usually distinguished by two long braids of hair over either shoulder. They are usually shrewd diagnosticians, and depend upon their senses for discovering the ailment. They feel the pulse rate, look at the pupils of the eyes, at the condition of the tongue, at the complexion variation, feel the body temperature and inquire where the pain is felt. From these symptoms they diagnose the disease. Usually they want time to dream over the case, and drink a draught of their own dream-inducing medicine before going to sleep.

In a vision or dream, they are directed to the proper medicine to use, and concoct it the following day. External afflictions are treated with lotions or poultices, while internal troubles are almost invariably treated with a medicinal tea. The ingredients are steeped in luke-warm water, and copious draughts are prescribed several times a day. The writer has taken such draughts of various medicines and finds them not unpleasant to the taste. Bitter and nauseous ingredients are usually disguised by "seasoners" which they add to make them taste good. The time allotted for a cure is usually four days, their sacred number, and unless there is marked improvement in the patient at the end of that period, the medicine man will change the treatment.

Some of the medicine men have "tattooing outfits", which are not really tattooing outfits as we understand the term, but rather blood-letting instruments. Sharp fish teeth are mounted at the end of a four or five-inch stick, and with a quick stroke on the upper side of the elbow or near the collar bone the blood is caused to gush out. The patient holds the arm out tensely while lying down and when the artery is tapped the blood spurts out rapidly. A tourniquet is applied to the upper arm when the medicine man thinks enough blood has flowed and the medicine man then sucks out the residue. The wound is then bandaged and the tourniquet removed. It is the thought of the medicine man that it is necessary to let out a certain amount of bad blood, so that the remaining blood in the patient's body can be more easily purified by his heart and his breathing.

The Ojibwe also believe that the medicine man can make bad medicine as well as good, and can prescribe certain medicines from his medicine bundle that will enable him to get the better of his enemies. They had many hunting charms which were supposed to help them get game. The hunter in using these would often trace the outline of the desired game upon the ground drawing a line to its heart. He would then pierce the heart with the line and put the proper medicine on the heart puncture indicated. A similar procedure might be followed against human enemies. Such practices were always kept a deep secret, becoming valueless should anyone see the perpetrator making the figure. They were likewise deprecated and resented by the tribe and punishment was apt to follow anyone caught in such a practice, which all agreed was a perversion of the grand medicine society teachings.

Most of the remedies of the medicine men were kept tied in little bits of cloth, compounded and ready to steep for use. Combinations of nine to twelve herbs are common. These have been ground with a mortar and pestle until it would be difficult to identify the ingredients of the prepared medicines. Even if one knew all of the ingredients, the amounts of each herb would be difficult to ascertain. Often, as in the case of Sweet Flag (*Acorus calamus*), the amount must be very limited since the medicinal effect is so severe.

The medicine men are taught that their medicines have a great value and will not be efficacious if disposed of cheaply. Since money is not so plentiful they are quite willing to accept pay in valuable goods. This may be a pony, so many blankets, so much wild rice or whatever the patient has of value. The patient usually calls the medicine man for ailments that have not responded to his own individual treatment. When the patient pays what the medicine man thinks is proper, then he may be told what was used to effect the cure, and how and when to gather the ingredients and how to administer the remedy. The recipient is admonished to see that he does not impart the knowledge unless he is well paid for it, as he paid the medicine man. This explains the difficulty one encounters when he tries to get medicinal information. Only by completely securing the confidence of the Indians, can a white man get this information without pay, and then it must be thoroughly understood that the investigator is not copying their medicines to take commercial advantage of this knowledge. The Indian is quick to appreciate favors and to acknowledge the respect that is given to him by the white man, and becomes quite confident when he realizes that his confidence is not abused.

OJIBWE MEDICINAL MATERIALS

While the Ojibwe use a few remedies outside the plant kingdom, they are not of such great importance as among some other tribes. These are here considered first, the plants following under the proper families alphabetically.

OTHER THAN PLANTS

REPTILES

Rattlesnake, "jicigwe". The flesh of the rattlesnake commonly known as the massasauga rattler, is sometimes used in combination with other medicines, for its lubricant effect, similar to Russian mineral oil. The Plains Indians and those farther south in the United States consider rattlesnake meat quite efficient in making childbirth easier.

FISH

Sturgeon, "namé". Fine teeth of the sturgeon were said to be used to make the "tattooing" tool employed by the medicine man in blood-letting. Large fish bladders, "pikwadj", were sometimes used as syringes; a hollow duck bone bound with sinew in the end of it, being used for anal applications.

MINERALS

White Clay, "waba'bigan". White clay was sometimes mixed with medicinal powders to make them into pellets or pills, and the clay was supposed to be a medicine, too, but for what purpose we were unable to discover. Red Clay "osa'man" was also used in fabricating poultices and was supposed to help draw out the inflammation.

MAMMALS

Bear, "múkwo". Bear's fat was used in several compounds. Melted alone and swallowed it became a drastic physic. Buds of the Balsam Poplar (*Populus balsamifera*) and the Large-toothed Poplar (*Populus grandidentata*) stewed in bear fat, yielded an aromatic salve that was used in curing ear-ache, soothing boils, and healing wounds and ulcers.

OJIBWE MEDICINAL PLANTS

ACERACEAE (MAPLE FAMILY)

Box Elder (*Acer negundo* L.), "adjagobi'mûk", shown in plate 68, fig. 2. The Pillager Band of Ojibwe reported that the inner bark of the box-elder is steeped to make an emetic. There is no record of its use by the whites.

Red Maple (*Acer rubrum* L.) "cicigime'wic", shown in plate 65, fig. 1. The Flambeau Ojibwe boil the bark of the red maple to obtain a tea with which to wash and cure sore eyes. There is no record of its use by the whites.

Mountain Maple (*Acer spicatum* Lam.) "cacagobi'mûk" [emetic bark]. The Pillager Ojibwe extract the pith of the twig and pinch off small particles which are put into the eye like flax seed to remove foreign matter. It becomes sticky and holds foreign matter which can then be removed with the pith. The pith is also soaked in water to make a lotion for treating sore eyes. Among the whites, Mountain Maple bark is often gathered and sold for Cramp Bark (*Viburnum opulus* L. var. *americanum* [Mill.] Ait.) In fact, it has often been wholly substituted for it, and seems about as effective as a uterine sedative and preventative of abortion.

ALISMACEAE (WATER-PLANTAIN FAMILY)

Arum-Leaved Arrow-Head (*Sagittaria arifolia* Nutt.) "wabasi'pin" [white potato].⁹² Upon short lateral rootlets, amongst the mass of fibrous roots of the arrow-head, firm corms develop, pinkish-white and bulb-shaped, but solid and composed of a sweetish, starchy texture. These are the choice Indian potatoes. These corms break away from the root mass very easily so that the utmost care is necessary in digging to get them *in situ*. Muskrats are very fond of them, as are beavers, and sometimes store up large covered caches, which the Indian recognizes and appropriates. They will also dig for them, if they cannot be more easily obtained. While they are chiefly prized for food, they are also taken to be a remedy for indigestion among the Pillager Ojibwe.

⁹²Present Series, Vol. IV, pl. 31, fig. 3

ANACARDIACEAE (SUMAC FAMILY)

Smooth Sumac (*Rhus glabra* L.) "bakwa' nak" [binding tree]. According to Jack Doud and other Flambeau Ojibwe all parts of the Smooth Sumac are suitable for medicine, the root bark, trunk bark, twig bark, leaves, flowers and fruit. The root bark tea is used as a hemostatic. Trunk and twig innerbark are used in combination with other medicine for their astringent qualities. Blossoms are sometimes steeped for sore eyes, leaves are used in poultices, and the fruit is considered a throat cleanser as well as being the basis of a beverage. Eclectic practitioners, or the old time herbalists, used the berries of *Rhus glabra* because of the malic acid in the skin, claiming it to be a good gargle in acute throat inflammation.

Staghorn Sumac (*Rhus typhina* L.) "bakwana' tlg" [binding tree].⁹³ The Staghorn Sumac was absent from the Flambeau Ojibwe territory, but plentiful around Leech Lake, Minnesota, while the Smooth Sumac was not found near Leech Lake. The Pillager Ojibwe only used the root as a medicine to stop a hemorrhage. They suggested that they had heard of it being used in medicinal combinations but did not know how to make or use them.

Poison Ivy (*Rhus toxicodendron* L.) "antmfki'bûg" [cloud], shown in plate 68, fig. 1. Mukwean (Bearskin), Flambeau medicine man, called this a poison to the skin and said that the Ojibwe have no distinctive name for it. John Peper, one of the Bear Island Pillager Indians, gave us the Indian name and said that no one now alive there knew how to use it. Since Kepeosatok, Meskwaki medicine man, at Tama, Iowa, used it in a certain manner for poulticing some kinds of swellings, the writer thinks this may be the use to which John Peper referred.

APOCYNACEAE (DOGBANE FAMILY)

Spreading Dogbane (*Apocynum androsaemifolium* L.) "wesa' wûckwûn" [nearly blue flowers] or "magosfie' cnakwûk" [needle-like].⁹⁴ Bearskin, Flambeau medicine man, said that the stalk and root of this plant are steeped to make a tea for women to drink. It keeps the kidneys free during pregnancy. Other Flambeau Ojibwe agreed with the use but cited the second name as more correct for it.

⁹³Present Series, Vol. IV, pl. 31, fig. 4

⁹⁴Present Series, Vol. IV, pl. 35, fig. 4.

Under the Ojibwe name of "mīdewīdjī'blk" [medicine lodge root], the Pillager Ojibwe declared it to be one of the sacred roots that is eaten during the medicine lodge ceremony. They use it also for throat trouble. When one has a coated tongue and is afflicted with headache, the root is also used. In the case of headache, the root is placed upon live coals and the incense is inhaled.

AQUIFOLIACEAE (HOLLY FAMILY)

Winterberry (*Ilex verticillata* [L.] Gray), "awe'ntsi'btg" [winter-green leaf], and "anīmū'cīmīnūn" [dog berry]. The bark of this native holly is medicine among the Flambeau Ojibwe, but the use could not be discovered, other than that it might be used for diarrhea. Winterberry has been employed by eclectic practitioners as a tonic and astringent. It has been substituted for quinine in the treatment of periodical fevers, and also used in the treatment of diarrhea. The eclectic practitioner has also used it in treating malignant ulcers and chronic skin eruptions.

Mountain Holly (*Nemopanthis mucronata* [L.] Trel.), "mīcki-mīnū' nīmīc" [red berry tree], shown in plate 65, fig. 2. This bush is very common around the reservation of the Flambeau Ojibwe and the berries are used as medicine, but the writer was unable to discover for what disease or how used. There is no record of its use among the whites.

ARACEAE (ARUM FAMILY)

Sweet Flag (*Acorus calamus* L.) "na' bīgūck" [something flat]. The root of Sweet Flag is a quick acting physic, supposed to act in half a day. Bearskin cautioned the writer that no more than one and a half inches was to be used, as more would make one ill, and even this much is quite harsh. The Pillager Ojibwe recognize the Sweet Flag under the name "we'ke", which is the same word used by another tribe for the Yellow Water-lily, and by another for the Blue Flag. John Peper said that the root was used for curing a cold in the throat or for curing a cramp in the stomach. In earlier days, among the whites, slices were candied to create a more popular form of medication. It was formerly used among the white men as a tonic for dyspepsia and for correcting flatulent colic. It was also supposed to be beneficial as a mild stimulant in typhoid cases.

Indian Turnip (*Arisaema triphyllum* [L.] Schott.), "caca' go-mfn."⁹⁵ The root of Indian Turnip was said by John Peper, Bear Island Ojibwe, to be used in treating sore eyes, but he did not know how to use it. One wonders if the calcium oxalate crystals so firefull to the mouth lining were equally so to the delicate membranes of the eye.

Small doses of the partially dried root have been used by the white man in the treatment of chronic bronchitis, asthma, flatulent colic and rheumatism, certainly widely different maladies. The juice of the fresh corm in lard has been used by the white man as a local application to cure ringworm.

ARALIACEAE (GINSENG FAMILY)

Wild Sarsaparilla (*Aralia nudicaulis* L.) "bebamabi' k" [root runs far through the ground]. The Flambeau Ojibwe recognize the root of this plant as a strong medicine, but do not steep it to make tea. The fresh root is pounded and applied as a poultice to bring a boil to a head or to cure a carbuncle. Among the Pillager Ojibwe, the writer found two names applied to this, one of which he thinks to be a case of mistaken identification by the informant. "O kadak" [wild carrot] is more likely to refer to *Aralia racemosa* though no specimens were found there. They used it under this name as a special squaw remedy for blood purification during pregnancy. The root was pounded in a mortar, then boiled in hot water. Under their name "wabo' s uskwe" [rabbit] the root was prepared the same way and the tea was used to cure a cough.

Among the white men, this root has the same properties and uses as the Indian Spikenard (*Aralia racemosa*); namely, stimulant, diaphoretic, and alterative.

Ginseng (*Panax quinquefolium* L.) "jissé'ns." Evidently the word they used was an attempt to pronounce the white man's term for it. The writer was unable to discover any medical use made of it by the Ojibwe, though they gathered it assiduously for sale to the traders. Their method of gathering was a thoughtful one. Although they undoubtedly recognized it in any stage of growth, they only gathered the root when the red berries were mature, but before they were ready to drop. Into the hole from whence the root came, they

⁹⁵Present Series, Vol. IV, pl. 15, fig. 4

would thrust the whole fruiting top, and carefully firm the soil upon it. Knowing the location well, they would revisit the place in three to five years and find more roots than they harvested in the first instance.

According to our pharmacopoeia, the medicinal value of ginseng is almost nothing, but there is a great market for it in China, where it is worshipped as a sort of fetich, and is acclaimed as a panacea for sexual impotency, nervousness, vomiting and dyspepsia. The more nearly the root approximates the human torso, the more valuable it is to the Chinese. Thus one root in a six hundred-pound bale may be worth many times the entire remainder of the bale, and when ten dollars a pound is the price, one can realize the extreme value of such a piece.

ARISTOLOCHIACEAE (BIRTHWORT FAMILY)

Wild Ginger (*Asarum canadense* L. var. *acuminatum* Ashe.) "name' pin" [sturgeon potato].⁹⁶ The Pillager Ojibwe called this a potato for sick people. They are supposed to chew the root, and then they can eat anything they desire.

The white man calls this Canada Snakeroot in his dispensaries, considering it a feeble remedy with tonic, aromatic and diuretic properties. Cases of convalescent acute febrile infections are sometimes given the extract of wild ginger root.

ASCLEPIADACEAE (MILKWEED FAMILY)

Common Milkweed (*Asclepias syriaca* L.) "cabo' stkûn" [milk] or "tnini'wûnj" [Indian plant], according to Flambeau Ojibwe.⁹⁷ Although the Pillager Ojibwe used this chiefly for food, the root was also used as a female remedy, but for what phase of illness, we were not able to discover. Eclectic practitioners have used the roots as counter-irritants or internally as stomachics, carminatives, or anti-spasmodics of the stimulating class.

BALSAMINACEAE (TOUCH-ME-NOT FAMILY)

Spotted Touch-me-not (*Impatiens biflora* Walt.) "wesa' wûs ga'skonék" [yellow light]. Bearskin, Flambeau medicine man said

⁹⁶Present series, Vol. IV, pl. 45, fig. 1.

⁹⁷Present series, Vol. IV, pl. 26, fig. 2.

that the fresh juice of this plant rubbed on the head would cure a headache. The leaves are steeped for a medicinal tea, but the ailment was undiscovered.

The herbage of this plant, under the name Wild Celadine, has been largely employed by homoeopathic physicians and eclectics. The chemical constituents are not known though the leaves apparently contain tannin. The medicinal value is questionable, though fresh applications of the juice appear to relieve skin irritations of various kinds, especially that of Poison Ivy.

BERBERIDACEAE (BARBERRY FAMILY)

Blue Cohosh (*Caulophyllum thalictroides* [L.] Michx). "oci' gimic".⁹⁸ The Pillager Ojibwe use the root for female troubles especially for cramps in the stomach during painful menstruation. The fine roots are also boiled to make a tea for emetic purposes. White people seldom use it. Eclectics have used it in the treatment of hysteria and uterine diseases. They have claimed that it will prevent abortion, by causing uterine contraction when uterine inertia is present.

BETULACEAE (BIRCH FAMILY)

Speckled Alder (*Alnus incana* [L.] Moench.) "wado' bñ" [root to sew a canoe]. The Flambeau Ojibwe use the root for its hemostatic qualities. When one passes blood in his stools, the root tea will act as an astringent and coagulant.

The white man has also used alder bark for its mild astringent properties. The eclectic practitioner in the United States and Canada employed it in a powdered condition for dusting upon chafed body surfaces.

Paper Birch (*Betula alba* [L.] var. *papyrifera* [Marsh.] Spach.) "wigwas". From "wigwas" comes the word "wigwam" or house, because birch bark was used in covering the house, furnishing a waterproof roof. The root of the Paper Birch was used in medicines as a seasoner. Its sweetish, aromatic, wintergreen flavor disguised less pleasant doses. The root bark and maple sugar cooked together made a soothing syrup to alleviate cramps in the stomach. The white man has employed only the leaves medicinally as a diuretic.

⁹⁸Present series, Vol. IV, pl. 28, fig. 2.

Low Birch (*Betula pumila* L. var. *glandulifera* Regel.) "b'ine' m'icins" [partridge tips]. Among the Pillager Ojibwe, the Low Birch is a valued source of medicine. Although it is plentiful around the Flambeau Reservation, none of them seemed to consider it medicine, although their name agreed, "b'ine' m'ic", without the diminutive. The Pillager Ojibwe use the tiny cones upon a plate of coals as an incense to cure catarrh. No doubt the resinous covering of the twigs and cones in this variety causes the aromatic incense. Also a tea made from the cones is drunk by women in their menses. Such tea is also accounted strengthening when the patient is enfeebled by childbirth. The leaves probably possess diuretic properties as do other species of *Betula*. No record of its use by white men has been discovered.

Hazelnut (*Corylus americana* Walt.) "m'ukwobaga' nak" [bear nut].⁹⁹ Bearskin said that the bark of the hazelnut bush is medicine. It is boiled and used as a poultice on cuts to close and heal them. No record of its medical use by white men has been discovered.

Beaked Hazelnut (*Corylus rostrata* Ait.), "baga'n or "baga'nak" [nut] Flambeau names, and "baga'namijic" [nut tree], Pillager name. Bearskin assigned the same properties and uses to the bark of the Beaked Hazelnut as to the Hazelnut. The Pillager Ojibwe used only the hairs of the hazelnut husk as a medicine to expel worms. Eclectic practitioners have used it in the same manner as an anthelmintic, depending probably on the irritant effect of the tiny stickers.

BORAGINACEAE (BORAGE FAMILY)

Hound's Tongue (*Cynoglossum boreale* Fernald), "masa'n". Three terms are used to denote the action of such plants as this, which are burned upon live coals that the patient may inhale the fumes. They are: "aba' b'uson",—to revive or "head standing by smoke"; "sasa' b'kwat",—to snuff it; and "nokwe' s'ikun",—"smell as it comes". They are used interchangeably in designating the use of the plant. Hound's Tongue is specifically fumed to cure a headache.

Among the whites, Hound's Tongue has been recommended as a sedative and demulcent in the treatment of bronchial and pulmonary affections. It is said to be of value also in dysentery. The fresh

⁹⁹Present series, Vol. IV, pl. 16, fig. 3.

leaves are used locally as a remedy for superficial burns and abraded surfaces.

CAMPANULACEAE (BELLFLOWER FAMILY)

Marsh Bellflower (*Campanula apärinoides* Pursh.) Although plentiful around the Lac du Flambeau region, our informants said that this is not used.

Harebell (*Campanula rotundifolia* L.) "adota'gons" [little bell]. The Pillager Ojibwe use the root of the Harebell combined with three other unnamed roots for lung troubles. There is no record of its use by whites.

CAPRIFOLIACEAE (HONEYSUCKLE FAMILY)

Bush Honeysuckle (*Diervilla lonicera* Mill.), "osawa' skanet" [yellow fluid]. The Flambeau Ojibwe use the root together with other plants such as the Ground Pine, for their most valued urinary remedy. It is also known among white men as a diuretic and a remedy to relieve itching.

Red Elderberry (*Sambucus racemosa* L.), "papaskatcksi'gana'tig" [popgun wood]. According to the Pillager Ojibwe, this bark is an emetic or a purgative, depending upon how it is prepared for use. It is a last resort purgative to be used when other remedies for the same complaint are of no avail. It may be said that the Ojibwe have more plants for physic than for any other purpose, thus the Red Elder will be seen to be their most important one.

Four internodes of the stalk are taken, because four is their magic number. These sections are measured carefully from the point of the ulna to the point of the humerus. The inner bark is secured by peeling downward. This is steeped and boiled, and the resulting liquid is drunk for constipation. It is supposed to thus save the life of one threatened with serious constipation. It is reserved for extreme cases, because of the many other physics they employ, and they consider it drastic and dangerous otherwise. If these same four sticks had been peeled upwards and the resulting tea drunk, then it would have acted as a powerful emetic. The writer can testify to its strength, but notes that it works both ways at once, no matter how prepared, so that the method of preparation is doubtless superstitious.

Among the whites only the elder flowers are recognized in the New Formulary, but the inner bark has been known to produce death in children, a short time after being eaten, with symptoms similar to Poison Hemlock (*Cicuta*). In moderate doses, it is also known to produce vomiting and purging. The active alkaloid evidently works only in the fresh state, as it loses its potency in a dried state.

Snowberry (*Symphoricarpos racemosus* Michx.) "antgomijl' mīnaga'wūnj" [little crow bush]. Among the Pillager Ojibwe, the root of the Snowberry is used to make a tea to clear up the afterbirth, and enable quicker convalescence. Among the Meskwaki Indians the same use is ascribed to the Wolfberry (*Symphoricarpos occidentalis*). There is no record of its use by white men.

Nannyberry (*Viburnum lentago* L.), "atīte 'taminūn" or "atīte' tamīnaga'wūnj."¹⁰⁰ The Pillager Ojibwe collect the inner bark of the trunk, down low next to the ground, to yield a tea which is used as a diuretic.

Among the white men, Nannyberry is often sold as *Viburnum prunifolium* which is official in our pharmacopoeia. The virtues assigned to this class of medicine are as feeble as they are numerous. It has been used as a nervine, astringent, tonic, diuretic and has been said to have value as an uterine sedative and preventive of abortion.

Highbush Cranberry (*Viburnum opulus* L. var. *americanum* [Mill.] Ait.) "a'nibīmī'nūga'wūck" [anib means elm, berries, bush].¹⁰¹ The Pillager Ojibwe used the inner bark as a physic, and also drank the tea to cure cramps in the stomach.

Among the white men, *Viburnum opulus* is considered to be the same as *Viburnum prunifolium*, only less potent. It is recommended as an antispasmodic in asthma, hysteria, puerperal convulsions, and dysmenorrhea.

CARYOPHYLLACEAE (PINK FAMILY)

White Campion (*Lychnis alba* Mill.) "basi' būgūk" [small leaf]. The Flambeau Ojibwe use the root of this for a tea to physic a patient. There is no record of its use by white men.

¹⁰⁰Present series, Vol. IV, pl. 17, fig. 1.

¹⁰¹Present series, Vol. IV, pl. 17, fig. 2

CELASTRACEAE (STAFF TREE FAMILY)

Climbing Bitter-sweet (*Celastrus scandens* L.) "manidobima' kwit" [spirit-twisted]. The Pillager Ojibwe use the red berries of this plant for stomach trouble.

The white man uses the berries for decorative purposes, and has used the bark for emetic, diaphoretic and antisyphilitic purposes.

COMPOSITAE (COMPOSITE FAMILY)

The composite family is represented by many species in northern Wisconsin and also in northern Minnesota. There are probably three times as many plants in this family as in any other, hence it furnishes numerous medicines.

Woolly Yarrow (*Achillea lanulosa* Nutt.), "wa' bigwûn" [white-flower]. The Flambeau Ojibwe, under the name given, use the leaves of this plant as a poultice to cure the bite of a spider. The dried flowering heads are smoked in mixture with other things, much as kinnikinnik, not for pleasure, but more for ceremonial purposes.

It has not been distinguished by the eclectic practitioner from the Common Yarrow, which was used for its bitter and aromatic principles. It was used as an emmenagogue and for various ailments of the reproductive organs. It was sometimes used to cure diseased conditions of the entire gastro-intestinal tract.

Yarrow (*Achillea millefolium* L.), "adjidamo' anûk" [squirrel tail].¹⁰² The Pillager Ojibwe used the florets in ceremonial smoking and placed them on a bed of coals inhaling the smoke to break a fever.

Yarrow has always been a home remedy of the white man, and the Germans still use the dried flowers in a tea, called "schafesgar-betee", to break a fever. Other uses are the same as above.

Pearly Everlasting (*Anaphalis margaritacea* [L.] B. & H.), "basi' bagûk" [small leaf]. The Flambeau Ojibwe use the flowers of this plant, calling attention to the fact that it smells like acorns, reducing them to a powder which is sprinkled on live coals as a "nokwe' sigûn" or perfume. This is inhaled by a party who has had a stroke of paralysis and is said to revive him.

¹⁰²Present series, Vol. IV, pl. 16, fig. 1.

The Pearly Everlasting has never been properly analyzed by white men, but the flowers have been locally used by them as soothing expectorants and are known to have more or less marked stomachic properties.

Lesser Cat's-Foot (*Antennaria neodioica* Greene) "gagige' bûg" [everlasting leaf]. The Flambeau Ojibwe use the whole herb as a valued remedy to make a tea to be given to the mother after child birth. It is to purge the afterbirth and heal them internally.

Eclectic practitioners have used this plant as a hemostatic.

Common Burdock (*Arctium minus* Bernb.), "gi' masan" [big stickers]. The Flambeau Ojibwe use the root of burdock as one of the ingredients of a medicine for pain in the stomach. It is also supposed to have a tonic effect.

Burdock root has quite a reputation among home practitioners among the white men as a diaphoretic, diuretic, alterative, aperient and depurative. It has been used for rheumatism, gout, pulmonary catarrh, chronic skin diseases such as scrofula and syphilis, and to dissolve urinary deposits. Externally it has been used as a salve or wash for eruptions, burns, wounds, hemorrhoids and swelling.

White Sage (*Artemisia ludoviciana* Nutt.) "imbji'goa" according to White Cloud, Bear Island Ojibwe, but "wingûskw" or "bebeji'-goga'nji" [horse medicine] by John Peper, another Bear Islander. Peper said the Pillager Ojibwe used it as a horse medicine, but the Sioux smoked it.

Miners and frontiersmen prized it in their treatment of "mountain fevers."

Large-leaved Aster (*Aster macrophyllus* L.), "naskosi' ictûs". The Flambeau Ojibwe consider this a feeble remedy but also good as a charm in hunting. Young roots were used to make a tea to bathe the head for headache. The informant giving this latter use called it "megisi' bûg" [eagle leaf]. There is no record of its use by the whites.

Ox-eye Daisy (*Chrysanthemum leucanthemum* L.). The Flambeau Ojibwe had no name for this, as they said it was from the south, and they do not use it.

Canada Thistle (*Cirsium arvense* [L.] Scop.) "masa' nûck" [prickly]. The Flambeau Ojibwe use the plant for a bowel tonic. Canada Thistle is one of the worst American weeds, and white men have used the dried plant for a diuretic and tonic.

Common Thistle (*Cirsium lanceolatum* [L.] Hill), "ji' masa'-nûck". The Flambeau Ojibwe use the root of this for alleviating stomach cramps in both men and women. The dried plant has been used by the whites as a diuretic and tonic.

Philadelphia Fleabane (*Erigeron philadelphicus* L.) "micao'-gacan" [odor of deer hoof]. The Pillager Ojibwe use the flowers to make a tea to break fevers. The smoke of the dried flowers is inhaled to cure a cold in the head. The disk flowers, pulverized, were snuffed up the nostrils to cause the patient to sneeze and thus loosen a cold in the head. The whites have used the Canada Fleabane as a remedy in the pharmacopoeia, and also have used the Philadelphia Fleabane locally, but for different purposes. It is diuretic rather than astringent.

Daisy Fleabane (*Erigeron ramosus* [Walt.] BSP). The Flambeau Ojibwe do not assign this plant a special name but class it as a "nokwe' sfgûn" or perfume for curing sick headache. Several species of *Erigeron* have been substituted by white men for the Canada Fleabane, which is used as a diaphoretic and expectorant.

Joe-Pye Weed (*Eupatorium purpureum* L.), "bû' gtsowe" [bathing]. The Flambeau Ojibwe make a strong solution of the root, with which to wash a papoose up till the time he is six years old. This is supposed to strengthen him.

Joe-Pye is officinal but not official among white men. Official designates that it is authorized by the U. S. Pharmacopoeia while officinal means that it is regularly kept for sale in drug stores. Official remedies are much used by eclectic practitioners. The root has the odor of old hay and is diuretic, stimulant, astringent and tonic. It has been used in chronic urinary disorders, gout, rheumatism, and hematuria.

Tall Blue Lettuce (*Lactuca spicata* [Lam.] Hitchc.), "dadoca'bo" [milk]. The Flambeau Ojibwe employ the plant to make a tea given

to women with caked breasts to render lactation easier. A dog whisker hair is used to pierce the teat. Among white men *Lactuca* was formerly employed as a soporific and sedative.

White Lettuce (*Prenanthis alba* L.), "weca' wûs wa' ckwinêsk" [yellow light]. The Flambeau Ojibwe use the milk of the White Lettuce as a diuretic, especially in female diseases. The root is also used as a female remedy.

White men have used the root decoction internally for dysentery. Old time herb doctors gave the milk of the plant internally, and used the leaves, steeped in hot water, as a poultice for the bite of a snake.

Black-eyed Susan (*Rudbeckia hirta* L.). The Flambeau Ojibwe claim that this plant is adventive from the south and have no name or use for it. It has been used by the white men as a diuretic.

Golden Ragwort (*Senecio aureus* L.).

Entire-leaved Groundsel (*Senecio integerrimus* Nutt.) Both of these plants are considered adventive by the Pillager Ojibwe and neither was named nor used.

Under the name squaw weed, white men have exploited the Golden Ragwort as a female regulator, claiming diuretic, pectoral, diaphoretic and tonic properties. It is also said to be useful in treating gravel and other urinary affections.

Indian Cup Plant (*Silphium perfoliatum* L.), "asasa' wesktk" [square stem]. According to John White Feather, of the Flambeau Ojibwe, this root was carried from Iowa and transplanted on the Lac du Flambeau Ojibwe Reservation. They all accept it as great medicine. A tea is made from the root for lumbago and some other kinds of rheumatic pains in the back. John Peper, Pillager Ojibwe, gave it the same Indian name and said that an old Indian had brought it to Bear Island from Iowa a hundred years ago, and had planted it in his field, whence it escaped to the south end of the island. He said they use it for stomach trouble, and hemorrhage. White men have used the Indian Cup Plant root for its tonic, diaphoretic and alterative properties. It has also been used in intermittent fevers, ulcers, liver affections and debility. The resinous gum collected from the stem has been used by the whites as a stimulant and antispasmodic.

Fragrant Golden-rod (*Solidago graminifolia* [L.] Salisb.), "wasa' waskwóne'k" [yellow light]. Besides being of use in hunting medicine, the flowers in infusion were used by the Flambeau Ojibwe for a pain in the chest.

Golden-rod leaves and flowers have at times held a rather important place in materia medica, for their carminative, and anti-spasmodic properties. They have also been used as an intestinal astringent.

Tansy (*Tanacetum vulgare* L.) "muckiki'wt" [medicine]. The Flambeau Ojibwe have no distinctive name for this plant, claiming it came from the south and they were told it was good for fevers.

Among white men, it is deemed tonic, emmenagogue and diaphoretic. It has been used in a cold infusion in convalescence from exhausting diseases, dyspepsia, hysteria and jaundice.

Dandelion (*Taraxacum officinale* Weber) "wesa'usakwónek"[yellow light].¹⁰³ While the Flambeau Ojibwe do not use this plant, the Pillager Ojibwe give it a name and use the root for a tea for heartburn. It was found growing at the north end of Bear Island in Leech Lake, Minnesota.

Among the whites, the virtues of the root are much overrated. The dried root is steeped in boiling water and is used as a stomachic and tonic, with slight diuretic and aperient action.

Cocklebur (*Xanthium commune* Britton), "sakati'komók" [stickers]. Although giving it a name, the Flambeau Ojibwe did not use it. It has been used by white men in intermittent fevers, also as a diuretic, diaphoretic and sialagogue.

CORNACEAE (DOGWOOD FAMILY)

Alternate-leaved Dogwood (*Cornus alternifolia* L. f.) "moso'-mfc" [moose tree].¹⁰⁴ The Pillager Ojibwe use the inner bark for an emetic. Although other species of *Cornus* are officinal with white men, there is no record of the use of this species.

Bunchberry (*Cornus canadensis* L.) "ode' imfndji' blk" [strawberry root, or heart-berry root]. The Bunchberry or Dwarf Cornel

¹⁰³Present series, Vol. IV, pl. 31, fig. 1

¹⁰⁴Present series, Vol. IV, pl. 18, fig. 1.

somewhat resembles the Wild Strawberry. The Flambeau Ojibwe make a tea from the root, which is used to cure babies of colic. There is no record of its medicinal use by the whites, though it has been eaten by them.

Panicled Dogwood (*Cornus paniculata* L'Her.), "meskwabi' mic" [red bush]. It is peculiar that the Flambeau Ojibwe would call this a red bush, for the branches are distinctly gray. Only the fruit stalks or pedicels are bright red. The bark is used as a tea for flux. An aggregate of this bark compressed into a stopper shape is forced into the anus as a treatment for piles. There is no record of its use by the whites.

CRUCIFERAE (MUSTARD FAMILY)

Tower Mustard (*Arabis glabra* [L.] Bernh.), "misodjidamo' anûk" [black squirrel tail]. Although the Pillager Ojibwe have a name for this plant, they say it is from the south, and they do not use it. There is no record of its use by white men.

Marsh Cress (*Radicula palustris* [L.] var. *hispida* [Desv.] Robinson), "wabîgwûn" [yellow flower]. The Flambeau Ojibwe name for Marsh Cress is not very distinctive although it does have yellowish flowers. They have no use for the plant as it came in from the south, according to them. Neither have white men.

Tansy-Mustard (*Sisymbrium canescens* Nutt.) The Pillager Ojibwe do not know this plant, which they consider to be adventive from the south and do not use it. Aside from the fact that the seeds have a volatile oil similar to mustard seed, the whites do not use it.

CUCURBITACEAE (GOURD FAMILY)

Squash (*Cucurbita maxima* Duchesne.) "ogwîssi'maun o'wasok-wûne'k" [threads like hair; yellow light]. The Flambeau Ojibwe used the seed tea as a diuretic. There is no distinctive medicinal use of squash among the whites.

Wild Balsam-apple (*Echinocystis lobata* [Michx.] T. & G.) "nîgt-tîni' gûnûk" or "mîtcigi' mênûk" [man in the ground], shown in plate 69, fig. 1. The Flambeau Ojibwe use the root tea as a bitter medicine for stomach troubles and as a tonic. The root is certainly

bitter enough. On the west coast, the root has been employed by white men as a simple bitter.

CYPERACEAE (SEDGE FAMILY)

Hare's Tail (*Eriophorum callitrix* Cham.) "btwee' ckinôk" [fuzz of fruit]. The Flambeau Ojibwe use the matted fuzz as a hemostatic. Under the name "mesadi' wackons" [little catkins from popple], the Pillager Ojibwe refer to it, but none of them knew any use for it. There has been a limited use of its tannic properties as an astringent by white men.

EQUISETACEAE (HORSETAIL FAMILY)

Field Horsetail (*Equisetum arvense* L.) "gtji' bfnôsk," [duck round].¹⁰⁵ The Pillager Ojibwe use the whole plant to make a tea to cure the dropsy. The plant has been used indefinitely chiefly in domestic practice by the whites.

Wood Horsetail (*Equisetum sylvaticum* L.), "siba' mûckûn". The Pillager Ojibwe use the whole plant to make a tea to cure kidney trouble and dropsy. It has not been much used by the whites, except as a domestic remedy for gravel.

ERICACEAE (HEATH FAMILY)

Bog Rosemary (*Andromeda glaucophylla* Link.), "bfne' mfkci" [swamp partridge berry]. The plant was found on the Flambeau Ojibwe Reservation, but was not used medicinally. Among the whites, it is credited with poisonous properties.

Prince's Pine (*Chimaphila umbellata* [L.] Nutt.), "ga' gige'bûg" [everlasting leaf].¹⁰⁶ The Flambeau Ojibwe pronounce the name of Prince's Pine nearly the same as the Menomini Indians, and use it for the same purposes, namely a tea for treating stomach troubles. *Chimaphila* is official with white men as a tonic and diuretic. It stimulates the mucous membrane of the genito-urinary tract, and has been used in renal dropsy, scrofulous conditions, chronic ulcers and skin lesions. It is employed both internally and as an embrocation.

¹⁰⁵Present series, Vol. IV, pl. 11, fig. 1

¹⁰⁶Present series, Vol. IV, pl. 20, fig. 1.

Wintergreen (*Gaultheria procumbens* L.), "wĩnisi' bũgũd", [dirty leaves], shown in plate 75, fig. 2. The Flambeau Ojibwe use the leaves to brew a tea to cure rheumatism and "to make one feel good." The white man discovered the properties of this plant from the Indians, and originally wintergreen was the chief source of methyl salicylate. Aspirin is synthetically the same thing. Birch twigs were later used as a source and finally it was made from coal tar dye. Like other volatile oils, methyl salicylate was used as an antiseptic, analgesic, carminative and flavoring agent. It was added to liniments for rubbing muscular rheumatism, and similar complaints. Overdoses of the pure oil on the skin produce drowsiness, congestion and delirium.

Cranberry (*Vaccinium oxycoccus* L.) "mũcki' mĩnaga' wũnj" [swamp berry bush]. A tea for a person who is slightly ill with nausea. White men have used the bitter, astringent leaves in diarrhea and diabetes and for purifying the blood.

Blueberry (*Vaccinium pennsylvanicum* Lam.), "mĩnũga' wũnj" [berry bush]. The Flambeau Ojibwe use the leaves of this common blueberry for a medicinal tea as a blood purifier. White men have employed it in the same manner.

EUPHORBIACEAE (SPURGE FAMILY)

Flowering Spurge (*Euphorbia corollata* L.), "cabosi' kũn" [milky bitter root]. The Flambeau Ojibwe use the root for a physic. A half inch of the root is pounded and steeped in a cup of water, which is drunk before eating. The resinous, milky juice of the root has been employed by eclectic practitioners as an emetic, but its use has been practically abandoned because of its irritant and uncertain qualities.

FAGACEAE (BEECH FAMILY)

Bur Oak (*Quercus macrocarpa* Michx.), "mĩtĩgo' mĩc" [wooden tree], shown in plate 64, fig. 1. The bark is an astringent medicine to the Pillager Ojibwe. They also use it to bandage a broken foot or leg. All oaks are noted among the whites for their astringent properties. Eclectic practitioners used it for gargles in cases of inflammation of the tonsils and pharynx. It was also used in treating leucorrhea and piles.

Red Oak (*Quercus rubra* L.), "mĩtĩgo' mĩc", [wooden tree], shown

in plate 64, fig. 2. The bark,—“mittgo' míc wena' gék”. The bark is a medicine for heart troubles and bronchial affections among the Flambeau Ojibwe. Its use by white men was approximately the same as Bur Oak.

FUMARIACEAE (FUMITORY FAMILY)

Golden Corydalis (*Corydalis aurea* Willd.), “tipotte' kwason,” [looks like pants]. The Pillager Ojibwe place the root on coals and inhale the smoke for clearing the head and reviving the patient. There is no record of its use by white men.

FUNGI

The Ojibwe have evidently had disastrous experiences with mushrooms in the past and do not use them as a food. The children often gather the common brackets (*Fomes applanatus*) and draw pictures on them, using them as toys.

Giant Puffball (*Calvatia craniiformis* Schw.) shown in plate 61, fig. 2, “oskwe'túk”. This is kept on hand in the mature stage. The inner part has an organized mass of threads and does not break down entirely into spores as do the smaller puffballs. The substance is snuffed up the nose to stop nose bleed.

The Ojibwe also made use of an unidentified fungus matting material, found in the windshake spaces of down timber. This is the matted vegetating mycelium of some timber fungus, such as *Fomes*, *Trametes*, *Polyporus* or *Pholiota*. This made a good tinder for use in the fire base block, and when the fire stick was rapidly twirled against this material, it caught fire and was blown into a blaze that became the basis of their fire. In all medicine lodge ceremonials, the fire was kindled in this manner and thus deemed a sacred fire. Things cooked over this fire were ceremonial, and the calumet or pipe used in the ceremonies was always lighted from a coal of the sacred fire.

GERANIACEAE (GERANIUM FAMILY)

Wild Geranium (*Geranium maculatum* L.), “o' sawaskwini' s” [yellow light].¹⁰⁷ The Pillager Ojibwe use the astringent root for the treatment of flux, and also for healing a sore mouth. Eclectic practitioners have also used it as a mild internal astringent, useful

¹⁰⁷Present series, Vol. IV, pl. 19, fig. 2.

for infants and people who have a delicate stomach, because it is not irritating. It is valuable in serous diarrheas. It has also been used by white men for rectal and vaginal injections to tone up weak muscles.

GRAMINEAE (GRASS FAMILY)

Rattlesnake Grass (*Glyceria canadensis* [Michx.] Trin.), "ana-gone' wúck" [fern]. The Flambeau Ojibwe use the roots of this as a female remedy, but it is difficult to understand why they call it a fern. There is no record of its use by white men.

HYDROPHYLLACEAE (WATERLEAF FAMILY)

Virginia Waterleaf (*Hydrophyllum virginianum* L.),¹⁰⁸ "ne' bineankwe' úk" according to the Pillager Ojibwe White Cloud on Bear Island, Leech Lake, Minnesota, but "anmúctide' bígons" [dog feet medicine], according to John Peper, of the same island. It furnishes a root that may be used to keep flux in check. He states that it is good for man, woman or child. It was used for the same purpose among the Meskwaki Indians, but there is no record of its use by whites.

IRIDACEAE (IRIS FAMILY)

Blue Flag (*Iris versicolor* L.), "na' búkúck".¹⁰⁹ The Flambeau Ojibwe use a half inch of the root boiled in water as a quick physic. Under the name "cabo'sikún" [milk root], the Pillager Ojibwe use a little piece of the root in boiling water, drinking a tablespoonful and a half as an emetic and physic.

Blue Flag root has been accounted one of the most valuable remedies by the eclectic practitioner. It is alterative, cathartic, sialagogue, vermifuge and diuretic. It has been used in scrofula and syphilis, chronic hepatic, renal and splenic affections.

LABIATAE (MINT FAMILY)

Wild Mint (*Mentha arvensis* L. var. *canadensis* [L.] Briquet), "name' wúckons" [little sturgeon plant].¹¹⁰ Among the Flambeau Ojibwe a tea is brewed from the entire plant, to be taken as a blood remedy. It is also used by them in the sweat bath, "akúskati". John

¹⁰⁸Present series, Vol. IV, pl. 33 fig. 1

¹⁰⁹Present series, Vol. IV, pl. 40, fig. 2.

¹¹⁰Present series, Vol. IV, pl. 20, fig. 3.

Peper, Pillager Ojibwe, made an especial trip to find this on the lake shore but calls it "andego' bigons" [little crow leaf] and says that they use it as a tea to break fevers. This species of mint was rarely used by white men for carminative, stimulant and anodyne affects.

Wild Bergamot (*Monarda fistulosa* L.), "weca' wûs wackwi' nek" [yellow light].¹¹¹ The Flambeau Ojibwe gather and dry the whole plant, boiling it in a vessel to obtain the volatile oil to inhale to cure catarrh and bronchial affections. In some sections, the whites use it as a domestic antiperiodic and diaphoretic.

Catnip (*Nepeta cataria* L.) "tci' name' wûck" [big sturgeon plant].¹¹² The Flambeau Ojibwe brew a tea of catnip leaves for a blood purifier. The mint water obtained by steeping the herb in lukewarm water is used to bathe a patient, to raise the body temperature. The plant is employed by the whites as an emmenagogue and antispasmodic. It has been used as a carminative to allay flatulent colic in infants, and is supposed to be useful in allaying hysteria.

Heal-all (*Prunella vulgaris* L.), "basi' bûgûk" [partridge leaf]. The root is used by the Flambeau Ojibwe in combination with others for a female remedy. It has been used by eclectic practitioners as a pungent and bitter tonic and antispasmodic. It has vermifuge properties and is slightly diuretic. It has also been used for obstructions of the liver, cramps and fits.

Marsh Skullcap (*Scutellaria galericulata* L.), "tcatcabonû' ksk" [refers to the way the stem comes up through the leaves]. The Flambeau Ojibwe use this for medicine, having something to do with heart trouble, but we could get no definite information upon it. There is no record of its use by white men, although a similar species, *S. lateriflora* has been used as a nervine, tonic and antispasmodic in chorea, convulsions, fits, delirium tremens and all nervous affections.

LEGUMINOSAE (PULSE FAMILY)

Creamy Vetchling (*Lathyrus ochroleucus* Hook.) "bûgwa' dj ûk pîni' k mîne' bûg" [unusual potato, berry, leaf]. John Peper, Pillager

¹¹¹Present series, Vol. IV, pl. 19, fig. 3.

¹¹²Present series, Vol. IV, pl. 19, fig. 4.

Ojibwe, said that the foliage was fed to a pony to make him lively for a race. The Flambeau Ojibwe call it "basi' bûgûk" [partridge leaf], in common with several other plants, and say that the Creamy Vetch is used for stomach trouble. By the white men, it is considered one of the loco weeds, bad for horses.

Marsh Vetchling (*Lathyrus palustris* L.), "bebejtgoga'nji macki' ki" [horse medicine]. The Pillager Ojibwe feed this to a pony that is sick and claim it will make him fat. There is no record of its use as medicine by white men.

White Sweet Clover (*Melilotus alba* Desr.). The Flambeau Ojibwe claim that this plant is adventive and so they do not use it. There is no record of its use as medicine by white men.

LICHENS

Reindeer Moss (*Cladonia rangiferina* [L.] Hoffm.) "assa' gûniûk'" [moss].

The Ojibwe boil this moss and use the water to wash a new born baby. They declare it is the same as if you were putting salt into the water. So far as is known, it has never been utilized as a medicine by the white man.

LILIACEAE (LILY FAMILY)

Northern Clintonia (*Clintonia borealis* [Ait.] Raf.), "gnose' wibûg'" [muskellunge leaf].¹¹³ The Flambeau Ojibwe use the root tea as a remedy to help parturition. John Peper, Pillager Ojibwe called it "adota'gons" [little bell] and said that the dogs use it to poison their teeth so that they can kill their prey. Should they bite a person, then it would be necessary to procure the same root and put it on the bite to draw out the poison. This curious superstition was also encountered in another tribe,—the Menomini. There is no record of its medicinal use by white men.

Canada Mayflower (*Maianthemum canadense* Desf.), "agofi-gosi' mfnûn'" [chipmunk berries], shown in plate 71, fig. 1. The Flambeau Ojibwe recognize that this is somewhat different from Spikenard (*Smilacina racemosa*), but give it the same name and

¹¹³Present series, Vol. IV, pl. 14, fig. 3.

uses, namely to keep the kidneys open during pregnancy, to cure sore throat and headaches. It is also used to make smoke for inhaling. The Pillager Ojibwe do not know or use it.

Small Solomon's Seal (*Polygonatum biflorum* [Walt.] Ell.) "nanibte'ode'ktn", [grows in a row], shown in plate 72, fig. 2. The Pillager Ojibwe use the root as a physic and it is also cooked to yield a tea to treat a cough. White men have used it as a substitute for *Convallaria* for the same purposes, namely the treatment of dropsy.

False Spikenard (*Smilacina racemosa* [L.] Desf.), "agofigo' stmnûn" [chipmunk berries], shown in plate 71, fig. 2. The Flambeau Ojibwe use this root in combination with Spreading Dogbane (*Apocynum androsaemifolium*) to keep the kidneys open during pregnancy, to cure sore throat and headache. It is also used as a reviver, "aba'bûsûn". Convallarin is the important constituent of Spikenard and it is classed the same as Solomon's Seal and Canada Mayflower.

Star-flowered Solomon's Seal (*Smilacina stellata* [L.] Desf.) The Pillager Ojibwe have no name nor use for this root.

Carrion-flower (*Smilax herbacea* L.), "gîne' bîgomnaga'wûnj" [snake berry bush], shown in plate 73, fig. 2. The root of this plant was used in lung troubles according to the Pillager Ojibwe. It has been used by eclectic practitioners as an alterative.

Twisted Stalk (*Streptopus roseus* Michx.), "nanibte'ode'ktn", [grows in a row], shown in plate 72, fig. 1. This plant is called by the same name as *Polygonatum biflorum* among the Pillager Ojibwe, but this particular one is always referred to as the squaw, while *Polygonatum* has always been called the man. It is used for a physic or to make tea for a cough. There is no record of its medicinal use by white men.

Large Flowered Bellwort (*Uvularia grandiflora* Sm.), "wesaw-abi' kwonék" [yellow light]¹¹⁴, the name applied to the plant, but the root is called "wabûckadji' bîk" [white root]. The Pillager Ojibwe use the root for stomach trouble. The trouble is described as a pain in the solar plexus, which may mean pleurisy. It has been used by eclectic practitioners for erysipelas, ulcerated mouth, etc.

¹¹⁴Present series, Vol. IV, pl. 13, fig. 1.

LYCOPODIACEAE (CLUB MOSS FAMILY)

Ground Pine (*Lycopodium complanatum* L.), "gtji'k gando' gûng" [cedar-like]. The dried leaves are used by the Flambeau Ojibwe as a "nokwe'sikûn" or reviver. *Lycopodium* spores are used by the white man as a surgical dusting powder.

Ground Pine (*Lycopodium obscurum* L. var. *dendroideum* [Michx.] D. C. Eaton) "cigona' gan" [evergreen], shown in plate 61, fig. 1. The Flambeau Ojibwe use this plant in combination with Bush Honey-suckle roots (*Diervilla lonicera*) as a diuretic. The spores are the only part used by the white man for medicine. They are an anti-septic dusting powder.

MENISPERMACEAE (MOONSEED FAMILY)

Canada Moonseed (*Menispermum canadense* L.), "btma' kwit wa' bîgons" [twisted pod or stick]. White Cloud, Pillager Ojibwe of Bear Island, did not know the use of this root, but assured the writer that other Ojibwe knew it and used it. Moonseed root is used by eclectic practitioners as a tonic and alterative, and has been employed as a substitute for Sarsaparilla.

MYRICACEAE (BAYBERRY FAMILY)

Sweet Fern (*Myrica asplenifolia* L.), "gibaime' nûna'gwûs" [coverer]. Sweet fern is called "a coverer," because it is used to line the blueberry pails and cover the berries to keep them from spoiling. The word is almost the same as that used by the Menomini and means the same. The Flambeau Ojibwe consider the leaves too strong for a beverage tea, but make a medicinal tea to cure the flux and cramps in the stomach. The white man uses Sweet Fern as a stimulant and astringent; sometimes using it to relieve colic and check diarrhea. It has also been used in a fomentation to relieve rheumatic pains.

NYCTAGINACEAE (FOUR-O'CLOCK FAMILY)

Heart-leaved Umbrella-wort (*Oxybaphus nyctagineus* [Michx.] Sweet) "goko' coadji' bîk" (pig root). The Pillager Ojibwe say that the pig is fond of the roots of this plant because they are large and succulent, hence call it "pig root". The root is used by them to reduce sprains and swellings. There is no record of its use among the whites.

NYMPHAEACEAE (WATER LILY FAMILY)

Sweet White Water Lily (*Castalia odorata* [Ait.] Woodville & Wood.), "odite'abûg wa' bigwûn" [flat heart leaf, white flower]. The Flambeau Ojibwe use the root as a cough medicine for those who have tuberculosis. The roots have been used by white men in the treatment of diarrhea, dysentery and leucorrhea.

Yellow Water Lily (*Nymphaea advena* Ait.), "oga' da mûn" [standing on legs]. The Flambeau Ojibwe word is a bit different in spelling but means the same as the Menomini word for this plant. The Ojibwe call the leaves, "odite'abûg" [flat heart leaf]. The root is the only medicinal part and is grated to make a poultice for sores. Other ingredients such as Skunk Cabbage root are added to this poultice. The Ojibwe gather goodly quantities of the large underwater stems; which we are prone to call roots, dry them and reduce them to powder. The powder alone is supposed to heal cuts and swellings. The roots have been used by white men in the treatment of diarrhea, dysentery and leucorrhea.

OLEACEAE (OLIVE FAMILY)

Red Ash (*Fraxinus pennsylvanica* Marsh), "a' gîma'k" [snowshoe wood]. The Pillager Ojibwe use the inner bark in combination with other things for a tonic. The inner bark is official with white men as a bitter tonic and astringent. It is also said to be valuable as an anti-periodic.

ONAGRACEAE (EVENING PRIMROSE FAMILY)

Great Willow-herb (*Epilobium angustifolium* L.), "o' ca cadji' bîkes" [slippery or soap root], shown in plate 69, fig. 2. The Flambeau Ojibwe say that the outer rind of this root lathers in water and they pound it to make a poultice. This is used to draw out inflammation from a boil or a carbuncle. With white men, it is a demulcent, tonic and astringent. It has been used internally for its tonic effect on mucous surfaces and its value in intestinal disorders.

Evening Primrose (*Oenothera biennis* L.) While the Flambeau Ojibwe have no Indian name for this, still they use the whole plant soaked in warm water to make a poultice to heal bruises. Because of its antispasmodic properties, the white man has used it internally in the treatment of whooping cough, hiccough and spasmodic asthma.

OPHIOGLOSSACEAE (ADDER'S TONGUE FAMILY)

Virginia Grape Fern (*Botrychium virginianum* [L.] Sw.), "glo-kênsine' namûkûk" [man, squaw and baby], shown in plate 66, fig. 2. John Peper, Pillager Ojibwe, hunted a long time for this plant around Leech Lake, Minnesota, because his mother said it was good for lung trouble and consumption. He called attention to the fact that one always finds two stems together in the proper plant to use, which he described as the man and squaw, with the little one or fruiting frond, in the center. There is no record of its use by white men.

ORCHIDACEAE (ORCHIS FAMILY)

Yellow Ladies' Slipper (*Cypripedium parviflorum* Salisb. var. *pubescens* [Willd.] Knight), "ma' kasin" [moccasin].¹¹⁵ Among the Pillager Ojibwe, the root of this species is said to be a good remedy for female troubles of all kinds. The white man has used it as a gentle tonic for the nerves, a stimulant and antispasmodic, similar to Valerian, only less powerful.

Rein Orchis (*Habenaria bracteata* [Willd.] R. Br.), "goko'cgûnda mnêskwe' mîn" [pig-woman enticer root]. The Ojibwe Pillager would smuggle this into food as an aphrodisiac, which they considered a bad use and not to be talked about or countenanced. There is no record of its use by the white men.

Adder's Mouth (*Microstylis unifolia* [Michx.] BSP.) "ata' nfkotci' mîn" [twisted berry]. The Flambeau Ojibwe use the tiny root of this plant to mix with Bush Honeysuckle bark (*Diervilla lonicera*) as a diuretic. There is no record of its use by white men.

PAPAVERACEAE (POPPY FAMILY)

Bloodroot (*Sanguinaria canadensis* L.)¹¹⁶ "meskwa' dji' bîkûk" [red root]. The Pillager Ojibwe use the orange-red juice of the Bloodroot to cure sore throat. The juice is squeezed out on a lump of maple sugar, and this is retained in the mouth until it has melted away. They also use the juice to paint the face for the medicine lodge ceremony or when on the warpath.

Sanguinaria is official only in the U. S. Pharmacopoeia, and in small doses it produces a sense of warmth in the stomach and stimu-

¹¹⁵Present series, Vol. IV, pl. 32, fig. 3.

¹¹⁶Present series, Vol. IV, pl. 14, fig. 2.

lates gastric secretion. It is given as an expectorant and in larger doses as an emetic.

PINACEAE (PINE FAMILY)

Balsam Fir (*Abies balsamea* [L.] Mill), "jingo' b" [any kind of fir tree name], shown in plate 62, fig. 1. While the Flambeau Ojibwe call the tree "jingo' b" as a short term, the full name of the Balsam Fir according to them is "jingo' b p'kewa' ndag". They claim that the liquid balsam is used direct from the bark blister upon the eyes, for sore eyes. The leaves are a reviver or "aba' bûsûn" and are also used in combinations as a wash. The Pillager Ojibwe call it "jingo' bandag", and use the balsam gum for colds and to heal sores. This corresponds to the way the Hudson Bay Indians use the bark. The needle-like leaves are placed upon live coals and the smoke is inhaled for colds. They are also used as a part of the medicine for the sweat bath.

The sweat bath is taken in a small hemispherical wigwam, like the regular abode, but entirely covered with mats or nowadays with canvas. The medicines are coiled into wreaths to fit into large iron kettles. Water is added and finally hot rocks which cause steam. The Indian taking the sweat bath may be taking it for ceremonial reasons, for cleansing, but most likely as a medicated steam bath. He sits naked within until there is no more steam and his body is entirely dried again. He then puts on all clean clothes and will not wear the discarded clothes until they have all been thoroughly washed. The candidate for degrees in the medicine lodge, must undergo the sweat bath in a ceremonial way. Usual plants employed to medicate the steam are White Pine leaves, Hemlock leaves, Arbor Vitae leaves, Wild Bergamot plant, Balsam needles, Peppermint plants, and the like. They are undoubtedly very beneficial to the health. Canada balsam is accounted the same medicinally as turpentine, but its principal value to the white man today is its perfect transparency and peculiar optical properties, which fit it for use in mounting microscopic specimens.

Tamarack (*Larix laricina* [DuRoi] Koch), "mûctgwa' tig" [swamp tree], shown in plate 60, fig. 2. The Flambeau Ojibwe use the dried leaves as an inhalant and fumigator, "nokwe'stkûn". Larch

bark has been highly valued in the past in chronic bronchitis with profuse expectoration, in chronic inflammation of the urinary passages, and in phases of hemorrhage.

White Spruce (*Picea canadensis* [Mill.] BSP.), "gawa' ndag", shown in plate 62, fig. 2. The leaves of White Spruce are used in the same manner as Larch, as a "nokwe'skûn", an inhalant or fumigator. The needle oil is considered about the same as turpentine, by white men.

Black Spruce (*Picea mariana* [Mill.] BSP.), "jingwûp". If the bark is meant as a medicinal salt, then its name is "jingwû' p gawa' ndag" but if the leaves are the part meant for a reviver, "aba busun", then it carries only the name "jingwup". The needle oil is used by white men the same as turpentine.

Jack Pine (*Pinus banksiana* Lamb.), "gtga' ndag". The leaves are used as a reviver,—"nokwe' skûn" according to the Flambeau Ojibwe. There is no record of its medicinal use by the white men.

Norway Pine (*Pinus resinosa* Ait.), "abakwanûg i'mûg" [bark in plates], shown in plate 63, fig. 2. The Norway Pine is used in all particulars by the Flambeau Ojibwe, just as the White Pine.

White Pine (*Pinus strobus* L.), "jingwak kwesekwe' tûk" according to Bearskin of the Flambeau Ojibwe, shown in plate 63, fig. 1, "jingwak waceskwe'do" according to Charley Burns of the Flambeau Ojibwe. The bark medicine is, "jingwak ona' gêk" and is gathered in the same manner as by the Menomini, with a song to grandmother Earth, and the placing of tobacco on the ground. The cones, when boiled and likewise the bark of the young tree trunk yield a pitch which is medicine, called "jingwak bûgto." The dried leaves are powdered and used as a reviver or inhalant. There are three names referring to this sort of treatment, as said before,—"nokwe' skûn", "sasa' bikwat" and "aba' bûsûn". Of these three terms, "sasa' bikwat" is the proper one to use when White Pine needles are employed in this manner. White Pine is a very valuable remedy with all Ojibwe, but Norway Pine is sometimes substituted for it. White Pine bark is used in making cough syrup, by white men, but it possesses only feeble properties as an expectorant.

Arbor Vitae (*Thuja occidentalis* L.), "gi' jtkandag" [sky or cedar tree].¹¹⁷ The Flambeau Ojibwe use the leaves as a perfume, "aba' bûsûn" and also as a tea for headache. During ceremonies of the medicine lodge, it is necessary to purify sacred objects and the hands and persons of participants. A plate of live coals is used and dried Arbor Vitae leaves placed upon them. The servitor wafts the incense over sacred objects by fanning the smoke with his hands. Others hold their hands over and in the smoke, waving it upon their persons.

The Pillager Ojibwe call it by the simple name "gi' jtk" (sky or cedar). They also use it as a purifying incense, and as an ingredient for the sweat bath with White Pine, Balsam, Hemlock and other plants. They drink the boiled leaves claiming that the steam goes through the blood and purifies it. This treatment cures coughs.

The U. S. Pharmacopoeia formerly required that leaves for medicinal use be in a fresh state but the new formulary only requires them to be recently dried and leafy. Internally it has been used for an emmenagogue, for fevers, bronchial catarrh, rheumatism and to remove intestinal worms. Externally it is applied in ointment to treat ulcers, warts and cancerous growths.

Hemlock (*Tsuga canadensis* [L.] Carr.), "gagagi' wic" [raven tree]. The Flambeau Ojibwe medicine man puts the leaves in his medicinal tea to disguise the taste. The bark is used for healing cuts and wounds, and for stopping the flow of blood from a wound. The bark is rich in tannin and naturally quite astringent. White men have used the bark and its resulting pitch as substitutes for burgundy pitch in making plasters. These have been used as external remedies for lumbago, chronic rheumatic pains, chronic bronchitis and pleurisy.

PLANTAGINACEAE (PLANTAIN FAMILY)

Common Plantain (*Plantago major* L.), "ceca' gûski' bûge stnk" [leaves grow up and also lie flat on the ground].¹¹⁸ The Flambeau Ojibwe soak the leaves in warm water then bind them on bruises, sprains or sores as a poultice. It is also a healing and soothing remedy for burns, scalds, bee stings, and snake bites. The Flambeau Ojibwe also refer to it as "pakwan". The Pillager Ojibwe use it in the same

¹¹⁷Present series, Vol. IV, pl. 8, fig. 3.

¹¹⁸Present series, Vol. IV, pl. 31, fig. 2.

manner but call it "jimŭcki' gobŭg" [sort of swamp leaf]. Although plaintain is a feeble remedy, it has been ascribed potency in many diseases by eclectic practitioners. They still use it to some extent in treating inflammation of the skin, malignant ulcers, intermittent fevers, etc. The leaves are of some value in arresting hemorrhages when applied to the bleeding surfaces. The writer cured a badly swollen and lacerated hand, which swelled to three times its normal size, probably because dirt from a sewer was ground into it, with the simple leaf bound upon the hand.

POLYGONACEAE (BUCKWHEAT FAMILY)

Carey's Persicaria (*Polygonum careyi* Olney). The Ojibwe have no name or use for this, nor have white men.

Swamp Persicaria (*Polygonum muhlenbergii* [Meisn.] Wats.), "agofŭgo' simŭnŭn" [chipmunk berries]. The Flambeau Ojibwe use this plant for a tea to cure a pain in the stomach. It is also hunting medicine. Several of the polygonums have been used by eclectic practitioners for their astringent properties.

Curled Dock (*Rumex crispus* L.) "ci'obŭg" [twisted leaf]. The Flambeau Ojibwe use the root, which contains considerable tannin, for closing and healing cuts. White men have used it for its astringent properties.

POLYPODIACEAE (FERN FAMILY)

Shield Fern (*Aspidium cristatum* [L.] Sw.), "ana' ganŭck" [fern]. The Flambeau Ojibwe use the root tea for stomach trouble. Among the white men, this fern has been found to have almost the same value as Male Fern as a teniafuge. Great care is exercised in the size of the dose and to see that no part of the drug remains in the system after it has performed its task of killing intestinal worms, as fatalities have been known to occur.

Female Fern (*Asplenium filix-femina* [L.] Bernh.), "ana' ganŭck" [fern]. The Flambeau Ojibwe grate the dry root into a powder which is used as a healing powder for sores. The Pillager Ojibwe call it "nokomi' skŭnŭn" [grandmother?]. The root is made into a tea to cause milk flow in patients with caked breast. There is a record of its medicinal use by white men to alleviate backache.

Sensitive Fern (*Onoclea sensibilis* L.), "a' nana' ganûck" [fern]. The Pillager Ojibwe powder the dry root, and make a tea to give the patient whose breasts are caked, to stimulate the flow of milk. There is no record of its medicinal use by white men.

Brake (*Pteris aquilina* L.), "ana' ganûck" [general fern name]. This is the general name of the bracken fern, where used for food. When used for medicine, it is called by the Flambeau Ojibwe—"mak-ate' wa ana' ganûck" [black fern], and the root is made into tea to alleviate cramps in the stomach. It is only used by the women for this purpose. The dried leaves are smoked upon live coals to relieve a headache. Under the name "a' nanagana' wûck" the root is used by the Pillager Ojibwe in the same manner as by the Flambeau Ojibwe. White men have considered this root to be pectoral, demulcent, purgative and anthelmintic. A syrup solution is used in pulmonary and hepatic diseases. A strong decoction is used to expel worms.

PRIMULACEAE (PRIMROSE FAMILY)

So far as is known, none of the Primrose family is used by the Ojibwe for medicine. The Pillager Ojibwe did not know the Tufted Loosestrife (*Lysimachia thyrsiflora* L.).

RANUNCULACEAE (CROWFOOT FAMILY)

Red Baneberry (*Actaea rubra* [Ait.] Willd.), "wîkobidji' bîk" [sweet root], shown in plate 76, fig. 1. The Pillager Ojibwe make a tea from the root, to be drunk by women after childbirth. It is to clear up the system. A man also eats the root for stomach troubles. White men use the root as a substitute for Black Cohosh (*Cimicifuga racemosa*), which it resembles in appearances and properties. It has been used in treating ovarian neuralgia, uterine tenderness, subinvolution, and amenorrhea. It has also been used as a substitute for digitalis in fatty or irritable heart, but only after other remedies have failed. Headache due to eyestrain has also been cured by this root.

Canada Anemone (*Anemone canadensis* L.), "mîdewidji' bîk" [medicine lodge root], shown in plate 74, fig. 2. The Pillager Ojibwe eat the root of this plant to clear the throat so they can sing well in the medicine lodge ceremony,—a sort of throat lozenge. Most of the

anemones have been substituted for *Pulsatilla* and used for the same host of diseases by eclectic practitioners. Included in these ailments are: cataract, paralysis, rheumatism, melancholia, syphilis, dysmenorrhea, and many other morbid conditions.

Thimble-weed (*Anemone cylindrica* Gray.), "gande gwa' son-tnke' cinagwuk" [looks like tumble-weed]. The Flambeau Ojibwe use the root for making a tea to relieve lung congestion and tuberculosis. Among the white men it has the same uses as Canada Anemone.

Wild Columbine (*Aquilegia canadensis* L.), shown in plate 74, fig. 1. The Pillager Ojibwe have no name for this plant, but the root is considered a good medicine for stomach trouble. Eclectic practitioners consider it a diuretic, diaphoretic, and antiscorbutic, using it in jaundice, in smallpox to promote eruption, and in scurvy.

Gold-thread (*Coptis trifolia* [L.] Salisb.), "wesa wa' nikwe'ak" [yellow ?] and "wesa wadji'bikwe'ak" [yellow root], shown in plate 75, fig. 1. The Flambeau Ojibwe use the decoction of the root to soothe and heal the baby's gums while it is teething. It is also used as a mouth wash for adults when their mouths are sore. This use has been adopted by white men, who also use it in dyspepsia and chronic inflammation of the stomach.

Bristly Crowfoot (*Ranunculus pennsylvanicus* L. f.), "manwe'gons". The seeds are a hunting medicine with the Flambeau Ojibwe. Several of the *Ranunculaceae* have been used as counter-irritants by the white men.

Cursed Crowfoot (*Ranunculus sceleratus* L.). The Pillager Ojibwe do not know this plant, and have no name for it. Eclectic practitioners have used it as a counter-irritant.

Purple Meadow Rue (*Thalictrum dasycarpum* Fisch. & Lall.), shown in plate 73, fig. 1. The Pillager Ojibwe have no Indian name for this, but use the root to make a tea to reduce fever. The properties of this root are considered almost identical with *Berberis*, which is used by white men as a tonic, stimulant and antiperiodic.

ROSACEAE (ROSE FAMILY)

Agrimony (*Agrimonia gryposepala* Wallr.), "saga' tigans" [seeds

stick], shown in plate 77, fig. 1. The Flambeau Ojibwe use the root with other ingredients as a medicine for urinary troubles. It is not much valued now by white men, although it has been used for its bitter astringent properties.

Smooth Juneberry (*Amelanchier laevis* Wiegand), "goziga'-gominaga'wûnj" [thorny wood]¹¹⁹ according to John Whitefeather, Flambeau Ojibwe, and "bsega'gomînaga'wûnj" according to Charley Burns, another Flambeau Ojibwe who said that the bark was used for medicine, but he did not know what it was to treat. The Pillager Ojibwe call it "goziga'gomînûk" and say that the bark is to make a tea for the expectant mother. There is no record of its medicinal use by white men.

Hawthorn (*Crataegus* sp.), "mînesaga' wûnj" [berries and thorn bush], shown in plate 77, fig. 2. The Flambeau Ojibwe use both the fruit and the bark for medicine, a kind not made now, other than for women. Eclectic practitioners have used the berries for their astringent and reputed cardiac properties.

Wild Strawberry (*Fragaria virginiana* Duchesne), "ode' imînd-ji' blk," [heart berry root].¹²⁰ The root of the common Wild Strawberry is used to make a tea good for the stomach-ache, and especially for babies. The white man uses the herb as an astringent and tonic for convalescents and especially for children having bowel and bladder weakness.

Large-leaved Avens (*Geum macrophyllum* Willd.), "wica'wasa' konek" [yellow light]. The Flambeau Ojibwe use this for a female remedy. Eclectic practitioners consider the root tonic and astringent.

Rough Cinquefoil (*Potentilla monspeliensis* L.), "tcode' imînaga' wûnj" [like a strawberry]. This plant seemed to be known to all the Pillager Ojibwe, even the eight-year-old girls, as a physic. There is no record of its use as a medicine by white men.

Marsh Five-finger (*Potentilla palustris* [L.] Scop.), "beba' akwûndek" [floats about]. This was dug from the water by John Whitefeather's wife, Flambeau Ojibwe, who said it was a cure for cramps

¹¹⁹Present series, Vol. IV, pl. 30, fig. 2.

¹²⁰Present series, Vol. IV, pl. 33, fig. 2.

in the stomach, and is used alone as one medicine. Under the Pillager Ojibwe name of "mûcki' godji'blk" [swamp root], John Peper said that it was medicine with them, but he did not know how to use it. There is no record of its use as medicine by white men.

Pin Cherry (*Prunus pennsylvanica* L. f.), "bae'wiminûn". The inner bark is a valued remedy for coughs. Most of the species of cherry have been used by white men for the bitter principle contained, which suits it for use as a stomachic and bitter tonic in gastric atony and general debility. The syrup of wild cherry has been used as a pleasant vehicle for other drugs.

Wild Cherry (*Prunus serotina* Ehrh.) "okwe' mfn" [worm out of a fly's egg; refers to the little worms in a cherry when it is ripe].¹²¹ The Flambeau Ojibwe value the bark of this species to make a tea as a remedy for coughs and colds. It is used the same as Pin Cherry by white men.

Choke Cherry (*Prunus virginiana* L.), "a' sasawe' mfnaga' wûnj."¹²² The Pillager Ojibwe make a tea for lung trouble from the inner bark. This is the official bark in the pharmacopoeia, which is used as a stomachic and bitter tonic useful in gastric atony and general debility. Wild cherry syrup is used to mask other unpleasant drugs.

Smooth Rose (*Rosa blanda* Ait.), "ogtne' mfnaga' ons" [rose berries].¹²³ The Pillager Ojibwe use the skin of the fruit or "rose hip" for stomach trouble. The Flambeau Ojibwe call it "ogtni" or "ogtni' gawûnj" [rose berries]. They dry and powder the flowers for use in relieving heart-burn. The skin of the rose hips is a medicine for indigestion. Rose hips are described by white men as refrigerant and astringent, but are only used in medicine to prepare the confection of hips. Roses are used almost wholly today to impart their pleasant odor to pharmaceutical preparations.

High Bush Blackberry (*Rubus allegheniensis* Porter), "o'dataga' gomlc" [its name].¹²⁴ The Flambeau Ojibwe boil the canes to obtain a tea that is used as a diuretic. The roots furnish a tea for arresting

¹²¹Present series, Vol. IV, pl. 23, fig. 3.

¹²²Present series, Vol. IV, pl. 8, fig. 1.

¹²³Present series, Vol. IV, pl. 37, fig. 3.

¹²⁴Present series, Vol. IV, pl. 25, fig. 4.

flux. Blackberry and Dewberry root are official in the U. S. Pharmacopoeia because of their tonic and astringent properties. They are favorite household remedies among white men in the treatment of summer diarrhea of children and adults. Blackberry cordial is often used for the same purpose.

Red Raspberry (*Rubus idaeus* L. *aculeatissimus* [C. A. Mey] Regel & Tiling) "meskwa' mtnaga' wûnj" [red bush berry]. The Flambeau Ojibwe value the berries as a seasoner for their medicines. That is, the flavor is used to disguise less pleasant ingredients. The root bark makes a tea for healing sore eyes. Under the name Rubi Idei Fructus, N. F. white men use the berries for making an agreeable syrup as a vehicle for less pleasant tasting medicines. When the Red Raspberry is not readily available the Black Cap Raspberry is used in the same manner.

Meadow-Sweet (*Spiraea salicifolia* L.), "wabûcktki' bûg" [rabbit leaf]. The Flambeau Ojibwe use the root as a trapping medicine. There is no record of its use by the white man.

Steeple Bush (*Spiraea tomentosa* L.), "memîsgwû'nagûg" [squaws' drink]. The Flambeau Ojibwe make a tea from the leaves and flowers of the Steeple Bush to drink for the sickness of pregnancy and to act as an easy parturient. The whites have used the root and the leaves as an astringent and tonic, in diarrhea, hemorrhages, gonorrhea, ulcers, etc.

RUBIACEAE (MADDER FAMILY)

Goose Grass (*Galium aparine* L.), "sakate' bwi" [stickers]. The whole plant is used by the Pillager Ojibwe to make a tea used for a diuretic, in kidney trouble, gravel, stoppage of urine, and allied ailments. Other species are used in much the same way and for the same purposes. White men have recognized it as a valuable refrigerant and diuretic, and have found it useful in diseases of the urinary organs. It is not recommended for diseases of a passive character, on account of its refrigerant and sedative effects, but is used freely in fevers and all acute diseases.

Small Cleaver (*Galium tinctorium* L.), "waboskiki' mînûn' [rabbit swamp berries]. The Flambeau Ojibwe make a medicinal

tea from the whole plant, for its beneficial effect upon the respiratory organs. Eclectic practitioners have used it for its nervine, antispasmodic, expectorant and diaphoretic properties. It has been successfully used in asthma, cough, and chronic bronchitis. The plant has a pungent, aromatic, pleasant, persistent taste.

Small Bedstraw (*Galium trifidum* L.), "ojibwe' owe' cūwūn", [ojibwe male genitalia]. The Pillager Ojibwe make a medicinal tea of this species for skin diseases such as eczema, ringworm and scrofula. White men undoubtedly use it in much the same way as the preceding species through error in identifying it correctly.

RUTACEAE (RUE FAMILY)

Prickly Ash (*Zanthoxylum americanum* Mill.), "gawa' kumic",¹²⁵ [its name]. Both Flambeau and Pillager Ojibwe make trips further south to get this bark, since none of the trees grow near them. They want it for treating quinsy and sore throat. They say that even the berries are good for a hot tea to treat sore throat, and also to use as a spray on the chest to cool and relieve congestion in bronchitis. Among the white men, it is considered a stimulant, tonic, alterative and sialagogue and is used for chronic rheumatism, colic, syphilis, and hepatic derangements.

SALICACEAE (WILLOW FAMILY)

Balsam Poplar (*Populus balsamifera* L.), "manasa' di" [perfume poplar]. The Pillager Ojibwe cook the buds of the Balsam Poplar in lard or bear fat, and use the cold product for a salve on cuts, wounds or bruises. They also rub it on the inside of the nostrils, so that the balsamic odors can course through the respiratory passages and open them in case of congestion from cold, catarrh or bronchitis. Poplar buds are also official with white men who use them as a stimulating expectorant, and in the form of an ointment in treating sluggish ulcers and sores. Eclectic practitioners have used tinctures of the buds for stomach and kidney treatment and in scurvy and rheumatism, and sometimes, apply it to the chest. The bark is used by white men for a tonic and cathartic, of service in gout and rheumatism.

Large-toothed Aspen (*Populus grandidentata* Michx.), "asadi"

¹²⁵Present series, Vol. IV, pl. 23, fig. 2.

[bitter bark]. The Flambeau Ojibwe use the young roots of this tree in a tea as a hemostatic. There is no record of its use by the whites.

Quaking Aspen (*Populus tremuloides* Michx.), "asadi" [poplar]. The Flambeau Ojibwe give this tree the same name as the Large-toothed Aspen. They use the bark of a young trunk for poulticing cuts and wounds. The astringent salacin in the inner bark undoubtedly draws the cuts together and causes healing. The Pillager Ojibwe distinguish the tree with a slightly different name, "asadins", the diminutive of "asadi", meaning "little poplar". They use the inner bark for poulticing a sore arm or leg, and make the inner layer of their splints of the inner bark so that a broken limb may heal healthily. Eclectic practitioners use both bark and leaves in treating acute rheumatism, also to lower the temperature in fevers, to relieve pain and reduce arterial swellings, colds, hay fever, influenza, neuralgia and diabetes. Externally the whites have used it as a wash for gangrenous wounds, eczema, cancer, burns, and body odor.

Crack Willow (*Salix fragilis* L.), "sizigo' bimtc" [willow name]. This tree has escaped from cultivation around the water-courses of the Flambeau Reservation and has been accepted by the Ojibwe there as efficacious along with the native willows. The bark is astringent from its salacin content and is used as a styptic and poultice for sores. Willow bark was formerly employed by physicians among the whites as a stomachic and antiperiodic in the treatment of intermittents, but is rarely used today.

Shining Willow (*Salix lucida* Muhl.), "zigo' bamtc". The Pillager Ojibwe use the bark of this species as an external remedy for sores. The Ojibwe do not generally distinguish any particular willow with any other name, but Whitefeather, Flambeau Ojibwe, called this species "múckigo' bamtc" [swamp tree] and said it was used on a cut to stop the bleeding, and that the bark was also a poultice material for sores. Other Flambeau Ojibwe called it "sizigo' bamtc", but it was generally noticed that in that latitude the Shining Willow was invariably found in swamps, and not along streams, so there is justification for Whitefeather's name. Among the whites, this bark was used formerly as a stomachic and antiperiodic.

Bog Willow (*Salix pedicellaris* Pursh.), "sizigo' bamtc". This

is a species of the cold bogs and meadows found far up toward the Arctic Circle. While the Pillager Ojibwe did not give it a distinctive name, they said it was not used for bark to smoke, but for bark to treat stomach trouble. There is no record of its use by whites.

SARRACENIACEAE (PITCHER-PLANT FAMILY)

Pitcher-plant (*Sarracenia purpurea* L.), "o' makaki' widass" [frog's leggings], as shown in plate 67, fig. 1. Bearskin, Flambeau Ojibwe medicine man had a slight variant in pronouncing this—"o' makaki' odass". He said that the root is used to make a tea to help a woman accomplish parturition. Eclectic practitioners used the whole plant to make a tea for a tonic, stimulant, diuretic and laxative.

SAXIFRAGACEAE (SAXIFRAGE FAMILY)

Wild Red Currant (*Ribes triste* Pall.), "mici' tcimnûk." The Flambeau Ojibwe use the leaves as some sort of a female remedy. There is no record of its use by the whites.

SCROPHULARIACEAE (FIGWORT FAMILY)

Butter and Eggs (*Linaria vulgaris* Hill.), "owacawa' skwûneg" [yellow light]. The whole plant is dried by the Flambeau Ojibwe and used in the kettle with other foliage and twigs as a bronchial inhalant in the sweat lodge. The Ojibwe name for medicine to be inhaled is "nokwe'skûn" which sounds much like the Menomini Indian name for the same thing,—"na' stkon". The eclectic practitioners claimed that the plant is diuretic, and cathartic, using it in dropsy, jaundice, and cutaneous eruptions. The fresh plant was sometimes used as a poultice for hemorrhoidal tumors, and an ointment was made of the fresh flowers for the same purpose and to use locally in diseases of the skin. In Germany, the flowers were used for a yellow dye.

Cow Wheat (*Melampyrum lineare* Lam.), "agofigasi' mtnûk" [chipmunk berries]. The Flambeau Ojibwe say that this plant is made into a tea, which is a "little medicine for the eyes". There is no record of its medicinal use by the whites.

Wood Betony (*Pedicularis canadensis* L.), "mandami' nfodji' blkns" [little corn root]. According to John Peper, Pillager Ojibwe, this root was a bad kind of medicine, an aphrodisiac, when cut fine

and placed in some dish of food without the knowledge of those who were going to eat it. There is no record of its medicinal use by the whites.

Mullein (*Verbascum thapsus* L.). The Flambeau Ojibwe have no name for this since it has come into their territory from the south and they do not use it. The writer has gathered this for his grandmother who smoked the leaves for relieving asthma and bronchitis. The flowers are supposed to have diuretic properties and have been used in the treatment of tuberculosis.

THYMELEACEAE (MEZEREUM FAMILY)

Moosewood (*Dirca palustris* L.), "djibe' gûb" [djibe means a dead person, or ghost or spirit]. The bark of Moosewood is very soft, strong and elastic, so that twigs can be tied into knots. The Pillager Ojibwe say that all their people use it as a tea for a diuretic. The bark is sometimes substituted for Mezereum bark, which is official in the U. S. pharmacopoeia. It is usually used in a compound decoction with sarsaparilla for chronic skin diseases, and syphilitic, rheumatic and scrofulous conditions. As an external ointment, it was used for a stimulant to foul or ill-conditioned ulcers.

TYPHACEAE (CAT-TAIL FAMILY)

Cat-tail (*Typha latifolia* L.), "bebamasû'n" [it flies around]. The Flambeau Ojibwe used the fuzz of the fruit for a war medicine. They claim that the fuzz thrown into an enemy's face will blind him.

UMBELLIFERAE (PARSLEY FAMILY)

Musquash Root (*Cicuta maculata* L.), "apagwasî'gons". The Pillager Ojibwe say that this root is used a little in their medicine, but did not know just how. It was smoked in hunting.

Cow Parsnip (*Heracleum lanatum* Michx.) "pi' pigwe' wantûck" [flute stem].¹²⁶ The Pillager Ojibwe pound the fresh root and apply it as a poultice to cure sores. The fresh leaves and root are known to produce vesication or blisters by the whites, and therefore have been used by them as counter-irritants. The root has been used by eclectic practitioners to cure epilepsy. In infusions, it is thought to cure dyspeptic disorders.

¹²⁶Present series, Vol. IV, pl. 24, fig. 1, and pl. 37, fig. 1.

Sweet Cicely (*Osmorhiza longistylis* [Torr.] D. C.), "osaga' tikûm" [interlaced twigs]. The same name was applied by the Pillager Ojibwe to *O. claytoni*, and evidently they did not distinguish between the two species. A tea for making parturition easier is prepared from the roots. The liquorice flavor of the tea is said to be good for a sore throat.

Wild Parsnip (*Pastinaca sativa* L.), "pigwe'wûnûsk" [flute stem]. The Pillager Ojibwe are quite cautious in using this poisonous root. They claim that a little bit is very powerful, while much is poisonous. They use a very minute quantity mixed with four other kinds of roots to make a medicinal tea for female troubles. There is no record of its medicinal use by the whites.

Black Snakeroot (*Sanicula marilandica* L.), "masan" [from the woods]. The Flambeau Ojibwe use the root pounded as a poultice to cure rattlesnake bite or any snake bite. Bearskin, chief Flambeau medicine man said that if this root be chewed, it would cause eruptions on the epithelial lining of the mouth. They consider it a very potent remedy. The Pillager Ojibwe call it "gtne'btg odji' btk" [snake root] and make a root tea that is used to cure fevers of various kinds. Eclectic practitioners have accredited it with active aromatic, bitter principles. They have used it in intermittent fevers, sore throat, erysipelas and cutaneous affections. It has been also used for St. Vitus dance and other nervous affections.

URTICACEAE (NETTLE FAMILY)

Hop (*Humulus lupulus* L.), "jiwl'cgoni'bûg". The Pillager Ojibwe use the common hop to make a tea which acts like saleratus on the system, increasing the excretion of urine and reducing its acidity. It is official in the U. S. pharmacopoeia as a tonic, diuretic, sedative and somewhat anaphrodisiac.

Wood Nettle (*Laportea canadensis* [L.] Gaud.), "masa'natk" [forest wood]. The Pillager Ojibwe use the root to make a medicinal tea for its diuretic properties. It is said to cure various urinary ail-

ments. Eclectic practitioners have considered it tonic, astringent and diuretic. They use both roots and leaves. The seeds and flowers are given in wine for the ague.

Slippery Elm (*Ulmus fulva* Michx.), "anib". The Pillager Ojibwe use the slippery inner bark for sore throat, especially when the throat is apt to be dry. Slippery Elm is official in the U. S. pharmacopoeia as a demulcent, emollient and nutritive. It is considered useful internally for dysentery, diarrhea and bronchitis. Pounded bark for poultices has been used for boils and inflammations, and in compounding suppositories.

Lyll's Nettle (*Urtica lyallii* Wats.), "masan" [woods]. The Flambeau Ojibwe use only the leaves as medicine. These are soaked in warm water and used as a poultice for heat rashes. It is something like fighting fire with fire. Among the whites, nettles are known for their powerful and peculiar diuretic properties.

VIOLACEAE (VIOLET FAMILY)

Canada Violet (*Viola canadensis* L.) Although a common violet in the territory of the Pillager Ojibwe, they claimed to have no name or use for it. It was formerly used by eclectic practitioners as a blood purifier and as a remedy in chronic affections of the lungs, and in skin diseases, but is no longer used.

American Dog Violet (*Viola conspersa* Reichenb.), "wewate' bûgûg". The whole plant is used by the Flambeau Ojibwe to make a tea for heart trouble. The whole plants have been used among the whites as alterative and expectorant remedies. They were said to be useful in skin diseases, scrofula, syphilis and bronchitis.

VITACEAE (VINE FAMILY)

River-bank Grape (*Vitis vulpina* L.), "ci'wi mfnûn" or "ciwi mfnaga wûnj", shown in plate 70, fig. 2. The Pillager Ojibwe used a tea of boiled twigs for women to drink to clear up afterbirth and enable it to pass easily. They use the sap as a medicine for stomach and bowel trouble. Among the whites, the tender branchlets and leaves were sometimes employed for their agreeable acidulous flavor.

OJIBWE VEGETAL FOODS

The Ojibwe have always lived far from the haunts of civilization. They were too far in the back country to participate in the colonial and pre-colonial wars. They have always preferred to live where game is abundant, and even today they are still able to subsist partly on deer and fish. The products of the hunt were very important to them, and they possess a very large number of hunting charms, which are roots, seeds or blossoms that are used as good luck omens or actual lures in trapping and fishing.

They have always made the greatest use of the edible plants of their environment, but did not progress very far in an agricultural way until the last quarter century, when each reservation was furnished with an Indian or white farmer, preferably an Indian. He has used the school children to cultivate demonstration farms, and his example is persisting in some of his former pupils. The older people had a few simple products from prehistoric days and have not allowed them to completely run out. The garden patch was always small, and the caretaker was invariably the woman of the household. Among the cultivated crops were: Cranberry pole beans, maize or Indian corn, potatoes of an early variety, squash and tobacco. The last crop has not been grown by them in fifty years, as they now depend upon the white men for their source of supply. At the present time, they raise any of the crops, that the white men raise. In their gardens, one will find lettuce and onions, radishes, carrots, parsnips, beets, turnips, cabbage, potatoes of standard varieties, beans and peas, and any other crop one will find in an up-to-date garden. Stranger still, one may find garden flowers, and the lady of the house will be quite proud of them, and usually a little jealous, if her neighbor has some flowers that she has not.

Some of the wild crops they gather possess considerable commercial value, such as blueberries and wild rice. The laborious work of preparing wild rice for table use has boosted the price to \$1.05 a pound, which those "in the know" gladly pay. Blueberries yield a goodly part of their cash income, for the berries usually sell for about twenty cents a quart, and it is easy for an Indian family to pick eighty

quarts in a day. They do not pick them like the white man does, but comb the bushes with their fingers, removing the leaves and twigs later.

The Ojibwe are fond of their native foods, and since they regard all plants as the gift of their deities, and sacred to their uses, they feel that their native foods are medicine to keep them in health as well as foods. While they know nothing about vitamins or chemical constituents, they think that there are some salts or minerals in their native foods that keep them well. We know that they are correct in that. They ascribe many of their present diseases to the abandonment of their native foods and the adoption of white men's foods. They think that the early failure of their teeth is due to using too much white flour for bread.

From the middle of July to the middle of September, one will find the women busily caring for the various food harvests. Maize will be drying on cloth screens, and blueberries will be drying to tough, inky pellets. Raspberries and dewberries are cooked into jams, cranberries are cooked with maple sugar into a jelly, and circles of squash are strung on a basswood bark string. Men and women are busy at the shallow lake harvesting wild rice, and all are very active. Sundays they will stop for a pow-wow or dream dance, but not if it is the wild rice harvest time. The food plants are listed alphabetically by families.

OJIBWE FOOD PLANTS

ACERACEAE (MAPLE FAMILY)

Box Elder (*Acer negundo* L.), "adjagobi' mûk". The Pillager Ojibwe collect the sap of the Box Elder and mix it with the sap of the regular Sugar Maple to drink as a beverage.

Sugar Maple (*Acer saccharum* Marsh.), "inena' tig" [indian tree] and "adjagobi' min". Both names came from the Pillager Ojibwe,¹²⁷ and although the trees were scarce on the Flambeau Reservation, they also call it "inena' tig", and gather quantities of the sap somewhere south of the reservation. Maple sugar is one of their most

¹²⁷Present series, Vol. IV, pl. 7, fig. 1.

important foods and is used in almost every kind of cookery. Maple sap is saved to drink as it comes from the tree, sometimes with the added sap of the Box Elder or Yellow Birch. Again it is allowed to become sour to make a vinegar "ctwa'bo" used in their cookery of venison, which, when afterwards sweetened with maple sugar, corresponds to the German fashion of sweet-sour meat. Before they had the salt of the white man, maple sugar took its place and still does when they can get it. All kinds of meats were seasoned with it. There are many interesting legends about the tree, its discovery and sugar making, as related in Mr. Alanson Skinner's "Material Culture of the Menomini".¹²⁸ The Ojibwe garner their sugar crop much the same way as they did years ago, except that they have used large iron kettles since the coming of the white man. The sugar camps are rather permanent affairs, and the framework of the boiling house with its upright poles around the fire place to hold the kettles is left intact. A bark-covered wigwam is used to store the tools of sugar sap gathering, and granulation. Most of the sap vessels and storage vessels are made of birch bark, sewed with boiled basswood fiber or the core of the Jack Pine root. The vessels are rendered water-proof by the application of pitch secured by boiling Jack Pine cones.

In early April, the Ojibwe visit their camps, the men to repair the camps and the storage vats of hollowed logs, and to cut fire wood, the women to see that the sap buckets and mokoks are scrupulously clean and watertight. If some can not be repaired, rolls of birchbark are there to make new ones. The whole family then move to the camp and live in the large wigwam, while they make sugar for a month. During the sap flow, a man can chop holes and set taps into from two to three hundred trees in a day. The first flow of sap is the best, and it gets to be of a rather poor quality by the end of the flow. The Ojibwe will not use the night flow of the sap, which they say is bitter, so they cease collecting an hour before dark. Gathered sap is stored in hollowed basswood log vats, and covered over with birch bark to keep it clean. Boiling in the iron kettles is done much as the white man does it, except that foam is dissipated by stirring with a fresh brush of a spruce branch. The syrup is strained through a cloth and recooked in two or three quart quantities until it is ready to sugar.

¹²⁸Indian Notes and Monographs, Museum of the American Indian, Heye Foundation, Misc. Publ. 20, pp. 164-165, 1921.

Then, while still warm, it is poured into a wooden trough, where it is pounded and crushed with a heavy wooden paddle as it hardens. It is stored in covered birch bark baskets called mokoks, of from twenty-five to seventy-five pounds capacity. The sugar is graded according to its whiteness and stored away. Sap is often added to the dregs in the kettles and a second grade sugar is secured. To waste or spill any of the sap is considered an affront to their deities, who punish such an act by causing the sugar to shrink after it is made.

ALISMACEAE (WATER-PLANTAIN FAMILY)

Arum-leaved Arrowhead (*Sagittaria arifolia* Nutt.) "wabasi' pin" [white potato].¹²⁹ Both the Flambeau and the Pillager Ojibwe call this by the same name and use it exactly alike as far as its food value is concerned. The Pillager Ojibwe also use it as a medicine for man and horse. The Flambeau Ojibwe recognize that it is also a favorite food of ducks and geese. A similar species found in California is used by the Indians there as a potato under the name "wapate" or "wapatoo", and is called by the whites there "Tule root."¹³⁰ The corms are a most valued food source to the Ojibwe. They will dig them if they cannot get them more easily. Muskrat and beavers store them in large caches, which the Indians have learned to recognize and appropriate. It is difficult to dig them out still attached to the plant, because the connection between the roots and the corm is so fragile and small. The round corms are attached by a tiny rootlet to the main mass of fibrous roots, and are capable of reproducing the plant in a vegetative manner, just as the Irish Potato does. They are from one-half to an inch and a half in diameter and about three-quarters to two inches long. They are pure white inside, sweet and quite starchy. The Indian does not differentiate between this species and the Broad-leaved Arrowhead. For winter use, the potato is boiled, then sliced and strung on a piece of basswood bark fiber and hung up overhead for storage. They also use the fresh corms, cooking them with deer meat, and maple sugar. Some of the potatoes are kept over after cooking and the maple sugar is thickened until they might almost be called candied sweet potatoes.

¹²⁹Present series, Vol. IV, plate 31, fig. 3.

¹³⁰Lyons, A. N. — Plant Names, Scientific and Popular, 1907, Detroit, p. 408, Art. 1908.

ANACARDIACEAE (SUMAC FAMILY)

Smooth Sumac (*Rhus glabra* L.), "bakwa' nak" [binding tree]. The Flambeau Ojibwe gather the berries to make a pleasant beverage much like lemonade. The berries are tart and are sweetened with maple sugar, soaked in water until required for use. They also gather and dry them for winter use. The dried berries are cooked in water with maple sugar, and form a hot drink, instead of a cooling one, as used in the summer and fall.

Staghorn Sumac (*Rhus typhina* L.), "bakwa' natig" [binding tree].¹³¹ The Pillager Ojibwe use the berries in the same way as the Flambeau Ojibwe use this species, and under the same name. They also store up the dried seed heads for winter use.

ARISTOLOCHIACEAE (BIRTHWORT FAMILY)

Wild Ginger (*Asarum canadense* L. var. *acuminatum* Ashe), "name' ptn", [sturgeon potato].¹³² The Pillager Ojibwe often use this root in cookery to season the food. They claim it takes away any muddy taste from fish, and will render any meat dish digestible by anyone, even if they are sick. The roots are processed in lye water for cookery on a large scale.

ASCLEPIADACEAE (MILKWEED FAMILY)

Common Milkweed (*Asclepias syriaca* L.), "cabo' stikûn" [milk]. "Inniwûnj" [indian plant] Flambeau name.¹³³ The Pillager Ojibwe eat the fresh flowers and tips of the shoots in soups. They are usually cooked with some kind of meat and become somewhat mucilaginous like okra, when cooked. They also gather and dry the flowers for refreshing in the winter time, to make into soup.

BETULACEAE (BIRCH FAMILY)

Yellow Birch (*Betula lutea* Michx. f.), "wi'ntsk". The Flambeau and Couderay Ojibwe tap the Yellow Birch for sap to add to maple sap for a pleasant beverage drink.

Hazelnut (*Corylus americana* Walt.), "mûkwobaga' nak" [bear nut].¹³⁴ The Flambeau Indians use the hazel nut as a food and are

¹³¹Present series, Vol. IV, pl. 9, fig. 4.

¹³²Present series, Vol. IV, pl. 45, fig. 1.

¹³³Present series, Vol. IV, pl. 26, fig. 2.

¹³⁴Present series, Vol. IV, pl. 16, fig. 3.

especially fond of the newly gathered nuts before the kernel has hardened. The name is often shortened to "baga' nak".

Beaked Hazelnut (*Corylus rostrata* Ait.), "ba' gana' mic" [nut tree]. The Pillager Ojibwe also use the Beaked Hazelnut. The Flambeau Ojibwe also recognize it as "baga' nak" [nut] and use it as a food.

CAPRIFOLIACEAE (HONEYSUCKLE FAMILY)

Nannyberry (*Viburnum lentago* L.), "atite' tamn".¹⁸⁵ The berries are eaten when ripe, fresh from the bush, and are also used in jam with wild grapes.

CELASTRACEAE (STAFF TREE FAMILY)

Climbing Bitter-sweet (*Celastrus scandens* L.), "manidobma' kwit" [spirit twisted].¹⁸⁶ The Pillager Ojibwe story of this plant is practically the same as that of the Menomini, as given in Museum bulletin Vol. IV, No. 1, pp. 63-64. Bittersweet is fairly abundant around Leech Lake, and is found in dense hardwood forests climbing to tops of trees thirty feet or more in height. When food is unobtainable in the winter, because the snow is too deep and game is scarce, the Ojibwe gather this bark and separate the inner bark to make a thick soup for a meal. While it is not so very palatable, it is sustaining and they may subsist on it for a considerable time, until they are able to get some game, or to go to some relatives and get other foodstuffs. The Ojibwe name refers as does the Menomini name, to the twisted intestines of their cultural hero, Winabojo.

COMPOSITAE (COMPOSITE FAMILY)

Large-leaved Aster (*Aster macrophyllus* L.), "mégési' bûg", [eagle leaf]. The leaves of this aster are eaten when young and tender. The Flambeau Ojibwe declare that they are fine-flavored and good to eat, because they act as medicine at the same time that they are food. Among the Pillager Ojibwe they use the root of this same aster as a soup material, but call it "némégosi' bûg" [trout leaf].

Philadelphia Fleabane (*Erigeron philadelphicus* L.), "mico

¹⁸⁵Present series, Vol. IV, pl. 17, fig. 1.

¹⁸⁶Present series, Vol. IV, pl. 34, fig. 3.

gacan" [odor of split hoof of doe]. The Pillager Ojibwe say that deer and cows eat this plant and that they use it in their smoking tobacco or kinnikinnik mixture.

Dandelion (*Taraxacum officinale* Weber) "weca' waskw'ne' k" [yellow light]. The Flambeau Ojibwe gather the young leaves in the spring and cook them with pork or venison for greens, using vinegar made from soured maple sap.

CORNACEAE (DOGWOOD FAMILY)

Panicled Dogwood (*Cornus paniculata* L'Her.) "meskwabi' mte" [red bush]. The Flambeau Ojibwe use this bark in their kinnikinnik or native smoking tobacco. Sometimes real tobacco is mixed with it and sometimes not, as real tobacco is expensive. The twig bark is peeled and toasted over coals on a crude drying fork, then further shredded to carry in their tobacco pouches and smoke in their pipes.

CRUCIFERAE (MUSTARD FAMILY)

Large Toothwort (*Dentaria maxima* Nutt.), "m'ukwopni'k" [bear potato]. The rootstocks of this cress are very abundant in wet, springy ground in the forest. The white man can only identify this plant in the spring of the year when the flower and leaf are found, but the Ojibwe knows the root and where it grows so gathers it when it has matured. It is a favored wild potato, but has a very pungent acrid taste when freshly dug. They heap the mass of cleaned roots upon a blanket and cover it closely to exclude the air for four or five days. During this time the roots ferment and lose the acrid taste, becoming sweet and palatable. The Ojibwe cook them with corn and deer meat, or with beans and deer meat, and say that, besides being a fine food, they are a good medicine for the stomach.

CUCURBITACEAE (GOURD FAMILY)

Cucumber (*Cucumis sativus* L.), "ecka'damfn" [its name]. The Ojibwe use their cucumbers raw, but sometimes flavor them with a vinegar "ctwa'bo" made from souring maple sap. They are further flavored with powdered maple sugar.

Ojibwe Squash (*Cucurbita maxima* Duchesne), "ogwi'ssi maun owaso kwone'k" [pumpkin, yellow light]. Their word "ogwissimaun"

literally means "tangled hairs", and refers to the strings inside upon which the seeds are borne. The Flambeau Ojibwe cultivate their own variety of squash, although they say that they got it originally from the Iroquois. They dry rings of squash for winter use.

Large Pie Pumpkin (*Cucurbita pepo* L.), "missa' bgon" [little giant plant]. They have cultivated this original Ojibwe dark yellow pie pumpkin since long before the advent of the white man. They cut it into rings and sun dry it for winter use.

Gourds (*Lagenaria vulgaris* Ser.), "jica'wigan" [hollow like]. The Ojibwe cultivate the gourds, which they eat when young, before the rind has hardened. They also make use of them for drinking and dipping cups, and for rattles in the medicine lodge. The medicine man, "midewag", keeps the rhythm of his songs by shaking them. They are pierced, kernels of corn or shells inserted, and then corked again for use.

EQUISETACEAE (HORSETAIL FAMILY)

Field Horsetail (*Equisetum arvense* L.), "gtji' binusk" [duck food].¹²⁷ The Pillager Ojibwe gather this for their domesticated ducks to eat and also to feed their ponies, to make their coats glossy.

ERICACEAE (HEATH FAMILY)

Bog Rosemary (*Andromeda glaucophylla* Link.), "bine' mtkci" [swamp]. Young, tender leaves and tips of this plant are used by the Flambeau Ojibwe to boil for a beverage tea. While they often pick and use it fresh on the hunting trail, they also gather and dry it for later use. It is not a bad substitute for "store tea."

Leather Leaf (*Chamaedaphne calyculata* [L.] Moench.), "wabackki' bûg" [rabbit leaf]. This is another beverage tea leaf, prized by the Flambeau Ojibwe. It is used on the trail or dried and saved for future use. The Pillager Ojibwe also use it in the same manner, under the name,—"macki' gobûgons" [little swamp leaf].

Wintergreen (*Gaultheria procumbens* L.), "winisi' bûgûd" [dirty leaf], shown in plate 75, fig. 2. While the Flambeau Ojibwe use this as a rheumatic medicine, they also use the leaf tea from the youngest,

¹²⁷Present series, Vol. IV, pl. 11, fig. 1.

tenderest leaves as a beverage tea, and especially favor it because it "makes them feel good". They also eat the wintergreen berry which they call "owintsi' min".

Labrador Tea (*Ledum groenlandicum* Oeder.), "wabosktki' bûg" [rabbit leaf], shown in plate 76, fig. 2. The Flambeau Ojibwe use the tender leaves of this plant for a beverage tea, and will even eat the leaves in the tea. It is a well known tea to many northern and Canadian Indians.

Cranberry (*Vaccinium oxycoccos* L.), "mûcki' min" swamp berry] shown in plate 67, fig. 2. This is an important wild food of the Flambeau Indians and also of the Pillager Ojibwe, who use a slightly different pronunciation, "mûckitci' min" [swamp berry]. The train men that go through that reservation never seem to tire of getting Johnnie Frog to say "cranberry pie" for them in Ojibwe. It sounds so complicated because they really have no word for pie in their language but must say, "swamp berries made into sauce rolled between bread",— "mûcki' gimnûn backi' minastgûn wiwegida'stgûn".

Blueberry (*Vaccinium pennsylvanicum* Lam.), "minûn" [berries]. The Flambeau and the Pillager Ojibwe harvest quantities of blueberries both for themselves and to sell. They dry them in large quantities on raised scaffolds of rush mats, like currants, or raisins, which they somewhat resemble. In the winter, they like to cook them with dried sweet corn, sweetened with maple sugar. They also cook them with wild rice, and venison and make a sweet bread with them. They have different names for different varieties of blueberries. The Low Blueberry (*V. vacillans* Kalm.) is called "gimine'stt" while the low Black Blueberry (*V. nigrum* [Wood] Britton) is called "makate' min" [black blueberry]. No specimens of the last two were secured, but the names were common among the Ojibwe.

FAGACEAE (BEECH FAMILY)

Beech (*Fagus grandifolia* Ehrh.) "gawe'mic". All the Ojibwe know and appreciate the sweet nuts of the beech tree. They are never plentiful enough to store for winter, but the Indians like them fresh.

White Oak (*Quercus alba* L.), "mtci' min" [oak berry]. All Ojib-

we encountered told of their former dependence upon acorns for their soup stock. It seems that at least every Algonkian tribe knew and used all species of acorns. They got rid of the bitter tannin taste by soaking the acorns in hot lye. Wood ashes in water, when boiled gave them the lye. A regular woven bark bag held a quantity of acorns and the lye was leached out by washing the whole bagful in several changes of warm water. The acorns were then dried for storage, and when wanted, pounded and ground to a coarse flour which was used to thicken soups or form a sort of mush. Blueberries were often cooked with this mush to give it a good flavor and it was seasoned with maple sugar. White Oak acorns needed no lye treatment.

Bur Oak (*Quercus macrocarpa* Michx.), "mítigo' míc" [wooden tree]. Bur Oak acorns are bitter, but yield to the lye treatment to become as edible as the acorns of the White Oak.

Red Oak (*Quercus rubra* L.), "mítigo' míc" [wooden tree]. Because Red Oak was so abundant in the Ojibwe territory and so large in size, the acorns were one of their most important starchy foods. They leached the tannic acid flavor with lye and brought them to a par with the sweet acorns of White Oak.

Black Oak (*Quercus velutina* Lam.) "tê' komín". The name is evidently an abbreviation of "mêtigo' mín", but probably an intentional one for this tree was always referred to by the abbreviation. Its acorns were equally good as others when the tannin was extracted.

FUNGI

The writer found that none of the Ojibwe eat any of the mushrooms although they have two names for them,—"píkwa' djtc" and "wajackwe' do" [muskrat]. Probably some remote ancestor had a fatal experience with mushrooms and the news has been handed down. Although the Ojibwe have fanciful stories explaining why they use certain plants, no doubt their knowledge came by a process of trial and error through the centuries and the errors have been duly buried but not entirely forgotten.

GRAMINAE (GRASS FAMILY)

Corn (*Zea mays* L.), "manda' mín". Corn is a traditional heritage of the Ojibwe, although none knew a time when they did not have it.

Their origin myth is that it was a pinch of flesh taken from the side of their culture hero, Winabojo, by himself and cast upon the ground, to grow and become corn for them. This is the same as acknowledging that they do not know how it came to be here. When mandamin matures, they say that only horses can eat it raw in that condition. They have to soak it in lye water, wash out the lye and then parboil it to prepare it for the table. This is the same as our hominy. Scientists think now that corn originated in Mexico from an accidental crossing of teosinte and gama grass. While the Ojibwe cultivate and grow the approved strains of corn for Wisconsin, they also cling to their own "calico" corn, with all sorts of colors of grains on different cobs. They have two names for sweet corn,—“wickobi' manda'min” [sweet maize], and “wickobi' si'ganug” [turns sweet in cooking]. Their sweet or soft corns are different from those used by the white man. They roast the ears in the husk and make it into hominy as the white man does. They cut the kernels from their sweet corn and dry them for winter use. It is also boiled in a kettle, and when half-cooked, is cut from the cob and dried for winter use.

They had a name for popcorn, but the writer saw none of it while around them.

Wild Rice (*Zizania palustris* L.), “mano' min” [good berry]. The Ojibwe word is their pronunciation of the Menomini term for wild rice. Most Algonkians have the same word for wild rice and it forms a very important part of their food. The writer has often been present at the Ojibwe rice harvests. The largest operation seen was that of the Ojibwe at Mole Lake in Forest County, Wisconsin. There about twenty families were working at one time and the writer worked at each operation to become familiar with it. Wild rice preparation is the hardest kind of labor, and they earn all they get for it when they sell it. It sells in Milwaukee for \$1.05 a pound, but one can buy it from the Indians at \$.25 to \$.35 a pound. One man reaped 1325 pounds of rice in the harvest time. The Menomini Rice Harvest group in the Public Museum exhibition halls, shows very well most features of the operation.

Various families have definite parts of the lake for their share, while others travel to small lakes and stay there until the harvest is complete. They set up a family camp, while the grain is still in

the milk stage and wait for it to ripen. When this time arrives, having made experimental collections to determine it, they make a ceremonial gathering. Three to a canoe, two women and a man go to the rice beds and gather sufficient rice for a preliminary feast. With a hooked stick, held in a crescent by a string, the women pull the rice over the canoe and beat off the kernels with a stick, into the canoe bed. Sometimes, when the Indians do not want to waste any of the rice, they will go into the beds before it is ripe and tie several heads together to ripen in that manner. The first collection is prepared complete, with songs to their deities and a ceremonial feast is observed. After that all hands fall to in earnest and gather unremittingly until all the rice is harvested.

When the canoe is partly loaded, they pole back to camp, to prepare it. Wild rice grows in a mucky soil which may be quite deep. Ten foot poles, with a wide fork to secure a hold on the grass, are used to propel the canoe through the rice. On the return trip when loaded, the women trample the rice to break off the spiny beards or awns. The next step is roasting or parching. A wash tub is tilted against a large back log and a fire maintained under it. To keep the rice from burning, one must use a forty inch paddle and stir constantly for about three hours. The roasting destroys any weevils that might be present, gives the rice a pleasant flavor, loosens the husks or glumes and hardens the rice so it may be kept indefinitely.

In earlier times, a hole was dug into the ground and carefully lined with buckskin. Nowadays a candy bucket is sunk into the hole. This is the threshing floor. A man with new moccasins steps in to trample and thresh it.¹²⁸ He has a couple of poles, slanting near the hole, and supported on a tree with which he balances, while trampling the rice. He gives a circular, twisting pressure to the rice with his feet to grind off the husks. Then the chaff is winnowed away by a woman as shown in the present series, Vol. IV, plate 29, fig. 2. A large shallow birch-bark tray is shaken up and down by the woman as she stands in a breeze. If there is no wind, the chaff accumulates on top and is pushed over the edge from time to time. After the winnowing, the rice is washed to clean it of foreign matter and of the smoky flavor of parching. It is then dried and ready to use or store. Wild rice swells more than cultivated rice in cooking. It

¹²⁸Present series, Vol. IV, pl. 29, fig. 1:

is often moistened with six times its bulk in water. The kernels are about six times as long as thick and in cooking the ends curl backward to meet in the center, thus differing from *Oryza sativa*, the white man's rice. The proper way to cook it Indian fashion is with deer broth and season with maple sugar. Wild rice cooked with wild fowl takes away the muddy or wild taste and is highly prized by those whites who know its qualities.

HYDROPHYLLACEAE (WATERLEAF FAMILY)

Virginia Waterleaf (*Hydrophyllum virginianum* L.), "nebtne'-nanikwe'lag"¹³⁹ [having hair on only one side]. The Pillager Ojibwe use the root as a feed for ponies to make them fatten rapidly.

JUGLANDACEAE (WALNUT FAMILY)

Shell-bark Hickory (*Carya ovata* [Mill.] K. Koch.), "baga' nako' bagan". Hickory trees are scarce in the north, but the Ojibwe appreciate the edible nuts.

Butternut (*Juglans cinerea* L.), "baga' nag". Butternut is plentiful in the north and in most Ojibwe territory, while the Black Walnut is not to be found. They use the nuts for food and the hulls for dye.

LABIATAE (MINT FAMILY)

Wild Mint (*Mentha arvensis* L. var. *canadensis* [L.] Briquet.) "andego' bigons" [little crow leaf].¹⁴⁰ The Pillager Ojibwe use the foliage to make a beverage tea.

Catnip (*Nepeta cataria* L.), "tei' name'wûck" [big sturgeon leaf]. Catnip leaves are used by the Flambeau Ojibwe in making a beverage tea.

LEGUMINOSAE (PULSE FAMILY)

Hog Peanut (*Amphicarpa pitcheri* T. & G.), "bûgwa' dj mis-kodi' stmin" [unusual red bean]. The Pillager Ojibwe cook the beans and are very fond of the unusual flavor imparted to their cooking in this way. They also cook the roots, although they are really too small to be considered of much importance.

¹³⁹Present series, Vol. IV, pl. 33, fig. 1.

¹⁴⁰Present series, Vol. IV, pl. 20, fig. 3.

Creamy Vetchling (*Lathyrus ochroleucus* Hook.), "bûgwa'dj pñik' [unusual potato]. The Pillager Ojibwe use the root of this plant as a sort of Indian potato, and store it in deep pits in the garden, as they do their regular potatoes.

Navy Bean (*Phaseolus vulgaris* L.), "wabeni'mness" [little white berry]. The Ojibwe claim to have always had the sort of beans that the white man uses and while their original Navy Bean is not exactly like that of the white man, still it is near enough to be confused with it.

Lima Bean (*Phaseolus lunatus macrocarpus*), "wabeni' mña" [big white berry]. The Ojibwe also claim to have originally had the Lima Bean, but that is doubtful.

Cranberry Pole Bean (*Phaseolus vulgaris* L.), "mêskodi' mñûn" [red heart berry]. The Red Cranberry Pole Bean is the original source of all our best commercial pole beans. The Indians cultivated it in aboriginal times. They use it alone or in many peculiar combinations.

LICHENS

Tree Lichen (*Sticta glomulifera*), "jñgwakons wakun" [little white pine and row of eggs] or "jñgwa'kwak" [pine egg]. On the bark at the base of an old White Pine, will be found lichens growing from the ground to a height of perhaps three feet. The Ojibwe gather these and boil them until they coagulate or "come together" like scrambled eggs. They say that they taste like eggs "wawñ", but they call them "wakûn", which is a term applied to the roe or eggs of a fish. It is a favorite dish and a very ancient one.

LILIACEAE (LILY FAMILY)

Wild Onion (*Allium cernuum* Roth.), "çtgaga' wûnj' [skunk plant]. Both Pillager and Flambeau Ojibwe like the Wild Onion and Wild Leek in the spring as an article of food.

Wild Leek (*Allium tricoccum* Ait.), "bûgwa' djijca' gowûnj" [unusual onion] "jçcago" really means skunk, and from this word Chicago was named. This is the larger wild onion and is known as Winabojo's onion, or the one he pointed out for food. It is gathered

in the spring when it is round and plumper than in the fall. It is also gathered and dried for future use. The Wild Leek is somewhat bitter, while the smaller wild onion is sweet.

False Spikenard (*Smilacina racemosa* [L.] Desf.), "agoŋgosi' wɔdji' bɔk" [chipmunk root]. The Pillager Ojibwe use this root added to oats to make a pony grow fat. The Flambeau Ojibwe also prepare and eat the False Spikenard root. It is soaked in lye water and parboiled to get rid of the lye, then cooked like potatoes.

NYMPHAEACEAE (WATER LILY FAMILY)

Sweet White Water Lily (*Castalia odorata* [Ait.] Woodville & Wood), "odfte'abŋg wabi'gwŋn" [flat heart-shaped leaf, white flowered]. The Flambeau Ojibwe eat the buds of this water lily before they open.

Yellow Lotus (*Nelumbo lutea* (Willd.) Pers.), "wesawasa' kwune'k odite'abŋg" [yellow light, flat heart-shaped leaf].¹⁴¹ Most of the Wisconsin Ojibwe know about this favored wild potato; and also use the hard chestnut-like seeds to roast and make into a sweet meal. They cut off the terminal shoots, at either end of the underground creeping rootstock and the remainder is their potato. These shoots are similar in shape and size to a banana, and form the starchy storage reservoirs for future growth. They have pores inside, but have more substance to them than the stems. They are cut crosswise and strung upon basswood strings, to hang from the rafters for winter use. They are soaked when needed and then cooked with venison, corn or beans.

OLEACEAE (OLIVE FAMILY)

Red Ash (*Fraxinus pennsylvanica* Marsh.) "a'gɔmak" [snowshoe wood]. The cambium layer of the ash is scraped down in long, fluffy layers and cooked. It is called "sagɔma' kwŋn", which incorporates the name of the ash with "wŋn" or eggs. They say it tastes like eggs. Many other trees are given the same sort of treatment for food purposes.

PINACEAE (PINE FAMILY)

White Pine (*Pinus strobus* L.), "jɔngwa' k". In the spring the

¹⁴¹Present series, Vol. IV, pl. 40, fig. 3, and pl. 41, fig. 2:

Ojibwe use the young staminate catkins of the pine to cook for food. It is stewed with meat. One might think this would taste rather like pitch, but they assured the writer that it was sweet and had no pitchy flavor.

Hemlock (*Tsuga canadensis* [L.] Carr.), "gagagi' wic". The Flambeau Ojibwe use the leaves of Hemlock to make a beverage tea. This sort of tea is oftentimes used by the Indian Medicine man to carry his medicaments and disguise the fact that the patient is taking medicine.

POLYPODIACEAE (FERN FAMILY)

Brake (*Pteris aquilina* L.), "ana 'ganûck" [general fern name]. The Flambeau Ojibwe are fond of young fern sprouts as a soup material. The young fern tips, with coiled fronds, are about like asparagus tips, only not stringy with fibrovascular bundles like asparagus. The tips are thrown into hot water for an hour to rid them of ants, then put into soup stock and thickened with flour. The flavor resembles wild rice. Hunters are very careful to live wholly upon this when stalking does in the spring. The doe feeds upon the fronds and the hunter does also, so that his breath does not betray his presence. He claims to be able to approach within twenty feet without disturbing the deer, from which distance he can easily make a fatal shot with his bow and arrow. After killing the deer, the hunter will eat whatever strikes his fancy.

RANUNCULACEAE (CROWFOOT FAMILY)

Marsh Marigold (*Caltha palustris* L.), "o 'gte' bûg". The Flambeau Ojibwe use the leaves as a green to cook with pork in the spring-time.

ROSACEAE (ROSE FAMILY)

Smooth Juneberry (*Amelanchier laevis* Wiegand), "gozigago' mînûn" [thorny berry]. According to John Whitefeather, Flambeau Ojibwe, this is the name of the Juneberry, while Charley Burns on the same reservation called it "btsega' gwomîn". Both knew it only as a food, although some tribes use the bark as a medicine. Juneberries were also dried for winter use, the Indians often preferring them to blueberries. The Pillager Ojibwe also use them as a food and use the bark as a medicine.

Red Haw Apple (*Crataegus* sp.), "mnesaga' wúnj". The Pillager Ojibwe use the haw apples as a food in the fall of the year.

Wild Strawberry (*Fragaria virginiana* Duchesne), "ode' imfn" [heart berry]. Both Flambeau and Pillager Ojibwe have the same name for the Wild Strawberry, and call it the heart berry from its shape and color. They are very fond of it in season and make preserves of it for winter use.

Wild Plum (*Prunus nigra* Ait.), "búge' sanatg". The Pillager Ojibwe find quantities of the Wild Plum in thickets and gather it for food and for preserves.

Pin Cherry (*Prunus pennsylvanica* L.f.), "bae' wimnún". The Pin Cherry is abundant around the Flambeau Reservation and the Ojibwe are fond of it. It is an education in itself to see a group of Ojibwe women working on mats with a supply of fruit laden branches beside them. With one hand they will start a stream of berries into the mouth and the stream of cherry stones ejected from the other corner of the mouth seems ceaseless. The Pillager Ojibwe also have the tree and use it in the same manner.

Sand Cherry (*Prunus pumila* L.), "sewa'komín". The Flambeau Ojibwe find plenty of this species on sandy openings in the forest, and gather the fruit for food.

Wild Cherry (*Prunus serotina* Ehrh.), "okwe' mfn" [worm from egg of a fly]. The Flambeau Ojibwe prefer this cherry to all other wild cherries, and dry it for winter use. Some of them also make whiskey from the ripe cherries.

Choke Cherry (*Prunus virginiana* L.), "sawe' mfn". Although the fruit of this cherry is sufficiently acrid to be unsatisfactory to the whites as a food, the Pillager Ojibwe like it, especially after the fruit has been frosted.

High Bush Blackberry (*Rubus allegheniensis* Porter), "odataga' gomfo" [blackberry stem].¹⁴² The Flambeau Ojibwe relish the Blackberry and also the Dewberry (*Rubus villosus* Ait.) although we found

¹⁴²Present series, Vol. IV, pl. 25, fig. 4.

no specimen nor distinctive name for it. They make a jam of the berries for winter use.

Red Raspberry (*Rubus idaeus* L. var. *aculeatissimus* [C. A. Mey.] Regel & Tiling) "meskwa' mtn" [red berry]. This is a favorite fresh fruit of the Flambeau Ojibwe and is also used for making jams for winter use.

SALICACEAE (WILLOW FAMILY)

Large-toothed Aspen (*Populus grandidentata* Michx.), "asadi" [bitter bark]. The Ojibwe scrape the cambium layer to obtain a food which is boiled and is something like eggs. They also scrape the cambium of several other trees for food.

SAXIFRAGACEAE (SAXIFRAGE FAMILY)

Prickly Gooseberry (*Ribes cynosbati* L.), "me' skwacabo' mtnûk" [red berries with thorns]. The Flambeau Ojibwe relish these berries when ripe and make them into preserves for winter use.

Wild Black Currant (*Ribes americanum* Mill.), "amf'komfn" [beaver berries], shown in plate 70, fig. 1. The Pillager Ojibwe eat these berries fresh, in jams, and preserves and dry them for winter. In the winter, a favorite dish is wild currants cooked with sweet corn. The Flambeau Indians use them in a like manner, but call them "ka-gagtci' mtn" [raven berries].

Wild Red Currant (*Ribes triste* Pall.), "mfcitei' mtnûk". The Flambeau Ojibwe gather these currants and use them as they do the Wild Black Currants.

Smooth Gooseberry (*Ribes oxycanthoides* L.), "cabo' mtnûk" [smooth berry]. The Flambeau Ojibwe gather this berry for fresh food, and also make it into preserves for winter use. It is often cooked with sweet corn.

SOLANACEAE (NIGHTSHADE FAMILY)

Ojibwe Potato (*Solanum tuberosum* L.), "opfn" [potato].¹⁴⁸ The Ojibwe have cultivated this early potato, according to their traditions since aboriginal times, and it surely looks primitive enough. It is round in circumference, about two or three inches long, has

¹⁴⁸Present series, Vol. IV, pl. 32, fig. 2.

purplish flesh, and never cooks to a mealy consistency. It is much prized for soups and is always firm and crisp when cooked. White Cloud's potato patch on Bear Island, Leech Lake, Minnesota, is shown in plate 58, fig. 1.

URTICACEAE (NETTLE FAMILY)

Hop (*Humulus lupulus* L.) "ji'wtcini' goni' bûg". The Pillager Ojibwe often use the hop fruit as a substitute for baking soda.

VITACEAE (VINE FAMILY)

Virginia Creeper (*Psedera quinquefolia* [L.] Greene), "mando' bimakwit" [spirit twisted]. The Pillager Ojibwe say that the root of this vine was cooked and eaten a long time ago by their people and that it had been given as a special food by Winabojo.

River-bank Grape (*Vitis vulpina* L.), "ci' wimnûn". The Pillager Ojibwe use these grapes after they have been frosted, and make them into jelly for winter use.

OJIBWE VEGETAL FIBERS

The Ojibwe Indians have always been far removed from the beaten paths of the white men, and for this reason make good use of their native plant materials. Oft times, it seems to the white man that they bestow considerable labor, upon making cord, string, mats, baskets and similar articles that might as easily be purchased at a store. But money is not plentiful, and many of the things that can be purchased have inferior lasting qualities. Disgust for a poor substitute, pride in their own resourcefulness, and the habit of centuries has kept them constantly proving that they are the master of their environment and continuing to make their products in the good old Ojibwe way.

Outside of yarn sashes, they have not woven textiles for a long time. Perhaps the last of their textile work is in storage bags made from nettle fiber or basswood string. Cedar bark fiber was used long ago for some coarse textiles but not within the past century.

Their bark wigwams are quite comfortable and probably more Ojibwe live in these native houses, shown in plate 46, fig. 2, and plate 58, fig. 2, than in frame houses. Certainly they use more of these than any other Wisconsin tribe. The mats for the benches or beds at the outer rim of the wigwam, or for the floor inside, are skillfully made. They can make their wigwams wind and waterproof with sewed cat-tail mats and birch bark, as shown in plate 46, fig. 2, and can even live very comfortably in their wigwams in sub-zero temperatures.

There are several agency schools scattered about the reservations, where the children may go to school, and happily the teachers usually encourage the children to learn their own Indian arts. The schools are really boarding schools, where the children stay continuously for nine months, being completely clothed by the Indian service. Sometimes boys and girls will escape and run home to hide, but the disciplinarian and Indian policeman usually ferret them out and bring them back, or else seize the father and hold him in jail until the scholar is produced again. Indian children are taught more of the useful arts and household arts than are the white children, but also have access to a college education through their university or normal schools.

Under the head of vegetal fibers, we also consider their uses of forest trees, since these are so closely related. As before, the plant families are listed alphabetically, and descriptions of uses are made along the same lines as in the preceding divisions of this bulletin.

OJIBWE FIBER PLANTS

ACERACEAE (MAPLE FAMILY)

Red Maple (*Acer rubrum* L.), "cicigtme'wic". This leaf is frequently used in the Ojibwe beadwork designs. In fact, many leaves, flowers and fruits furnish designs. Since the plants are sacred to their midewiwin or medicine lodge, it is common for them to use especially valuable remedies in their designs. These may be worked in either porcupine quills or beads. Shell and copper beads were used in the older work, while tiny glass beads obtainable from the whites are now used. Indian women are usually most apt at their own aboriginal

designs and do a rather poor job, when they are given a white man's design to copy. In the early days, the Indian men drew outline pictures on birchbark scrolls to remind them of midewiwin rituals, practices and medicines. Indian women experimented with plant materials laid upon birch bark until they found the design that suited them. Deer horns burned in the fire to furnish charcoal or else flour was used to coat the underside of a leaf, which was then pressed upon birch bark to leave its outline as from a carbon copy. The birch bark design would be placed beneath the native bead loom, as shown in plate 48, fig. 1, and the pattern copied in beads. Sashes, anklets, bracelets, kneelets, belts, coats and waists were beaded, also moccasins. The public is not very discerning in choosing real Indian designs, but the ethnologist can quickly pick the originals, even though he may never have seen that tribe of Indians before.

Mountain Maple (*Acer spicatum* Lam.), "cacagobi'mûk" [emetic bark]. The three-lobed leaf of the Mountain Maple is a great favorite with Ojibwe women for design work for beading, and it is more often seen than any other kind of leaf.

Sugar Maple (*Acer saccharum* Marsh.), "inênatig" [Indian tree].¹⁴⁴ Paddles for stirring maple sugar or wild rice while scorching or parching it, bowls and many other objects of utility were made by the Ojibwe from this wood.

APOCYNACEAE (DOGBANE FAMILY)

Spreading Dogbane (*Apocynum androsaemifolium* L.), "wesa'-wûskwûn" [nearly blue flowers]. The Flambeau women used to use the outer rind for fine sewing. In the fall, when mature this fiber makes one of the strongest native fibers, stronger even than the cultivated hemp to which it is related.

BETULACEAE (BIRCH FAMILY)

Paper Birch (*Betula alba* L. var. *papyrifera* [Marsh.] Spach) "wigwas". Birch occupies almost as important a position in the life of the Ojibwe as dates do in the life of an Arabian or cocoanuts in the life of a South Sea Islander. The bark is used for buckets, baskets, wigwam covering, and canoes. Patterns for their decorative art were

¹⁴⁴Present series, Vol. IV, pl. 7, fig. 2.

made upon the bark; records of their medicine lodge ritual were kept on its virgin surface. It and cedar form the two most sacred trees of the Ojibwe, both of which are so useful to them. They regard the birch bark as a distinct contribution from Winabojo and point to the fact that it is the last part of the tree to decay. It keeps its form even after the wood has changed to dust and can be readily slipped from the wood in decayed logs. It also has the property of protecting from decay articles stored in it. They claim that a birch is never struck by lightning, hence offers a safe harbor in a thunderstorm.

No birch or cedar is gathered by the Ojibwe without due offering of tobacco to Winabojo and Grandmother Earth. Families make a pilgrimage to birch groves during the latter part of June and in July to gather their supply of birch bark, because it peels most easily at that time. As everyone knows, there are many layers of bark on a birch tree ranging from the thinnest paper to quite heavy pieces that make very durable canoes.

George L. Waite, Honorary Curator of Botany in this museum, made a special series of pictures, thirty in number, detailing every step in the manufacture of their canoes or "tciman" as they call them. Ogabe'gijg [rift in the clouds] and his wife Cawasno'kwe [rays of light from cloud] both 80 years old, about the only old couple at Lac du Flambeau, still remembering the proper Ojibwe method of making a birch-bark canoe were engaged to carry on the work. Important steps are shown in plates accompanying this bulletin.

To find a tree with thick bark suitable for canoe-making often necessitates a considerable journey on foot as it did in this case. The trunk should be ten to fifteen inches in diameter, smooth and straight as can be selected. Paper birches are of slow growth and the usual specimen of that diameter will be from fifty to seventy years old. This tree was collected with all the proper ceremony. Into a hole in the ground at the base of the tree, tobacco was placed as an offering. Tobacco was smoked by the man, who saluted the cardinal points of the compass, and likewise heaven and earth. The tree was then cut down. They say that usually it will be left standing on the stump, so that the bark may be undamaged, but for this canoe where the outside of the bark becomes the inside of the canoe, they felled crossed logs to hold it off the ground.

To remove the bark, a long perpendicular slit is made the length desired. From this cut the bark is laid back on either side, with an axe, and peeled from the log as shown in plate 52, fig. 1. To overcome the natural curl of the bark, it is then rolled up with the inner side outmost, in proper lengths and tied with inner bark of the basswood, which is their ready cord material. With a tump-line over the head, as shown in plate 52, fig. 2, the man is ready to carry the bark home, where he will make the canoe.

The framework was made of White Cedar or Arbor Vitae because it is light, elastic, strong and easy to split. In plate 53, fig. 1, Ogabe'gijig is shown splitting the cedar log to obtain the ribs and framework. There are two lengths, sixteen feet for top rails, and six feet for ribs, as shown in plate 53, fig. 2. The curves of the prow and stern are obtained by slitting a stave twelve times so that it may be bent at right angles, tied securely with basswood string, and held in place until dried as shown in plate 54, fig. 1.

A staked form eighteen feet long is next laid out on the ground, as shown in plate 54, fig. 2. The bark is secured between the two stakes so that it cannot slip and is then ready for sewing together. Large rocks are piled inside to overcome any tendency of the bark to curl. The sewing material is the root of Jack Pine. These are especially suitable since they are long and straight. Ogabe'gijic is seen pulling them out of the ground after digging with a grub hoe, in plate 55, fig. 1. The central core is tough and is about the same diameter at the tip as it is close to the main trunk of the tree. It is split into two and coiled, to furnish a very tough flexible cord. The coils are shown with Cawasno'kwe under the Jack Pine tree from whence they came in plate 55, fig. 2. Both cedar sticks and root fiber are sunk in the lake till needed.

Sewing makes awl holes necessary, and a White Oak wood awl is used. Both ends are drawn through the same hole with a lock stitch, like the shoemaker used to use in putting on half soles. All holes must be caulked and made watertight. Pitch is obtained from a Balsam, Norway Pine, or White Pine. Notches made in the tree trunk fill with resin in ten days. This is boiled with tallow in a kettle, as shown in plate 56, fig. 1. The resin is cooked a second time to obtain the pitch and Hemlock or Larch bark is used to furnish the heat, because it produces more steady heat than a wood fire.

Cawasno'kwe is seen again sewing the canoe into its form in plate 56, figure 2, and is shown applying pitch to the seams in plate 57, figure 1. Decorations are made with native dyes such as blue clay and red ochre. Nowadays white men's colors are used and clan marks painted on each end. Ogabe'gijg uses a bear picture for his clan mark while Cawasno'kwe belongs to the chicken clan. The finished canoe is seen in plate 57, fig. 2, as they are launching it upon Flambeau Lake. Very few Ojibwe can still make a real birch bark canoe in this manner and the museum considers this series of photographs a valuable one.

The tree is later salvaged for firewood, but the bark may be used right away as soon as obtained. Emergency trays or buckets may be fashioned at once in the woods, or the bark may be stored for future use. The application of heat is all that is necessary to bend it in any shape desired. Although it is highly inflammable, still buckets of birch bark can be used to cook meats. Where water covers the inside of the vessel, it will not burn. The Ojibwe woman saves scraps of birchbark to kindle or light fires with them. A handy torch which will burn all night can be made by rolling birch bark tightly. It is often used by the Ojibwe in lieu of candles.

Nearly any kitchen utensil common to the white man, can be duplicated in birchbark by the Ojibwe. Even funnels for pouring hot lard are easily made. The mokoks or baskets are made for gathering and storing berries, for storing maple sugar, dried fish, meat, or any food. The birchbark keeps the food from spoiling. Some of the mokoks for gathering berries or carrying maple sap, have bark handles like bucket handles, as shown in plate 49, fig. 1, while larger storage baskets have no handles, but a lid, or sometimes a flap of the basket itself is used to close it tightly. All sorts of drying trays are made from birch bark. Shallow trays for winnowing wild rice are also made of it.

Sheets of bark are sewed together with basswood string and made into birchbark rolls, used as waterproof roofing for wigwams, as shown in plate 46, fig. 2. Sticks tied across the end of the roll keep it from splitting and tearing. A fine opportunity to see these bark rolls was afforded during the Court of Neptune pageant in 1926 on the lake front in Milwaukee, when the writer brought down over a hundred Ojibwe Indians from Lac Court Oreilles, Wisconsin, and set up a model old time village of eleven wigwams. There they lived for a week demon-

strating their former methods of life, jerking meats over open fires, as shown in plate 47, fig. 2, and practicing their native arts and crafts.

Low Birch (*Betula pumila* L. var. *glandulifera* Regel), "bñe'mic" [partridge bush]. The Flambeau Ojibwe use the twigs of this dwarf birch for the ribs of baskets, where sweet grass is the weaving material.

Hazelnut (*Corylus americana* Walt.), "mùkwo'baga'nak".¹⁴⁵ A crooked stick with an enlarged base such as can often be obtained in a hazel bush makes the favorite drum stick for the Flambeau Ojibwe. The finer twigs are bound into a bundle, with the tips sheared, to serve as a primitive broom or brush to be used on the bare ground in the wigwam. The finer twigs may also be used as ribs in making woven baskets for collecting or storing acorns or hard fruits.

CAPRIFOLIACEAE (HONEYSUCKLE FAMILY)

Downy Arrow-wood (*Viburnum pubescens* [Ait.] Pursh), "wabanwe'ak" [east stick]. The bark of this species furnished one of the ingredients of a Pillager Ojibwe kinnikinnik, which the writer smoked and pronounces good.

COMPOSITAE (COMPOSITE FAMILY)

Woolly Yarrow (*Achillea lanulosa* Nutt.), "wabigwon" [white flower]. The flower heads are used in the kinnikinnik mixture for smoking by the Flambeau Ojibwe. This mixture, is not however smoked for pleasure, but in medicine lodge ceremonies for ceremonial purposes.

White Sage (*Artemisia ludoviciana* Nutt.), "bebeji'goganjl' wí'n-gùsk" [horse hollow tube]. While the Pillager Ojibwe use this plant as a horse medicine, they report that their neighbors the Sioux use it in their smoking tobacco.

CORNACEAE (DOGWOOD FAMILY)

Alternate-leaved Dogwood (*Cornus alternifolia* L. f.), "moso'mic" [moose tree]. The bark of this dogwood is used for kinnikinnik, while the twigs are used in thatching and for various purposes by the Pillager Ojibwe.

¹⁴⁵Present series, Vol. IV, pl. 16, fig. 3.

Panicled Dogwood (*Cornus paniculata* L' Her.), "meskwabi'mic" [red tree]. The Flambeau Ojibwe make kinnikinnik from the bark of this species for smoking.

CYPERACEAE (SEDGE FAMILY)

Wool Grass (*Scirpus cyperinus* [L.] Kunth.), "gale'wûckûk". The Flambeau Ojibwe use these small rushes for a certain kind of mat, and formerly used them for woven bags for storage.

Great Bulrush (*Scirpus validus* Vahl.), "jtkamiûskûn". The Pillager Ojibwe use this rush for their best mats. The bleached rushes are shown in plate 51, fig. 1, after they have been immersed in water for a few days and then cleansed. The Flambeau Ojibwe use the same rush in the same way. They select long rushes, with small diameters, so that the pith content is small. When the mat is in service, such a fiber will not crush readily. The rush when gathered is an intense green, white only at the base where it stands in water. All rushes must first be bleached pure white, and afterwards colored as desired. They are pulled, rather than cut, in order to obtain the maximum length. When thoroughly bleached and dried, they dye them with white men's dyes. Formerly they used native dyes, which they really prefer. The writer tried for a long time to secure the proper dyes for Whitefeather, but without success. They had a small quantity of German dye bought in 1914, which was satisfactory, but the six lots sent them were not equal to the small sample in penetration nor permanence. The bleached rushes preponderate in any rug, and are ivory-white in color. The finished rug or mat is three feet wide and from four to eight feet long, and sells for from \$8 to \$30.¹⁴⁶ The edge is bound securely with nettle fiber cord. The Flambeau Ojibwe use a more general term in referring to the rushes "ana'ganûck" meaning rushes in general.

EQUISETACEAE (HORSETAIL FAMILY)

Scouring Rush (*Equisetum hyemale* L.), "gtji'bfnûsk" [duck plant]. The Pillager Ojibwe, besides using this for a medicine, employ a handful of the stems to scour their kettles and pans.

FAGACEAE (BEECH FAMILY)

White Oak (*Quercus alba* L.), "mitti'gomie". The wood is of much

¹⁴⁶1923 Yearbook, fig. 17.

value to all the Ojibwe, especially for making awls to punch holes in birch bark as they are sewing it with Jack Pine roots. They use it in making wigwams and for several other things. In fact, all the oaks are used and appreciated.

GRAMINEAE (GRASS FAMILY)

Sweet Grass (*Anthoxanthum odoratum* L.), "wícko'bimúcko'si" [sweet grass]. While Sweet Grass is scarce around the Flambeau and Pillager reservations, they secure it elsewhere for making baskets, and say that in olden times it was used ceremonially because of its persistent sweet scent.

HYDROPHYLLACEAE (WATERLEAF FAMILY)

Virginia Waterleaf (*Hydrophyllum virginianum* L.), "nebíns'-nanikwe'tag." [having hair on only one side]. According to White Cloud, Pillager Ojibwe, this root was chopped up and put into pony feed to make them grow fat and have glossy hair.

JUGLANDACEAE (WALNUT FAMILY)

Shell-bark Hickory (*Carya ovata* [Mill.] K. Koch.), "mittigwa-ba'k" [wooden?]. The Flambeau Ojibwe use the wood for making bows. Some are quite particular about the piece of wood they select, choosing a billet from the tree that includes heart wood on one side and sap wood on the other. The heart wood is the front of the bow in use, while the sap wood is nearest the user. It is likewise a wood of general utility.

JUNCACEAE (RUSH FAMILY)

Dudley's Rush (*Juncus dudleyi* Wiegand), "jígomi'úskûn". The Pillager Ojibwe use this tiny rush in their finest mat work, for small pieces.

LEGUMINOSAE (PULSE FAMILY)

Creamy Vetchling (*Lathyrus ochroleucus*, Hook.), "búgwa'djúk pni'kmíne'búg" [unusual potato, berry leaf]. The leaves and roots of this were used by the Pillager Ojibwe to put spirit into a pony just before they expected to race him.

Marsh Vetchling (*Lathyrus palustris* L.), "bebeji'goganji' macki'-ki" [horse medicine or literally "animal with only one hoof" medicine]. The foliage was specially fed to a pony by the Pillager Ojibwe to make it grow fat.

MYRICACEAE (BAYBERRY FAMILY)

Sweet Fern (*Myrica asplenifolia* L.), "gibaime'nûnagwûs" [coverer]. This word is almost the same as the Menomini word for Sweet Fern and means the same thing. The Flambeau Ojibwe use the leaves to line their buckets when they pick blueberries and also cover them with the leaves, to keep them from spoiling.

OLEACEAE (OLIVE FAMILY)

Black Ash (*Fraxinus nigra* Marsh). Black Ash is the wood chosen for basketry splints by the Ojibwe. While our Wisconsin Indians are skilled at basket making, their product is more useful than highly ornamental. If they had the yucca leaves, the devil's claw fiber, the sumac twigs, the bunch grass, and the other splendid basketry fibers of the southwestern Indians, no doubt they would make equally fine baskets. The Wisconsin Indians exercise possibly more ingenuity in gathering and preparing their basketry material. They select a Black Ash log from a swamp and peel it carefully. Then with a butcher knife, they make a cut about a half inch deep and by pounding with an axe head cause it to split up from the log, as seen in plate 50, figure 1. By inserting wedges, and continually pounding ahead of them, they cause the wood to separate along the annual rings. Then a further cut is made in the center of the annual ring and the two halves peeled back leaving a glossy surface. These splints are curled up into coils to be immersed in kettles of dye stuffs. Then they are woven by the women of the household as shown in plate 50, figure 2.

Red Ash (*Fraxinus pennsylvanica* Marsh.), "a'gîmak" [snow-shoe wood]. All ash wood is quite valuable to the Ojibwe, as they use it for bows and arrows, snow-shoe frames, sleds, basketry splints and cradle boards as shown in plate 49, fig. 2. The Red Ash is not used for the basketry splints when they can get Black Ash.

PINACEAE (PINE FAMILY)

Balsam Fir (*Abies balsamea* [L.] Mill.), "jîngo'b" [any kind of fir tree]. More properly "jîngo'b pikewa'ndag" [fir tree that goes up to a peak]. The Ojibwe chop a hole in the trunk and allow the resin to accumulate and harden. When gathered and boiled it becomes a canoe pitch. It is usually boiled a second time with the addition of suet or fat to make a canoe pitch of the proper consistency. Another name given the tree is "jîngo'bandag".

Tamarack (*Larix laricina* [DuRoi] Koch), "mûcki'gwattg" [swamp tree]. Larch roots are also used as a sewing material by the Flambeau and Couderay Ojibwe and they used to sew canoes with them. They also make bags from the root fibers, which are considered especially durable.

Black Spruce (*Picea mariana* [Mill.] BSP.), "jngwûp" [its name]. The Flambeau and Couderay Ojibwe used these roots to sew canoes, and from incisions in the bark gathered the resin to be boiled with tallow to make pitch for caulking canoes.

Jack Pine (*Pinus banksiana* Lamb.), "gîga'ndag" [its name]. Jack Pine roots have ever been esteemed by all Ojibwe as fine sewing material for their canoes and other coarse and durable sewing. They dig the roots with a grub hoe as shown in plate 55, fig. 1, and often find them fifty or sixty feet long. These are split lengthwise into two halves starting at the tree end, and are wrapped in coils as shown in plate 55, fig. 2. They are then sunk in the lake which loosens the bark and enables them to be scraped clean, as well as adding to their flexibility. They are an ivory white when used and very tough and flexible. An Ojibwe woman is shown sewing a canoe with them in plate 56, figure 2.

Norway Pine (*Pinus resinosa* Ait.), "abakwanûgi'mûg" [bark in plates], shown in plate 63, fig. 2. The Flambeau Ojibwe gather resin from the Norway Pine just as they do from the White Pine, Balsam and Spruce, by chopping a hole into the trunk and collecting the resin as it forms. It is boiled twice, being combined with tallow the second time, to make a serviceable waterproof pitch. This is not only used for caulking canoes, but for mending roof rolls of birch bark and other things. The wood is also utilized.

White Pine (*Pinus strobus* L.), "jngwa'kwacêskwe'do" [white pine cone], shown in plate 63, fig. 1. The Flambeau Ojibwe use the pitch from the boiled cones, along with the resin that flows from boxed trees, for caulking and waterproofing purposes.

Arbor Vitae (*Thuja occidentalis* L.), "gi'jig" [cedar or sky]. The Ojibwe worships the Arbor Vitae or White Cedar and the Paper or Canoe Birch, as the two most useful trees in the forest. The pungent fragrance of the leaves and wood of the Arbor Vitae are always an ac-

ceptable incense to Winabojo, and the wood is their choice for light, strong straight-grained canoe frames and ribs, as shown in plate 53, figure 2. In earlier times, the tough stringy bark was used in making fiber bags, but these are scarcely ever seen today.

Hemlock (*Tsuga canadensis* [L.] Carr.), "gagagi'wic" [its name]. Hemlock bark was used by the Flambeau Ojibwe for fuel, when boiling their pitch the second time, because the heat from it was more easily regulated than that from a wood fire.

ROSACEAE (ROSE FAMILY)

Hawthorn (*Crataegus* sp.), "mine'saga'wûnj". The Flambeau Ojibwe women use the sharp thorns for sewing awls on finer work such as buckskin sewing with sinew.

SALICACEAE (WILLOW FAMILY)

Shining Willow (*Salix lucida* Muhl.), "axisi'gobmic" [its name]. The Flambeau Ojibwe use this bark for their kinnikinnik or native smoking mixture. It is peeled and toasted over a fire and reduced to flakes.

SPHAGNACEAE (SPHAGNUM MOSS FAMILY)

Sphagnum (*Sphagnum dusenii* C. Jens.), "asa'gûmtg" [moss]. The Flambeau and Pillager Ojibwe find Sphagnum Moss, shown in plate 66, fig. 1, readily available. They gather and dry it to make mattresses.

TILIACEAE (BASSWOOD FAMILY)

Basswood (*Tilia americana* L.), "wigub" [its name]. The tough fibrous bark of young basswood trees furnishes all Ojibwe with ready cordage and string in the woods, but it is also prepared by the women for future use. They strip the bark and peel the outer edge from the inner fiber with their teeth. The rolls are then kept in coils or are boiled and kept as coils until needed, being soaked again when used, to make them pliable. While they have countless uses for this cordage perhaps the most important is in tying the poles together for the framework of the wigwam or medicine lodge, as shown in plate 46, figure 2. When these crossings of poles are lashed together with wet bark fiber, it is easy to get a tight knot which shrinks when dry and makes an even tighter joint. The bark of an elm or a balsam, cut into

broad strips is then sewed into place on the framework with basswood string. In olden times, an oak wood awl was used to punch holes in the bark, but at Leech Lake when they made the writer's wigwam, as shown in plate 58, figure 2, they used an old file end for an awl. The writer lived in this new wigwam all the time he was among the Pillager Ojibwe and scarcely a night passed without a group of them visiting him and sitting around the campfire, telling old time stories.

TYPHACEAE (CAT-TAIL FAMILY)

Cat-tail (*Typha latifolia* L.), "abûkwe'skwe" [wigwam cover; that is, the plant leaves]. The Flambeau Ojibwe women use the cat-tail leaves to make wind and rain-proof mats to be placed on the sides of the medicine lodge or any temporary wigwam or sweat lodge. They sew with a bone needle and nettle or basswood fiber with a hidden stitch, and bind the edges securely with their sewing cord. These mats are made quite large to cover the wigwams, and are rolled and carried around with them. They are not quite rain-proof as a roofing material, so birchbark rolls are used for that purpose. The fuzz or seed of the cat-tail is called "bebamasû'n" [it flies around], and is used to make mattresses and sleeping bags. They say the fuzz will blind one if it gets into his eyes. They gather the heads and boil them first, which causes all the bugs to come out of them. Then they dry them and strip the fuzz, to make a mattress, which they claim is as soft as feathers, but very prone to mat together, so that it must be shaken often and thoroughly. They also make a quilt of it, and from the quilt a sleeping bag. This is declared to be soft and warm in the coldest weather.

URTICACEAE (NETTLE FAMILY)

Wood Nettle (*Laportea canadensis* [L.] Gaud.), "masana'tig" [woods fiber]. The Pillager Ojibwe say that their old people used the rind of this nettle as a sewing fiber.

Slippery Elm (*Ulmus fulva* Michx.), "ani'b" [its name]. The Pillager Ojibwe strip this bark to use as a wigwam cover, for the sides of the wigwam.

Lyll's Nettle (*Urtica lyalli* Wats.), "masan" [woods]. In aboriginal times, the Flambeau Ojibwe used the bark or rind of this nettle to give them a fine, stout sewing fiber.

OJIBWE VEGETAL DYES

Some of the old people among all Ojibwe still use vegetable and native dye stuffs, especially upon a mat or piece of material that they expect to keep for their own use. For the tourist trade, they will use "Diamond" dyes or any sort they can get as they are not especially interested in how well the color lasts in that case. John Whitefeather, Flambeau Ojibwe, asked the writer to find a good dye for them, as he had been unable to buy any since 1914. Several lots were sent to him, but none was found that had the penetration and permanence of the German dyes that he had before the war. He had to resort to native dye stuffs to get those qualities, but, of course, could not get the same range of colors in native dye stuffs. That was the main reason he sought more of the white man's dyes.

They boil the material they wish to color in the mixture of plant parts and some earth to set the color. For this they use various clays, the red or black sand that bubbles up in a spring, or stone dust, perhaps with a few, rusty, iron nails thrown in the kettle for good measure. Sometimes the bark of Black Oak (*Quercus velutina* Lam.) was used to set the color.

OJIBWE DYE PLANTS

ANACARDIACEAE (SUMAC FAMILY)

Smooth Sumac (*Rhus glabra* L.), "bakwa'nak" [binding tree]. The Flambeau Ojibwe use the inner bark and the central pith of the stem of the Smooth Sumac, mixed with Bloodroot to obtain an orange color. The material is boiled in the mixture.

Staghorn Sumac (*Rhus typhina* L.), "bakwana'tig". The Pil-lager Ojibwe do not have the Smooth Sumac, but use the Staghorn Sumac in the same way as the Flambeau Ojibwe use the other. The writer was unable to discover how they set the color unless it was with some stone dust that accumulated in the base of the kettle.

BALSAMINACEAE (TOUCH-ME-NOT FAMILY)

Spotted Touch-me-not (*Impatiens biflora* Walt.), "o'sawas-kodji'bik" [yellow root]. The whole plant is used by the Pillager Ojibwe to make a yellow dye and the material is boiled in the mixture with a few rusty nails.

BETULACEAE (BIRCH FAMILY)

Speckled Alder (*Alnus incana* [L.] Moench.), "wado'b" [its name]. The Flambeau Ojibwe use the inner bark for dyeing a light yellow, or with other ingredients to get a red, red brown or black. In occasional cases where sweet grass is dyed reddish yellow, the woman chews the inner bark and draws a wisp of sweet grass through her mouth weaving it in for color.

Paper Birch (*Betula alba* L. var. *papyrifera* [Marsh.] Spach), "wtgwas" [birch]. The innermost bark of the White Birch is boiled to extract a reddish dye by the Flambeau Ojibwe.

Hazelnut (*Corylus americana* Walt.), "mûkwo'baga'nak". The Flambeau Ojibwe make use of the seed hulls of the Hazelnut in setting the black color of butternut dye. They are boiled together and the tannic acid of the hull sets the color.

FAGACEAE (BEECH FAMILY)

Bur Oak (*Quercus macrocarpa* Michx.), "mêti'gomie". The Flambeau Ojibwe use this bark in combination with other materials to set color.

Black Oak (*Quercus velutina* Lam.), "mêti'gomie". The Flambeau Ojibwe use this bark for a reddish yellow dye and it sets its own color.

JUGLANDACEAE (WALNUT FAMILY)

Butternut (*Juglans cinerea* L.), "baga'nag". The Flambeau and Pillager Ojibwe find this one of their best brown dyes, because they can get it from the tree at any time of the year. It is usually used in other combinations for brown and black colors.

MYRICACEAE (BAYBERRY FAMILY)

Sweet Gale (*Myrica gale* L.), "wa'sawasni'mike" [yellow catkins]. In the fall of the year, the tips of the branches grow into an abor-

tive scale or gall-like structure that is plucked and boiled to yield a brown dye stuff. The Flambeau Ojibwe seem to be the only Ojibwe that know this.

PAPAVERACEAE (POPPY FAMILY)

Bloodroot (*Sanguinaria canadensis* L.), "meskwa'djibkók" [red root]. The Ojibwe use this root in four or five combinations in dyeing various materials. It is not necessary to mix it with other materials to set the color and alone it gives a dark yellow or orange color. They use it to paint the face, also, making different clan marks with it. Either the fresh root or dried root may be used.

PINACEAE (PINE FAMILY)

Hemlock (*Tsuga canadensis* [L.] Carr.), "gagagi'wíc". The Flambeau Ojibwe use the bark together with a little rock dust to set the color, to dye materials a dark red brown.

RANUNCULACEAE (CROWFOOT FAMILY)

Goldthread (*Coptis trifolia* [L.] Salisb.), "we'sawadji'bíkwe'ak" [yellow root?], shown in plate 75, fig. 1. The Flambeau Ojibwe add the golden-colored roots to other plant dyes to emphasize the yellow color.

Bristly Crowfoot (*Ranunculus pennsylvanicus* L. f.), "manwe'gons". The entire plant is boiled by the Flambeau Ojibwe to yield a red coloring dye. Bur Oak is added to set the color.

ROSACEAE (ROSE FAMILY)

Wild Plum (*Prunus nigra* Ait.), "búgesana'tíg". The Flambeau Ojibwe use the inner bark as an astringent color fixative in dyeing with other plant dyes.

MISCELLANEOUS USES OF PLANTS

John Whitefeather, of the Couderay Ojibwe, in explaining the four degrees of the medicine lodge, told the writer about the many uses of charms or bewitching plants that the initiate learned in the fourth degree. The Mide who perfected himself in the fourth degree was called a juggler or "Jessakd". He is supposed to have supernatural powers

of magic, and can read the thoughts of others, as well as call forth the ghosts or spirits of the other world. He can give Indians charms or lures which will aid them to do almost anything they have in mind, and he is most feared and respected among the Ojibwe.

These charms are supposed to work without physical contact and are thus different from medicines. They are addressed and prayed over, often with ceremonial tobacco offered to the four points of the compass, to heaven and the earth. They are usually referred to as medicine, and are carried in little buckskin packages about the person of the owner. Much of the contents of the war bundle, hunting bundle or medicine bundle, is composed of such charms. They guarantee a safe journey, the winning of a lacrosse or bowl and dice game, and the ability to find persons lost in the woods or lost articles. They can bewitch a man's wife, win the love of the opposite sex, work evil, and attract game to be shot, or small animals to one's traps. There is no doubt that medicines were often applied with as much faith in their power to charm as belief in the medicinal value of the medicine root for that specific disease. The connection between actual and superstitious remedies was oftentimes close.

Although a juggler or witch doctor had the power to cast these spells or charms, he was also supposed to have the power to dispel them and cure them. John Whitefeather called attention to the frequent wry mouth or twisted side of an Indian's face, and said that it had been caused by some witch doctor, but that it could be corrected by the victim, if he would pay the medicine man more to heal it than the one had paid for bringing on the affliction in the first instance. Many of their people think this unjust and the medicine man who does it may have to leave the village and flee for his life. This actually happened in the case of Anawabi and the boy who died of pneumonia, the parents claiming that Anawabi took his breath away. Of course, Anawabi was not within miles of the boy and assured the writer that he had nothing at all to do with that case, nor had even thought about it, but he made a hurried trip to Oklahoma and remained a couple of years until the anger of the parents had lessened.

Some plants had been used in various tanning processes a very long time ago by the Ojibwe, but none know anything about it now, so far as the writer could discover.

APOCYNACEAE (DOGBANE FAMILY)

Spreading Dogbane (*Apocynum androsaemifolium* L.), "mago'-sife'cnakwôk" [needle like].¹⁴⁷ The Pillager Ojibwe say that this is one of the roots the use of which is taught in the fourth degree of the medicine lodge, and that it is not only eaten during the medicine lodge ceremony, but is also chewed to keep the other witch doctors from affecting one with an evil charm.

ARACEAE (ARUM FAMILY)

Sweet Flag (*Acorus calamus* L.), "na'bûgûck" [something flat]. The root tea of this is used by Big George, Flambeau Ojibwe, on his gill net to bring him a fine catch of white fish. The net still smelled of the Calamus root after being in the water more than twelve hours, and he caught 121 white fish in one pull of the net in Flambeau Lake. It is combined with the root of Sarsaparilla.

ARALIACEAE (GINSENG FAMILY)

Wild Sarsaparilla (*Aralia nudicaulis* L.), "bebamabi'k" [root runs far through the ground]. This root is mixed with Sweet Flag root to make a tea to soak a gill net before setting it to catch fish during the night. Big George Skye, at Lac du Flambeau, was quite successful in catching them.

ASCLEPIADACEAE (MILKWEED FAMILY)

Common Milkweed (*Asclepias syriaca* L.), "tntni'wônj" [Indian plant].¹⁴⁸ The Pillager Ojibwe use the milk of the Common Milkweed along with the milk of Canada Hawkweed to put on a deer call, thinking that it will better imitate the call of a fawn that is hungry or in distress.

COMPOSITAE (COMPOSITE FAMILY)

Blue Wood Aster (*Aster cordifolius* L.), "naskosi'tcûs". A number of the composites as well as plants from other families are used in the Ojibwe hunting charms. The deer carries its scent or spoor in between its toes, and wherever the foot is impressed into the ground, other animals can detect its presence. It is thus dogs track them. It is a peculiar scent and the Ojibwe tries successfully to counterfeit it with roots and herbs. The root of this aster is but one of nineteen that

¹⁴⁷Present series, Vol. IV, pl. 35, fig. 4.

¹⁴⁸Present series, Vol. IV, pl. 26, fig. 2.

can be used to make a smoke or incense when smoked in a pipe, which attracts the deer near enough to shoot it with a bow and arrow. They say that the white man drives the deer away when he smokes cigarettes or cigars, but the Indians bring them closer.

Large-leaved Aster (*Aster macrophyllus* L.), "naskosi'tcûs". This is one of the Flambeau Ojibwe hunting charms. It is smoked to attract deer.

Horse-weed (*Erigeron canadensis* L.), "wab'gwûn" [white flower]. This is one of the Flambeau Ojibwe hunting charms. The disk florets are smoked.

Philadelphia Fleabane (*Erigeron philadelphicus* L.), "mcao'-gacan" [odor of split hoof of female deer]. The Pillager Ojibwe use the disk florets of this plant to smoke to attract the buck deer. They say that cows and deer eat the blossoms.

Canada Hawkweed (*Hieracium canadense* Michx.) Under the name "wab'gwûn" [white flower], some of the Flambeau Ojibwe use the flowers to make a hunting lure, and mix it with their other hunting charms. Others call it "mémiskû'nakûk" and say that they cut off the roots and nibble at them when hunting. The roots are milky like the stem and the hunter wanting a doe will pretend he is a fawn trying to suckle and thus attract a doe close enough to shoot with bow and arrow.

Tall Blue Lettuce (*Lactuca spicata* [Lam.] Hitchc.), "dodoca'bo" [milk]. The Flambeau Ojibwe use this plant in the same manner as they do the Canada Hawkweed to attract a doe to them for a close shot.

Fragrant Golden-rod (*Solidago graminifolia* [L.] Salisb.), "wa'-sawaskwûne'k" [yellow light]. The Flambeau Ojibwe use the flowers of this golden-rod to add to their hunting medicine, which is smoked to simulate the odor of a deer's hoof.

Tansy (*Tanacetum vulgare* L.), "mûckiki'wt" [medicine plant]. The yellow flowers are used by the Flambeau Ojibwe as an addition to their odorous hunting mixture which they smoke to attract deer.

CORNACEAE (DOGWOOD FAMILY)

Alternate-leaved Dogwood (*Cornus alternifolia* L. f.), "moso'-

mic" [moose tree]. The root is boiled by the Flambeau Ojibwe to wash a muskrat trap and make it lure the muskrat.

ERICACEAE (HEATH FAMILY)

Shin Leaf (*Pyrola americana* Sweet.), "bne'bûg" [partridge leaf]. The Flambeau Ojibwe hunter makes a tea from dried leaves of this plant and drinks it as a good luck potion in the morning before he starts to hunt.

IRIDACEAE (IRIS FAMILY)

Blue Flag (*Iris versicolor* L.) "wikê".¹⁴⁹ Both Flambeau and Pillager Ojibwe use this as a charm against snakes and claim that Indians all over the country use it the same way. When the Ojibwe go out blueberrying all day, every one carries a piece of it in his clothes and will handle it every little while to perpetuate the scent. They believe that snakes will shun them while so protected. They say that the Arizona Indians use it when they hold their snake dances and are never struck as long as their clothes are fumigated with it. They also chew it to get the odor into their mouths, preparatory to taking rattlesnakes into their teeth. The rattlesnake never offers to bite them so long as the scent of the Blue Flag persists.

LABIATAE (MINT FAMILY)

Heal-all (*Prunella vulgaris* L.), "basi'bûgûk". The Flambeau Ojibwe use the root of this plant to make a tea to drink before going hunting. It is supposed to sharpen their powers of observation.

LILIACEAE (LILY FAMILY)

Northern Clintonia (*Clintonia borealis* [Ait.] Raf.), "adots'gans" [little bell].¹⁵⁰ The Pillager Ojibwe claim that dogs chew the roots of this plant to poison their teeth, and if they then bite an animal it will die. A man may protect himself from such a bite by using the same root as a poultice on the wound.

Sessile-leaved Bellwort (*Oakesia sessilifolia* [L.] Wats.), "newela'-kwisink" [one sided]. The Flambeau Ojibwe use the root of this plant as a part of their micao'gacan hunting medicine to bring a buck deer near the hunter.

¹⁴⁹Present series, Vol. IV, pl. 40, fig. 2.

¹⁵⁰Present series, Vol. IV, pl. 14, fig. 3.

ORCHIDACEAE (ORCHIS FAMILY)

Rein Orchis (*Habenaria bracteata* [Willd.] R. Br.), "goko'egúnda mneakwe'mín" [pig does, red root]. This plant is a sort of love charm among the Pillager Ojibwe often put to bad use.

Slender Ladies' Tresses (*Spiranthes gracilis* [Bigel.] Beck), "bne- bûg" [partridge leaf]. The Flambeau Ojibwe use the root as an ingredient of their hunting charm to bring game to them.

PLANTAGINACEAE (PLANTAIN FAMILY)

Common Plantain (*Plantago major* L.), "ceca'gúski bûge'stnk'" [leaves grow up and also lie flat on the ground].¹⁵¹ The highly colored base and root of this plant appeal to the Flambeau Ojibwe who always carry some of the ground root in their pockets to ward off snakes.

POLYGONACEAE (BUCKWHEAT FAMILY)

Swamp Persicaria (*Polygonum muhlenbergii* [Meisn.] Wats.) "agoñgosi'mínûn". The Flambeau Ojibwe dry the flower of this plant and then include it in their hunting medicine, which is smoked to attract deer to the hunter.

Curled Dock (*Rumex crispus* L.), "ciobûg". The dried seeds of this dock are smoked when dried by the Flambeau Ojibwe, as a favorable lure to game when mixed with kinnikinnik.

PRIMULACEAE (PRIMROSE FAMILY)

Starflower (*Trientalis americana* [Pers.] Pursh.), "nawo'bûgûk" [four-leaved clover]. The root of this is mixed with many others to make the smoking scent that attracts the deer to the hunter, according to the Flambeau Ojibwe.

RANUNCULACEAE (CROWFOOT FAMILY)

Bristly Crowfoot (*Ranunculus pennsylvanicus* L. f.), "manwe' gons". The Flambeau Ojibwe smoke the seeds of this in their hunting medicine to lure the buck deer near enough for a shot with bow and arrow.

ROSACEAE (ROSE FAMILY)

Hawthorn (*Crataegus* Sp.), "mnesaga'wûnj", shown in plate 77, fig. 2. The bark of the Hawthorn was used by the Flambeau Ojibwe in making up their deer scent for smoking to attract deer while hunting.

¹⁵¹Present series, Vol. IV, pl. 31, fig. 2.

SCROPHULARIACEAE (FIGWORT FAMILY)

Wood Betony (*Pedicularis canadensis* L.), "manda'minfodji'-bikêns" [little corn root]. This is a sort of love charm according to John Peper, Pillager Ojibwe, who said that the root was chopped up and put into some dish of food that was cooking, without the knowledge of the people who were going to eat it, and if they had been quarrelsome, then they became lovers again. However, he said it was too often put to bad uses.

TYPHACEAE (CAT-TAIL FAMILY)

Cat-tail (*Typha latifolia* L.) "beba'masûn" [it flies around]. The Flambeau Ojibwe used to throw the fuzz of the fruit into the eyes of their enemies, the Sioux, claiming that it blinded them.

UMBELLIFERAE (PARSLEY FAMILY)

Musquash Root (*Cicuta maculata* L.), "abagwas'tgans". The root of this is used in making a hunting medicine to be smoked to attract the buck deer near enough to shoot with bow and arrow.

Cow Parsnip (*Heracleum lanatum* Michx.) "pipigwe'wantûck" [flute reed]. According to the Flambeau Ojibwe, there is a bad spirit "sokênu", who is always present trying to steal away one's luck in hunting game. He must be driven away from the camp of the hunter by smudging a fire with the roots of the Cow Parsnip. This gets into Sokênu's eyes and he cannot see the hunter leave the camp, so naturally does not follow and bother him. Other Flambeau Ojibwe call it "acawe'skûk" but use it in the same way. The Pillager Ojibwe have the same name for the plant, but put the seed of the plant on a fire to drive away Sokênu. They boil the root to sprinkle their fishing nets and lure fish.

Water Parsnip (*Sium cicutaefolium* Schrank.), "wane'mtgons". The seed of this is smoked over a fire by the Flambeau Ojibwe to drive away and blind Sokênu, the evil spirit that steals away one's hunting luck.

Yellow Pimpernel (*Taenidia integerrima* [L.] Drude), "manwe'gons" or "manwe'kos". The Flambeau Ojibwe declare that the seeds of this plant are very good for smoking in a pipe when one goes hunting for they will bring him luck.

CONCLUSION

The Ojibwe will always be interesting, because they prefer to live in the backwoods, and because they cling so closely to their traditions. A further reason is that they are more numerous than any other Wisconsin tribe. They are good friends of the white people and find it hard to keep to a strictly commercial basis, when hired as guides for fishing and hunting. Many Milwaukee sportsmen have much appreciated friends among the Ojibwe, who have ever been strict and upright in their dealings with them.

There remains a considerable amount of folk lore or ethnology to be studied and recorded, and since it is easy to find well educated men and women among them, who still recall the traditions and stories of their early life, it should prove a fertile field of investigation for some student. The writer is satisfied that he has only touched the surface in their ethnobotanical uses, knowing that three or four months are really too short a time to get this lore from them. But he wishes to close by saying that the Ojibwe are one of the most interesting people he has ever met.

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ci'wimînûn	<i>Vitis vulpina</i>	Food	411
ci'wimînûn	<i>Vitis vulpina</i>	Afterbirth	392
dadoca'bo	<i>Lactuca spicata</i>	Lactary	364
djibe'gûb	<i>Droca palustris</i>	Diuretic	390
dodoca'bo	<i>Lactuca spicata</i>	Hunting	428
eeka'damin	<i>Cucumis sativa</i>	Food	399
gale'wûtekûk	<i>Scirpus cyperinus</i>	Textiles	418
ga'gîge'bûg	<i>Chimaphila umbellata</i>	Stomach	368
gagîge'bûg	<i>Antennaria neodioica</i>	Afterbirth	363
gagagi'wic	<i>Tsuga canadensis</i>	Dye	422, 426
gagagi'wic	<i>Tsuga canadensis</i>	Beverage	408
gagagi'wic	<i>Tsuga canadensis</i>	Wounds	380
gandegwa'sontnke'cinagwûk	<i>Anemone cylindrica</i>	Stomach	383
gawa'kumîc	<i>Zanthoxylum americanum</i>	Quinsy	387
gawa'ndag	<i>Picea canadensis</i>	Inhalant	379
gawe'mîc	<i>Fagus grandifolia</i>	Food	401
gibaime'nûna'gwûs	<i>Myrica asplenifolia</i>	Crampe	375
gibaime' nûnagwûs	<i>Myrica asplenifolia</i>	Utensils	420
gîckênsîne'nâmûkûk	<i>Botrychium virginianum</i>	Consumption	377
gîga'ndag	<i>Pinus banksiana</i>	Fiber	421
gîga'ndag	<i>Pinus banksiana</i>	Reviver	379
gîjî'bînûak	<i>Equisetum arvense</i>	Dropsey	368
gîjî'bînûak	<i>Equisetum arvense</i>	Fodder	400
gîjî'bînûak	<i>Equisetum hyemale</i>	Scouring	418
gî'jîg	<i>Thuja occidentalis</i>	Crafts	421
gî'jîk	<i>Thuja occidentalis</i>	Incense	380
gî'jîkandag	<i>Thuja occidentalis</i>	Headache	380
gîjî'kgando'gûng	<i>Lycopodium complanatum</i>	Reviver	375
gî'masan	<i>Arotium minus</i>	Tonic	363
gîmîne'sît	<i>Vaccinium vacillans</i>	Food	401
gîne'big odjî'bîk	<i>Sanicula marilandica</i>	Fevers	391
gîne'bigomînaga'wûnj	<i>Smilax herbacea</i>	Lungs	374
gînose'wîbûg	<i>Clintonia borealis</i>	Parturient	373
goko'egûnda mînéakwe'mîn	<i>Habenaria bracteata</i>	Aphrodisiac	377
goko'egûnda mînéakwe'mîn	<i>Habenaria bracteata</i>	Love charm	431

Ojibwe	Latin	Use	Page
goko'oodji'blk	<i>Oxybaphus nyctagineus</i>	Sprains	375
gosiga'gomlnaga'wlnj	<i>Amelanchier laevis</i>	?	384
gosiga'gomlnk	<i>Amelanchier laevis</i>	Prenatal remedy	384
gosigago'mlnn	<i>Amelanchier laevis</i>	Food	408
imbji'goa	<i>Artemisia ludoviciana</i>	Veterinary use	363
lnena'tlg	<i>Acer saccharum</i>	Sugar	394
lnenatig	<i>Acer saccharum</i>	Utensils	413
lnlni'wlnj	<i>Asclepias syriaca</i>	Female remedy	357
lnlni'wlnj	<i>Asclepias syriaca</i>	Food	397
lnlni'wlnj	<i>Asclepias syriaca</i>	Hunting	428
jica'wigan	<i>Legenaria vulgaris</i>	Food	400
jicigwe	Rattlesnake	Childbirth	353
jlgomi'dakdn	<i>Juncus dudleyi</i>	Arts	419
jika'midakdn	<i>Scirpus validus</i>	Textiles	418
ji'masa'nnek	<i>Cirsium lanceolatum</i>	Cramps	364
jimdeki'gobdg	<i>Plantago major</i>	Bruises	381
jingo'b	<i>Abies balsamea</i>	Crafts	420
jingo'b	<i>Abies balsamea</i>	Sore eyes	378
jingo'bandag	<i>Abies balsamea</i>	Crafts	378, 420
jingo'b plkewa'ndag	<i>Abies balsamea</i>	Crafts	420
jingo'b plkewa'ndag	<i>Abies balsamea</i>	Sore eyes	378
jingwa'k	<i>Pinus strobus</i>	Food	407
jingwak'búglo	<i>Pinus strobus</i>	Inhalant	379
jingwak' kweseekwe'tdk	<i>Pinus strobus</i>	Inhalant	379
jingwak ona'gék	<i>Pinus strobus</i>	Sudatory	379
jingwakons wakun	<i>Stictis glomulifera</i>	Food	406
jingwa'k wacékwe'do	<i>Pinus strobus</i>	Resin	421
jingwa'k wacékwe'do	<i>Pinus strobus</i>	Sudatory	379
jingwa'kwak	<i>Stictis glomulifera</i>	Food	406
jingwúp	<i>Picea mariana</i>	Crafts	421
jingwúp	<i>Picea mariana</i>	Reviver	379
jingwu'p gawa'ndag	<i>Picea mariana</i>	Medicinal salt	379
jisé'ns	<i>Panax quinquefolium</i>	Commerce	356
jiw'ogoni'búg	<i>Humulus lupulus</i>	Diuretic	391
ji'wlcini'goni'búg	<i>Humulus lupulus</i>	Cooking	411
kagag'tci'mln	<i>Ribes americanum</i>	Food	410
macki'gobdgons	<i>Chamaedaphne calyculata</i>	Beverage	400
mago'sife'cnakwúk	<i>Apocynum androsaemifolium</i>	Charm	428
mago'sife'cnakwúk	<i>Apocynum androsaemifolium</i>	Kidneys	354
ma'kaaln	<i>Cypripedium parviflorum</i>	Female remedy	377
makate'mln	<i>Vaccinium nigrum</i>	Food	401
makate'wa ana'ganúek	<i>Pteris aquilina</i>	Cramps	383
manasa'di	<i>Populus balsamifera</i>	Wounds	387
manasa'tig	<i>Laportea canadensis</i>	Fiber	378, 421
mandamln	<i>Zea mays</i>	Food	402
mandam'nlodji'blkns	<i>Pedicularis canadensis</i>	Aphrodisiac	390
manda'mlnlodji'blkns	<i>Pedicularis canadensis</i>	Love charm	432
manldobima'kwít	<i>Celastrus scandens</i>	Stomach	363
manldobima'kwít	<i>Celastrus scandens</i>	Food	396
manldo'bimakwít	<i>Paedera quinquefolia</i>	Food	411
mano'mln	<i>Zizania palustris</i>	Food	403
manwe'gons	<i>Ranunculus pennsylvanicus</i>	Hunting	383

Ojibwe	Latin	Use	Page
manwe'gons	<i>Ranunculus pennsylvanicus</i>	Dye	426
manwe'gons	<i>Ranunculus pennsylvanicus</i>	Hunting	431
manwe'gons	<i>Taenidia integerrima</i>	Hunting	432
manwe'kos	<i>Taenidia integerrima</i>	Hunting	432
masan	<i>Sanicula marilandica</i>	Snake bite	391
masa'n	<i>Cynoglossum boreale</i>	Inhalant	359
masan	<i>Urtica lyallii</i>	Fiber	423
masan	<i>Urtica lyallii</i>	Heat rash	392
masa'natik	<i>Laportea canadensis</i>	Diuretic	391, 423
masa'nok	<i>Cirsium arvense</i>	Bowel tonic	364
mégisi'bóg	<i>Aster macrophyllus</i>	Food	396
mégisi'bóg	<i>Aster macrophyllus</i>	Headache	363
memlagwú'nagóg	<i>Spiraea tomentosa</i>	Parturient	386
mémakú'nakúk	<i>Hieracium canadense</i>	Hunting	429
mesadi'wackons	<i>Eriophorum callitrix</i>	?	368
mékodi'minún	<i>Phaseolus vulgaris</i>	Food	406
meakwabi'mie	<i>Cornus paniculata</i>	Flux	367
meakwabi'mie	<i>Cornus paniculata</i>	Smoking	399, 418
meakwa'cabo'minúk	<i>Ribes cynosbati</i>	Food	410
meakwa'dji'bikúk	<i>Sanguinaria canadensis</i>	Sore throat	377
meakwa'djibikúk	<i>Sanguinaria canadensis</i>	Dye	426
meakwa'min	<i>Rubus idaeus aculeatissimus</i>	Food	410
meakwa'minaga'wúnj	<i>Rubus idaeus aculeatissimus</i>	Seasoner	386
meti'gomie	<i>Quercus velutina</i>	Dye	425
meti'gomie	<i>Quercus macrocarpa</i>	Dye	425
métigo'min	<i>Quercus velutina</i>	Food	402
micoo'gacan	<i>Erigeron philadelphicus</i>	Hunting	428
micoo'gacan	<i>Erigeron philadelphicus</i>	Smoking	398
micoo'gacan	<i>Erigeron philadelphicus</i>	Fever	364
mici'min	<i>Quercus alba</i>	Food	401
mici'teimnúk	<i>Ribes triste</i>	Female remedy	399, 410
miekiminú'nimie	<i>Nemopanthes mucronata</i>	?	355
midewidji'bik	<i>Anemone canadensis</i>	Lozenge	382
midewidji'bik	<i>Apocynum androsaemifolium</i>	Ceremonial	354
minesaga'wúnj	<i>Crataegus</i> sp.	Female remedy	384
minesaga'wúnj	<i>Crataegus</i> sp.	Food	409
mine'saga'wúnj	<i>Crataegus</i> sp.	Crafts	422
minesaga'wúnj	<i>Crataegus</i> sp.	Hunting	431
minúga'wúnj	<i>Vaccinium pennsylvanicum</i>	Blood	369
minún	<i>Vaccinium pennsylvanicum</i>	Food	401
missa'bigon	<i>Cucurbita pepo</i>	Food	400
misodjidamo'anúk	<i>Arabis glabra</i>	?	367
mitcigi'ménúk	<i>Echinocystis lobata</i>	Tonic	367
miti'gomie	<i>Quercus alba</i>	Utensils	418
mitigo'mie	<i>Quercus macrocarpa</i>	Astringent	369
mitigo'mie	<i>Quercus macrocarpa</i>	Food	402
mitigo'mie wena'gék	<i>Quercus rubra</i>	Bronchitis	369
mitigo'mie	<i>Quercus rubra</i>	Food	402
mitigwaba'k	<i>Carya ovata</i>	Bows	419
moso'mie	<i>Cornus alternifolia</i>	Emetic	366
moso'mie	<i>Cornus alternifolia</i>	Smoking	417
moso'mie	<i>Cornus alternifolia</i>	Trap lure	428
múckigo'bamie	<i>Salix lucida</i>	Sores	388
múeki'godji'bik	<i>Potentilla palustris</i>	Stomach	385
múckigwa'tig	<i>Larix laricina</i>	Inhalant	378
múcki'gwatig	<i>Larix laricina</i>	Crafts	421

Ojibwe	Latin	Use	Page
múekiki'wit	Tanacetum vulgare—	Fevers	366
múekiki'wit	Tanacetum vulgare	Hunting	428
múeki'mln	Vaccinium oxycoccus—	Food	401
múeki'mlnaga'wúdj	Vaccinium oxycoccus	Nausea	369
múekitci'mln	Vaccinium oxycoccus	Food	401
múkwó	Bear fat	Physic	352
múkwó'bags'nak	Corylus americana	Dye	428
múkwó'bags'nak	Corylus americana	Utensils	417
múkwobaga'nak	Corylus americana	Poultices	359
múkwobaga'nak	Corylus americana	Food	397
múkwopni'k	Dentaria maxima	Food	399
na'búgúek	Acorus calamus	Physic	355
na'búgúek	Acorus calamus	Fish lure	428
na'búkúek	Iris versicolor	Physic	371
name'	Sturgeon	Tattooing tool	352
name'pín	Asarum canadense acuminatum	Stomachic	357
name'pín	Asarum canadense acuminatum	Food	397
name'wúekons	Mentha arvenses canadensis	Blood remedy	371
nanibite'ode'kín	Polygonatum biflorum	Cough	374
nanibite'ode'kín	Streptopus roseus	Cough	374
naakosi'leús	Aster macrophyllus	Hunting	363
naakosi'leús	Aster cordifolius	Hunting	428
naakosi'leús	Aster macrophyllus	Hunting	428
nawó'búgúek	Trientalis americana	Hunting	431
ne'bíneankwe'úk	Hydrophyllum virginianum	Flux	371
nebtne'nanikwe'lag	Hydrophyllum virginianum	Horse medicine	405, 419
nebtne'nanikwe'lag	Hydrophyllum virginianum	Fodder	406
némégosi'búg	Aster macrophyllus	Food	398
newela'kwislnk	Oakea sessilifolia	Hunting	430
nígtíni'gúndúk	Echinocystis lobata	Tonic	367
nokomi'sktnún	Asplenium felix-femina	Caked breast	381
nokwe'slgún	Erigeron ramosus	Headache	364
o'cacadji'bikes	Epilobium angustifolium	Carbuncle	376
oci'gimle	Caulophyllum thalictroides	Cramps	358
odataga'gomle	Rubus allegheniensis	Food	409
o'dataga'gomle	Rubus allegheniensis	Diuretic	385
ode'imln	Fragaria virginiana	Food	409
ode'imlnidji'blk	Fragaria virginiana	Colic	384
ode'imlnidji'blk	Cornus canadensis	Cold	366
odltea'búg	Nymphaea advena	Poultices	376
odlte'abúg wa'bigwún	Castalia odorata	Cough	376
odlte'abúg wabi'gwún	Castalia odorata	Food	407
oga'damún	Nymphaea advena	Poultices	376
ogini	Rosa blanda	Heartburn	385
ogini'gawúnj	Rosa blanda	Heartburn	385
ogtne'mlnaga'ons	Rosa blanda	Heartburn	385
o'gite'búg	Caltha palustris	Food	408
ogwi'ssimaun owasokwone'k	Cucurbita maxima	Food	399
ogwíssi'maun o'wasokwúne'k	Cucurbita maxima	Diuretic	367
ojlbwe'owe'óúwún	Galium trifidum	Skin diseases	387
okadak	Aralia nudicaulis	Blood purifier	356
okwe'mln	Prunus serotina	Cough	385
okwe'mln	Prunus serotina	Food	409
o'makaki'odass	Sarracenia purpurea	Parturient	389

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o'makaki'widase	<i>Sarracenia purpurea</i>	Parturient	389
opin	<i>Solanum tuberosum</i>	Food	410
oesaga'tlkûm	<i>Osmorhiza longistylis</i>	Parturient	391
oes'man	Red clay	Poultices	352
oes'wa'skanet	<i>Diervilla lonicera</i>	Diuretic	360
o'swaakodji'blk	<i>Impatiens biflora</i>	Dye	425
o'swaakwini's	<i>Geranium maculatum</i>	Flux	370
oakwe'tûk	<i>Calvatia craniiformis</i>	Nose-bleed	370
owacawa'akwûneg	<i>Linaria vulgaris</i>	Bronchitis	389
owinhi'min	<i>Gaultheria procumbens</i>	Food	401
pakwan	<i>Plantago major</i>	Sprains	380
papaakatoik'ai'gana'tig	<i>Sambucus racemosa</i>	Purgative	360
pigwe'wûnûak	<i>Pastinaca sativa</i>	Female remedy	391
plkwadj	Fish Bladder	Syringe	382
plkwa'djic	Mushrooms	Poison	402
pi'pigwe'wanûek	<i>Heracleum lanatum</i>	Sores	390
pipigwe'wanûek	<i>Heracleum lanatum</i>	Hunting	432
saga'tigons	<i>Agrimonia gryposepala</i>	Diuretic	383
sagima'kwûn	<i>Fraxinus pennsylvanica</i>	Food	407
sakate'bwî	<i>Galium aparine</i>	Kidneys	386
sakati'komûk	<i>Xanthium commune</i>	?	366
sawe'min	<i>Prunus virginiana</i>	Food	409
sewa'komîn	<i>Prunus pumila</i>	Food	409
siba'mûekûn	<i>Equisetum sylvaticum</i>	Dropsy	368
sisigo'bimic	<i>Salix fragilis</i>	Styptic	388
sisigo'bamic	<i>Salix pedicularis</i>	Stomach	388
sisigo'bamic	<i>Salix lucida</i>	Sores	388
teatcabonû'kaik	<i>Scutellaria galericulata</i>	Heart	372
tei'name'wûck	<i>Nepeta cataria</i>	Blood purifier	372
tei'name'wûck	<i>Nepeta cataria</i>	Beverage	405
toode'imînaga'wûnj	<i>Potentilla monspeliensis</i>	Physic	384
te'komîn	<i>Quercus velutina</i>	Food	402
tipotle'kwason	<i>Corydalis aurea</i>	Reviver	370
waba'bigan	White Clay	Pills	352
wabeckiki'bûg	<i>Chamaedaphne calyculata</i>	Beverage	400
wabanwe'ak	<i>Viburnum pubescens</i>	Smoking	417
wabasi'ptn	<i>Sagittaria arifolia</i>	Indigestion	383
wabasi'ptn	<i>Sagittaria arifolia</i>	Food	396
wabeni'mîna	<i>Phaseolus lunatus macrocarpus</i>	Food	406
wabeni'mînessa	<i>Phaseolus vulgaris</i>	Food	406
wablgwon	<i>Achillea lanulosa</i>	Smoking	417
wa'bigwûn	<i>Achillea lanulosa</i>	Insect bites	362
wablgwûn	<i>Radicula palustris hispida</i>	?	367
wablgwûn	<i>Erigeron canadensis</i>	Hunting	428
wablgwûn	<i>Hieracium canadense</i>	Hunting	428
waboekiki'bûg	<i>Ledum groenlandicum</i>	Beverage	401
waboekiki'mînûn	<i>Galium tinctorium</i>	Lungs	386
wabo'sûakwe	<i>Aralia nudicaulis</i>	Cough	356
wabûckadij'blk	<i>Uvularia grandiflora</i>	Pleurisy	374
wabûckiki'bûg	<i>Spiraea salicifolia</i>	Trapping	386
wado'b	<i>Alnus incana</i>	Dye	425
wado'bin	<i>Alnus incana</i>	Hemostatic	358

Ojibwe	Latin	Use	Page
wajackwe'do	Mushrooms	Poison	402
wane'mlgons	<i>Sium cloutaeifolium</i>	Hunting	423
wa'sawaakwüne'k	<i>Solidago graminifolia</i>	Hunting	428
wasa'waakwüne'k	<i>Solidago graminifolia</i>	Chest pain	366
wa'sawaani'mlke	<i>Myrica gale</i>	Dye	425
wapate (California tribe)	<i>Sagittaria arifolia</i>	Food	396
wapatoo (California tribe)	<i>Sagittaria arifolia</i>	Food	396
wesa'waakwüne'k	<i>Taraxacum officinale</i>	Food	399
wesa'wūs wackwi'nek	<i>Monarda fistulosa</i>	Catarrh	372
wesa'wūs wa'ekwlnēak	<i>Prenantheus alba</i>	Diuretic	365
we'ke	<i>Acorus calamus</i>	Physic	355
wesa'usakwūnek	<i>Taraxacum officinale</i>	Heartburn	366
wesawabi'kwonēk	<i>Uvularia grandiflora</i>	Stomach	374
wesawadji'bkwe'ak	<i>Coptis trifolia</i>	Sore mouth	383
wesawadji'bkwe'ak	<i>Coptis trifolia</i>	Dye	426
wesawa'nikwe'ak	<i>Coptis trifolia</i>	Sore mouth	383
wesawasa'kwüne'k odite'abūg	<i>Nelumbo lutea</i>	Food	407
wesa'wūckūn	<i>Apocynum androsaemifolium</i>	Kidneys	354
wesa'wūaga'akonēk	<i>Impatiens biflora</i>	Headache	357
wesa'wūakwūn	<i>Apocynum androsaemifolium</i>	Fiber	413
wesale'būgūg	<i>Viola conspersa</i>	Heart	392
wica'wasa'konek	<i>Geum macrophyllum</i>	Female remedy	384
wickobidji'bk	<i>Actaea rubra</i>	Childbirth	382
wickobi'mandamūn	<i>Zea mays</i>	Food	403
wicko'bimūteko'si	<i>Anthoxanthum odoratum</i>	Arts	419
wickobi'si'ganūg	<i>Zea mays</i>	Food	403
wigub	<i>Tilia americana</i>	Fiber	422
wigwas	<i>Betula alba papyrifera</i>	Dye	425
wigwas	<i>Betula alba papyrifera</i>	Utensils	413
wigwas	<i>Betula alba papyrifera</i>	Aromatic	358
wikē'	<i>Iris versicolor</i>	Snake charm	430
winlāi'būgūd	<i>Gaultheria procumbens</i>	Rheumatism	369, 400
wi'nisik	<i>Betula lutea</i>	Beverage	397
wingūakw	<i>Artemisia ludoviciana</i>	Veterinary use	363
sigo'bami	<i>Salix lucida</i>	Sores	388



Figure 1. Ojibwe demonstration garden at Lac du Flambeau, Wis. See page 312.

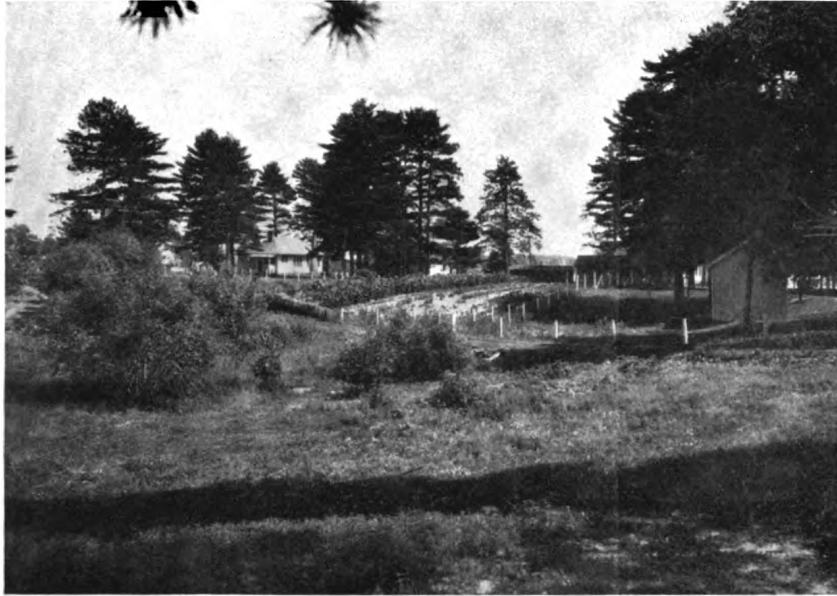
Figure 2. Ojibwe wigwam at Lac du Flambeau, Wis. Covered with cat-tail mats and birch bark rolls. See pages 340, 416, 422.



EXPLANATION OF PLATE XLVI.

Figure 1. Ojibwe demonstration garden at Lac du Flambeau, Wis. See page 342.

Figure 2. Ojibwe wigwam at Lac du Flambeau, Wis. Covered with cat-tail mats and birch-bark rolls. See pages 340, 416, 422.



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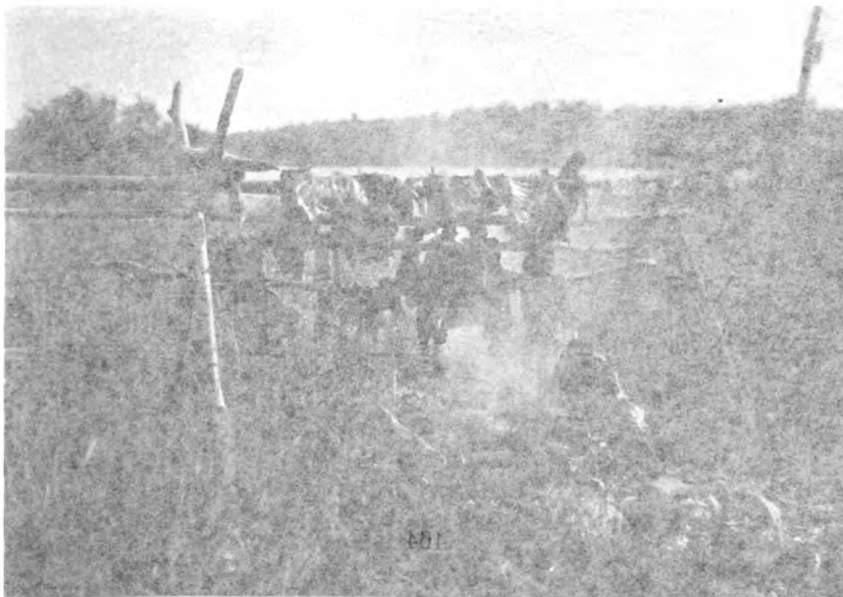




EXPLANATION OF PLATE XLVII.

Figure 1. Ojibwe dance at Lac du Flambeau, Wis. See page 316.
Figure 2. Ojibwe dance at Lac du Flambeau, Wis. See page 316.

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2

EXPLANATION OF PLATE XLVII.

Figure 1. Ojibwe dream dance at Lac du Flambeau, Wis. See page 346.

Figure 2. Jerking deer meat at Lac du Flambeau, Wis. See page 417.



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2



EXPLANATION OF PLATE XLVII.

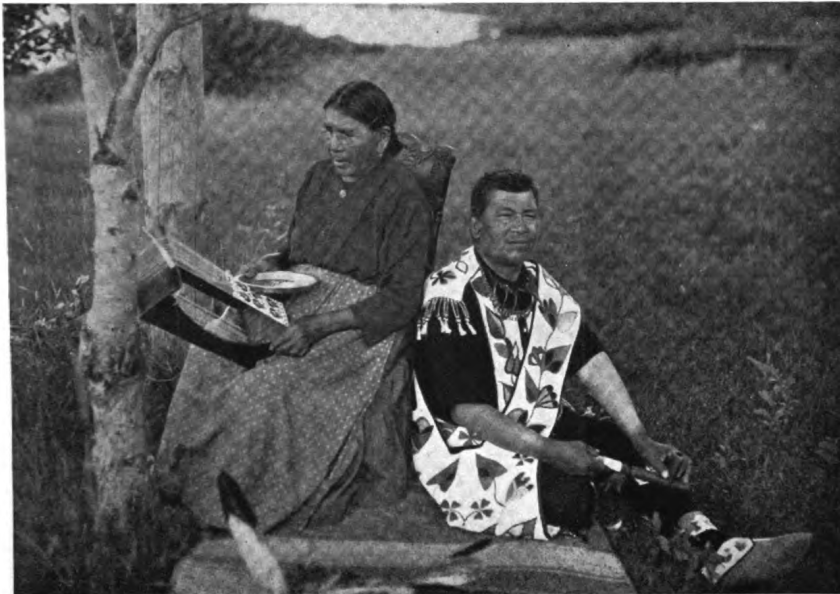
Figure 1. Office board room and work, Lac du Flambeau, Wis. John
Whitcomb and wife. See page 418.

Figure 2. Lac du Flambeau, Wis., showing Pokegama and Flambeau
lakes. See page 344.

EXPLANATION OF PLATE XLVIII.

Figure 1. Ojibwe bead loom and work, Lac du Flambeau, Wis. John Whitefeather and wife. See page 413.

Figure 2. Lac du Flambeau, Wis., showing Pokegama and Flambeau lakes. See page 344.



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Figure 2. Ojibwe cradle board. See page 420.

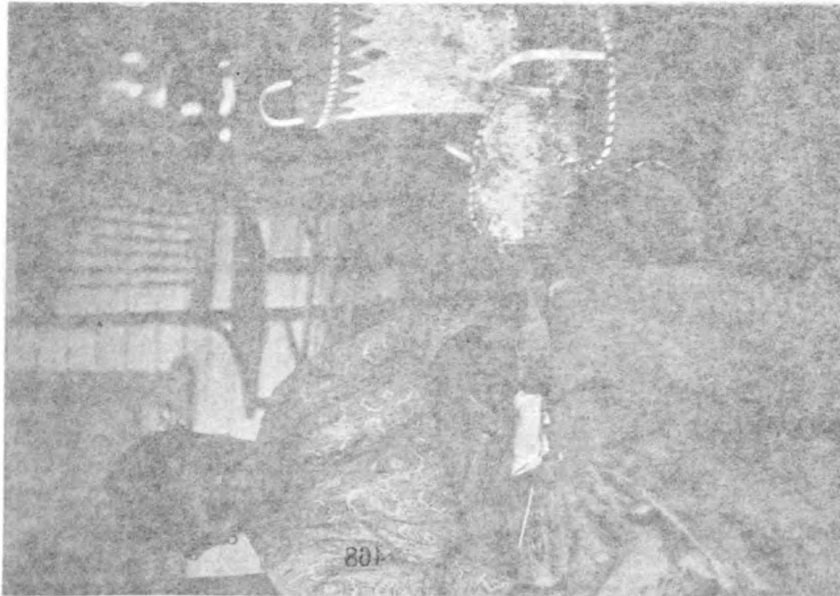


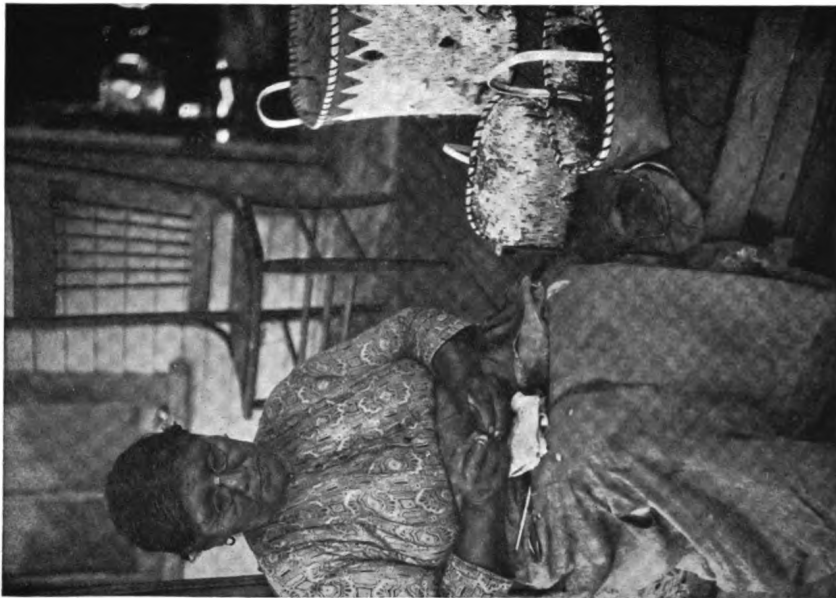
Figure 3. Bird park baskets. Wife of Wehnohokwe, Flambeau Village, Wis.; see page 418.

EXPLANATION OF PLATE XLIX

EXPLANATION OF PLATE XLIX.

Figure 1. Birch bark baskets. Wife of Webujuonokwe, Flambeau Village, Wis. See page 416.

Figure 2. Ojibwe cradle board. See page 420.



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EXPLANATION OF PLATE I.

Figure 1. Founding out Black Ash basketry splints. See page 420

Figure 2. Making ash splint baskets. See page 420.



EXPLANATION OF PLATE L.

Figure 1. Pounding out Black Ash basketry splints. See page 420

Figure 2. Making ash splint baskets. See page 420.



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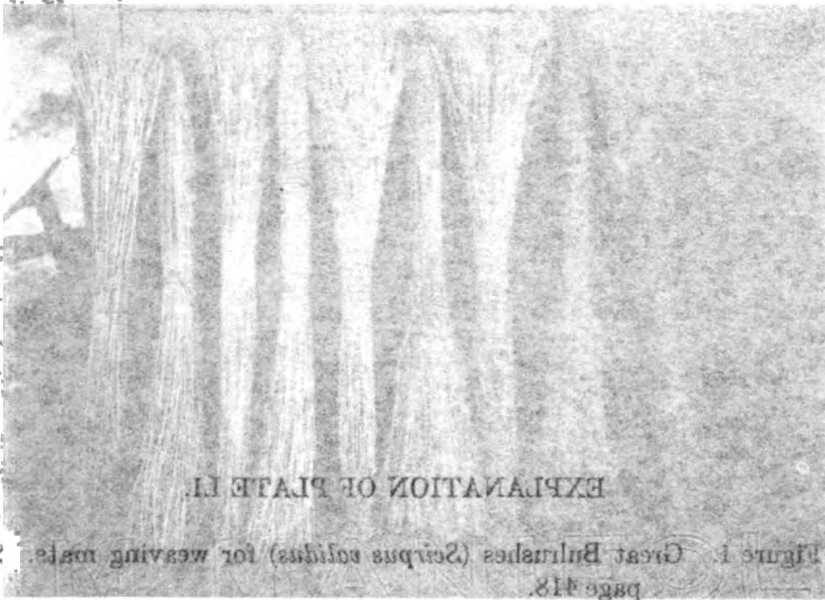


Figure 1. Great Balmishes (*Scirpus solidus*) for weaving mats. See page 418.

EXPLANATION OF PLATE LI.

Figure 2. Ojibwe burial on Bear Island, Leech Lake, Minnesota. See page 344.



EXPLANATION OF PLATE LI.

Figure 1. Great Bulrushes (*Scirpus validus*) for weaving mats. See page 418.

Figure 2. Ojibwe burial on Bear Island, Leech Lake, Minnesota. See page 344.



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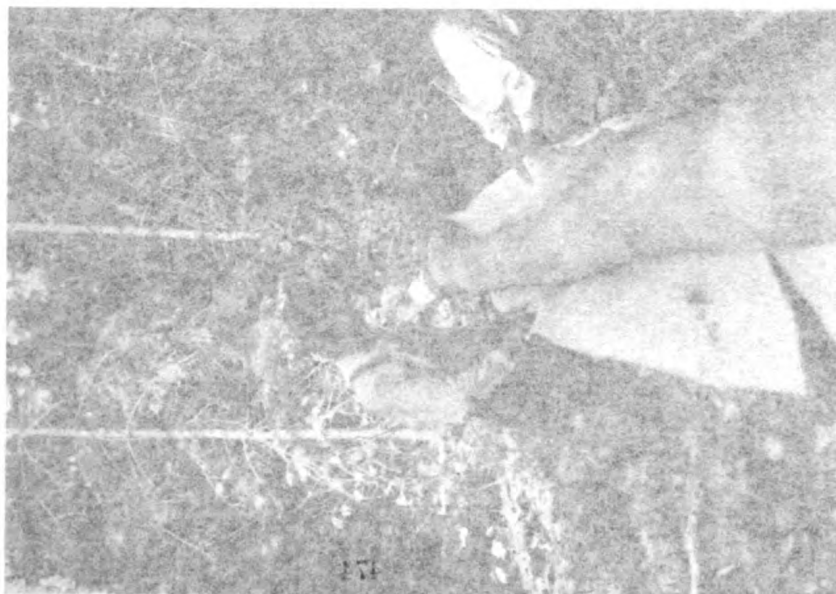


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Figure 1. Peeling birch log for canoe bark. Las de Pambear, Wis.
See page 415.

Figure 2. Birch bark roll and method of transportation.
See page 415.



EXPLANATION OF PLATE LII.

**Figure 1. Peeling birch log for canoe bark. Lac du Flambeau, Wis.
See page 415.**

**Figure 2. Birch bark roll and method of transportation.
See page 415.**



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Figure 1. Splitting canoe ribs from Cedar (Tway's occidentalis). See page 415.

EXPLANATION OF PLATE LIII

Figure 2. Making canoe ribs. See page 415.

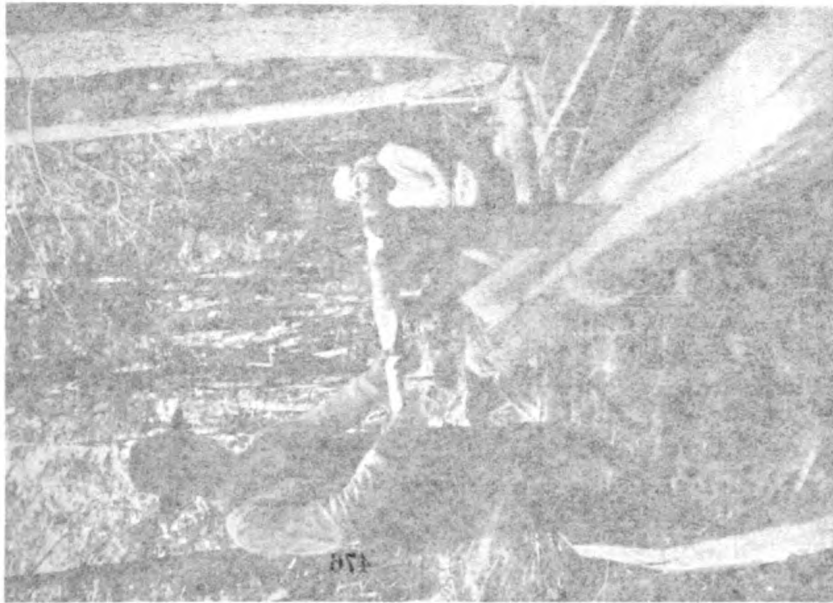


PLATE LIII

EXPLANATION OF PLATE LIII.

Figure 1. Splitting canoe ribs from Cedar (*Thuja occidentalis*). See page 415.

Figure 2. Making canoe ribs. See page 415.



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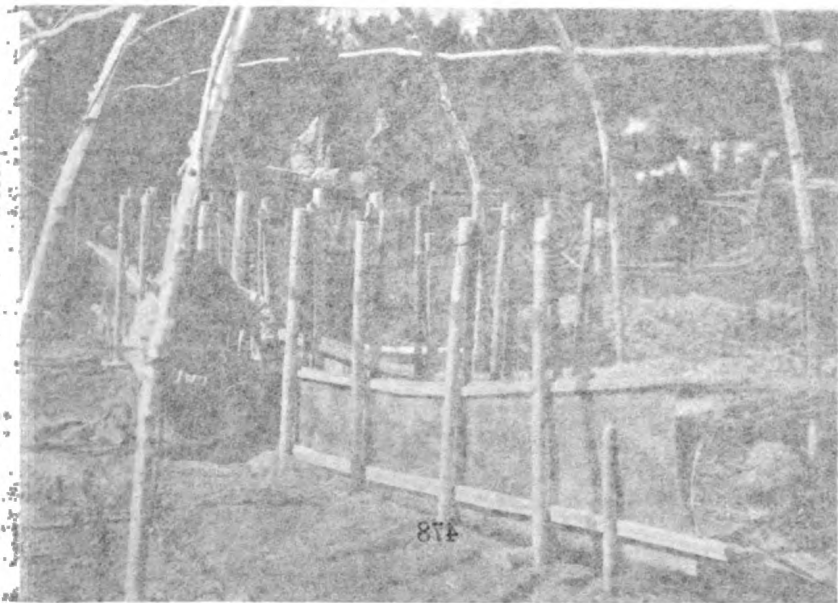


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EXPLANATION OF PLATE LIV.

Figure 1. Shaping canoe nose. See page 415.
Figure 2. Sewing canoe in form. See page 415.



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EXPLANATION OF PLATE LIV.

Figure 1. Shaping canoe nose. See page 415.

Figure 2. Sewing canoe in form. See page 415.



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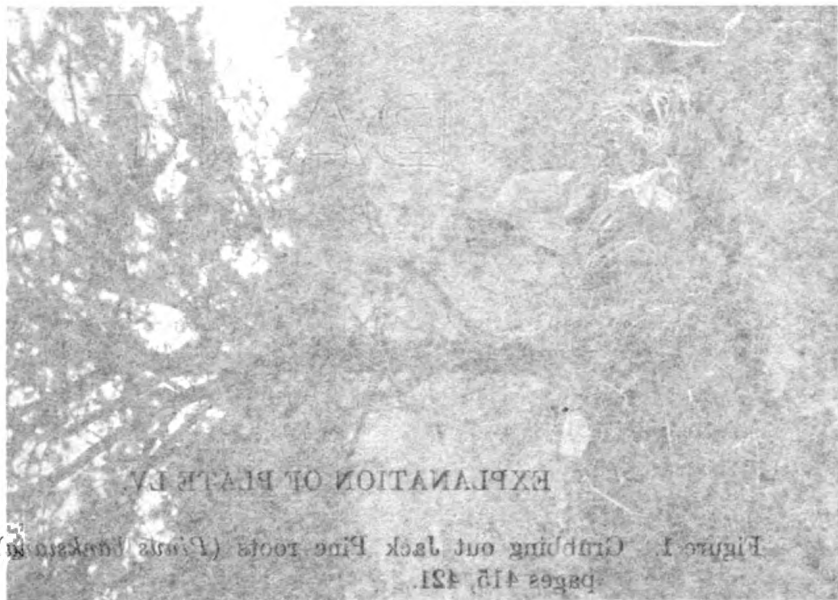
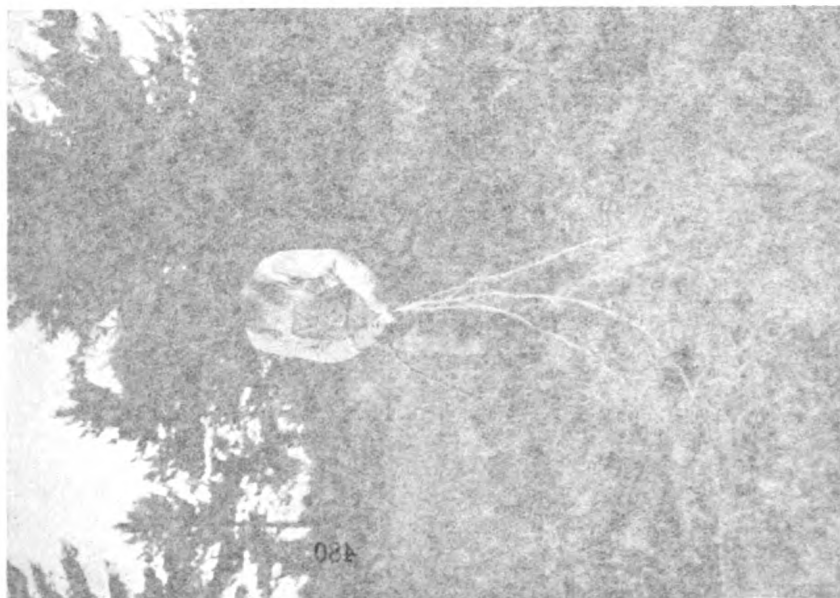


Figure 1. Girdling out Jack Pine roots (Parks Park, N.S.). See pages 415, 421.

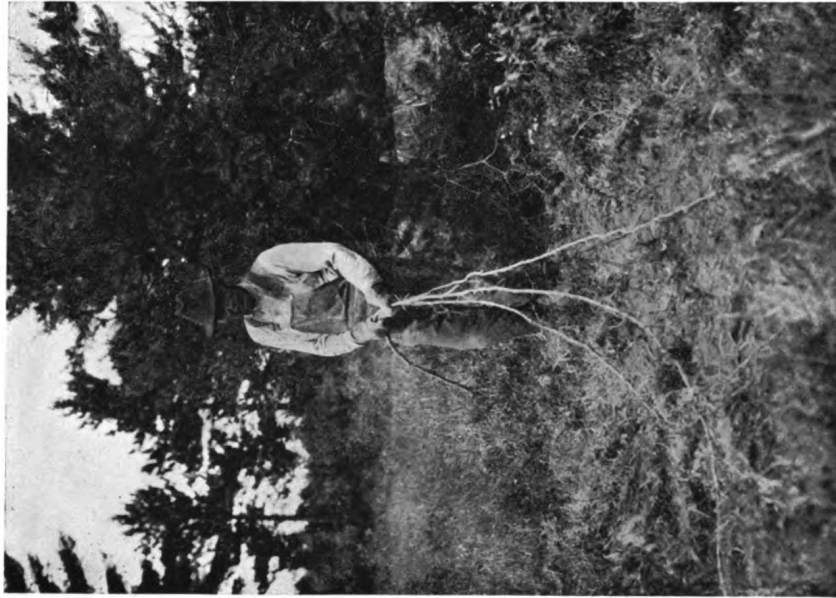
Figure 2. Split Jack Pine roots coiled. See pages 415, 421.



EXPLANATION OF PLATE LV.

Figure 1. Grubbing out Jack Pine roots (*Pinus banksiana*). See pages 415, 421.

Figure 2. Split Jack Pine roots coiled. See pages 415, 421.

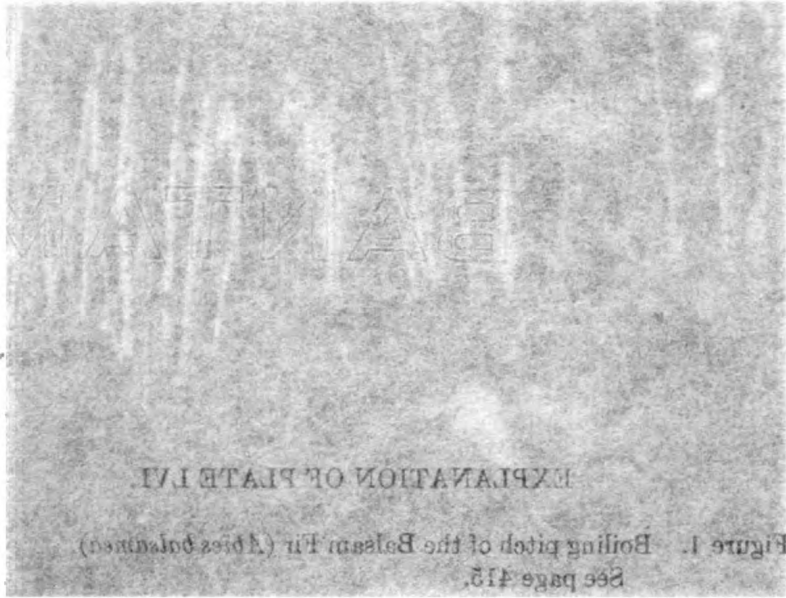


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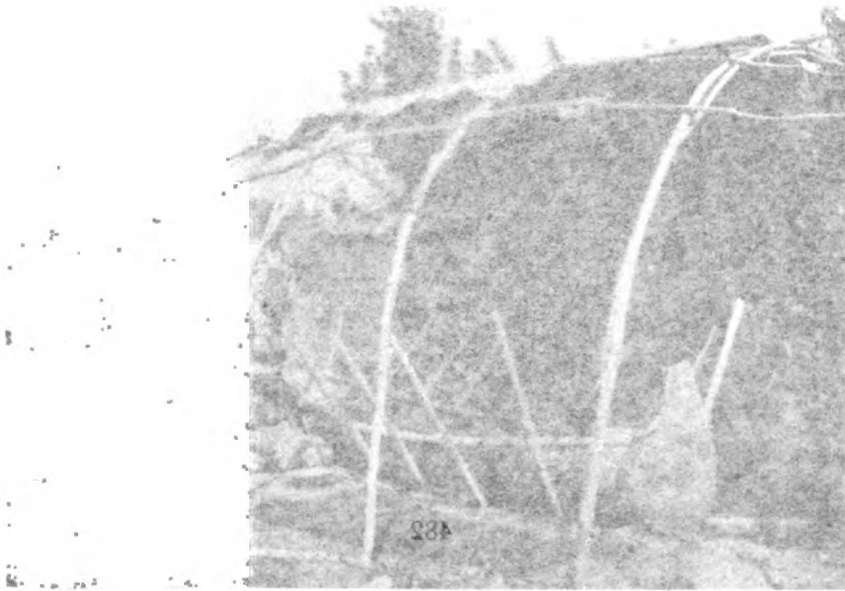
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EXPLANATION OF PLATE I VI
Figure 1. Boiling pitch of the Balsam Fir (Abies balsamea)
See page 415.

Figure 2. Sewing birch bark canoe. See pages 416, 421.



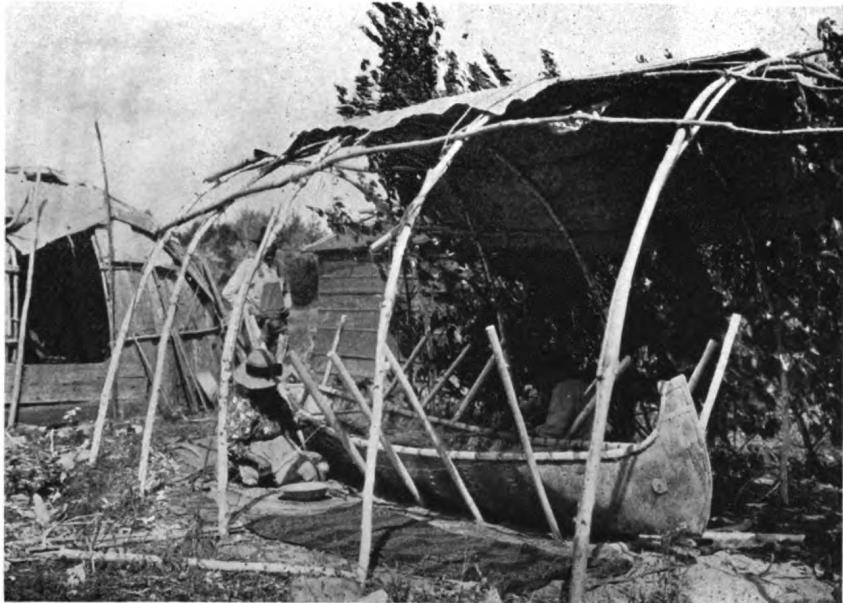
EXPLANATION OF PLATE LVI.

Figure 1. Boiling pitch of the Balsam Fir (*Abies balsamea*).
See page 415.

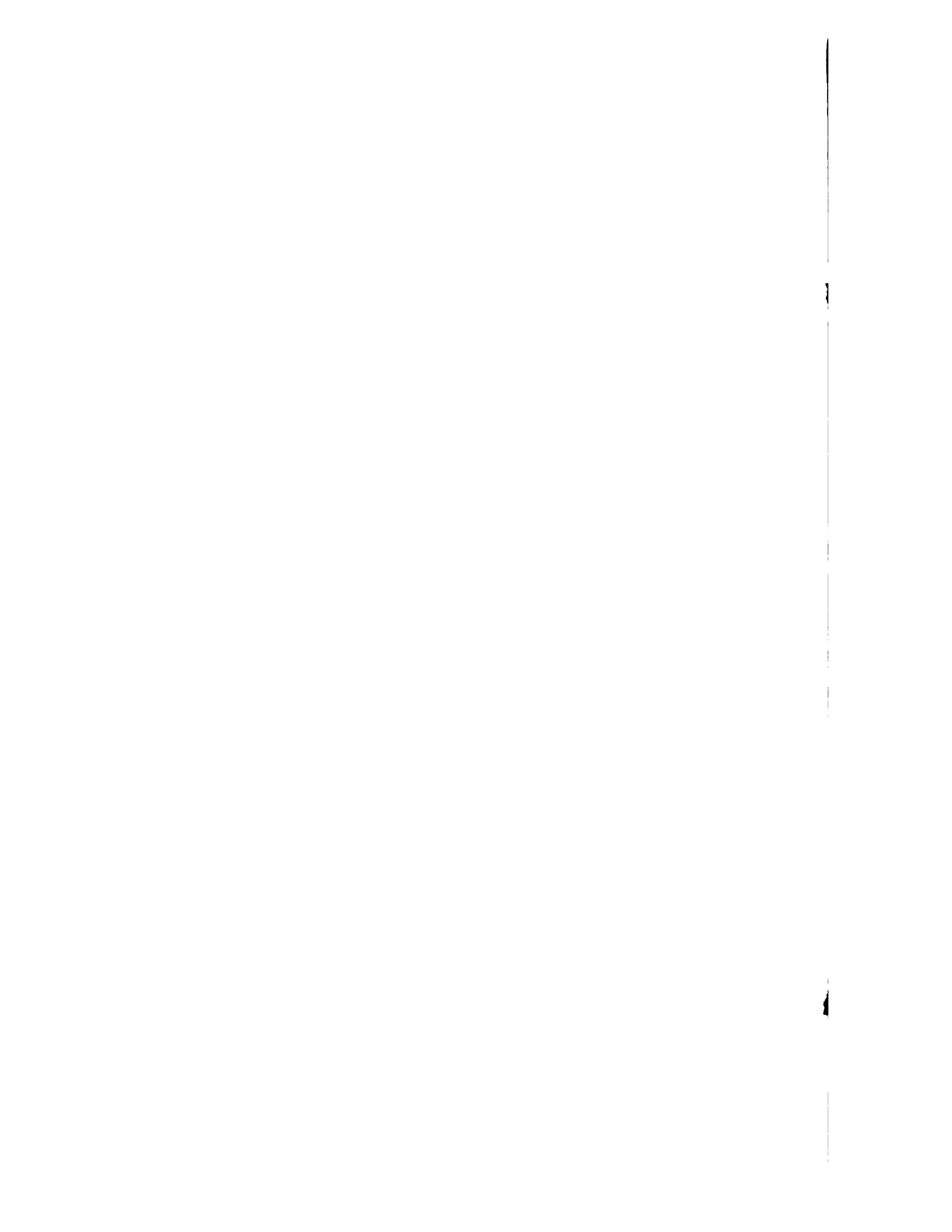
Figure 2. Sewing birch bark canoe. See pages 416, 421.



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EXPLANATION OF PLATE LVII.

Figure 1. Applying pitch to seams for waterproofing. See page 416.
Figure 2. Launching completed canoe in Flambeau Lake. See page 416.



EXPLANATION OF PLATE LVII.

Figure 1. Applying pitch to seams for waterproofing. See page 416.

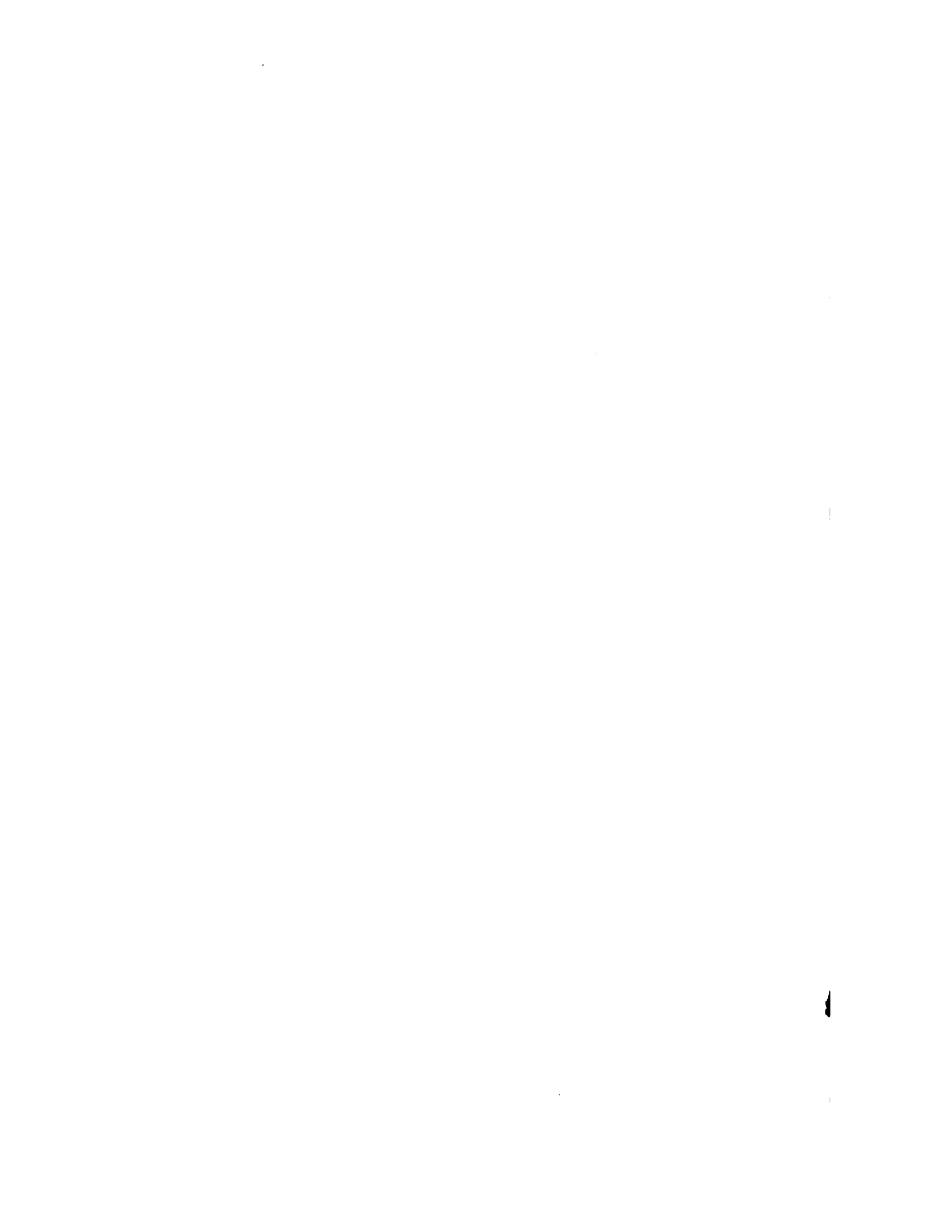
Figure 2. Launching completed canoe in Flambeau Lake. See page 416.



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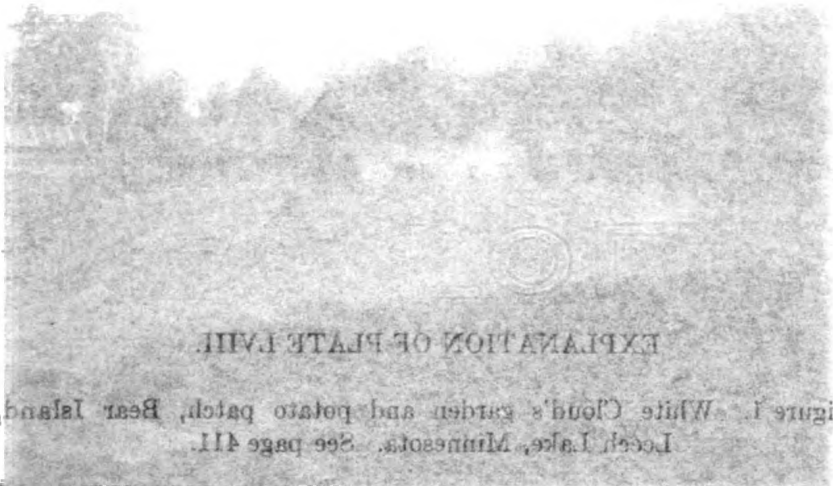


Figure 1. White Cloud's garden and potato patch, Bear Island, Leech Lake, Minnesota. See page 411.

Figure 2. Balsam bark wigwam, Leech Lake, Minnesota. See pages 340, 423.



EXPLANATION OF PLATE LVIII.

**Figure 1. White Cloud's garden and potato patch, Bear Island,
Leech Lake, Minnesota. See page 411.**

**Figure 2. Balsam bark wigwam, Leech Lake, Minnesota. See pages
340, 423.**



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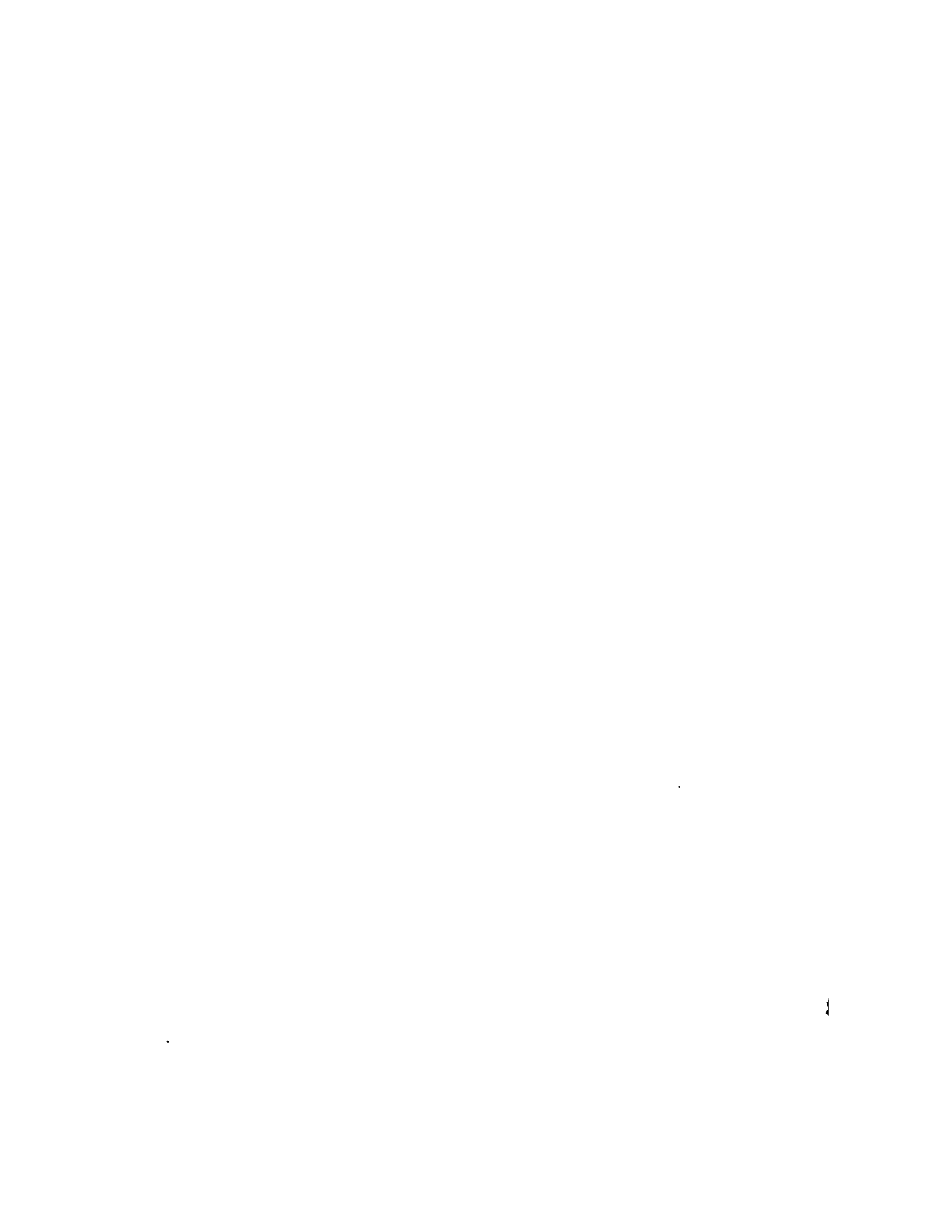




Figure 1. Piawantapiinn, mother of John Peper. Age 100. Bear Island, Leech Lake, Minnesota. See page 330.

EXPLANATION OF PLATE LIX.

Figure 2. White Cloud, Bear Island, Leech Lake, Minn. See page 330.



EXPLANATION OF PLATE LIX.

Figure 1. Piawantaginum, mother of John Peper. Age 106. Bear Island, Leech Lake, Minnesota. See page 339.

Figure 2. White Cloud, Bear Island, Leech Lake, Minn. See page 339.

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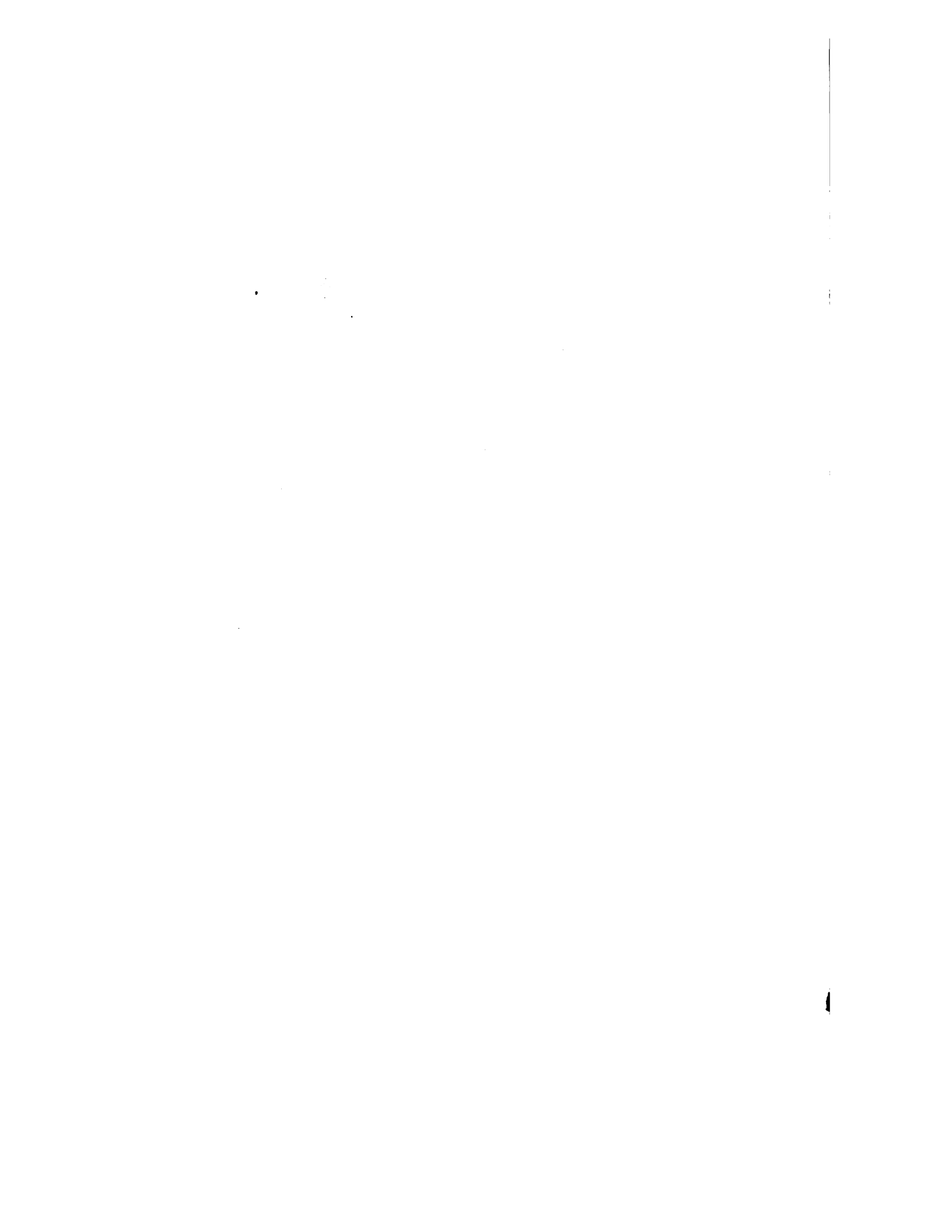


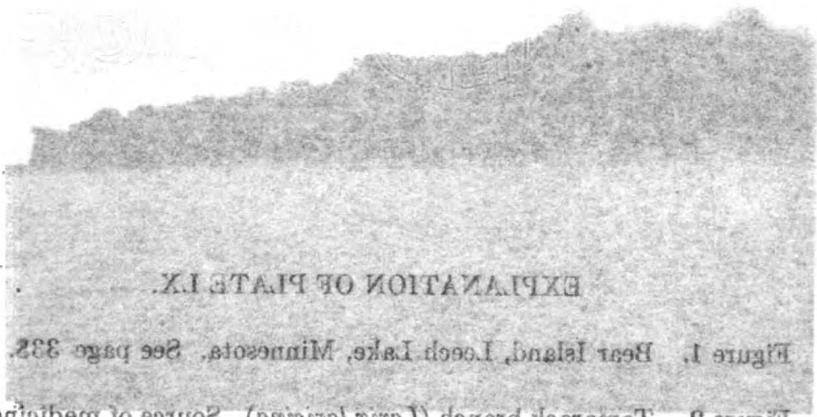
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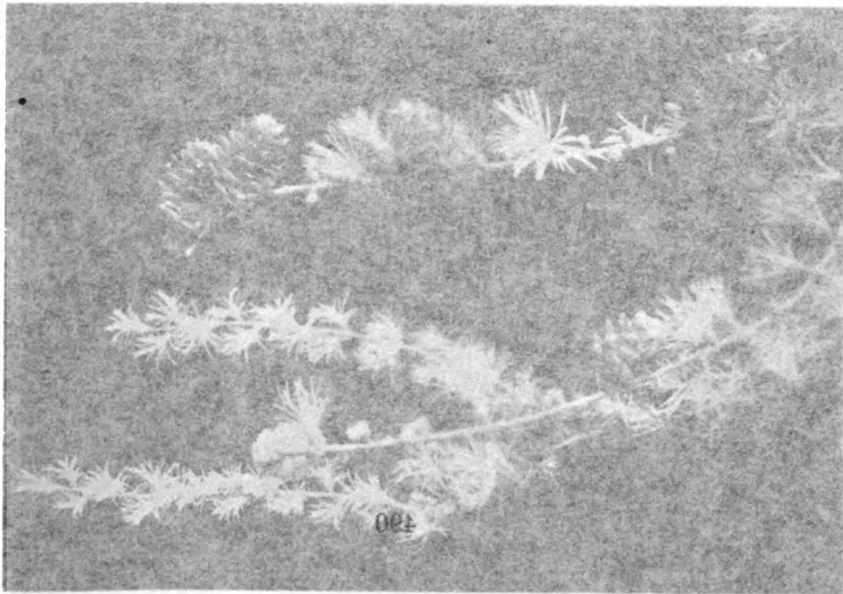




EXPLANATION OF PLATE IX.

Figure 1. Bear Island, Leech Lake, Minnesota. See page 332.

Figure 2. Tamarack branch (*Larix laricina*). Source of medicine and food. See page 378.



EXPLANATION OF PLATE LX.

Figure 1. Bear Island, Leech Lake, Minnesota. See page 338.

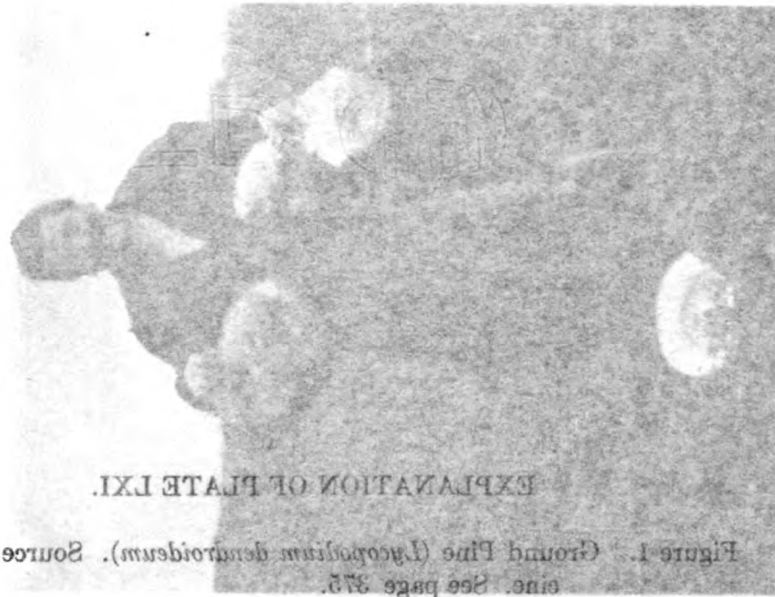
Figure 2. Tamarack branch (*Larix laricina*). Source of medicine and food. See page 378.



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EXPLANATION OF PLATE LXI.

Figure 1. Ground Pine (*Yucca baccata*). Source of medicine. See page 375.

Figure 2. Giant Puffball (*Clavaria crassiformis*). Source of medicine. See page 370.



EXPLANATION OF PLATE LXI.

Figure 1. Ground Pine (*Lycopodium dendroideum*). Source of medicine. See page 375.

Figure 2. Giant Puffball (*Calvatia craniformis*). Source of medicine. See page 370.



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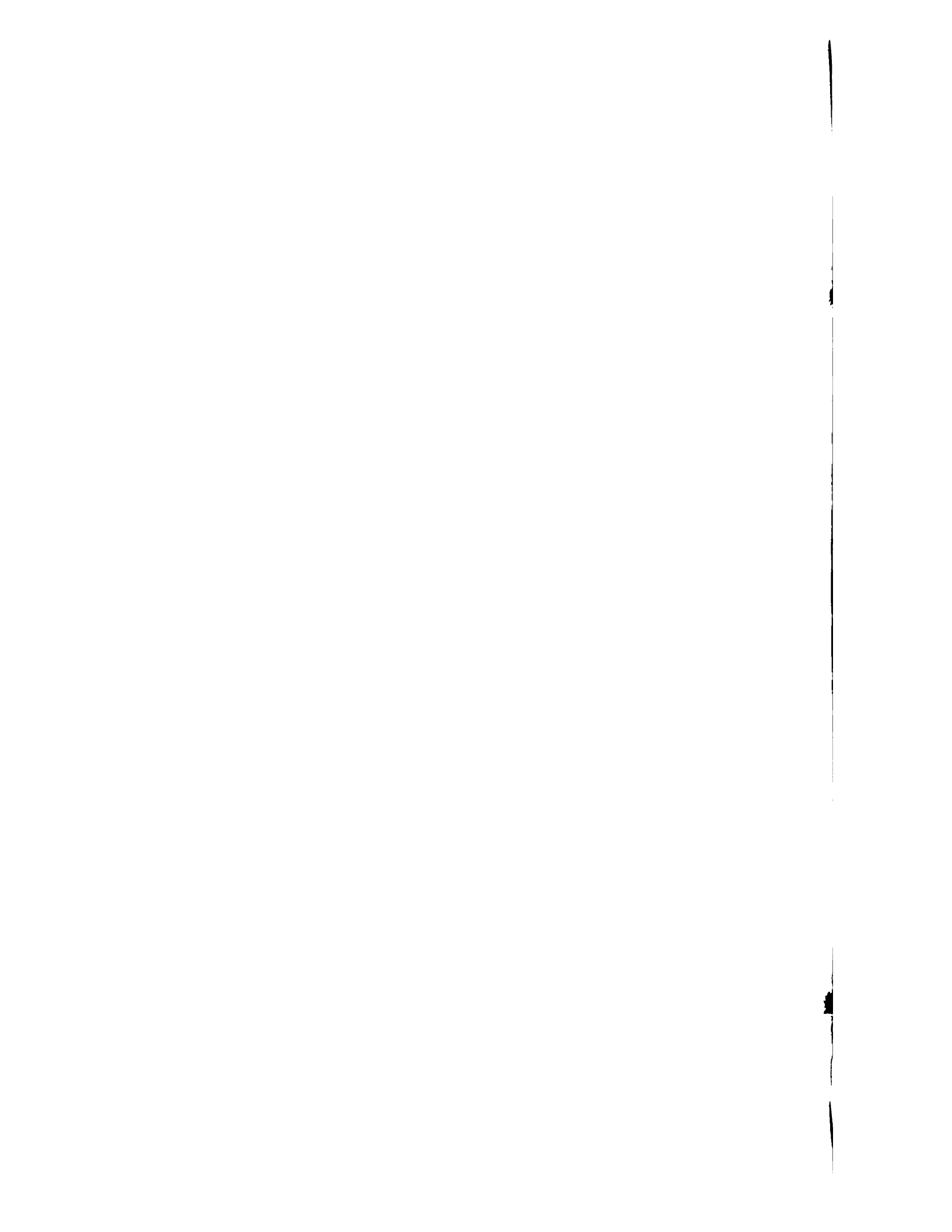
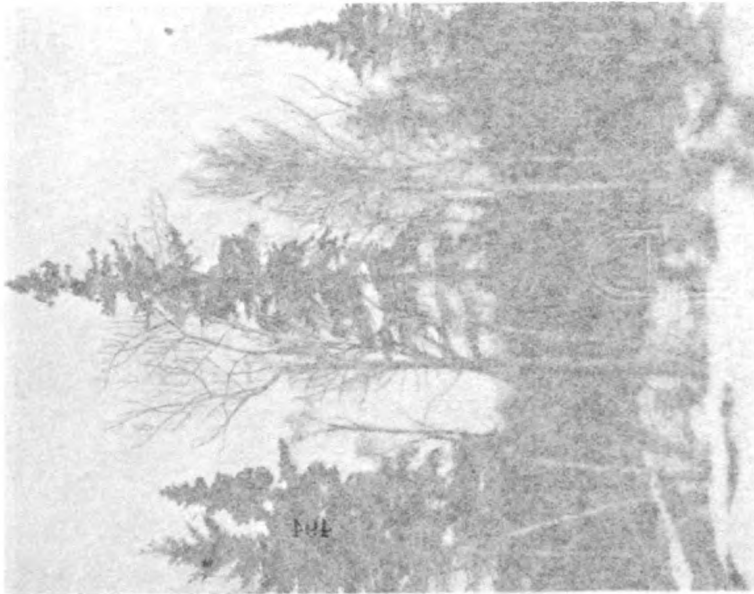




Figure 1. Balsam Fir (*Abies balsamea*). Source of medicine. See page 378.

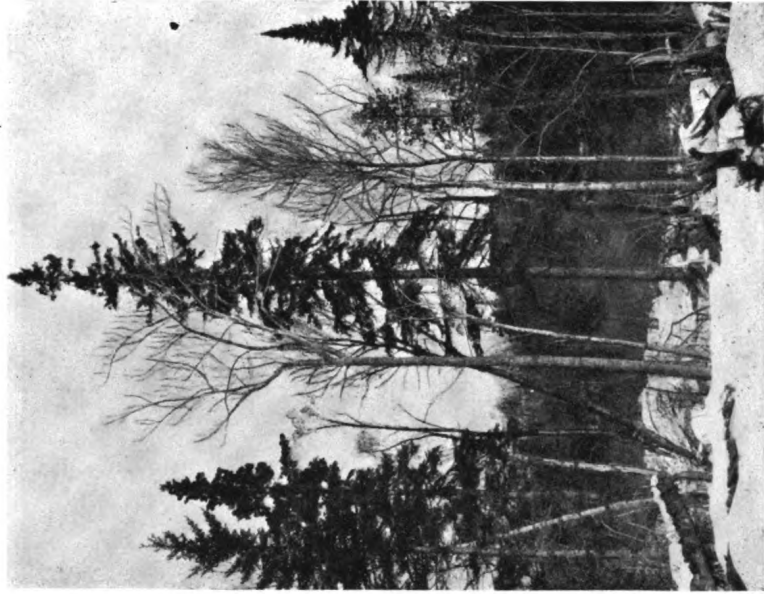
Figure 2. White Spruce (*Picea canadensis*). Source of medicine. See page 379.



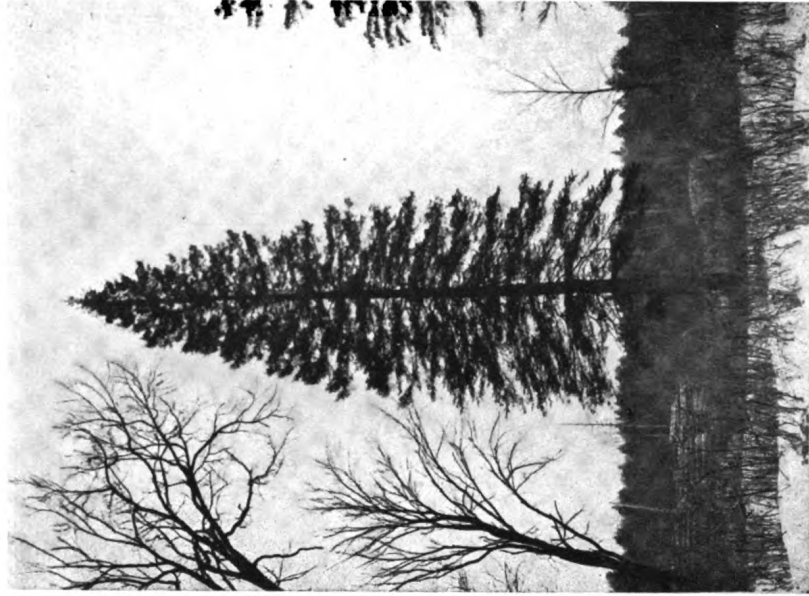
EXPLANATION OF PLATE LXII.

Figure 1. Balsam Fir (*Abies balsamea*). Source of medicine. See page 378.

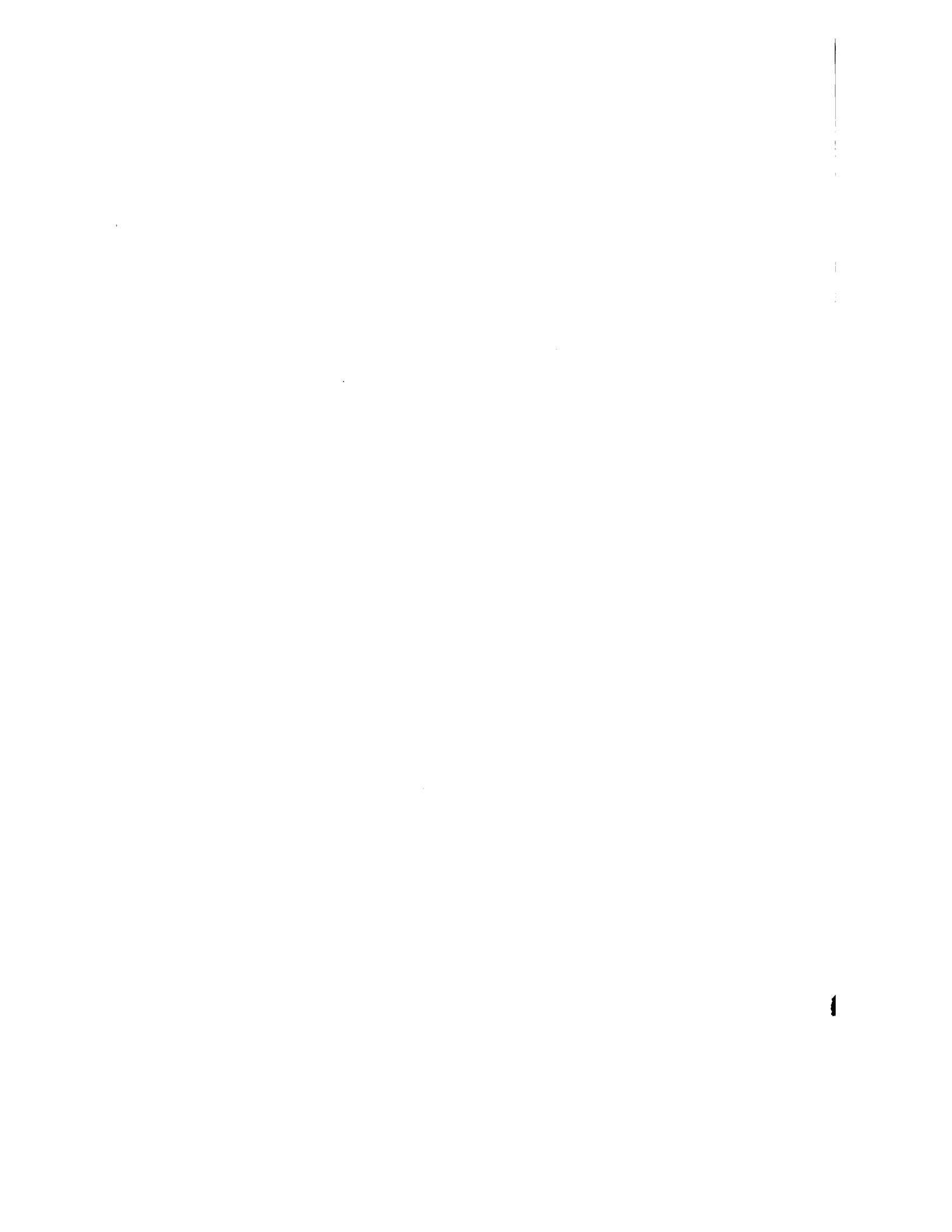
Figure 2. White Spruce (*Picea canadensis*). Source of medicine. See page 379.



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EXPLANATION OF PLATE LXIII.

Figure 1. White Pine (*Pinus strobus*). Source of medicine. See pages 379, 421.

Figure 2. Norway Pine (*Pinus resinosa*). Source of medicine. See pages 379, 421.

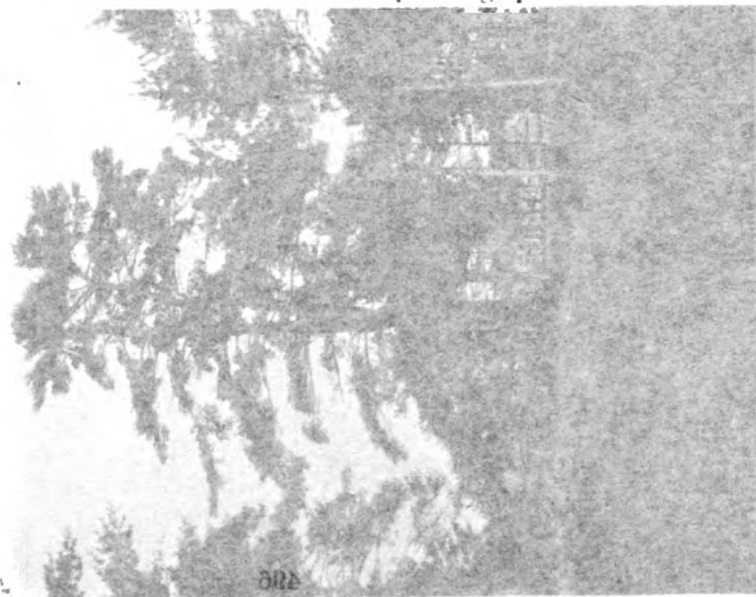
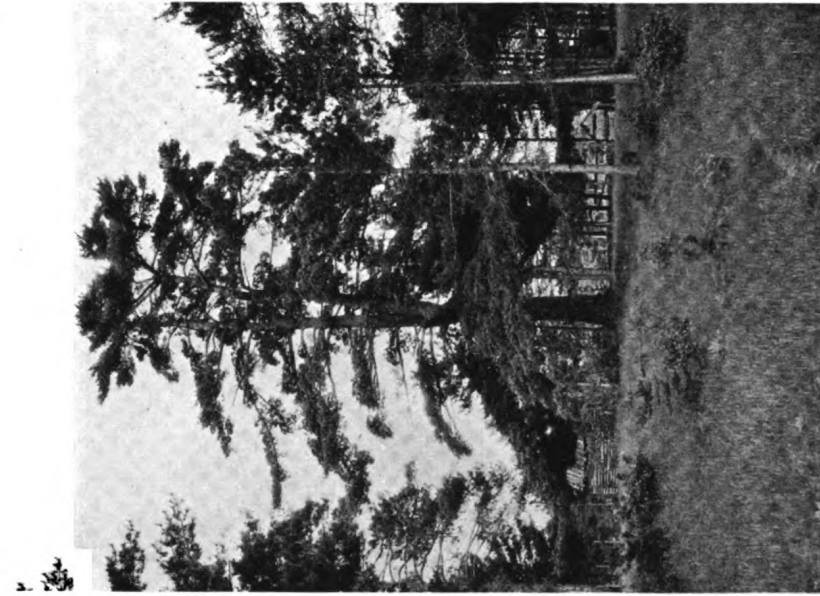


PLATE LXIII

EXPLANATION OF PLATE LXIII.

Figure 1. White Pine (*Pinus strobus*). Source of medicine. See pages 379, 421.

Figure 2. Norway Pine (*Pinus resinosa*). Source of medicine. See pages 379, 421.



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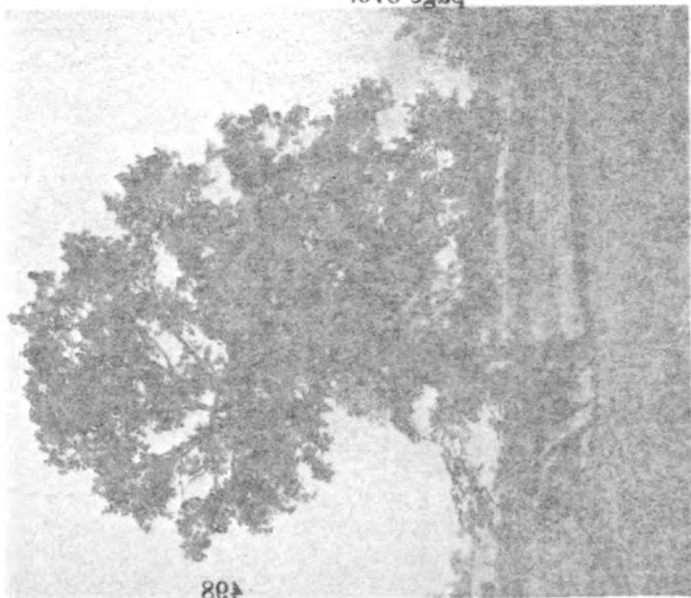




EXPLANATION OF PLATE LXIV.

Figure 1. *White Oak (Quercus macrocarpa)*. Source of medicine. See page 369.

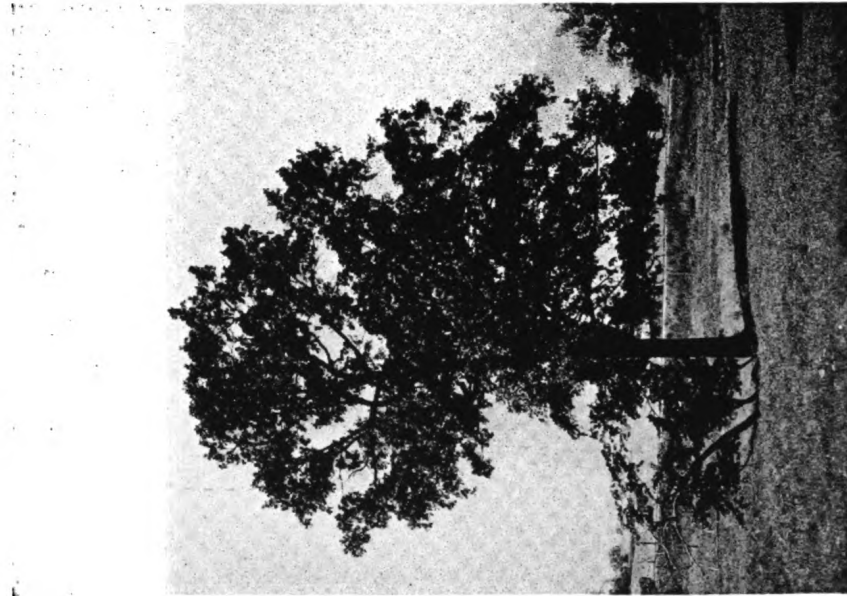
Figure 2. *Red Oak (Quercus rubra)*. Source of medicine. See page 370.



EXPLANATION OF PLATE LXIV.

Figure 1. Bur Oak (*Quercus macrocarpa*). Source of medicine. See page 369.

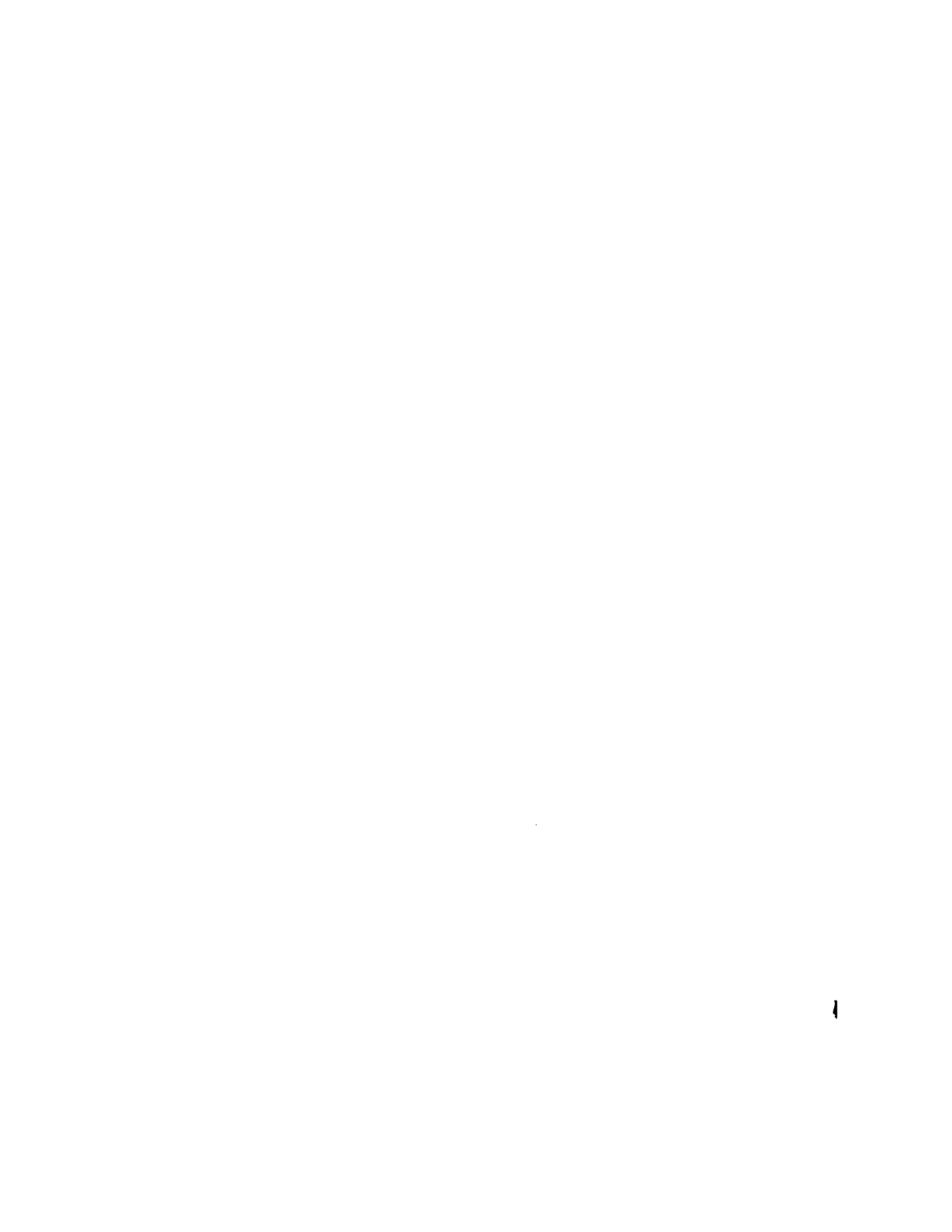
Figure 2. Red Oak (*Quercus rubra*). Source of medicine. See page 370.

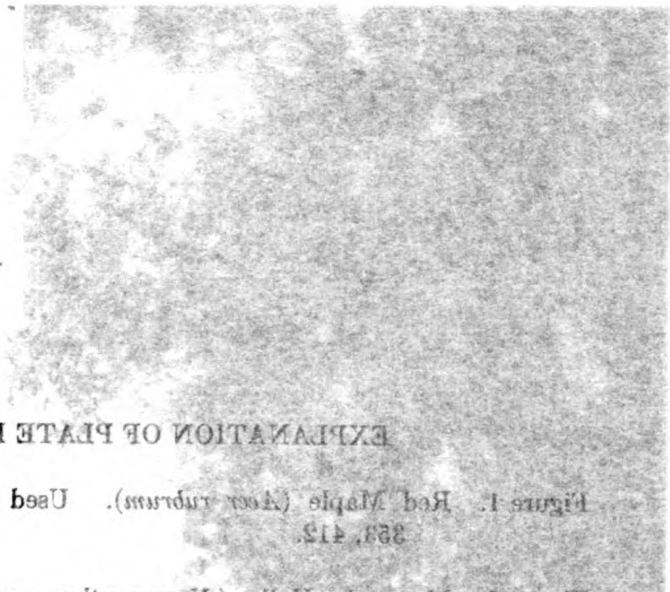


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EXPLANATION OF PLATE LXV.

Figure 1. Red Maple (*Acer rubrum*). Used in arts. See pages 353, 412.
Figure 2. Mountain Holly (*Vernoniastrum mucronata*). Source of medicine. See page 355.



EXPLANATION OF PLATE LXV.

Figure 1. Red Maple (*Acer rubrum*). Used in arts. See pages 353, 412.

Figure 2. Mountain Holly (*Nemopanthis mucronata*). Source of medicine. See page 355.



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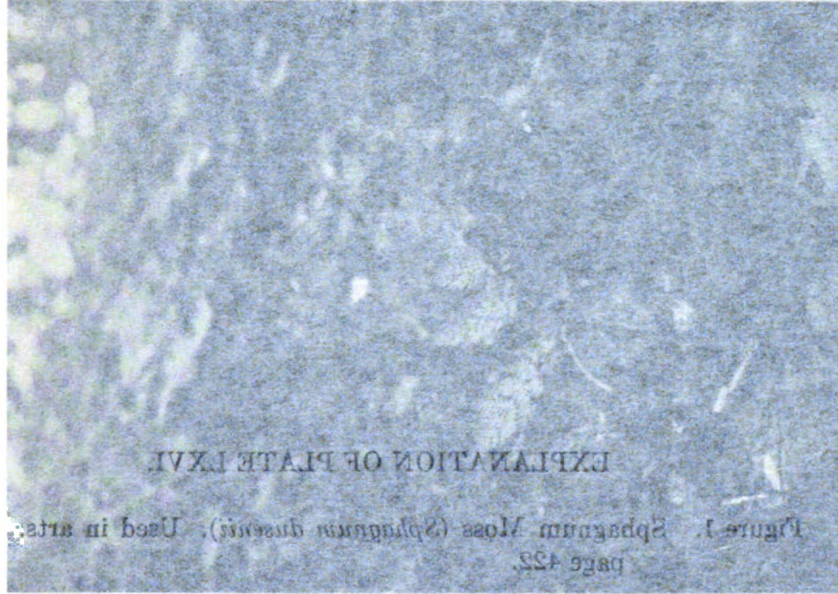
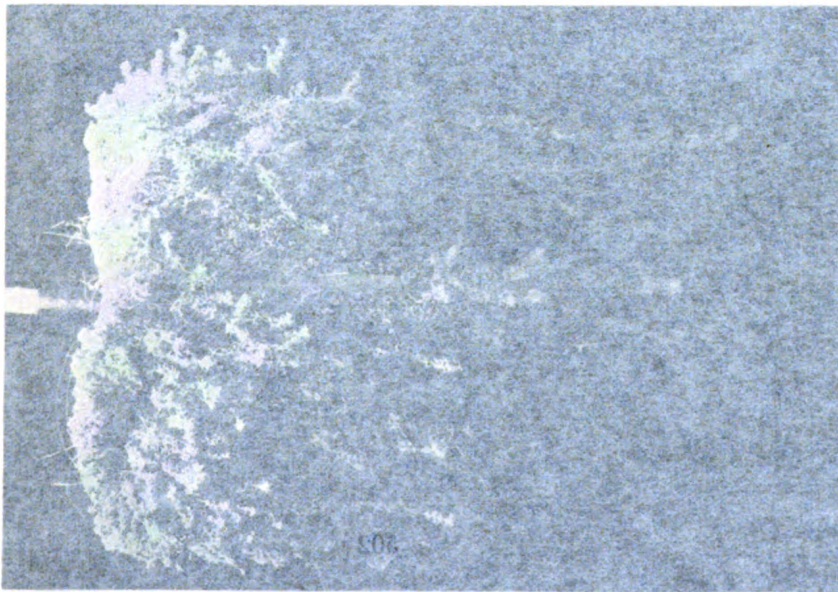


Figure 2. Virginia Grape Fern (*Botrichium virginianum*). Source of medicine. See page 377.



EXPLANATION OF PLATE LXVI.

Figure 1. Sphagnum Moss (*Sphagnum dusenii*). Used in arts. See page 422.

Figure 2. Virginia Grape Fern (*Botrichium virginianum*). Source of medicine. See page 377.

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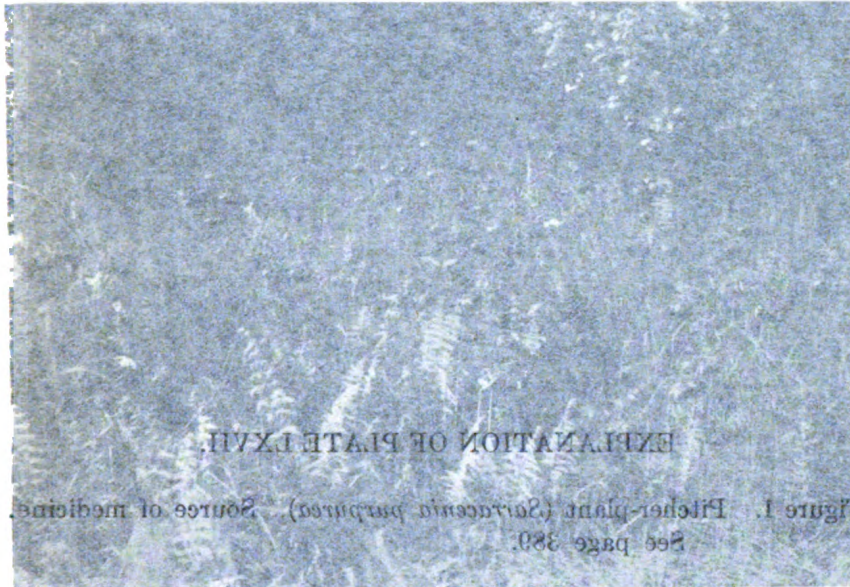
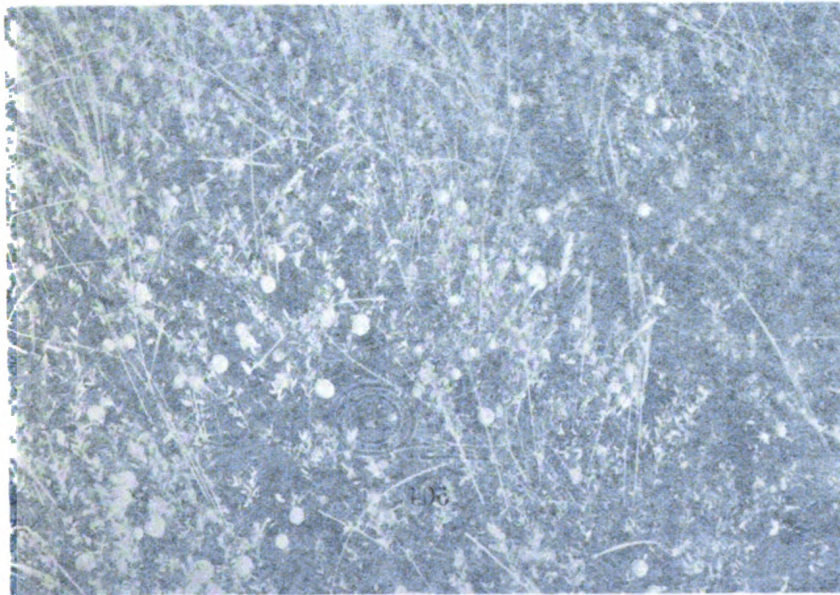


Figure 1. Fieber-plant (*Saracenia purpurea*). Source of medicine. See page 389.

Figure 2. Cranberries in fruit (*Vaccinium oxycoccos*). Source of medicine and food. See pages 369, 401.



EXPLANATION OF PLATE LXVII.

Figure 1. Pitcher-plant (*Sarracenia purpurea*). Source of medicine.
See page 389.

Figure 2. Cranberries in fruit (*Vaccinium oxycoccus*). Source of medicine and food. See pages 369, 401.



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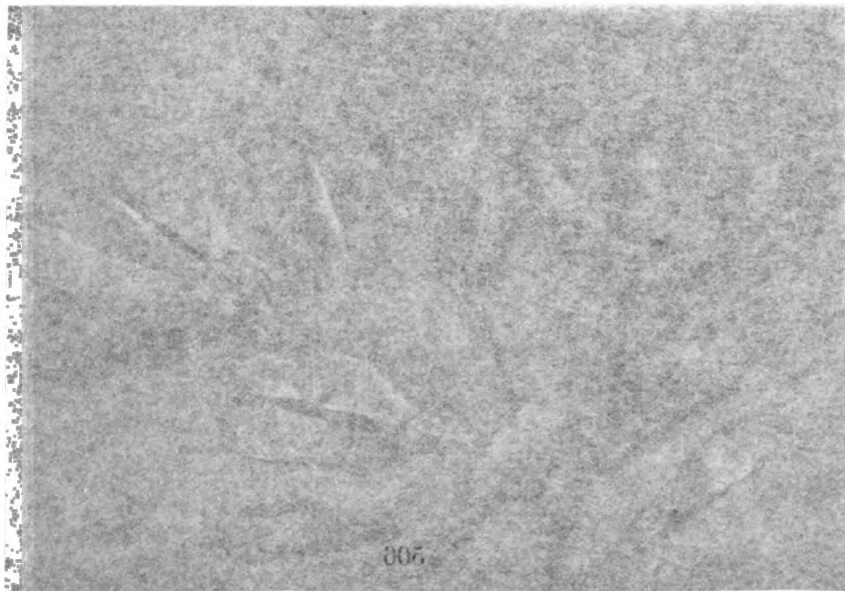
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Figure 1. Poison Ivy (*Rhus toxicodendron*). Source of medicine.
See page 354.

Figure 2. Box Elder (*Acer negundo*). Source of medicine and food.
See pages 353, 394.



EXPLANATION OF PLATE LXVIII.

Figure 1. Poison Ivy (*Rhus toxicodendron*). Source of medicine.
See page 354.

Figure 2. Box Elder (*Acer negundo*). Source of medicine and food.
See pages 353, 394.



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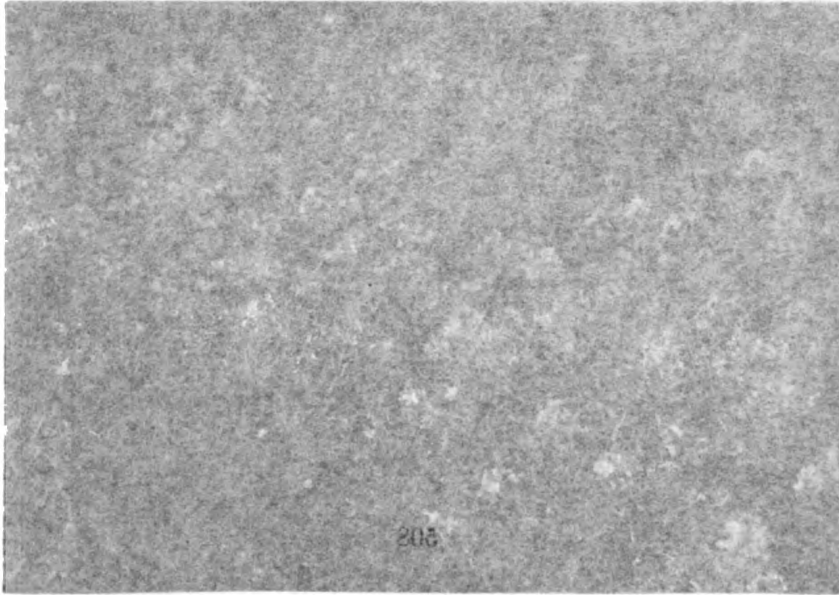
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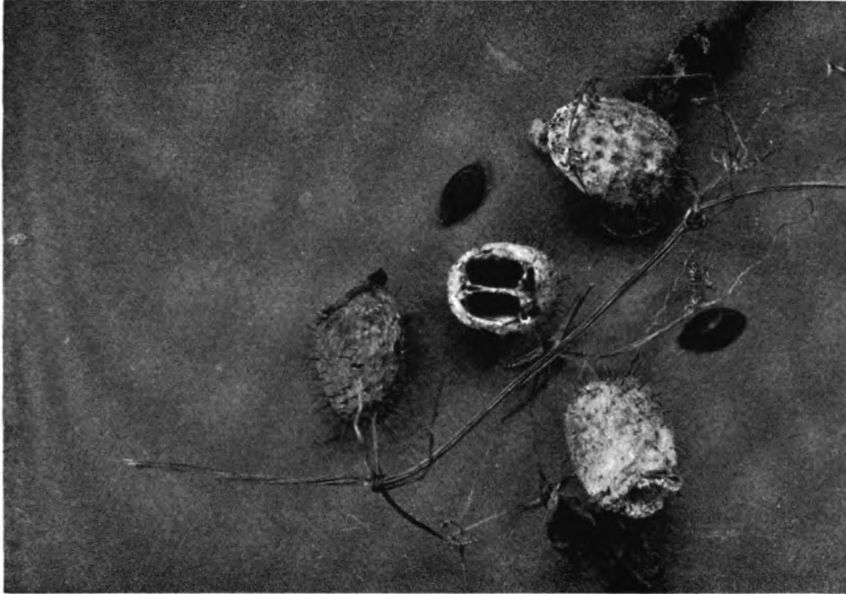
Figure 2. Great Willow-herb (*Epilobium angustifolium*). Source of medicine. See page 376.



EXPLANATION OF PLATE LXIX.

**Figure 1. Balsam Apple (*Echinocystis lobata*). Source of medicine.
See page 367.**

**Figure 2. Great Willow-herb (*Epilobium angustifolium*). Source of
medicine. See page 376.**



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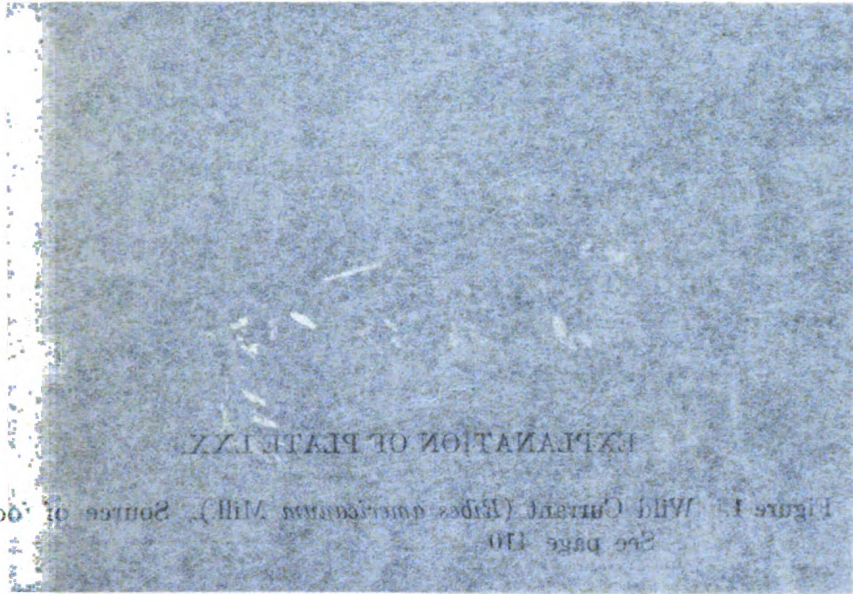


Figure 1. Wild Cherry (*Prunella americana* Mill.). Source of food. See page 110.

Figure 2. River-bank Grape (*Vitis vulpina*). Source of medicine and food. See pages 302, 411.



EXPLANATION OF PLATE LXX.

**Figure 1. Wild Currant (*Ribes americanum* Mill.). Source of food.
See page 410.**

**Figure 2. River-bank Grape (*Vitis vulpina*). Source of medicine and
food. See pages 392, 411.**



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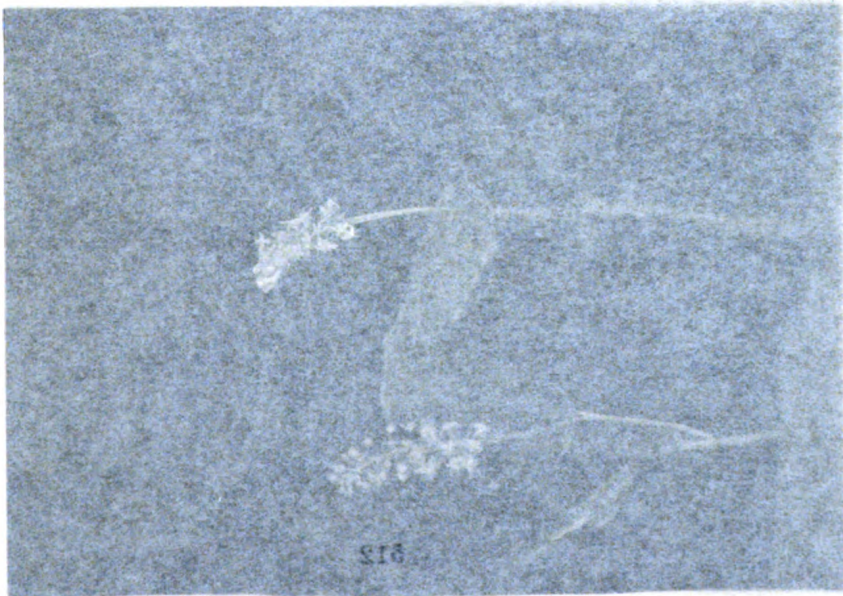


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Figure 1. Canada Mayflower (*Maianthemum canadense*). Source of medicine. See page 373.

Figure 2. False Spikenard (*Smilacina racemosa*). Source of medicine. See page 374.



EXPLANATION OF PLATE LXXI.

Figure 1. Canada Mayflower (*Maianthemum canadense*). Source of medicine. See page 373.

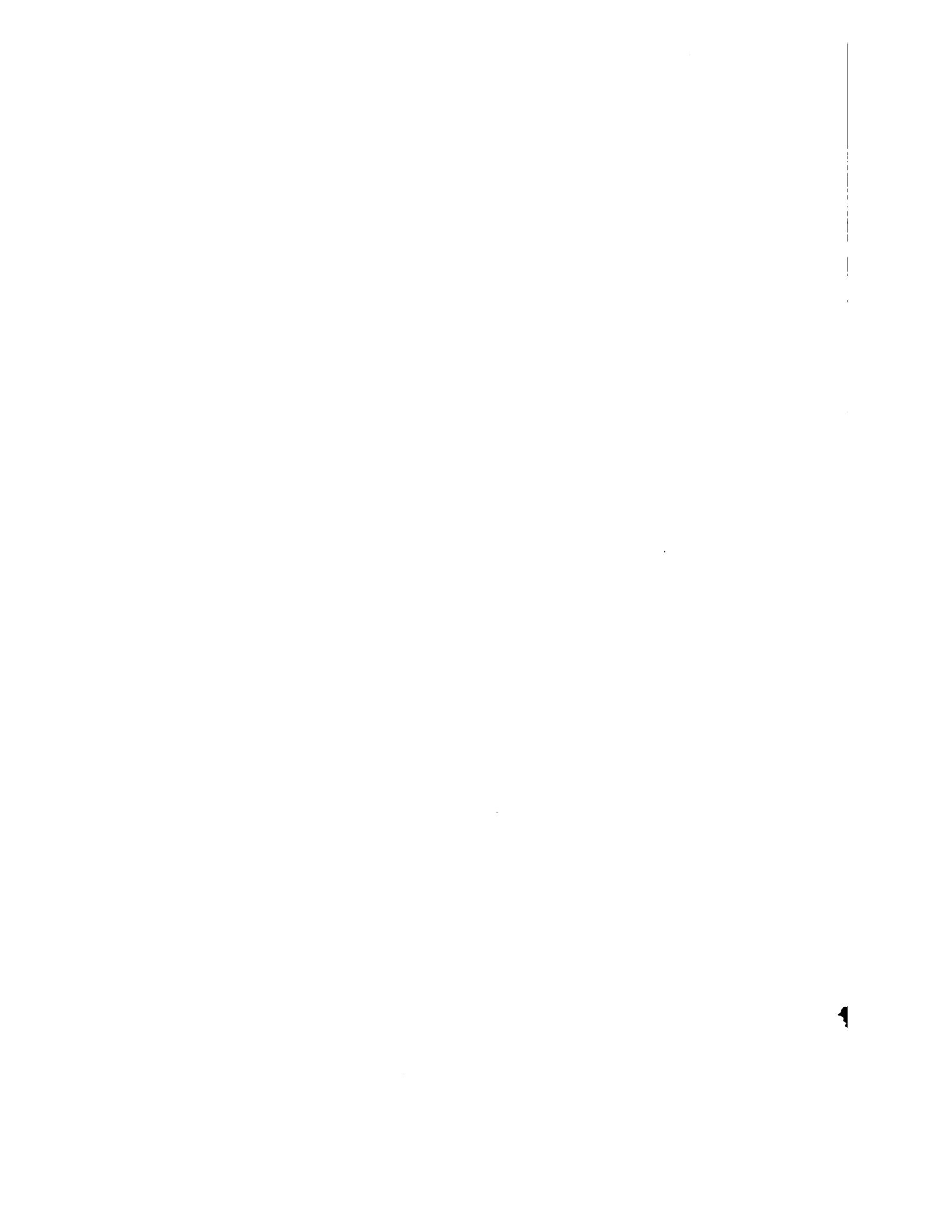
Figure 2. False Spikenard (*Smilacina racemosa*). Source of medicine. See page 374.



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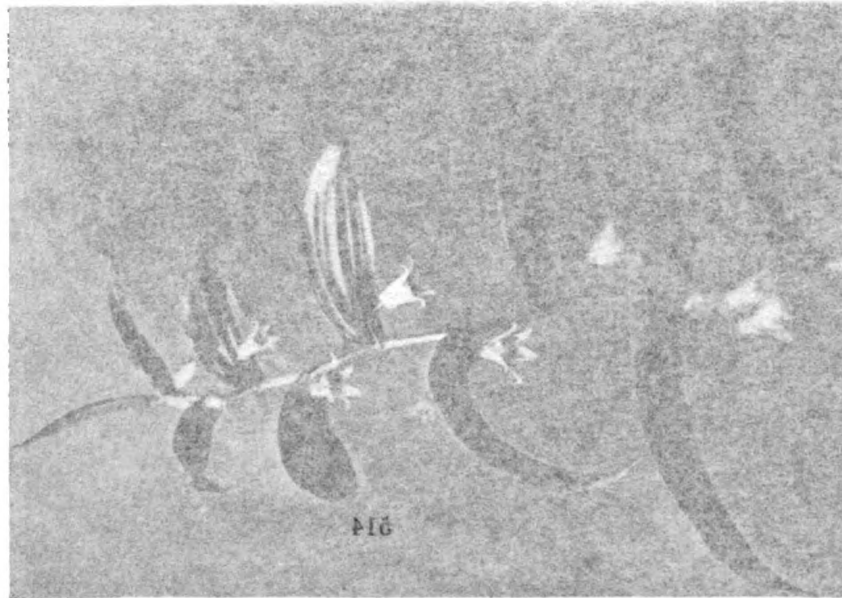


Figure 2. Solomon's Seal (*Polygonatum biflorum*). Source of medicine. See page 374.



Figure 1. Twisted Stalk (*Strychnos toxaria*). Source of medicine. See page 374.

EXPLANATION OF PLATE LXXII.

EXPLANATION OF PLATE LXXII.

Figure 1. Twisted Stalk (*Streptopus roseus*). Source of medicine. See page 374.

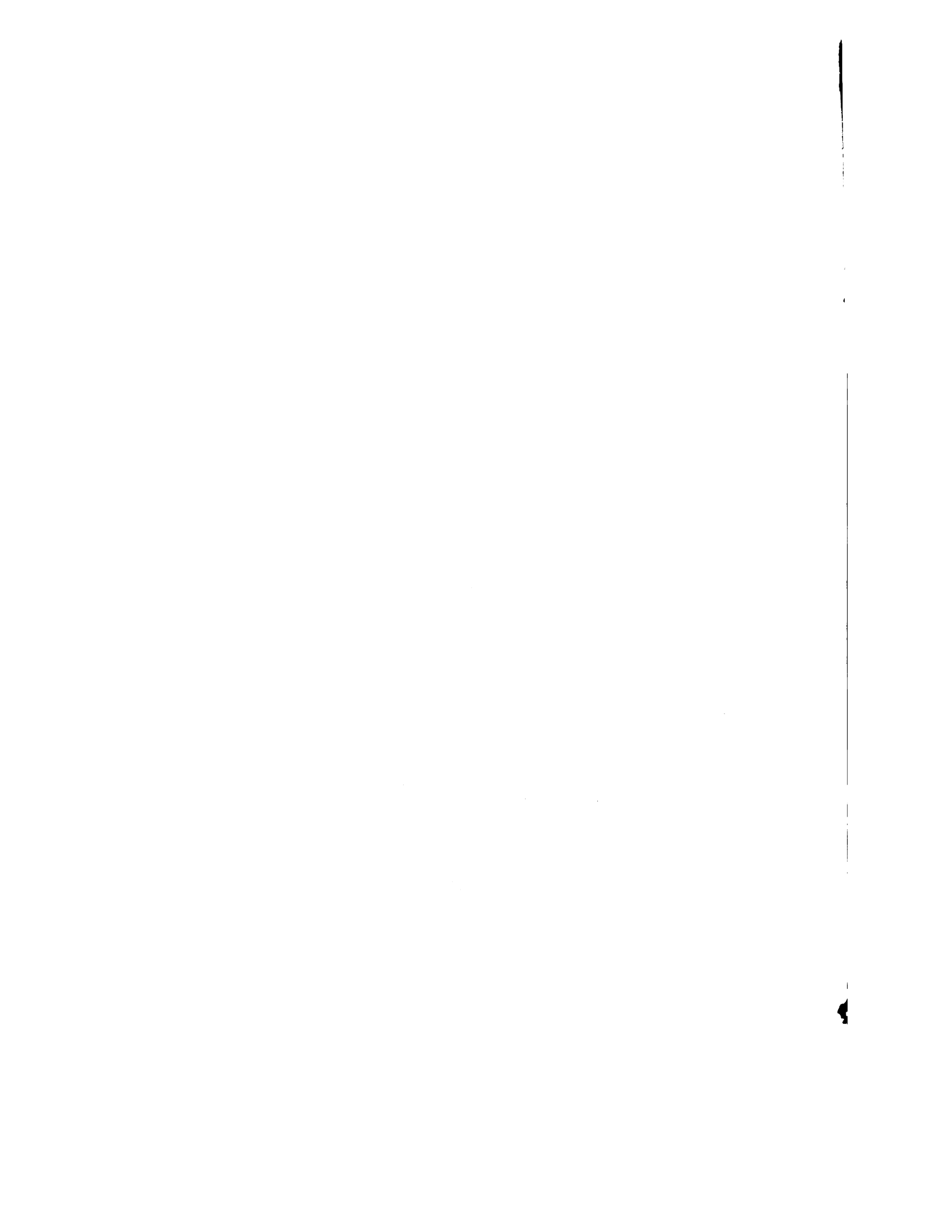
Figure 2. Solomon's Seal (*Polygonatum biflorum*). Source of medicine. See page 374.



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EXPLANATION OF PLATE LXIII.

Figure 1. Purple Meadow-lark (*Thalassidroma leucorhoa*). Source of medicine. See page 183.

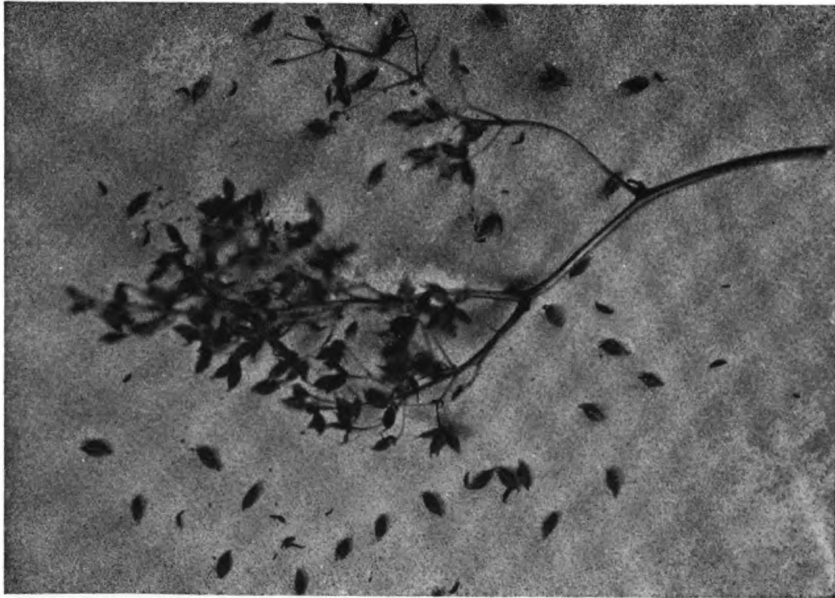
Figure 2. Cotton-flower (*Sida acuta*). Source of medicine. See page 374.

EXPLANATION OF PLATE LXXIII.

Figure 1. Purple Meadow Rue (*Thalictrum dasycarpum*). Source of medicine. See page 383.

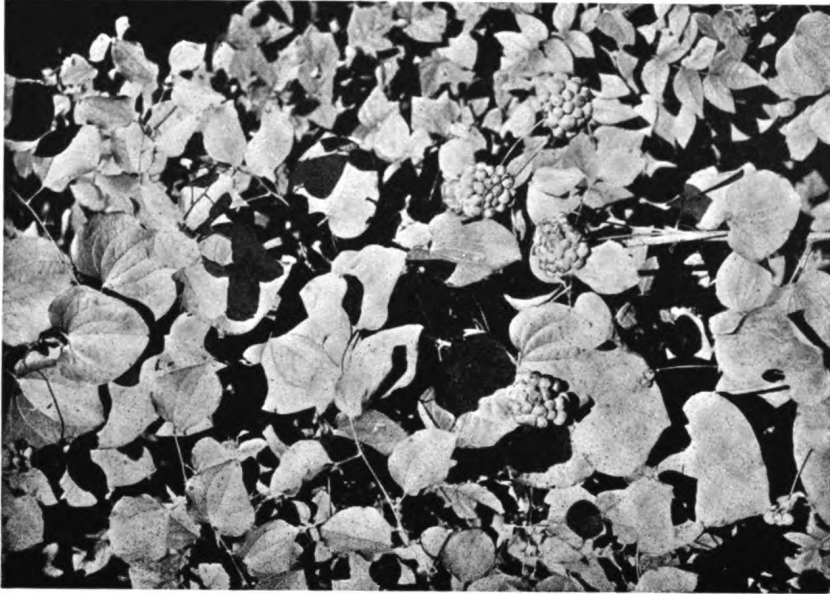
Figure 2. Carrion-flower (*Smilax herbacea*). Source of medicine. See page 374.

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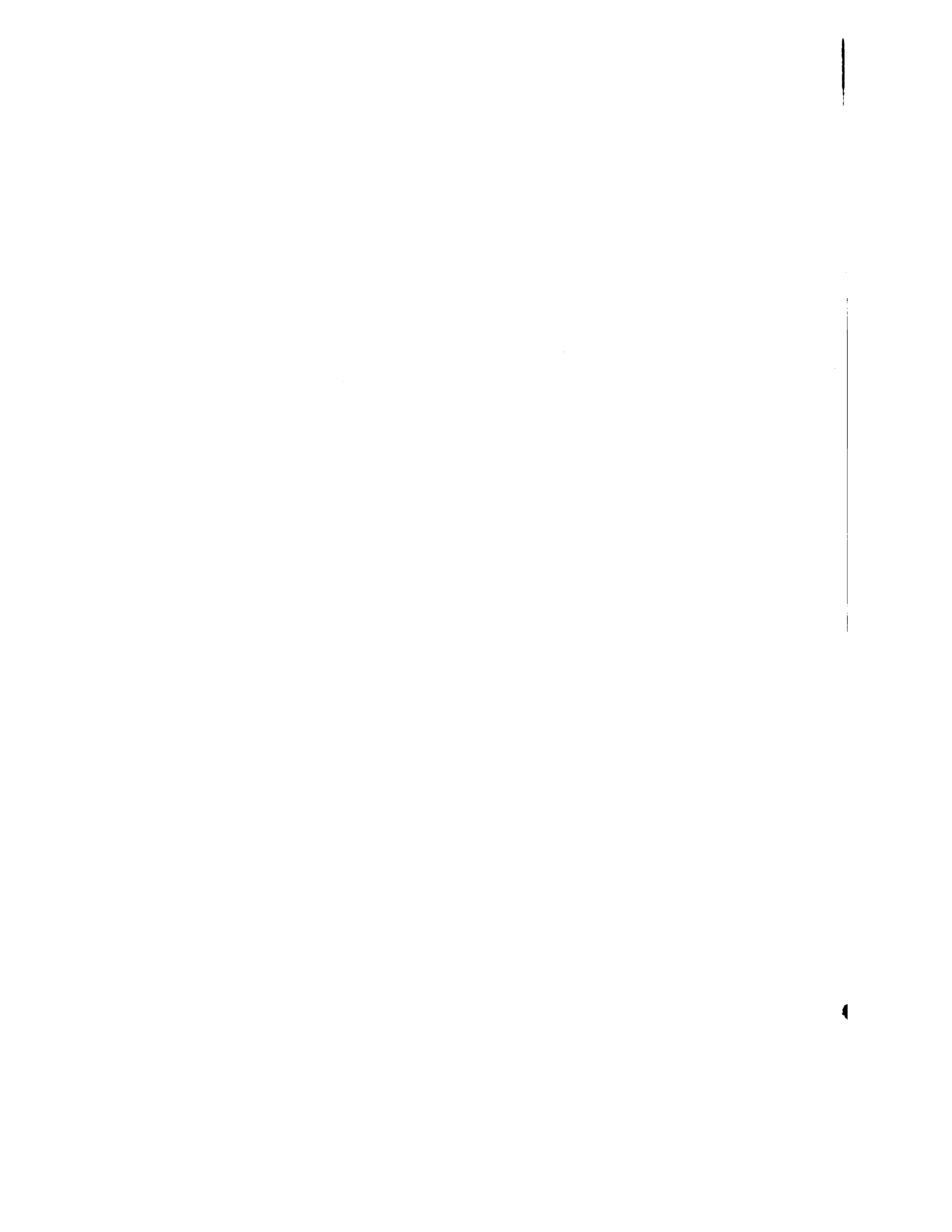


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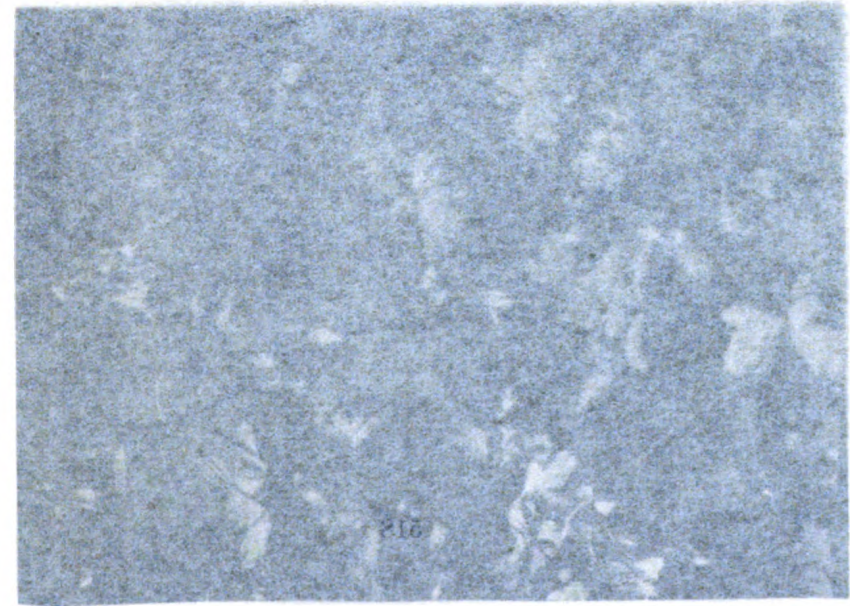
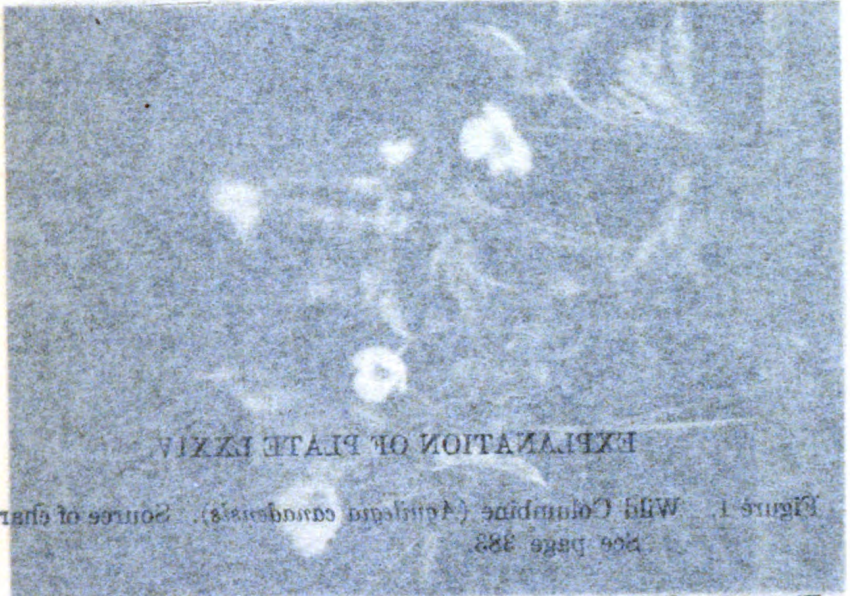


Figure 2. Canada Anemone (*Anemone canadensis*). Source of medicine. See page 382.

Figure 1. Wild Columbine (*Adonis canadensis*). Source of charm. See page 382.



EXPLANATION OF PLATE LXIV

EXPLANATION OF PLATE LXXIV.

Figure 1. Wild Columbine (*Aquilegia canadensis*). Source of charm.
See page 383.

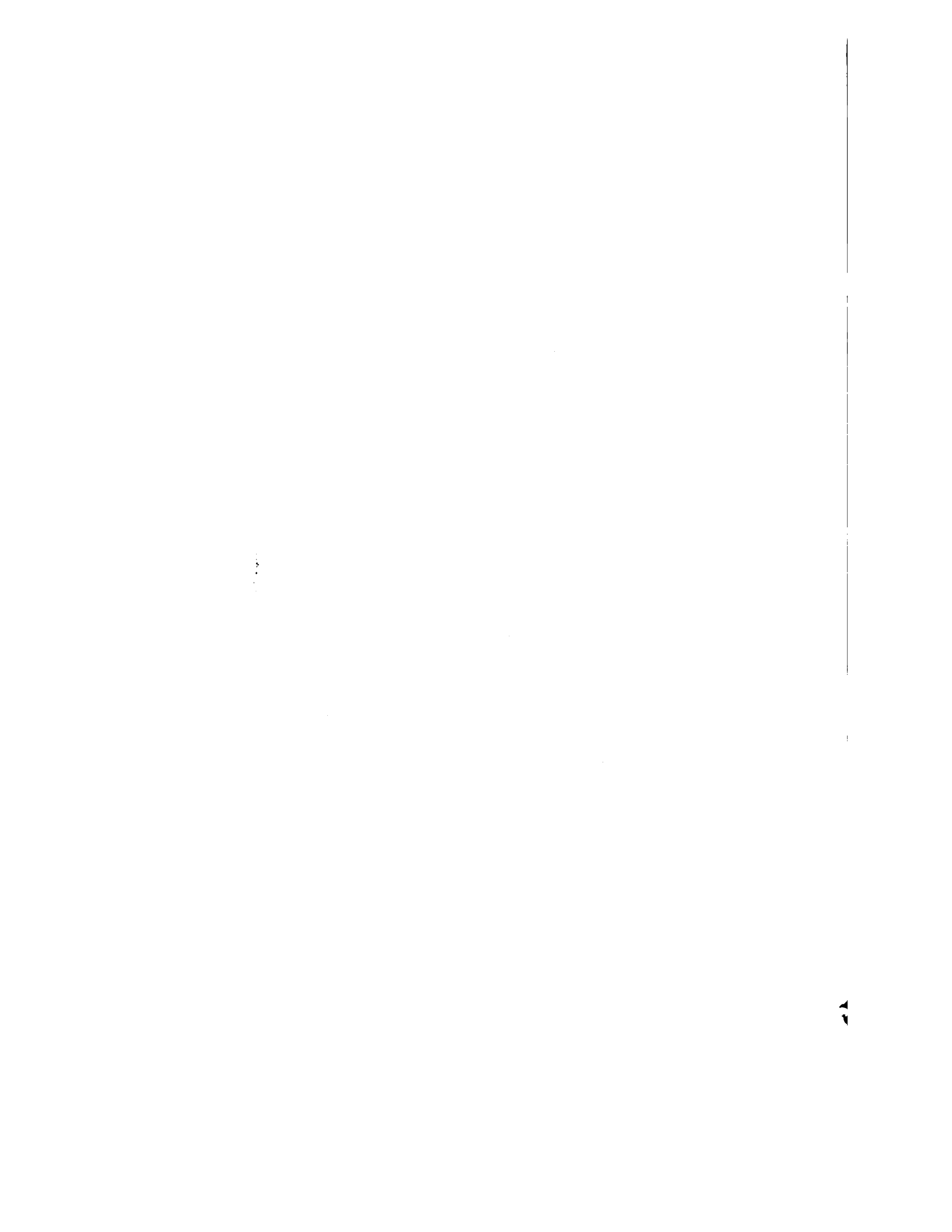
Figure 2. Canada Anemone (*Anemone canadensis*). Source of medicine. See page 382.

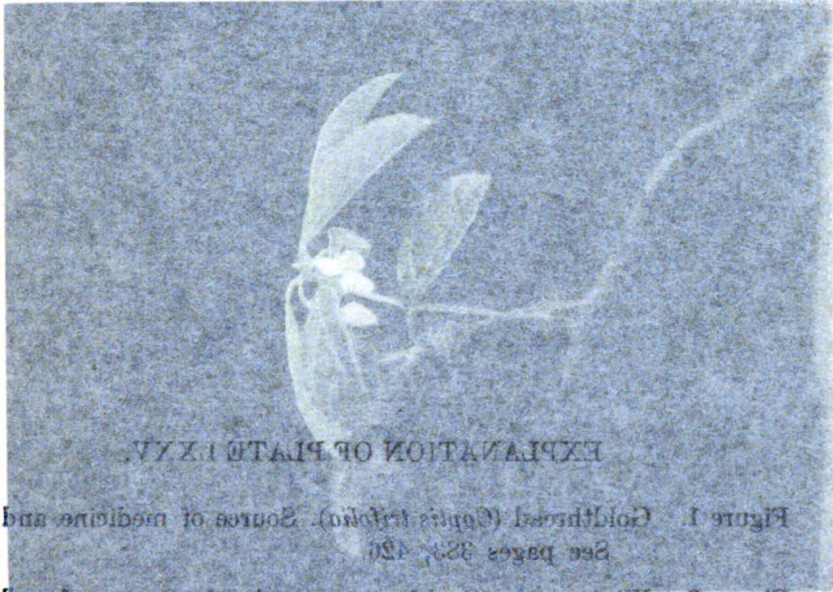


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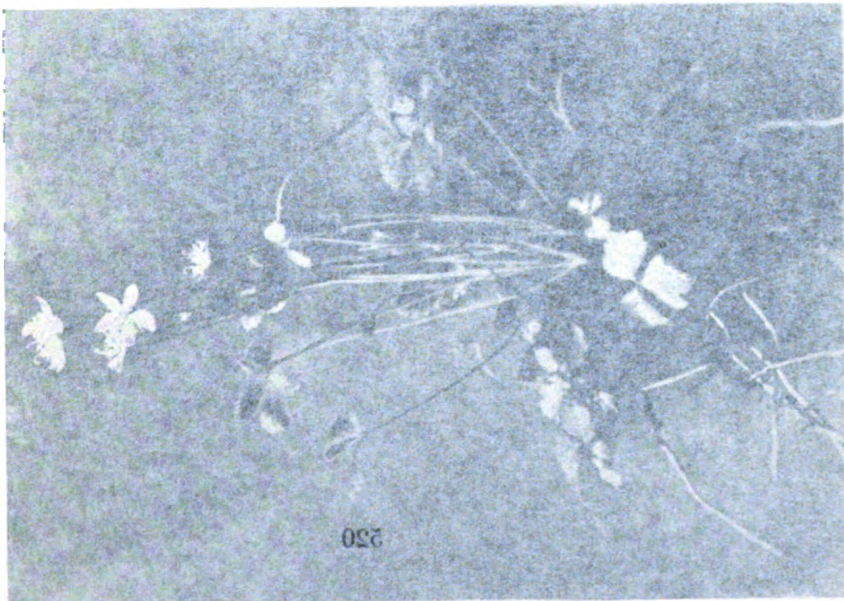




EXPLANATION OF PLATE LXV

Figure 1. Goldthread (*Galium triflorum*). Source of medicine and dye.
 See pages 387, 420

Figure 2. Wintergreen (*Gallichera procumbens*). Source of medicine.
 See pages 389, 400.



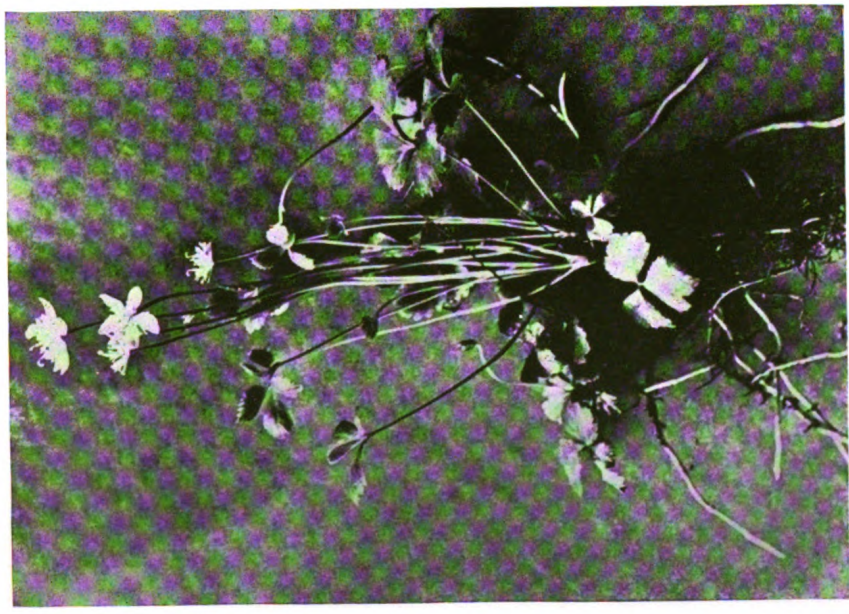
EXPLANATION OF PLATE LXXV.

Figure 1. Goldthread (*Coptis trifolia*). Source of medicine and dye.
See pages 383, 426.

Figure 2. Wintergreen (*Gaultheria procumbens*). Source of medicine.
See pages 369, 400.



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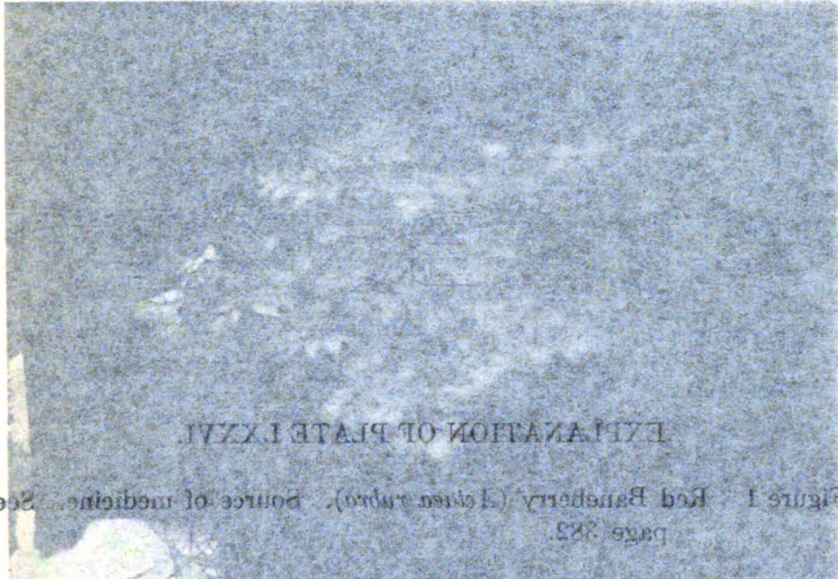


Figure 1. Red Raspberry (*Rubus idaeus*). Source of medicine. See page 383.

Figure 2. Labrador Tea (*Ledum groenlandicum*). Source of beverage. See page 401.



EXPLANATION OF PLATE LXXVI.

Figure 1. Red Baneberry (*Actaea rubra*). Source of medicine. See page 382.

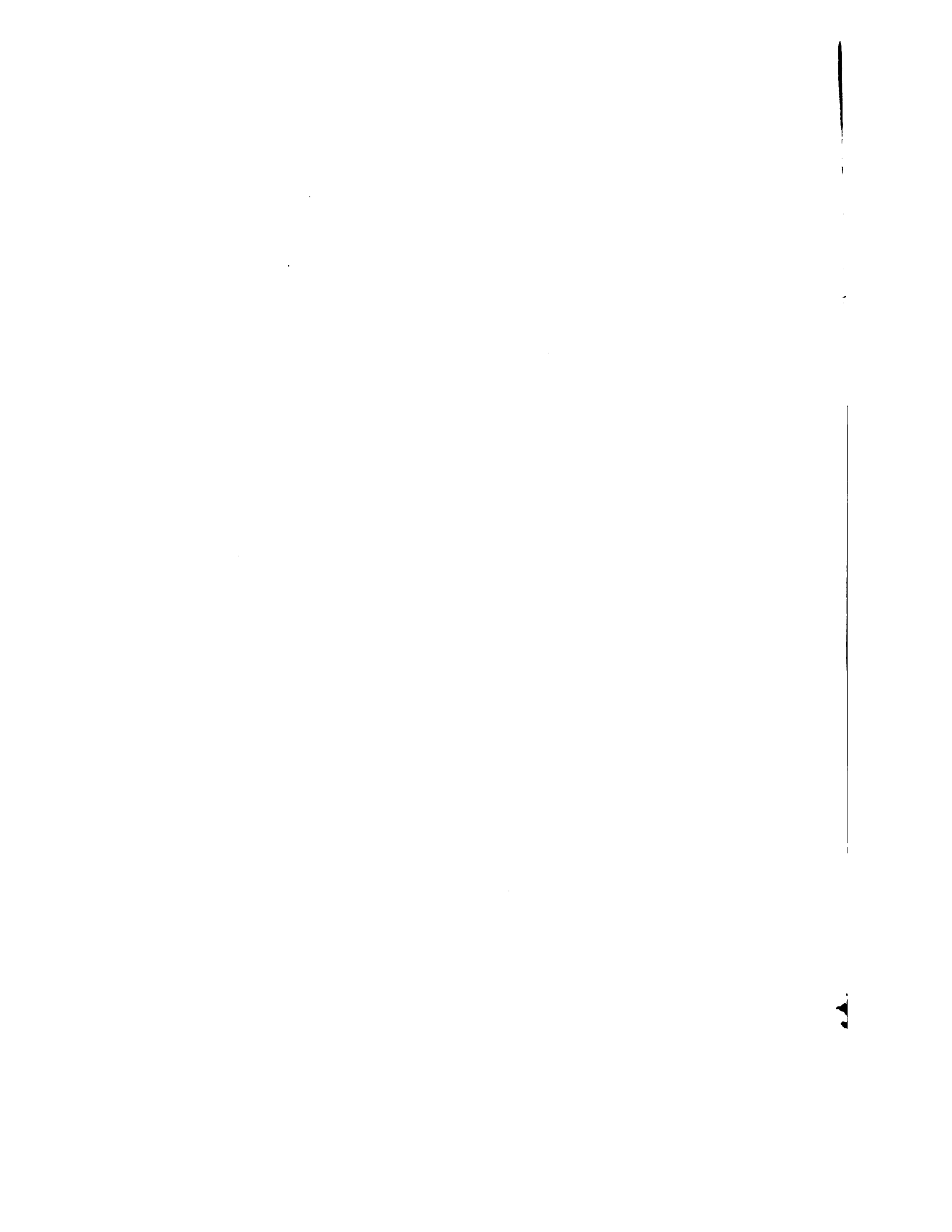
Figure 2. Labrador Tea (*Ledum groenlandicum*). Source of beverage. See page 401.



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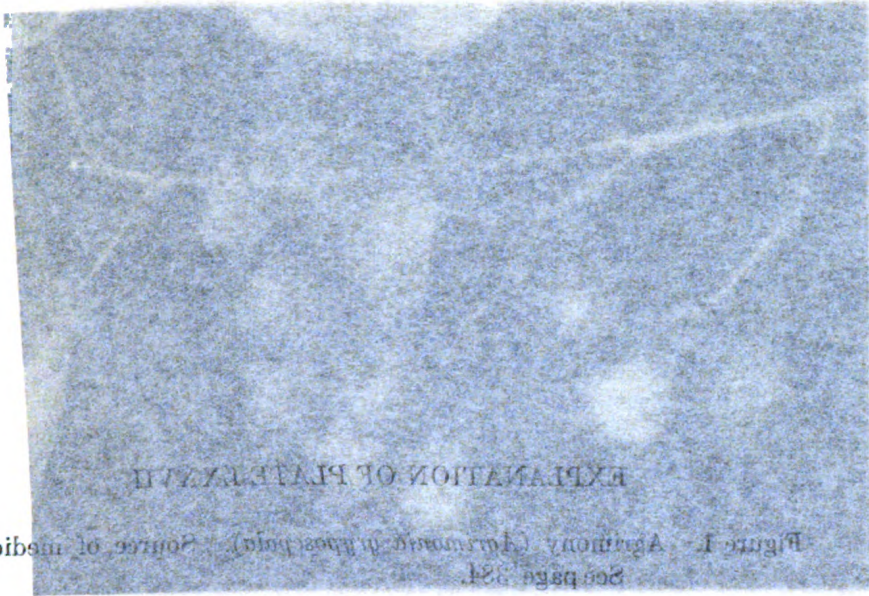
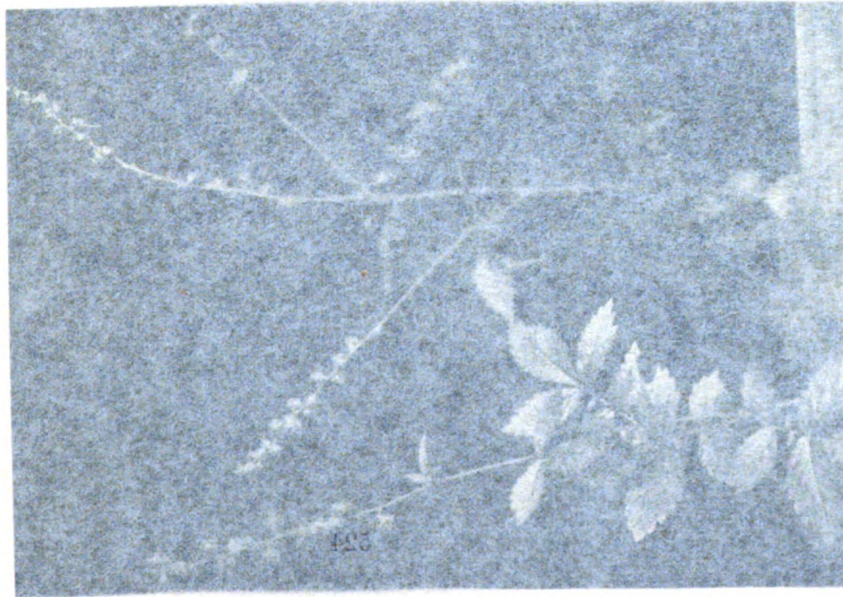


Figure 1. *Asarum* (Linn.) (Linn.) Source of medicine. See page 384.

Figure 2. Hawthorn (*Crataegus* sp.). Source of food and utility. See pages 384, 431.



EXPLANATION OF PLATE LXXVII.

Figure 1. Agrimony (*Agrimonia gryposepala*). Source of medicine.
See page 384.

Figure 2. Hawthorn (*Crataegus* sp.). Source of food and utility. See
pages 384, 431.



1



2

