The Pine-Needle Basket Book
MRS. M. J. McAFFEE,
ORIGINATOR OF PINE-NEEDLE BASKETS.
(Taken at the Age of Sixty-eight.)
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BY DR. LOY MCAFEE INGHRAM.
THE "PINY WOODS."
A PERSONAL NOTE

"All outward wisdom yields to that within,
Whereof nor creed nor cannon holds the key;
We only feel that we have been,
And evermore shall be.

"And thus I know, by memories unfurled,
In rarer moods, and many a nameless sign,
That once in Time, and somewhere in the world,
I was a towering Pine."

—Bayard Taylor.

If, as the Vedantists believe, the soul sleeps in plants, dreams in animals, and awakes to its fullest being in man, a whole forest of pine trees must have become sentient when I was born.

Pine trees, baby pines, pine needles, pine burs, "pine knots"—anything and all things associated with the pine—have always held for me some mystic spell.

My earliest recollections centre around the "piny woods" of Georgia, and the Georgia pine is to me the queen of the forest, the "mother of legends."

How many a happy hour have I spent "riding horse" on a pliant pine sapling in the thicket behind the garden of my childhood home!

How many a thrilling toboggan slide have I had on the sleek pine needles that covered the hill behind the old school house!

How many a time have I risked limb and life to gather the luscious muscadines from the vine entangled in the boughs of some tall and windswept pine!

How many a time, tired from roaming the woods, have I stretched myself full-length upon the fragrant pine-needle carpet, beneath the trees, to dream the hours away under the mystic spell of the music of the pines!

And how many a time, in later years, have I looked up from the "cañons of brick and mortar to the ribbon of sky overhead," and longed to do all these things once more, "far from the madding crowd's ignoble strife," deep in the fastness of the "piny woods,"

"Where all the winds were tranquil,
And all the odors sweet."

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Through the years of activity in another sphere I have looked forward to the time when I might pay some modest tribute to my forest queen; when I might bring from her still sleeping soul some message to the soul of the waking world.

In response to this desire the Pine-Needle Publishing Company has come into existence. From time to time, as opportunity and inspiration meet, this inherent and abiding love for the pine tree will be expressed in whatever manner the inclination of the moment may suggest.

It has seemed fitting, for several reasons, that the first effort in this direction should be "The Pine-Needle Basket Book," which my mother, the originator of pine-needle basketry, has formulated, and my sister, Mrs. Edwin Lang, has illustrated.

Being myself an earnest advocate of the gospel of work, and believing sincerely that there is no age-limit to usefulness, it occurred to me that if my mother, who was seventy years old last December, and who is still an active member of the work-a-day world, would publish something of her work as a seventy-year mile-post, it might serve to encourage others along the journey of life.

Furthermore, the book will answer the oft-repeated request from her many pupils in basketry for the published technic of pine-needle basket making. Having taught the basket work class of the Summer School of the University of Tennessee, at Knoxville, for the past five years, the present session being the sixth, her pupils now number several hundred, many of whom will doubtless be pleased to see a contribution to craftsman literature by "the Grandmother of the Summer School."

When we were children down in Dixie our grandfather, my mother's father, was wont to relate, to all who did not know the story, the history of the wonderful hat which "Mary Jane" made for him during the War out of the needles of the long-leaf pine. No Panama was ever lighter or more comfortable to wear. The only head covering for which he would voluntarily relinquish it was the cap of gray, which, though beyond the conscript age-limit, he wore in active service during the last three years of the War.

This pine-needle hat was the tangible expression of that necessity which has ever been the mother of invention, and was the progenitor of the pine-needle basket, as portrayed in the pages which follow.

When the supply of hats gave out in the family, or families, during the War, there were no others obtainable with which to supply the deficiency, for the nearest town was thirty miles away, and there were no trains or trolleys by which to reach it.
My mother, in an effort to supply the need for hats, made one of bulrushes, but it proved too heavy to be worn with comfort. While still searching for some native product from which to make a hat light enough to be worn with ease, she happened to see a limb of long-leaf pine in a wagon load of "pine straw" with which the negroes were covering the potato beds—a custom still followed in the rural districts of Georgia.

She conceived the idea that these long, slender needles might be so treated as to render them sufficiently tough to be woven into a hat, while still retaining their pliability. She succeeded, after some experimentation, in accomplishing this in the manner detailed in the description of her work. The pine-needle hat of which our grandfather loved to tell was the first product of her new-found craft.

The last spool of Coats thread was used in making this hat, and for all the others "homespun" cotton thread was employed.

When the War ended, the so-called reconstruction days were veritable ones for her, with a growing family to minister to under a totally new régime. And so the pine-needle hat became a part of wartime family lore, kept more or less fresh in mind by my grandfather's pride in the fact that "Mary Jane" could meet such an emergency as a dearth of hats in such an admirable manner.

The family of five children had developed into men and women, and the impromptu hatmaker had become a grandmother, when the craft was revived, again in an accidental manner, and for a different purpose.

When the writer was a "freshman medic" she acquired the spruce pillow fad—for were we not told by our professor of materia medica that tired brains may be soothed into forgetfulness of quizzes, "exams" and other horrors of medical college life by the fragrance of oleum pini sylvestris? No college "den" was complete without one or more spruce pillows. While my love for the pine tree was and is sufficiently general to include every branch of the very large pinus family, which embraces the spruce pillow variety, my preference naturally inclined me to want a pillow of the Georgia pine. No northern member of the pine family, I imagined, could possibly be more fragrant and soothing than its southern relative. Imbued with this idea, I wrote my mother to send me from Georgia to New York a bagful of needles of Georgia pine.

She was in the heart of the "piny woods" at the time, where forests of long-leaf pine stretch for miles over the sand fields. She gathered the neighborhood children into a small and vociferous army of invasion, and marched them to the woods to gather the pine needles, promising to tell them stories as a reward for their assistance.

When their baskets, filled with the fresh green needles, were brought to her a particularly beautiful sprig of long-leaf pine caught her eye. The
chas of intervening years was spanned in an instant, and the craft of the bygone day, born of the necessity of the time, came back to mind with a thousand associated memories. It was all woven into a wartime story, to which the children listened with intense interest.

The end of the story was greeted with a chorus of approval, the refrain of which was, "Oh, Grandmamma, do make us a hat!" And so, without waiting for the needles to be properly cured, "Grandmamma" proceeded to make a doll hat or a basket for each of the children.

By the time this feat was accomplished the facility for weaving the needles into shapeful objects had returned. Her own interest was again aroused, and the abandoned craft was revived with a new application. From this modest beginning has been evolved pine-needle basketry, the technic of which my mother gives in the pages which follow.

One of the little hats is shown in Fig. 9-C, reproduced from "Indian and Other Basket Making," by George Wharton James, of Los Angeles, Cal., who published a group of my mother's earliest baskets.
THE LONG-LEAF PINE

A few words about the long-leaf pine, the leaves of which are used in making the pine-needle baskets, may not be amiss in this connection.

The tree, the botanical name of which is *Pinus palustris*, is variously known as the long-leaf pine, the Georgia pine, the southern pine, the yellow pine, the pitch pine, etc.

Its stately grandeur is limned upon the landscape from the southern frontier of Virginia to the savannas bordering the Gulf of Mexico, and from the Atlantic Ocean to the Rio Grande River.

Forests of this valuable timber tree extend over an area of from 90,000 to 100,000 square miles, in Virginia, North Carolina, South Carolina, Georgia, Alabama, Florida and Texas.

The yield in timber and other products of the long-leaf pine is of great commercial and industrial importance. Industries which involve the outlay of enormous capital and the employment of immense numbers of people are dependent upon the forests of this tree.

From the baby pine, shown in Fig. 1, the long-leaf pine grows tall, straight and gradually tapering, with the limbs clustered in a crown which embraces one-half or one-third of the trunk, as shown in Fig. 2, reproduced from Bulletin No. 13 (Revised Edition), U. S. Department of Agriculture, Division of Forestry. It sometimes attains a height of 110 feet, though the average height is 100 feet. The diameter of the trunk four or five feet from the ground is from 20 to 36 inches.

As a timber tree the long-leaf pine is surpassed in economic importance by no other forest tree. About 1,500,000,000 feet, board measure, or practically one-third of all the lumber manufactured in the South, is annually exported from Southern ports to domestic and foreign ports. In addition to this a large proportion of the material employed in this country in the construction of buildings of all kinds is obtained from the long-leaf pine forest. The timber is used in naval architecture for masts and spars, and in civil engineering for the construction of bridges, viaducts and trestlework. It is also used in the manufacture of furniture, for ornamental interior woodwork, and in various arts and industries.

As fuel, in the form of firewood and charcoal, the long-leaf pine is a source of revenue. The "lightwood," by the light of which many an education was obtained in the olden days, is a product well known throughout the pine belts of the South. This resin-charged, highly inflammable wood is used extensively for kindling and for torches, from which uses it received its name. The "pine knots" are the richest of all in resin and, being hard, burn longest and brightest. The roots, which are also rich in resin, are used in the same manner as are the knots.
PINUS PALUSTRIS: SEEDLINGS AND YOUNG PLANT.

Fig. 1.—Seedlings and Baby Pines.
Fig. 2.—Long-leaf Pine Tree.
The resinous product of the long-leaf pine gives rise to a number of important and lucrative industries. The naval stores of the world are very largely derived from the resinous output of the long-leaf pine forests of the South. These include resin, or crude turpentine; spirits of turpentine, or oil of turpentine; rosin, or colophony; pine tar, and common pitch.

According to the U. S. Bureau of Agriculture, Division of Forestry, the foreign export of spirits of turpentine alone amounted in a single year, 1892, to over 260,000 casks, the total production exceeding 350,000 casks. Such an amount of turpentine necessitated the utilization of 2,500,000 acres of pine forest. The exports of spirits of turpentine and rosin for the year 1890 amounted to $8,135,339.

So far as the writer is aware, the cone, or seed bearing part, of the long-leaf pine is of no commercial value. A fully developed cone, with detached seeds, is shown in Fig. 4. The smaller cones, some of which are shown in Fig. 3, are used for decorative purposes in making pine-needle baskets. The scales of the fully grown cones have been used to a greater or less extent in the making of picture frames, screens for open fireplaces, and for other ornamental purposes. I remember having seen a very beautiful screen made from these scales, which were sewn, by hand, upon cardboard or heavy paper, the whole being framed with wood to harmonize in color with the rich brown of the pine cone.

The leaves, or needles, of the long-leaf pine are used for various purposes other than the making of baskets. In reply to a request for information concerning the various methods of utilizing this particular part of the pine tree, the U. S. Department of Agriculture, through one of its “experts,” sent the following interesting communication: “So far as I am informed the principal use for pine needles anywhere in the South is for fertilizer. They are, as a rule, used for bedding, either in the stalls or over the surface of the barnyard, and after being fermented for some time in this position are then hauled out onto the field. This manure is, as a rule, distributed in the furrows and the crop is planted over it.” Attention has already been called to another similarly unpoetic use to which the needles are put, namely, the covering of potato beds and strawberry beds. Nor are these the only useful ways of utilizing the leaves of the pine tree.

From the green leaves is derived, by destructive distillation, the essential oil of pine, which is used so largely in pharmacy in the manufacture of antiseptic solutions, cough syrups, expectorants, perfumes, etc., and which, exuding from its leaves, gives to the pine forest its delightful odor.

The cellular tissue of the pine needles is used in making “pine wool,” utilized by upholsterers. An attempt was made to employ this in the
Fig. 3.—Showing How the Burs Grow.
Fig. 4.—Fully Developed Pine Cone, with Detached Seeds and Scales.
making of an antiseptic dressing for wounds, but, so far as I have been able to ascertain, this was abandoned after a brief attempt to popularize the product.

According to the Government bulletin previously quoted, which was issued in 1897, various kinds of textile fabrics have been made from the needles of the long-leaf pine. One of these was a carpet, somewhat resembling cocoa matting, but very closely woven and quite durable. I am informed that this industry, like that of the manufacture of a surgical dressing from the needles, was soon abandoned. Latterly attempts have been made to produce finer textile fabrics from the needles, with what degree of success I have been unable to ascertain.

The dead needles, when undisturbed, form a thick carpet under the trees upon which they have grown. Subjected to friction, as where they are trampled upon in walking, they become very sleek. This fact was utilized when we were children for toboggan purposes. I shall never forget the thrilling rides we used to have down the hill behind the old school house. The hill was quite steep, and at its foot passed a turbulent stream. The narrow footpath leading down the hill was literally as sleek as glass, and when the sled, which our older brothers had improvised for the purpose, was started on its reckless career toward the creek below, there was no stopping it until it reached level ground. The only thing that saved us from a watery grave in the creek, or from being dashed upon the rocks on its banks, was that "special Providence which takes care of fools, children and dogs."

Another school-day use of the needles is brought to mind by Hayne's little poem, "Pine Needles":

"If Mother Nature patches leaves of trees and vines,
I'm sure she does her darning with the needles of the pines,
They are so long and slender; and somewhere in full view,
She has her threads of cobweb and a thimble made of dew."

We used to make elaborate hats, aprons and even dresses of large oak, hickory or grape leaves, using pine needles as pins to hold the parts together.

If this modest little brochure serves the purpose of arousing interest in the pine tree, of helping any craftsman to weave its needles into the enduring expressions of beauty which the pine-needle baskets represent, and if any way-worn traveler is encouraged to take heart again—the message from the forest world to the human world is not in vain.
Fig. 5.—Showing How Pine-Needles Grow, with Cross and Longitudinal Sections of a Single Needle.
PINE-NEEDLE BASKETRY

BY

MRS. M. J. MCAFEE
DESCRIPTION AND PREPARATION OF MATERIALS

The long-leaf pine needles may be gathered green at any season. Experience has taught, however, that the best time to gather them is in the autumn. Those which fall from the trees, dry or dead, make the most attractive baskets. They are generally of a rich brown, and have a hard surface, which renders baskets made from them both beautiful and durable.

From the green of the fresh needles to the mahogany brown of those which are gathered dry there is a wide range of coloring obtainable by careful manipulation. Once a shade is fixed by the curing process, it is never lost. Baskets retain their original coloring as long as they exist. No artificial coloring whatsoever is employed in the treatment of the needles.

Despite the treatment to which the needles are subjected in the curing, they retain the delightful pine odor, due to a certain proportion of the essential oil of pine which remains in them.

The green needles are pulled from the limbs and spread out in a cool, dark place to dry. In two or three weeks they are ready for use. If dried in absolute darkness they will be a beautiful soft green, the tone varying according to the amount of light to which the needles are exposed while drying.

The needles may be cured in a shorter time by pouring boiling water over them before they are spread out to dry. Treated in this way, however, the color is not so good as when they are allowed to dry more slowly.

To cure the needles brown they must be exposed to the sun for a few weeks. For convenience of handling they may be left on the limbs. In summer they will brown in a week or two, but in winter it takes longer. They should be left out day and night, in all weather, and turned occasionally to allow them to brown on all sides.

The well-matured needles generally turn a darker, richer brown than the younger ones. On a limb gathered from the tree in spring or summer there will be in the bud a number of short needles not fully matured; these often dry a soft yellow-brown, and now and then a straw color.

The combination of these lighter tones with the dark, rich browns is very effective.
Fig. 6.—Making Specimens for the Basketry Class of the Summer School of the University of Tennessee. From Left to Right are Mrs. McAfee, Mrs. Lang, Miss Gertrude Lang and Master Sam Lang.
The best time to gather the brown needles as they fall from the trees, having dried naturally as other leaves dry and fall, is in the autumn, when the ground under the trees is covered with beautiful needles ready for use.

If desired, there may be used for the ornamentation of the pine-needle baskets various grasses, manila, raffia, corn husks, yucca, and the long leaves or "fodder" of the sorghum cane or millet. Illustrations of such ornamentation are shown in Figs. 12, 13, 15, 17.

The basket maker who desires to use native materials may find an abundance of beautiful grasses growing in the fields, by the roadside, in the woods, everywhere. These may be gathered green at any time, except when too young and tender to be available, and spread out in the shade to dry. There may be found also dried grasses of good texture and color.

Manila and raffia are too well known to the basket maker to need description. They must be dyed in order to secure good color harmony, though the darker tones of the natural raffia may be used with the brown pine needles with very good effect.

Corn husks may be utilized as taken from the corn after harvest, or they may be gathered green and dried in the shade.

The bud or new spring growth of the sword-shaped leaves of the yucca plant, when shredded and dried in the shade, are of suitable texture for combining with the pine needles. The color ranges from almost white, through yellow, to green, according to the stage of growth in which they are gathered.

Of all the above ornamental materials the sorghum or millet "fodder" is the most beautiful in texture and in color. It also has the advantage of being easily obtained, inasmuch as it grows everywhere in the South, where it is extensively cultivated for forage and for making sorghum molasses.

When the millet is grown especially for basketry it is best planted on poor soil, as the growth is then smaller, the leaves better in texture and the color richer.

In July the millet begins to change color. From this time until it is killed by the frost it may be gathered and spread out in the shade to dry. By watching the colors as they appear, and by gathering the leaves at different times, one may secure a great variety of yellows, reds, browns and sometimes rich violet-reds.

With this range of millet coloring, with the different browns and greens of the pine needles, and with the color of the sewing material, many harmonious combinations may be evolved. Nature-loving craftsmen find these natural colors far more pleasing than the artificial shades obtained by means of dyes.

The long-leaf pine needles grow in clusters of three in a sheath, as
shown in Fig. 5. When about to be used the end is cut off and the needles slipped from the sheath.

As they must be worked damp enough to be pliable, hot or cold water is poured over the needles, which are immediately wiped dry with a cloth. This serves the double purpose of dampening and cleansing the needles. The lustre and color may be very much improved by this cleansing process.

The brown needles are dampened with hot water, the green ones with cold. This should always be borne in mind, as hot water changes the color of the green needles.

They should never be left in either hot or cold water longer than a few minutes, as they quickly absorb so much moisture that the baskets will not be firm and durable when finished.

The needles are now rolled in a damp cloth or paper, and so kept while they are being used.

For sewing purposes strong cotton or linen thread, raffia or manila may be employed.
HE beginner will find it less difficult, in making the first few baskets, to use strong cotton or linen thread in sewing the coil. After one or two baskets have been made, and sufficient skill has been acquired in handling the pine needles, raffia or manila may be employed. The latter sewing materials are better suited to the texture of the pine needles than is the cotton or linen thread.

In sewing the baskets the simple coil stitch is used, as shown in Fig. 8. A small roll of pine needles, wrapped with the sewing material and coiled upon itself, forms the “button” which is the very centre of the basket.

To begin the button, take about twelve pine needles, or enough to make a coil three-eighths of an inch in diameter. Having threaded an ordinary sewing needle with thread, tie the thread around the pine needles an inch from the coarser, or sheath end; then, holding the needles in the left hand, wind the thread around twelve or fifteen times, as shown in Fig. 8. This wrapped part of the needles must be very carefully coiled upon itself by bringing the short end underneath and letting the free end of the coil pass toward the left.

Now pass the thread over the top of the coil, and insert the sewing needle diagonally under the first round of the winding thread, letting the point of the needle come through to the left of this thread.

This forms the first stitch, and the sewing is continued in this way until each round of the winding thread has been taken up. The sewing is then continued, round after round, care being taken to insert the needle well into the coil, letting the point come through very close to the left of each stitch.

Each stitch must be tightly drawn and held in position with the finger while the next is being taken. This is very necessary in order to insure the firmness of the finished product.

Care must be taken from the first to space the stitches evenly, as it is difficult later on to correct any irregularity in this regard. The lines of sewing radiating from the centre form an important decorative feature of the baskets.

After the third or fourth round, when it becomes necessary to insert
Fig. 9.—Group of Mrs. McAfee's Earliest Baskets. C, "Cute Little Hat."

Fig. 10.—Basket with Handle of Plaited Pine-Needles.
pine needles in order to enlarge and keep the coils of uniform size, open
the free end of the coil close to the last stitch and insert the coarser end of
two or three pine needles, pushing them back well into the coil, and being
careful that the ends do not show on the surface.

The pine needles are inserted so that the smooth or polished side is
toward the outside of the basket. It is impossible to make a good pine-
needle basket unless this point is observed.

The coil must never be twisted, as beginners are liable to do; it must
be held so that the needles seem to lay flat around the basket. This is the
test of good workmanship. The beginner finds it difficult to make the
polished surface of the needles come to the outside or decorative part of
the basket, and also to make them lay flat and straight around the basket
as the work proceeds.

Fig. 11.—Basket, Actual Size, Made by Gertrude Lang at the Age of
Six Years.

After the sewing has continued until the basket is large enough, let
the coil run out by cutting out a third of the needles from the inside of the
coil, take a stitch, cut out a few more needles, take another stitch, cut off
the remaining needles, sew the end of the coil firmly down inside the
basket, finishing the edge smoothly, making the outline perfect.

It is well to let the first basket be a small one of simple form. The
modeling of the basket is done entirely with the fingers as the sewing
proceeds.

It is important to have in mind from the beginning a definite shape,
or, better still, to make a full size drawing, in outline, of the basket.
Beginners sometimes find it difficult to keep to the drawing, but repeated effort results in the ability to make any desired size and leads to a better appreciation of form.

After practice has enabled the beginner to handle materials easily, raffia or manila should be used in sewing. For this chenille needles, number eighteen, nineteen or twenty, according to the size of the material to be carried, are employed.

The sewing material, if raffia or manila, must be kept the same size, as any unevenness mars the beauty of the radiating lines of sewing, and gives to the basket a more or less crude appearance.

In making large baskets it becomes necessary to add extra stitches. This should always be done in the bottom of the basket, or just on the round where the basket begins to turn up. When a band of contrasting color is to be worked in the extra stitches may be started on the first round of the band.

This extra stitch is added by taking two stitches in the same place in the following manner: Take a stitch in the usual way, only instead of drawing it to the left, as the sewing material is drawn around the coil, pull the stitch as far as possible to the right, toward the preceding stitch. The next stitch may be called the extra one, and it comes in in the same place as that just taken, except that the point of the needle comes through the coil close to the right instead of the left of the stitch. This extra stitch is drawn toward the left as far as the last one was to the right. This is continued around the basket.

The space between these two stitches gradually widens as the sewing progresses. This may be taken advantage of as a decorative feature by wrapping the coil in this space with raffia of a contrasting tone. The wrapping begins when the first of the two stitches is taken. One strand of raffia is taken and wrapped smoothly around the coil two or three times, being passed over the top of the coil and to the inside of the basket, when the next, or extra, stitch is taken.

The next space is left uncovered, the raffia being held on the back of the coil until the first of the next two stitches is taken. The work continues around the basket, and as the next round begins the design formed by the spaces of different tones will be seen. In Figs. 12, 13, may be seen baskets of this character. The design may be varied by wrapping every other space, making different proportions of light and dark, or there may be used two tones of raffia, thus varying the color harmony. Again, it is very easy to make the spaces vary in width. A little experience will lead to interesting results, as this decorative feature may be modified in many ways, according to the size and form of the basket, and the color of the materials employed.
Fig. 12.—Group of Baskets Showing Decorative Effects; Also Handle of Plaited Pine-Needles.
Fig. 13.—Plaque and Baskets Showing Decorative Designs.
In all ornamentation of pine-needle baskets simplicity is the keynote. In the simple basket, with no decoration, the radiating lines of stitches form the only design, the color harmony of needles and sewing material, together with beauty of form and excellence of workmanship, being the chief attraction.

It must be kept in mind that designs should be adapted to the material, the method of construction and the form of basket or tray to be decorated.

In basketry, as in every other form of handcraft, a knowledge of the fundamental principles of design leads to greater freedom of expression.

![Fig. 14.—Pine-Cone Handle.](image)

It does not come within the scope of this work to do more than suggest to the student that in the simplest form of pine-needle decoration—the straight band of color—there are infinite possibilities in applying a knowledge of space relations.

After mastering the difficulties of handling materials, the attention will naturally be turned to developing skill in securing good form, with which will come a desire for variety of design and color.

The finished pine-needle basket should bring to the beholder a sense of satisfaction and completeness, with no desire to change form or ornamentation, or to vary any of the tone relations.
Fig. 15—Group of Baskets Showing Straight-Band Decoration.
The texture of millet "fodder" does not allow the design to follow anything but straight lines. These may be broken into areas of different size and shape, but the millet must follow the straight-around direction of the coil.

Millet must be worked slightly damp. The quantity to be used is sprinkled with water and rolled in a paper a few minutes before using. If kept damp too long it loses its beautiful rich coloring.

To begin, a piece of millet is laid along the outside of the coil, the larger end being passed over the top of the coil, close to the last stitch taken, and then to the inside of the basket. One stitch is taken to hold the end firmly in place, the edges of the millet are next folded around the coil, and the sewing is proceeded with, round after round, until the band of millet is of the desired width. The millet is then passed under the coil to the inside of the basket, and cut off, the pine needles being brought again to the surface.

When a design, other than the straight band, is to be put in the millet is started in the same way, carried as far as necessary, then passed to the top of the coil and back to the inside of the basket, where it may be cut off or continued on the back of the coil until it is to appear again on the surface. On the next round the millet is started and ended in this way, as the design requires, the design being built in, round after round, in this manner.

The pine cone may be effectively used in the centre of the basket lid or cover as a handle (Fig. 14).

The cones may be gathered green and spread out in the sun or shade to dry, or they may be gathered dry in the autumn before they are too widely open.

To begin the cover, wrap one strand of raffia very tightly around the larger end of the cone as many times as necessary to form the beginning of the coil, as shown in Fig. 16. Then taking a coil of pine needles the size of that used in the basket, begin to sew this to the raffia coil, passing the sewing needle under the wrapping of raffia, and taking the stitches close together. The sewing is continued until the coil of pine needles has been carried around the cone, then the stitches are taken in the usual way.

In making small baskets it is well to count the rows of stitches around the top of the basket and start the cover with the same number; then the radiating lines of sewing form the same number of double curves from the centre of the bottom to the centre of the cover.

A drawing of the basket, with cover on, should be made. The size of the cone must be taken into consideration in forming a perfectly harmonious outline of the whole.
Fig. 16.—Showing the Beginning of Cover with Pine-Cone Handle.
Another kind of handle is made by plaiting or braiding pine needles and sewing the braid to the cover, as shown in Figs. 10, 12, 18.

The simplest form of cover is one that rests flat on the top of the basket. In making this the cover is made of the proper size, when the coil is allowed to run out as in finishing the basket. This cover may be fastened to the basket by means of the sewing material.

**Fig. 17.**—Millet-Fodder Decorative Bands; Open Pine-Cone Handle.

Another cover is made to fit over the top of the basket. In this case the form must be taken into consideration. The cover is made one round larger than the top of the basket, and then is turned down. After making three rounds the coil is allowed to run out and the edge finished smoothly. This cover must fit easily over the basket.
Fig. 18.—Group of Baskets Showing Variety of Size and Shape. The Centre Basket Illustrates Decorative Effect of Sewing Material.
A third kind of cover is made to fit into the basket, and may be made for any form of basket. In making this cover the work is continued until the cover is about one round smaller than the opening of the basket. The coil is then turned down at a right angle and three rounds made, after which it is ended in the manner described. This part of the cover must fit loosely into the basket. Next, one round of coil is stitched to the cover at the top of these three rounds, the sewing being commenced where the first round turns down. This forms a ledge to keep the cover from slipping into the basket. In sewing on this round the stitches are so placed that the radiating lines of sewing are continued, allowing the cover to present a regular surface from centre to edge. The coil is made to run out and the edge is finished in the usual manner.

Fig. 19.—Thimble Basket, Actual Size.
Fig. 20.—"Miss Snixie Ingraham," Twelve Years Old, in Frame of Pine-Needle Rings of Actual Size.
Fig. 21.—Fine Willow and Raffia Baskets and Plaque Made by Mrs. Lang.
Fig. 22.—Miscellaneous Group, Showing Possibilities of Decoration.
Fig. 23.—Fine Reed and Willow Baskets Made by Mrs. Lang.
AN INITIAL FINE OF 25 CENTS
WILL BE ASSESSED FOR FAILURE TO RETURN
THIS BOOK ON THE DATE DUE. THE PENALTY
WILL INCREASE TO 50 CENTS ON THE FOURTH
DAY AND TO $1.00 ON THE SEVENTH DAY
OVERDUE.

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